



THEERANAIPUNYA

Skill Enhancement and Capacity Building of Fisher Youth



ICAR-Central Marine Fisheries Research Institute

Post Box No: 1603, Ernakulam North P.O.

Kochi – 682018, Kerala, India

www.cmfri.org.in

Training Manual
on
THEERANAIPUNYA II
Skill Enhancement and Capacity Development of
Fisher Youth

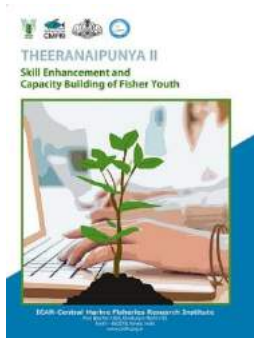
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ICAR-CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
Ernakulam North P.O, Post Box No. 1603
Pin. 682 018, Kerala, India
www.cmfri.org.in





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Back Cover

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THEERANAIPUNYA II

Skill Enhancement and Capacity Development of Fisher Youth

Editors

Shyam .S .Salim

Reeja Fernandez

Secretarial Assistance

Smitha Rosey Xavier

Designs

Abhilash P.R

Course Director

Shyam .S .Salim

Principal Scientist, SEETTD, CMFRI

Published By

Dr. A. Gopalakrishnan

Director

ICAR-Central Marine Fisheries Research Institute

Kochi - 682 018

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Foreword

Women continue to remain the real architects of a developed society even though many a times their services are unnoticed and under rewarded. The fisherwomen in Kerala assume significance due to their involvement in fish related activities leading to distribution, availability and value addition. The traditional fisherwomen play an pivotal role in the fisheries sector in terms of their involvement in fish related activities viz., fish vending, fish drying, prawn peeling, sorting, grading, fish packing, and net making. With the changing scenario and the increasing social welfare schemes from the government to revive this sector, the youth of this community has started participating in the socio economic activities of the society and therefore there is a need to reshape their own perception of how they view themselves. The main objective of this training is to screen out those barriers that stand in the way for their overall development. The training sessions will provide insight to gain new skills that will improve their functional efficiency and will help them to step up as women youth and take the lead to revive their community.



The Central Marine Fisheries Research Institute, Kochi (CMFRI) is a reputed ICAR organization which deals with various issues pertaining to fisheries and fisher folk. CMFRI has wide experience in conducting customized training programme to the different stakeholder over the years in niche areas of fisheries research and development. The Socio -Economic Evaluation and technology transfer (SEETT) Division is essentially involved in research on socioeconomics and in developing initiatives, programmes for ensuring the livelihoods of the fishers and sustainability of the fisheries resources and environment.

I am happy that the SEETT Division has taken a lead in organizing the training programme funded by SAF with the aim of enhancing the skills of the young generation of the fisher folk especially young girls in getting trained to new avenues in fisheries and other enterprise for a prospective career. The first batch of the training was a huge success and I take this opportunity to congratulate Dr. Shyam.S .Salim, Principal Scientist and Course Director and his entire team under the able leadership of Dr. R. Narayankumar, Head of Division, SEETTD for the meticulous planning and conduct of the training programme and in the development of the manual. I am sure that the manual will provide an insight into the different facets of personality development and will act as a reference material for the future.

15.12.16
Cochin

A. Gopalakrishnan
Director, CMFRI

Foreword

Fisherwomen play significant role in all fisheries related activities, besides their routine household and community oriented responsibilities. Though they are essentially complementing the men for the sustenance of family and fisheries sector, their roles remain largely undermined and unacknowledged. It is worth noted that the administrators, policymakers and researchers have failed to accord the role of fisherwomen. Empowerment of fisherwomen is crucial to attain the socio-economic development of fisher folk. To achieve the comprehensive growth and gender equality in terms of opportunities, assets, empowerment is mandatory.



Society for Assistance to Fisherwomen (SAF) was formed on 1st June 2005 as an agency under Department of Fisheries, Government of Kerala with a view to ensure the empowerment of fisherwomen in the state of Kerala. Over a period of 10 years, the agency has made notable contributions in equipping the fisherwomen to attain economic self-reliance. Thousands of fisher families in the state are earning a stable income through the alternate livelihood micro-enterprises established with the support and mentorship of SAF.

Along with the economic empowerment, recently, SAF is paying concerted efforts to improve the living standards and enhance the employability of fisherwomen youth. Theeranaipunya project is initiated in all the fisher dwelling districts as a major intervention envisioned with equipping the fisherwomen youth for the future.

In Ernakulam, Central Marine Fisheries Research Institute (CMFRI) had taken up the responsibility of implementing the Theeranaipunya training programme and prepared this beautiful monograph compiling the contributions of eminent scholars. Theeranaipunya I was a huge success and I look forward the same for the second batch. I am confident that the document is well equipped with all the aspects of capacity building and will find a place in human resource development programmes. Dr. Shyam S. Salim, Principal Scientist, CMFRI & Principal Investigator, SAF Funded Research Project and his team deserve special appreciation to make this initiative highly effective and fruitful.

15.12.2016
Cochin

C. R. Sathiavathy
Executive Director, SAF

Preface

Development of any nation, society or community in any field depends primarily on the indispensability and complementarity between the men and women. The role of women in society has been greatly overseen in the last few decades but now is coming to a more perspective to people. A woman today no longer lags behind the man in the most occupations and can no more be kept behind the curtains doing only domestic duties. Our society is accepting the wider participation of women and has made vast improvements in their lifestyles in the past few decades from holding positions in governments to getting a job and supporting themselves.



The much-acclaimed social progress in Kerala, also indicated by surplus females, has found to be lacking among fishing communities. The course of changes in the role of fisherwomen has traversed during the major phases of technological transformation from household management but face stumbling blocks in their path towards development. Notwithstanding with the credit of improvement in the income and employment opportunities of young fisher women than their earlier generation, they can no longer meet the cost of their educational other basic needs owing to the high cost of living. The indirect role women play are concerning decision making, financial management, family welfare etc highlights the importance of bringing women to the mainstream by increasing their capabilities and to articulate them in a way which is beneficial to the family and the society.

The Theeranaipunya training programme is intended to reach out the capacities and skills of the younger women of the fisher community who face certain barriers to move on in life and to reach out to the world. CMFRI under the umbrella of SAF has organized the first phase of this training programme, which was a huge success and most of the trainees are now pursuing a career of their choice which increased the urge for a second batch which includes thirty young educated fisher women girls from the Ernakulam district and they were trained to new avenues in fisheries and other enterprise for a prospective career.

The training includes two phases each lasting for a month. Phase I -Inferential training with around 100 sessions on theme areas of profiling, understanding and improving self, aptitude, motivation and personality development, communication and audio visual communication, management strategies, interpersonal relationship and fisheries enterprises and employment opportunities. During Phase II- Experiential learning was initiated with an attachment training of the trainees to over 25 research and development organizations supported to develop their entrepreneurial skills.

We are thankful to the Director, CMFRI who wholeheartedly facilitated the training programme. I extend my sincere thanks to the Dr. R. Narayanakumar, HoD, SEETTD for the timely support extended during the course of the training programme. The passion and support from the faculties was extremely gratifying. The timely support from the colleagues in the division for the smooth functioning of the programme deserves special mention.

15.12.16
Cochin

Shyam S. Salim
Course Director

Contents

Sl.no	Topic	Page No.
	<i>Foreword</i>	
	<i>Foreword</i>	
	<i>Preface</i>	
	<i>List of Contents</i>	
	<i>List of Abbreviations</i>	
A.	Profiling Understanding and Improving Self	
1.	SAF Commitment to fisherwomen community <i>Sathiaavathy .C.R</i>	1-2
2.	Knowing yourself- Journey to a great discovery <i>Shyam. S. Salim</i>	3-6
3.	Self-appraisal & Need assessment <i>Shyam. S. Salim</i>	7-10
4.	Self-discovery <i>Binu Kaliyadan</i>	11-14
5.	Building Self : Confidence and Competence <i>Shoji Joy Edison</i>	15-18
6.	Self Esteem <i>Maja Jose</i>	19-22
7.	Self-Image and self-esteem for a positive outlook <i>Rekha. J. Nair</i>	23-26
8.	Emotional Quotient - The inner side of Leadership <i>Shyam. S. Salim</i>	27-32
9.	Good manners for being important to self and society <i>Reshma .V.G</i>	33-36
10.	Personal Hygiene <i>Rakhy Shyam</i>	37-40
11.	Health and habits : Back to old age - Yoga <i>Smitha .K</i>	41-42
12.	Indigenous knowledge for healthy habits and life <i>K.P Salini and Smitha Rosey Xavier</i>	43-48
B.	Aptitude motivation and Personality development	
13.	Aptitude and power of sub conscious mind <i>Vipin Kumar V.P</i>	49-56
14.	Motivation and effective ways of self -motivation <i>Binu Kaliyadan</i>	57-60
15.	Attitude and attainment for personal effectiveness <i>Vipin Kumar V.P</i>	61-66
16.	Passion Quotient- The greatest secret to success <i>Shyam. S. Salim</i>	67-72
17.	Creativity- The mantra to success <i>Sumithra T.G</i>	73-76
18.	Critical thinking <i>Manjusha .U</i>	77-80
19.	Values for a successful career and life <i>Aswathy .N</i>	81-84

20.	Making a career choice : from confusion to confidence <i>Grinson George</i>	85-88
21.	Successful career and its attributes <i>Sandhya Sukumaran</i>	89-92
22.	Problem Solving <i>Deepa P.N</i>	93-96
23.	Time bounded planning towards success <i>Soloman P.K</i>	97-100
C.	Interpersonal relationships	
24.	Interpersonal skills: Moving forward <i>Shyam. S.Salim</i>	101-104
25.	Woman rights and empowerment <i>Smitha Kuriakose</i>	105-108
26.	Woman centric Government programs and schemes <i>Sreelu N.S</i>	109-114
27.	Decision making–The power and utility of communication & problem solving <i>Dhanya .G</i>	115-120
28.	Art of positive thinking <i>Livi Wilson</i>	121-126
29.	Goal setting <i>Rajool Shanis C.P</i>	127-130
30.	Work Life Balance- The Art of Prioritizing <i>Shyam. S. Salim and Smitha Rosey Xavier</i>	131-136
31.	How to influence People <i>Sandhya Sukumaran</i>	137-140
32.	How to handle Criticism <i>Sunil P.V, Manjusha .U and Salini .K.P</i>	141-144
33.	Empathy :Living in the shoes <i>Shyam. S.Salim and Reeja Fernandez</i>	145-147
34.	Instructional and Non instructional Responsibilities <i>Pearly Antony O</i>	148-152
35.	Stress management <i>Ajith Thomas</i>	153-160
36.	Anger Management and keeping Cool <i>Reeja Fernandez</i>	161-168
37.	Overcoming barriers in life <i>Reeja Fernandez</i>	169-172
38.	Stop worrying and start living <i>Remya.R</i>	173-178
D.	Management strategies	
39.	Performance appraisal of Female Employees / Managers in Fish business <i>Mini Sekharan .N</i>	179-182
40.	SWOT- Analysis for Assessing Entrepreneurship Readiness <i>Shinoj .P</i>	183-186
41.	Evolving fisherwoman livelihoods to businesses <i>Shyam. S.Salim and Ramees Rahman M</i>	187-190
42.	Financing women businesses <i>Roshan G.S</i>	191-194
43.	Microenterprises: For rural population & their marketing strategy <i>P.S Sivaprasad</i>	195-202

44.	Roadmap to understand a customer <i>Ramees Rahman M</i>	203-208
45.	Customer Relations <i>Ajith Thomas</i>	209-212
46.	Powerful Success Strategies <i>Pearly Antony O</i>	213-218
47.	Personalising Time <i>Athira.N.R</i>	219-222
48.	Time Management, Resource and priorities <i>Mary Metilda</i>	223-224
49	Group dynamics <i>Thankam Theresa Paul</i>	225-228
E.	Communication and Audio visual communication	
50.	Public speaking skills: Winning hearts <i>Shyam. S.Salim</i>	229-232
51.	Communicative English <i>Rahul .G.Kumar</i>	233-236
52.	Improving Communicative English Skills - Verbal <i>Miriam Paul Sreeram</i>	237-240
53.	Official language -Hindi <i>E.K Uma and Vandana .V</i>	241-246
54.	Introduction to Computers <i>Mini K.G</i>	247-252
55.	Introduction to MS Office <i>Somy Kuriakose</i>	253-270
56.	Basic Statistics <i>T.V.Sathianandan, Safeena P.K and Ramees Rahman .M</i>	271-276
57.	Internet and Email <i>Mini.K.G</i>	277-282
58.	Introduction to visual communication tools <i>Abhilash P.R</i>	283-290
F.	Fisheries enterprises and employment opportunities	
58.	Alternate livelihood options <i>Mathew A.K</i>	291-294
59.	Marine Ornamental fish breeding: Technology Developed under Captivity <i>K. Madhu and Rema Madhu</i>	295-302
60.	Value added fishery products : Possibility of small scale entrepreneurs <i>Binsy P.K</i>	303-310
61.	Cage aquaculture <i>Boby Ignatious</i>	311-314
62.	Mussel Culture <i>P.S Alloysious</i>	315-322
63.	Edible Oyster farming in India <i>Vidya.R</i>	323-330
64.	Backyard Chicken farming for income, health & happiness <i>M.A Pradeep and S.R Krupesha Sharma</i>	331-338
65.	Fish farming <i>Vikas P.A and Shinoj Subramanian</i>	339-350
66.	Aquaponics <i>Ann Mary Jephy</i>	351-354

G.	Annexures	
	<i>Annexure I- List of Participants</i>	355-356
	<i>Annexure II- List of Faculties</i>	357-362
	<i>Annexure III- Schedule on Self-Appraisal and Need Assessment</i>	363-370
	<i>Annexure IV- Schedule on Assessing Ex- ante and Ex-post Training Impacts</i>	371-376
	<i>Annexure V- Schedule on Participants Evaluation Proforma</i>	377-384

List of Acronyms

ADAK	Agency for Development of Aquaculture, Kerala
BARS	Behavioural Anchored rating scale
BSBDA	Basic Savings Bank Deposit Account
BSNL	Bharat Sanchar Nigam Limited
CAD	Computer Aided design
CIFT	Central Institute of Fisheries Technology
CLV	Customer Lifetime Value
CMFRI	Central Marine Fisheries Research Institute
CPU	Central Processing Unit
CRM	Customer Relationship Management
CSR	Corporate Social Responsibility
DPH	Days of Post Hatch
DVPM	Department of Avian Production and Management
EQ	Emotional Quotient
FFDA	Fish Farmers Development Agency
GI	Galvanized Iron
GIGO	Garbage In Garbage Out
HAB	Harmful Algal Bloom
HACCP	Hazard Analysis Critical Control Point
HDPE	High Density Poly Ethylene
HTTP	Hypertext Transfer Protocol
ICAR	Indian Council of Agriculture Research
ICT	Information and Communications Technology
IGMSY	Indira Gandhi Matritva Sahyog Yojana
IISER	Indian Institute of Science Education and Research
IMPS	Immediate Payment Service
INSPIRE	Innovation in Science Pursuit for Inspired Research
IQ	Intelligence Quotient
ISP	Internet Service Provider
ISP	Internet Service Provider
LODOS	Low Dissolved Oxygen Syndrome
MBO	Management By Objective
MCTS	Mother and Child Tracking System
MP	Moist Pellet
MPIN	Mobile PIN
NGO	Non Governmental Organization
NMEW	National Mission for Empowerment of Women
NPCI	National Payment Corporation of India
PMJDY	Pradhan Mantri Jan-Dhan Yojana
POSEC	Prioritizing by Organizing, Streamlining, Economizing and Contributing
RAM	Random Access Memory
RD	Recurring Deposit
RMK	Rashtriya Mahila Kosh
ROM	Read Only Memory
SAF	Society for Assistance to Fisherwomen

SHG	Self Help Groups
SMART	Specific, Measurable, Achievable, Realistic, and Timely
STEP	Support to Training & Employment Programme for Women
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TL	Total Length
URL	Uniform Resource Locator
USP	Unique Sales Proposition
VDU	Visual Display Unit
Wifi	Wireless Signal
www	World Wide Web



**Profiling, Understanding
And
Improving Self**

SAF Commitment to Fisherwomen Community

C.R. Sathiavathy

Executive Director, Society for Assistance to Fisherwomen (SAF)

Email: saf4help@gmail.com

Education, vocational training and lifelong learning are central pillars of employability, employment of workers and sustainable enterprise development within the Decent Work Agenda, and thus contribute to achieving the Millennium Development Goals to reduce poverty. Skills development is key in stimulating a sustainable development process and can make a contribution to facilitating the transition from the informal to the formal economy. Skills development is also essential to address the opportunities and challenges to meet new demands of changing economies and new technologies in the context of globalization. The principles and values of decent work provide guidance for the design and delivery of skills development and are an effective way of efficiently managing socially just transitions.

Training and Skills

The future prosperity of countries depends ultimately on the number of persons in employment and how productive they are at work. Nevertheless skills development need to be connected to broader growth, employment and development strategies and that requires that governments, working with the social partners, build policy coherence in linking education and skills development to today's labour markets and to the 3 technology, investment, trade and macroeconomic policies that generate future employment growth. Nevertheless, training and skills development can have multiple meanings as they include wide ranging elements.



- Basic education ensures each individual the development of their potential, laying the foundation for employability;
- Initial training provides core work skills and the underpinning knowledge, industry-based and professional competencies that facilitate the transition into the world of work;
- Lifelong learning ensures that individuals' skills and competencies are maintained and improved as work, technology, and skill requirements change;
- Different countries focus on different elements, as they see relative strengths and weaknesses in their own skills development systems, and as they learn more about innovations and experience in other countries.

Skills for Work and Adult Life

Skills have a multiple meanings and many elements and might be categorized in the following way:

Basic literacy, numeracy and ICT skills

Core, key, generic, soft- 'employability' - skills - This may include communication, application of numbers, team working, problem solving, learning to learn etc.

Higher order skills - for example: logic, reasoning, analysis,



synthesis, statistics, etc.

Specialist, vocational, technical, academic skills - technical knowledge including enterprise, business know-how, financial skills etc.

Attitudinal and behavioral skills -such as initiative, confidence, willingness, perseverance, determination etc.

Life skills - social, health, interpersonal skills.

Benefits

1. Enhances people's capacities and creativity, opportunities, and satisfaction at work;
2. Empower people to develop their full capacities and seize employment and social opportunities;
3. Raise productivity of workers and of enterprises;
4. Contribute to boost future innovation and development;
5. Encourage domestic and foreign investment, thus job growth lowering unemployment and underemployment;
6. Lead to higher wages;
7. When broadly accessible, expand labour market opportunities and reduce inequalities between different groups of people.

India has the world's youngest work force with a median age way below that of China and European countries. Half the population of India was younger than 25 in 2010. It will change to half the population being under 28 in 2030, making India a very young country for the next 20 years.

Knowing Yourself-Journey to a Great Discovery

Shyam .S.Salim

Principal Scientist, SEETTD, CMFRI

Email:shyam.icar@gmail.com

Relevance of Icebreaking and Knowing Yourself

These are designed to “break the ice “at an event or meeting. This is used when the trainees are from different backgrounds where they need to bond quickly and as the trainer you need to get to know the participants and have them know you and other participants better. At one time or another we have all asked ourselves, “Why is this happening to me?” “Why do I keep having the same problems?” “Why am I so frustrated?” These difficult but important questions nudge us closer to a better understanding of ourselves and others. If they go unanswered, we become stuck in a cycle, continually repeating the past and forever on the defensive. Taking control of our lives requires that we find the answers. Thus it is essential to know oneself for being successful in both personal and professional life.

Key Concepts

- Icebreaking
- Ways by which you can enhance your self-knowledge to know yourself:
- Be aware of your strengths, weaknesses, likes and dislikes
- Observe and be aware of your moods, reactions and responses to what is happening around you
- Become aware of how these moods and emotions affect your state of mind
- Examine how you interact with others
- Observe how your environment affects you

Introduction

When designing the ice breaker the ‘ice’ needs to be broken. If the participants are like-minded people the ice reflects that people have not met. If the participants are from different backgrounds and cultures the ice involves perceptions of each other. After analysing the participants icebreakers can be designed and the best is to focus on the similarities to get a good outcome. Check how the people will be comfortable while contributing.

Introductory ice breakers

These are used to introduce participants to each other and to facilitate conversation among them. Given below is an icebreaking game used in the session.

Group Activity: Ice Breaking Session- To know yourself and your team mates

The trainees are assembled in the classroom; in most cases the trainees do not know each other. This activity facilitates in creating a friendly environment by ice breaking and can be a fun activity.

Make a list of pairs, depending on the number of trainees available. The examples for the pairs could be as follows:

1. Tom and Jerry
2. Antony and Cleopatra
3. Adam and Eve
4. Karuthamma&Parikuttu
5. Jack and Jill
6. Kuttusan and Dakini
7. King and queen
8. Laurel and Hardy
9. Romeo and Juliet



Now keep chits ready with the name of the pair written on them.

Each trainee comes and picks up a chit, once the final trainee picks up his chit, the trainees start searching for their partner; say, the person who has got "Tom" searches for the person who has got "Jerry". Once everyone has found their partner a time ranging from 15 to 20 minutes is given to the pairs to discuss about themselves with each other.

Once the time is up, the partners are split and have to sit separately. One member of the pair is given a set of three questions to answer; the member writes down the answer and hands it over to the organiser. Now the partner of this member is called upon and asked the same questions, if his/her answer matches with his partner points are given. The questions to be asked could be simple ones, such as

- Favourite colour
- Favourite food

- Favourite picnic spot
- Boring subject at school

The entire process helps in breaking inhibitions in talking to strangers and helps in providing an outline to the trainees present.

Knowing Yourself

The first step to gaining a good understanding of yourself is to identify your values and strengths. Your values reveal themselves when you feel strongly about certain things and your strengths are evinced in activities which you are naturally drawn towards, excel in and feel good about. To gain a better sense of self-awareness, examine and reflect on your thoughts and actions in the past, although don't forget to observe your behaviour in the present. Some introspection and reflection will also help you decide if these notions are accurate.

Strategies to Know Oneself

Introspection-You can pay attention and take note of your own experiences, actions, and reactions. Your own observations are invaluable sources of information about who you are and what makes you tick. Paying attention to how you feel inside while you participate in a variety of activities can give you some insight into your own behavioural preferences.

- Do you feel happier when working in a group, or alone?
- Do you feel satisfaction when you accomplish a difficult task?
- Is it easy or difficult for you to tell others what to do?

Your body language can also offer helpful clues. Paying attention to what is going on when you start to feel bored and tired – or lively and interested is an indicator. If your body is responding positively to the situation, it is likely there are elements there that agree with your personal preferences.

Observation- In addition to what you see in yourself, the observations of others can also be helpful. Sometimes others see behaviours in us that we don't see, especially when we are too involved in activities to pay attention.

Feedback (giving and receiving) - Sharing observations with others is a responsibility and a privilege. This kind of information can be given in a helpful or a harmful way. Sharing an observation is an interpretation of reality. This is true whether you are observing your own behaviour or that of others. So, be kind - and real - to yourself and to others when sharing your observations.

Assessment Tools-Putting some structure around observations, inner thoughts, feedback and specific examples helps to make sense out of all this information. That's where assessment tools come in. They are valuable instruments that you can use in your quest for self-knowledge.

How does knowing yourself help you to do better in life?

- The beauty of living consciously is that it increases the likelihood of creating the results you desire.

- Learning and developing your passions provide you with tools for tapping into your happiness.
- Learning what you hate can be just as powerful. The personalities and things that make your hair stand up on end hold lessons!
- Self-knowledge helps you figure out what you want to work on and what you are willing to let go.
- If you understand how you are most likely to react when you things don't go well, you can then identify which thoughts and behaviours are serving you, and those that are not.
- You can then choose to learn better ways of managing conflict or improve communication skills.
- Really getting to know yourself, moves you to a place of self-acceptance and increased self-worth - acknowledging that we all have weaknesses and imperfections and that we can be totally ok about it. Or, we can change!
- The world is a better place when we take the best of ourselves and make it better. That's what self-improvement is about.

Self-Appraisal and Need Assessment

Shyam .S.Salim

Principal Scientist, SEETTD, CMFRI

Email: shyam.icar@gmail.com

Self-appraisals are crucial component of providing a complete picture of performance of individuals. To be effective and efficient, the training programs must start with self-appraisal and needs assessment. Long before actual training occurs, the organization must determine the: who, what, when, where, why and how of training. To do this, the training manager must analyze as much information as possible about the trainees. The need assessment and self-appraisal exercise brings out strong feelings of the trainees and can help to reduce the gap between the expectations of the trainees and what they actually get from training. It is very important to conduct performance appraisals. It is an opportunity for an honest assessment of how you are doing. If done properly, performance appraisals can be a valuable tool for improving the outcome of the training. Merely filling out a performance appraisal form is not enough. You need to collect information, set goals, and evaluate your own performance.

Steps for providing good self-appraisal:

- Share your accomplishments and success
- Describe your skills and abilities which you have achieved in past
- Share your challenges: Be candid about your challenges of the year
- Describe the steps you will take in the year ahead to address them
- Be honest. Don't embellish your accomplishments. Think hard about how you choose your ratings for yourself
- Take the time needed to do justice with the self-appraisal
- Treat your self-appraisal like a work of art that builds over time



A successful performance appraisal process involves explaining jobs, communicating expectations, observing and documenting behavior and providing frequent informal feedback. Self-appraisal helps in understanding individual strengths and weaknesses, mutually understand the expectations for performance and determining the training needs of the trainees. A good training plan must be geared to help the trainees to fulfill their overall needs.

Six steps to completing a great self-appraisal

1. Share your brilliant successes. Look at previous feedback received, projects you've completed and initiatives you've launched – all excellent fodder. If you haven't done so in the past, start keeping a performance journal. It will make your next self-appraisal that much easier to complete.

2. Share what you've learned. What have you learned in the past year? Look to identify the ways in which you've been able to enhance your skills; describe the new skills you've mastered and how they've helped you in your career development. Describe how you've applied these new skills to your job and how they support the goals of your department and organization.

3. Share your challenges. This isn't an annual opportunity for shameless self-promotion. It's an opportunity for some humility. Be candid about your challenges in the year. Describe how you overcame them or the steps you will take in the year ahead to address them.

4. Be honest. Don't embellish your accomplishments. Think hard about how you choose your ratings for yourself. Your manager will likely want you to support your ratings so be prepared to provide examples of your successes (why you deserve that high rating) and examples of your not-so-great performance (why you may deserve a weaker rating).

5. Take time to do it well. Your manager can tell if you rushed your self-appraisal. So take the time needed to do it justice (schedule time for it in your calendar!). After all, your self-appraisal is all about you, and you're worth it! Use all the space/features provided in the form to tell your story.

6. Don't attempt to complete it in one go. Treat your self-appraisal like a work of art that builds over time. You'll be much happier with the end result if you give yourself time to reflect and carefully support your self-assessment. As I mention above, use examples to support your assertions, and please, *please* make sure that you spell- and grammar-check your documents. These are all signs of how seriously you take the process and its importance to you.

Need Assessment

Need analysis establishes relevance for training. Need assessment means identification and prioritization of training requirements. Training needs analysis is the diagnosis by the organization to know what the learning needs of its trainees are. It helps to work on the areas in which employees need skill development. The results of a needs assessment can then be used to plan instructional objectives, and the design and delivery of the training program. Training becomes something not simply given to the participants, but something in which they participate. The need assessment is done to check the current and desired job performance, they desired field of interest and where they needed to be in tomorrow and in future so that they may be provided on job training in their area of interest and educational profile, which will in turn improve their skills in the desired area and increase the quality of training.

A **needs assessment** is a systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions or "wants". The discrepancy between the current condition and wanted condition must be measured to appropriately identify the need. The need can be a desire to improve current performance or to correct a deficiency.

A needs assessment is a part of planning processes, often used for improvement in individuals, education/training, organizations, or communities. It can refine and improve a product such as training or service a client receives. It can be an effective tool to clarify problems and identify appropriate interventions or solutions. By clearly identifying the problem, finite resources can be directed towards developing and implementing a feasible and applicable solution. Gathering appropriate and sufficient data informs the process of developing an effective product that will address the group's needs and wants. Needs assessments are only effective when they are ends-focused and provide concrete evidence that can be used to determine which of the possible means-to-the-ends are most effective and efficient for achieving the desired results.

Needs assessments can help improve the quality of policy or program decisions—thus leading to improvements in performance and the accomplishment of desired results. Improving results—that is, moving from current to desired performance—is typically a worthwhile and valuable effort. The results of a needs assessment will guide subsequent decisions—including the design, implementation, and evaluation of projects and programs that will lead to achieving desired results.

There are three perspectives on need in a needs assessment; perceived need, expressed need and relative need.

1. Perceived needs are defined by what people think about their needs, each standard changes with each respondent.
2. Expressed needs are defined by the number of people who have sought help and focuses on circumstances where feelings are translated into action. A major weakness of expressed needs assumes that all people with needs seek help.
3. Relative needs are concerned with equity and must consider differences in population and social pathology.



The self-appraisal and need assessment activity conducted in this training programme is given below in Appendix.

Self-Discovery Binu Kaliyadan

Trainer- I Corporate Solutions
Email: binukaliyadan@yahoo.com

Self-discovery or Self-awareness is one's core personality strength that can help us manage our responsibilities, our careers, and our lives. When we have the awareness about who we are, then it is easy to cultivate a healthy respect towards oneself. Self-Awareness means understanding one's thoughts, attitudes, feelings, approaches, behavior, values, and background and how they impact the success of the interaction and relationship, or how they may influence one's work. God has created each person unique. There is not a single person in the universe, who is just the same as you. You have a unique genetic make-up, unique fingerprint, unique personality—the list goes on.



Self-awareness—self-respect – self-esteem – self-confidence— best effort – success

“Respect yourself and others will respect you” said Confucius, the great Chinese philosopher.

When we lack self-awareness skills, we tend to make the same mistakes and encounter the same obstacles over and over again. But when we know where our unique strengths and limitations lie, we're better equipped to face challenges, solve problems, choose our battles, make decisions, and predict the outcomes of those decisions.

How Can Self-Awareness Support

Successful career planning starts with a set of ambitious but realistic goals. And a strong sense of self-awareness can help us choose these goals and adjust them as we move forward. With clarity of self-awareness we gain a clearer picture of where we want to go and what tools we possess that can help us get there. We find the will to pursue opportunities that can help us, and the courage to say no to those that can hold us back.

Case Study

Joby Mathew is an international sportsman and an arm wrestling champion. He has won international medals in not just arm wrestling but also in shot put, swimming, and badminton. Like any other sportsman, he hits the gym every day and works out for nearly 1 to 2 hours on a daily basis to maintain his physical fitness. So then how is Joby different from any other sportsman? Joby is only 3 feet and 5 inches tall. That makes him different and his achievements even more extraordinary.

The ability to accept one and to believe in one's capabilities can make a person soar great heights.



Could your self-awareness use a boost? Consider these tips

1. Recognize repeating patterns. Are the same kinds of disturbances and setbacks dogging you time and again throughout your career? It may be time to tune into your patterns and find out what they can teach you.
2. Once you recognize a repeating pattern, act. Don't just become a victim of the next wave. Make a change, take a stand, take a risk, but do what you have to do to break the cycle.
3. Be prepared for a long and difficult road. People are creatures of habit, and since gaining self-awareness can mean breaking entrenched habits, the path to change may not be easy. But stay focused. Be patient and don't give up.

Self - Empowerment

Empowerment is the belief that you have the ability to control the course of your life. People who don't feel empowered may have low self-esteem, feel unmotivated to go after goals and stop working toward happiness in their lives .you can empower yourself through emotional and physical activities that get you more in touch with how you affect your environment.

Essential Self-Empowerment Guidelines for an Improved You:

1. Self-Acceptance: Accept yourself as you are right now, you can still make changes while embracing who you are.
2. Release: Negative emotions, self-defeating thoughts & limiting beliefs (I can't achieve/ I don't deserve...)& blockages (I'm not good enough) - Seek professional help from a, counselor, Life-Coach or Therapist.
3. Laughter, Exercise, and Hobby: These are all empowering tools & help to get relaxation
4. Quiet the Mind: Meditation- helps quiet the mental chatter & promote peace
5. Forgive & Let Go of Blame/Anger: People do their best with the tools they have at the time
6. Gratitude: It is the key that unlocks positive energy in life and the alchemy that transforms issues/problems into blessings/gifts. Make it a habit to give gratitude every day e.g.: "I am grateful for waking up today in a warm place".
7. Goal Setting: Setting goals creates direction, pace and helps us achieve a manageable life in the direction we choose.
8. Personal Inventory: Learn to tune into yourself & cultivate the art of listening to yourself. What is your feelings/body/mind/intuition telling you? Instead of "why" ask "how". Pay attention to the answers that come up.
9. Take One Step at a Time: Move at a pace that is comfortable for you. Rome was not built in a day.
10. Self-Discipline: Follow up on your promises, including promises to yourself. Give everything you do a 100% including taking care of yourself. Set healthy boundaries, separating others' issues from yours.
11. Choice: Behaviors have negative or positive consequences teaching us we have a choice.
12. Harmony: Take responsibility for what you can change & accept what is out of your control. Self-defeating behaviors like procrastination are a barrier to living a congruent life. What is past-due & creating anxiety within you? What are you avoiding or not facing in your life? Acting when the time is right is being in harmony with your life.

You may also consider self-empowerment through hypnosis, which is a safe and effective method to help you reach your full potential. Hypnosis enters the subconscious mind - where our thoughts, emotions, and feelings reside - to help clear negative emotions and limiting beliefs that cannot be eradicated via the conscious mind.

Activity Corner

What self-empowerment method works best for you?

- Self-Acceptance
- Release
- Laughter/Exercise/Hobby
- Quiet the Mind
- Forgive and Let go of Blame/ Anger
- Gratitude
- Goal Setting
- Personal Inventory
- Take One Step at a Time
- Self-Discipline
- Choice
- Harmony

Building Self Confidence and Competence

Shoji Joy Edison

Subject Matter Specialist (Horticulture),KrishiVigyan Kendra, CMFRI

Email:shojjoy@gmail.com

What is confidence and self-confidence?

Confidence is a feeling of trust in someone or something. To be self-confident is to have confidence in yourself. Self-confident people don't doubt themselves. This is usually a positive word: you can be self-confident without being cocky, arrogant, or overconfident. If you know what you're doing, you have every reason to be self-confident. To be precise being self-confident means "A feeling of trust in one's abilities, qualities, and judgment:



Self-confidence has direct correlation with self-esteem. People with low self-esteem have low self-confidence. Self-esteem is your own rating about yourself. If that does not change, self-confidence will not improve. Self-esteem is affected by physical ill-health, negative life events such as losing your job or getting divorced, deficient or frustrating relationships, and a general sense of lack of control. This sense of lack of control is often particularly marked in people who are the victims of emotional, physical, or sexual abuse, or of discrimination on the grounds of religion, culture, race, sex, or sexual orientation.

Sometimes poor self-esteem can be deeply rooted and have its origins in traumatic childhood experiences such as prolonged separation from parent figures, neglect, or emotional, physical, or sexual abuse. If you think this is a particular problem for you, speak to a mental healthcare professional. Therapy or counseling may enable you to talk about such experiences and to try to come to terms with them. Unfortunately, therapy or counseling may be difficult to obtain, and may not be suitable for everyone.

Low self-esteem can predispose you to developing a mental disorder, and developing a mental disorder can in turn deliver a huge knock to your self-esteem. In some cases, low self-esteem is in itself a cardinal feature of mental disorder, for example, in depression or in borderline personality disorder. The relationship between low self-esteem and mental disorder is complex, and a person with a mental disorder is more likely than most to suffer from long-term low self-esteem.

People with long-term low self-esteem generally see the world as a hostile place and themselves as its victim. As a result, they feel reluctant to express and assert themselves, miss out on experiences and opportunities, and feel helpless about changing things. All this merely lowers their self-esteem even further, and they end up getting caught in a downward spiral.



Thankfully, there are a number of simple things that anyone can do to boost his or her self-esteem and, hopefully, break out of this vicious circle. You may already be doing some of these things,

and you certainly don't need to do them all. Just do those that you feel most comfortable with.

Difference between a self-confident person and a person with low self confidence

Self-confident	Low self-confident
Doing what you believe to be right, even if others mock or criticize you for it	Governing your behavior based on what other people think
Being willing to take risks and go for the extra mileage to achieve better things	Staying in your comfort zone, fearing failure, and so avoid taking risks
Admitting your mistakes and learning from them	Working hard to cover up mistakes and hoping that you can fix the problem before anyone notices it.
Waiting for others to congratulate on your achievement	Extolling your own virtues to as many people as possible
Accepting compliments graciously "Thanks, I really worked hard on that prospectus. I am grateful, you acknowledge it"	Dismissing compliments offhandedly "Oh that prospectus was nothing really, anyone could have done it"

Things you can do to improve your self confidence levels

1. Make three lists: one of your strengths, one of your achievements, and one of the things that you admire about yourself. Try to get a friend or relative to help you with these lists. Keep the lists in a safe place and read through them regularly.
2. Think positively about yourself. Remind yourself that, despite your problems, you are a unique, special, and valuable person, and that you deserve to feel good about yourself. Identify and challenge any negative thoughts that you may have about yourself, such as 'I am a loser', 'I never do anything right', or 'No one really likes me'.
3. Pay special attention to your personal hygiene: for example, style your hair, trim your nails, floss your teeth.
4. Dress in clothes that make you feel good about yourself.
5. Eat good food as part of a healthy, balanced diet. Make meal times a special time, even if you are eating alone. Turn off the TV or radio, set the table, and arrange your food so that it looks attractive on your plate.
6. Exercise regularly: go out for a brisk walk every day, and take more vigorous exercise (exercise that makes you break into a sweat) three times a week.
7. Ensure that you are getting enough sleep.
8. Manage your stress levels. If possible, agree with a close friend or relative that you will take turns to massage each other on a regular basis.
9. Make your living space clean, comfortable, and attractive. Display items that remind you of your achievements or of the special times and people in your life.
10. Do more of the things that you enjoy doing. Do at least one thing that you enjoy every day, and remind yourself that you deserve it.
11. Get involved in activities such as painting, music, poetry, and dance. Such artistic activities enable you to express yourself, acquire a sense of mastery, and interact positively with others.



Find a class through your local adult education service or community centre.

12. Set yourself a challenge that you can realistically achieve, and then go for it! For example, take up yoga, learn to sing, or cook for a small dinner party at your apartment or house.

13. Do some of the things that you have been putting off, such as clearing out the garden, washing the windows, or filing the paperwork.

14. Do something nice for others. For example, strike up a conversation with the person at the till, visit a friend who is sick, or get involved with a local charity.

15. Get others involved: tell your friends and relatives what you are going through and enlist their advice and support. Perhaps they have similar problems too, in which case you might be able to band up and form a support group.

16. Try to spend more time with those you hold near and dear. At the same time, try to enlarge your social circle by making an effort to meet people.

17. On the other hand, avoid people, places, and institutions that treat you badly or that make you feel bad about yourself. This could mean being more assertive. If assertiveness is a problem for you, ask a healthcare professional about assertiveness training.

Some quotations about self-esteem and Self-Confidence

- Adversity and perseverance and all these things can shape you. They can give you a value and a self-esteem that is priceless. – Scott Hamilton
- Giving people self-confidence is by far the most important thing that I can do. Because then they will act. – Jack Welch
- Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence. – Helen Keller
- Health is the greatest possession. Contentment is the greatest treasure. Confidence is the greatest friend. – Lao Tzu

Self Esteem

Maja Jose

Assistant Director of Fisheries Training, Kadungalloor

Email: maja_jose@yahoo.co.in

Definition

Self-esteem is a feeling of having respect for oneself and his or her abilities. Self-esteem refers to the way we see and think about ourselves or in other words, it is feeling good about oneself, putting a high value on his or her worth. Synonyms of self-esteem include; self-worth, self-regard and self-respect. It is made up of all the experiences and interpersonal relationship we have in our life. Every one you have ever met has added to or taken away from how you see yourself.

Importance

It is very important because psychological health is not possible unless that person is fundamentally accepted, loved and respected by others and by oneself. Self-esteem allows people to face life with more confidence and optimism and to reach their goals easily. It makes people convinced that they deserve happiness. Positive self-esteem increases the capacity to treat other people with respect and improve relationships. Self-esteem allows creativity at workplace. Self-esteem is important to protect ourselves against mental distress and enable us to cope with difficult and stressful situations.

Levels of self esteem

There are two levels of self esteem

1. High self esteem

High self-esteem means good opinion about you.

2. Low self esteem

Low self-esteem means Bad opinion about you

Development of self esteem

Experiences in a person's life are major source of self-esteem development. It develops through the entire lifecycle. In the early years of a child's life, parents have a major role on self-esteem and can be considered as a main source of positive and negative experiences a child will have. Unconditional love from parents helps a child develop a stable sense of being cared for and respected. These feelings later effects of self-esteem as the child grow older. During school age achievements in academic or other activities will have a strong effect on their self-esteem. Friendship and social acceptance produces high self-esteem during this age, whereas rejection from peers and loneliness produces low self-esteem. Adolescents show an increase in self-esteem that continues to increase in young adulthood and middle age. A decrease is seen



from middle to old age. This decrease may be due to change in health and socio economic status in old age. No differences have been found between males and females in their development of self-esteem.

Factors influencing self esteem

- Attitude of parents and family members towards the growing infant and child.
- Emotional bad experiences of the individual which is considered as a threat to self which affects stability.
- Status of the group to which a person belongs.
- The individual's role and status in the group.



Effects of high self esteem

People with self-esteem possess the following characteristics

- They like to meet new people
- They don't worry about how others will judge them
- They have the courage to express themselves
- They are nicer to be around
- They attract opportunities
- They have an 'I can' attitude
- Their ideas are met with interest because others want hear what they have to say
- Being ready to ask for help when needed
- Not being afraid to fail
- Daring to admit failures and ask for forgiveness

Effects of low self esteem

People with low self-esteem have following characteristics

- They don't believe themselves
- They see themselves failing before they begin
- They cannot forgive themselves for their mistakes
- They believe that they can never be as good as others
- They are afraid to show their creativity
- Unsatisfied with their life
- They complain and criticize
- They worry about everything and do nothing
- They have I can't attitude

Steps to develop high self esteem

- Forgive yourself for past mistakes
- Focus on your positive attributes
- Become a self-talker. Say 'I can'
- Be yourself
- Avoid negative people and thoughts

- Face your fears and learn from failures
- Don't worry about being perfect
- Stop comparing
- Practice your talents
- Become physically fit and have good hygiene.
- Try to learn new things
- Dress well
- Put little faith in yourself. Think of your dream and imagine yourself reaching that.
- Be patient with your progress
- Count your blessings daily
- Honour and appreciate yourself and others
- Try to be independent
- Eat balanced diet

Summary

High self-esteem values every positive experience in your life. It helps you to see the positive in every situation; to cope with difficult situations and to fully appreciate the good times. It has an important role in the mental and physical health of an individual. It is very essential to spare some time for self-evaluation and self-talk. When you do not take time for you, your self-esteem starts to drop. Sadly, many people do not notice their self-esteem declining until they experience some real difficulties. Think that you are unique. No one else is like you in the world. Always try to keep high level of self-esteem so that you can enjoy your life and achieve goals.

Self-Image and Self-Esteem for a Positive Outlook

Rekha .J. Nair

Principal Scientist, Demersal Fisheries Division, CMFRI

Email: rekhacmfri@gmail.com

Teach me to feel another's woe, to hide the fault I see, that mercy I to others show, that mercy show to me. - Alexander Pope

Respect is earned, not given. And regardless of your age, gender, race, or ethnicity, anyone can earn respect by conducting themselves with integrity. Gaining the respect of others will not happen overnight, but remember that once respect is earned, you will have people listening to what you say. How do you get it?

There are three best ways –improve your self-image, self-esteem, self-respect and thus your confidence.

Self-Image is how you see yourself. This may be how you see yourself physically or your opinion of who and what you are which is normally called self-concept. It is important as it affects your self-esteem and confidence.

Self-image includes:

- What you think you look like
- How you see your personality
- What kind of person you think you are
- What you believe others think of you
- How much you like yourself or you think others like you
- The status you feel you have

How you see yourself is vital because this will affect your behavior, you're thinking and how you relate to others. People respond to you either positively or negatively according to how confident you are. Your confidence in relationships depends on the image you have of yourself.

How you see yourself is often different from how others view you. Your view of yourself is shaped by your unique thoughts and beliefs and you will have a distorted view. You will see yourself in a positive or negative way according to your level of self-esteem. You may have a negative view of yourself and if so you are probably highly critical of yourself.

What can you do to improve your Self-Image?

List things you like about yourself – include appearance, personality and skills.

- Change negative thoughts to positive ones by focusing on the positive and forgetting the negative things that happen to you
- Remember compliments and note them down
- Try the powerful method of self-hypnosis: Building your self-esteem – hypnosis download
- It will really help you!
- Question whether your view of yourself is accurate. and why you see yourself like you do



- Make changes that will help you ;for example, clothes, appearance, hair style and behavior
- Accept things about yourself that are true and learn to think about them in a positive way
- Get exercise – you will look and feel better! more about psychological benefits of exercise
- Take yourself less seriously and lighten up!
- Accept criticism constructively so you can move forward and improve yourself
- Don't be limited by your internal image, step outside of it and break free, it doesn't have to control you or keep you down. Acting differently will change how others respond towards you and will help change your attitude towards yourself and your abilities
- Take on challenges positively and surprise yourself!
- Read inspiring books about esteem – here's a selection of my favorites, they will help you so check them out now!

Remember, you are only limited by your efforts and confidence! Believe in yourself!

What is self-esteem??

Self-esteem is your overall opinion of yourself – how you feel about your abilities and limitations. When you have healthy **self-esteem**, you feel good about yourself and see yourself as deserving the respect of others. When you have low **self-esteem**, you put little value on your opinions and ideas. In sociology and psychology, **self-esteem** reflects a person's overall subjective emotional evaluation of his or her own worth. It is a judgment of oneself as well as an attitude toward the **self**. Infact, self-esteem stems from a positive self-image.

Following are some outward signs of positive self-esteem:

- Confidence
- Self-direction
- Non-blaming behavior
- An awareness of personal strengths
- An ability to make mistakes and learn from them
- An ability to accept mistakes from others
- Optimism
- An ability to solve problems
- An independent and cooperative attitude
- Feeling comfortable with a wide range of emotions
- An ability to trust others
- A good sense of personal limitations
- Good self-care
- The ability to say no

What is low self-esteem?

Low self-esteem is a debilitating condition that keeps individuals from realizing their full potential. A person with low self-esteem feels unworthy, incapable, and incompetent. In fact, because the person with low self-esteem feels so poorly about him or herself, these feelings may actually cause the person's continued low self-esteem.

Here are some signs of low self-esteem:

- Negative view of life
- Perfectionist attitude
- Mistrusting others – even those who show signs of affection
- Blaming behaviour
- Fear of taking risks
- Feelings of being unloved and unlovable
- Dependence – letting others make decisions
- Fear of being ridiculed

How can you raise low self-esteem?

Feelings of low self-esteem often build up over a lifetime, and letting go of ingrained feelings and behaviors is not an easy task. It may take time, hard work, and it may require professional counseling.

But there are some simple, positive thinking techniques that can be used to help improve self-esteem. These are called affirmations. Using affirmations to stop negative self-talk is a simple, positive way to help increase self-esteem. Affirmations are encouraging messages we can give ourselves every day until they become part of our feelings and beliefs. Affirmations work best when a person is relaxed. But since people are often upset when they are giving themselves negative self-messages, they may need to counter negative messages with positive ones.

For example, replace the message “I made a stupid mistake, and I am no good at this job,” with “Yes, I made a mistake but I have learned from it, and now I can a better job.” Begin each day by looking in the mirror and giving you a positive message.



The following affirmations can help you to work toward a positive self-image:

- I respect myself and others
- I am lovable and likable
- I am confident, and it shows
- I care about myself
- I accept myself just as I am
- I look great
- Life is good, and I like being a part of it

Self-respect:

- **Respect others:** Because respect is a two-way street, by respecting others, you will find yourself respected. This is also known as the "Golden Rule" or the "Yellow Rule" of treating others as you wishes to be treated.
- Don't "bad-mouth" other people. That means that if there is a problem, try addressing it directly with the person instead of talking behind their back.
- See the opposing viewpoint. Trying to understand the other human's views, even if it's different from your own- it doesn't mean you are agreeing with them, but it shows respect for their opinion.
- **Respect yourself:** If you do not respect yourself, others will sense this and treat you accordingly.

- Take care of your appearance by being hygienic. Being poorly groomed usually sends a negative message to others about your self-worth.
- Stand up for your beliefs. Expressing your true feelings- even when they run contrary to the social norm- shows a sense of confidence in yourself. This is difficult to do, but a human with the courage to stand apart from the crowd and think independently is often regarded with respect.

Do your best at every task. Even the difficult or menial ones. Establishing your competency or even mastery of a field will help others realize the value of your efforts.

Keep your word. A human who honors their promises is considered trustworthy. If you cannot keep your word, gracefully communicate why you can't.

Be a role model. Conduct yourself professionally, and hold yourself to high standards. After all, actions speak louder than words. And sometimes, actions can even inspire others.

Be the change you want to see in the world-consider volunteering. Most people wait until their retirement to consider what legacy they will build. Start making yours now.

So look up and keep smiling, the world is all yours!!!

Emotional Quotient - The Inner Side of Leadership

Shyam S. Salim

Principal Scientist, SEETTD, CMFRI

Email: shyam.icar@gmail.com

The concept of emotional intelligence has become a very hot topic of psychological research in recent years, especially in regards to how it affects today's workforce. Businesses are essentially people, so anything that impacts the effectiveness of people's minds also impacts the businesses they run or work for. In fact, many experts now believe that a person's emotional intelligence quotient (EQ) may be more important than their IQ and is certainly a better predictor of success, quality of relationships, and overall happiness.

Intrapersonal emotional intelligence

What goes on inside of you as you experience day-to-day events?

Self-awareness-The ability to recognize and understand personal moods and emotions and drives, as well as their effect on others. Hallmarks of self-awareness include self-confidence, realistic self-assessment, and a self-deprecating sense of humour. Self-awareness depends on one's ability to monitor one's own emotion state and to correctly identify and name one's emotions.



Self-regulation-The ability to control or redirect disruptive impulses and moods, and the propensity to suspend judgment and to think before acting. Hallmarks include trustworthiness and integrity; comfort with ambiguity; and openness to change.

Internal motivation-A passion to work for internal reasons that go beyond money and status -which are external rewards, - such as an inner vision of what is important in life, a joy in doing something, curiosity in learning, a flow that comes with being immersed in an activity. A propensity to pursue goals with energy and persistence. Hallmarks include a strong drive to achieve, optimism even in the face of failure, and organizational commitment.

Interpersonal emotional intelligence

What goes on between you and others?

Empathy- The ability to understand the emotional makeup of other people. A skill in treating people according to their emotional reactions. Hallmarks include expertise in building and retaining talent, cross-cultural sensitivity, and service to clients and customers. (In an educational context, empathy is often thought to include, or lead to, sympathy, which implies concern, or care or a wish to soften negative emotions or experiences in others.) See also Mirror Neurons.

Social skills- Proficiency in managing relationships and building networks, and ability to find common ground and build rapport.



Hallmarks of social skills include effectiveness in leading change, persuasiveness, and expertise building and leading teams.

Elements of emotional intelligence

Personal Skills or Competences	Social Skills or Competences
<i>How we manage ourselves</i>	<i>How we handle relationships with others</i>
Self-awareness	Empathy
Emotional awareness	Understanding others
Accurate self-assessment	Developing others
Self-confidence	Service orientation
Self-regulation	Leveraging diversity
Self-control	Political awareness
Trustworthiness	Social Skills
Conscientiousness	Influence
Adaptability	Communication
Innovation	Conflict management
Motivation	Leadership
Achievement drive	Change catalyst
Commitment	Building bonds
Initiative	Collaboration and cooperation
Optimism	Team capabilities

Current Setting

The Emotional Quotient looks at a person's emotional intelligence, which is the ability to sense, understand and effectively apply the power and acumen of emotions to facilitate higher levels of collaboration and productivity. The report was designed to provide insight into two broad areas: Intrapersonal and Interpersonal emotional intelligence.

Research shows that successful leaders and superior performers have well developed emotional intelligence skills. This makes it possible for them to work well with a wide variety of people and to respond effectively to the rapidly changing conditions in the business world. In fact, a person's (EQ) emotional intelligence may be a better predictor of success performance than intelligence (IQ).

There are many tests of emotional quotient, and most seem to show that women tend to have an edge over men when it comes to these basic skills for a happy and successful life. That edge may matter more than ever in the workplace, as more companies are starting to recognize the advantages of high EQ when it comes to positions like sales, teams, and leadership.

Substance of the topic - What? (Advantages and Disadvantages), How (To achieve, evaluate, measure, improve)

History

Although research into this concept had been performed since at least the 1800s, the terms "emotional quotient" and "emotional intelligence" did not become popular until the 1980s, when psychologists Peter Salovey of Yale and John Mayer of the University of New Hampshire began conducting research into it. The concept was further popularized by Daniel Goleman, another well-respected psychologist who wrote many books on the subject

and has served as co-chair of The Consortium for Research on Emotional Intelligence in Organizations. Although these and many other psychology experts view emotional intelligence measurements as scientifically valuable studies of social behaviour and relationships, the science behind these measurements are often questioned.

Definitions

Emotional intelligence is defined as a set of skills or competencies, which provide human resource professionals, managers, and anyone in the world of work, with a comprehensive tool to define measure and develop emotional skills'. Emotional intelligence can also be defined as the capacity to recognize our own feelings and those of others for motivating ourselves and managing emotions well in our social interactions.

Emotional quotient consists of five important dimensions

1. Knowing one's emotions.
2. Controlling one's emotions.
3. Recognizing emotions in others (empathy).
4. Controlling emotions in others.
5. Improvement in emotional control.

Elements of Emotional Intelligence

Measurement

A person's EQ can be measured using any of various assessments, including one developed by Salovey and Mayer. Some assessments use self-given responses, and others are based on peer-given responses. Although a single test might give some insight into a person's personality and psychological make-up, discovering the true value of EQ and its relationship to and impact on a person's life might take years and multiple studies.





Benefits of Emotional Intelligence

Measurements of people's emotional intelligence quotients are used in many settings. The idea is very popular in the corporate world, where many businesses use EQ tests to help their employees determine and measure their emotional responses to various situations. Most such tests are administered with the idea that this factor can be modified or increased, but there is dispute about whether a person's emotional intelligence is something he or she is born with or if it can be changed

Judicious applications of emotional intelligence can lead to the following results:

1. Understanding and enhancing emotional intelligence enhances management skills.
2. It can provide team effectiveness.
3. It assists managers to have flexible planning.
4. Emotional intelligence assists managers in motivating others.
5. Better decision-making comes from a balance between head and heart.
6. It can help a person achieve a whole range of career development factors such as leadership, decision-making, open communication, trusting relationship and customer loyalty.

Have a self-look on where you stand???

Low Emotional Intelligence	High Emotional Intelligence
Aggressive Demanding Egotistical Bossy Confrontational	 Assertive Ambitious Driving Strong-Willed Decisive
Easily Distracted Glib Selfish Poor Listener Impulsive	 Warm Enthusiastic Sociable Charming Persuasive
Resistant to Change Passive Un-Responsive Slow Stubborn	 Patient Stable Predictable Consistent Good Listener
Critical Picky Fussy Hard to Please Perfectionistic	 Detailed Careful Meticulous Systematic Neat

Practical Session

Emotional Intelligence: A training game for emotional awareness

My Colored Hat

Preparation: Make paper hats of different colours. There should be as many hats as there are participants. You can choose to have anywhere from four to six colours. So if you have chosen to have six colours and there are thirty participants. There will be five hats of the same colour in the stack of hats.

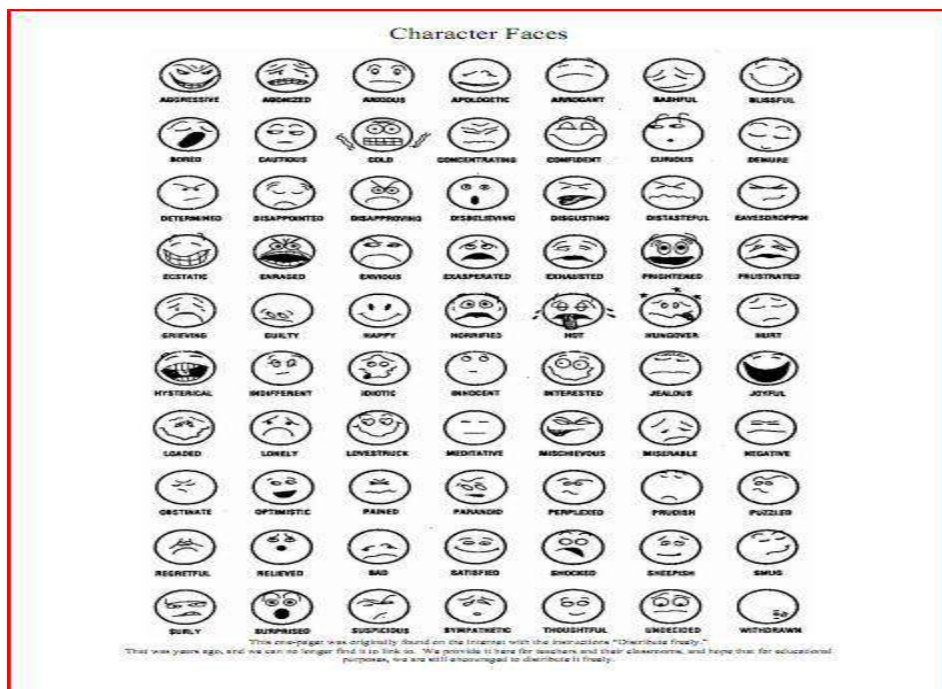
In this training game each colour is designated to represent a feeling. For instance, if you have decided to play with feelings, you can have white for peaceful/tranquil, blue for joyful, green for envy/jealousy, red for irritation/anger, purple for rich/plenteous, orange for creative.

Emotional Intelligence, Process of this training game: The participants have to be told the meaning of each colour. Then they pick up a hat of their choice and stand in a circle. Once each of the participants is wearing a hat, they are expected to describe their feeling.

If it is a positive feeling they express it and give themselves permission to enjoy it.

If it is a negative feeling, they acknowledge it, and decide to bag (bracket) it for the present. They also decide to pick it up after the sessions are over and do something positive to deal with it. The objective of this training game is to replace the negative feeling with a positive one.

Emotional Intelligence - Game 2 - My Emoticon: Project the following handout and ask participants to identify how they are feeling that day from the handout. Emoticons then let them pair-up with their partner and make their face to look like the emoticon that they have chosen.



Debrief

1. It is harder and more stressful to make a face resembling a negative emotion. It is easier, relaxing and much more fun to copy a happy face.
2. You usually feel the emotion that is expressed on your face.
3. You can control your emotions and so determine the manner in which you will spend your day - with ease or with stress, the choice is yours

Activity Corner -Lessons Learnt

1. What are the Intrapersonal and Interpersonal emotional intelligence
2. What are the benefits of Emotional Intelligence
3. Name the five important dimensions of Emotional quotient

Good Manners for Being Important to Self and Society

Reshma .V.G

Scientist, CMFRI, Kochi

Email:reshjanardhan@gmail.com

Manners are something we use every day to make a good impression on others and to feel good about. Practicing good manners is important no matter where you are - at home, work, or with friends.

“You never get a second chance to make a first impression”

Respecting other people means you also respect their wishes. There lies something more in good manners rather than ‘please and thank you’. It makes the society alive. It creates respect, loyalty and gratitude in the society. It attributes to a good social structure. Good manners can be shown individual level social level or International level.

Being well-mannered at individual level means acknowledging people each time you meet them, remembering their names and something about them, expressing yourself in a thoughtful manner, and saying “please” and “thank you” every time it’s called for. Every culture and individual may have different rules or feelings about what is polite or is not polite these rules may differ from person to person or based on situation, but there is one rule of good that is always easy to follow - do unto others as you would have them do unto you!!

Table manners

- Sit properly (and straight) in your chair
- Talk about pleasant things
- Wait until everyone is seated before starting to eat
- Watch others, or ask, if you're not sure how to eat something
- Ask someone to pass the food, rather than reach across the table
- Chew with your mouth closed
- Don't talk with your mouth full
- Say "excuse me" or "I'm sorry" if you burp
- Say "no thank you" if you don't want a certain dish or are full
- Say "may I please be excused" before leaving the table



Telephone manners

-

Choose a style that's comfortable for you and polite to others.

- If you answer someone else's phone or answer for someone who is not around, you should always offer to take a message.



- If the person who is calling asks you to help out instead and you don't feel comfortable or don't know the answer to their

questions, it is always polite to say, "I'm sorry I don't know but I'd be happy to pass the message."

- Wait until someone has finished their phone conversation before talking to them.

Good Manners on conversation

-
-



Look at the person or people you are talking to
If you haven't met before, introduce yourself and ask their name

- Use a person's name when talking to them
- Ask questions when you don't understand something
- Stick to the subject
- Say nice things about people and praise those who deserve it

• It's fine to disagree, but disagree politely

Professional manners

- Many of the things you do to be polite in casual settings are just as polite in worksituations
- Use your telephone manners, saying "please" and "excuse me", shaking hands and introducing yourself when meeting someone new
- Pay attention to people when they are talking
- Appear neat and clean

Manners at School

School is the place where a kid gets an opportunity to interact with the society for first time. When interacting with teachers, children should listen attentively, raise their hand before speaking during lessons, make eye contact, and be polite when talking. Kids should also treat their peers well by listening when they speak, respecting personal space and property, and covering their mouths when coughing. Respecting the classroom, a communal space intended to be enjoyed by everyone, is another way to practice good manners. Even when children are playing outside, they can still keep manners in mind. Encourage child to invite anyone who is playing alone to join her group's game or activity.

Body Language

Standing or sitting up straight, appearing confident, looking people in the eye, and having a smile or pleasant expression gives people the impression that you are polite, confident and pleasant.



Scowling, crossing your arms, slouching, or staring off into the distance (even if these are just nervous habits) may make people think that you are angry, unapproachable, or disinterested. Putting forth a nice appearance doesn't mean you have to spend a lot of money on clothes or accessories.

Social implications of good manners

'Manners makes a man' is a true saying. By manners we mean proper and respectful behavior towards all with whom we come in contact. Good manners come naturally to a man who is bred-up in a cultured family. On the contrary, an ill-bred man has no manners. Good manners are, therefore, the sign that a certain person has been brought up on the right lines.

Good manners are very necessary for progress in life. They help someone to win the favor and confidence of others. They are a sure passport to success in life. An ill-mannered man, on the other hand, is disliked by everyone and has no chance of success in any walk of life he joins. Good manners endear us to others. A polite answer turns away anger and a kind word uttered in time saves a man from many troubles. It is politeness which succeeds while ability fails. Even a good action will lose its value if the person doing favor utters impolite words.

Good manners are learnt early in life. A child born in a cultured family will learn to be respectful to others because he will see his elders behaving gently. A child born in an uncultured family will be disrespectful because he sees his elders behaving badly towards others. A child will learn whatever he is taught. So a little carelessness on the part of the parents is likely to spoil him and it will be difficult to reform him afterwards.

A man should remember that when he is in company he should not go on talking all the time but let others have their say. It is bad manners to go on talking even if others do not feel interested in the talk. Again a man should be polite to strangers so that they might have a good opinion about the man. While travelling he should observe the rules of the road. He should be kind and courteous to old men and ladies. While boarding a bus or a train he should see that he does not push his way in but takes his turn. It is bad manners to break the queue or push oneself in without his turn.

Let us look to the convenience of others. 'Live and let others live' should be our motto.

Good manners show the best you have to offer and encourage others to be their best. Practicing these manners on a daily basis makes for a more pleasant life.

- Be thoughtful
- Be cheerful
- Be generous
- Be cooperative
- Be helpful
- Don't be bossy
- Don't put people down or say rude things
- Respect other's privacy

A man without manners is an outcaste in the society as he cannot toad the hearts of others. He may be a good person, a great warrior, an intellect but without manners he can hardly win the respect of others. He tends tot rejected even before he is heard, thus, making it impossible to overcome the first hurdle of establishing a rapport with the one he or she is trying to interact with.

Conclusion

The mode of observing such manners do change. The ways of being hospitable today are not the same as in our ancient days. But to be hospitable is yet a yardstick of one's culture and character. To tell lies, to behave like a turncoat, to take undue advantage of one's goodness have been bad and are bad even today. These are the parts or constituents of good manners. One cannot enumerate them. The norms of human behavior change in our fast changing social life, but the status of 'good manners' remains constant. Good manners are closely linked to moral values. Shakespeare's line, "The baby beats the nurse and athwart goes all decorum" is a self aeons of human existence.

Personal Hygiene

Rakhy Shyam

Medical Officer, NHM Homoeopath Dispensary, Aluva

Email: rakhyshyam@gmail.com

Importance of personal hygiene

Good personal hygiene not only enhances our appearance, its importance is directly related to preventing infections, diseases, and keeps us free from unpleasant odours. Practicing proper hygiene is important to your mental health and **helps you feel better about yourself**. Most people don't think twice about bathing, visiting their doctor or dentist for routine check-ups, handling unsanitary items, brushing their teeth, or washing their hands. They not only do these healthy habits for themselves, they do them to help keep those they care about healthy and safe.



What is health and fitness?

- **Health** is defined as a state of complete mental, physical and social well-being; not merely the absence of illness or infirmity.
- **Fitness** is the ability to meet the demands of the environment.
- Regular exercise improves **health and fitness**
- **Physical fitness** is a general state of health and well-being and, more specifically, the ability to perform aspects of sports or occupations.

Key concept of personal hygiene

Personal hygiene includes different habits i.e., washing hands and brushing teeth which keep bacteria, viruses and fungal far away from our bodies. Moreover these habits will help us to protect our mental health and activity. Also good personal hygiene will help us to keep feeling good about ourselves. Since those who do not take care of their personal hygiene i.e., dirty clothes, body odour and bad breath will suffer from discrimination and this will mainly leads to mental problems. But the most important point in this subject, is that all people has their own hygiene but some people do it better than others, this will mainly depends on each person culture, society and family norm.



1. Food

- Prime necessity of life
- Food we eat gets digested
- Assimilated in the body

- Used for maintenance and growth
- Also provides energy for doing work

2. Constituents of food

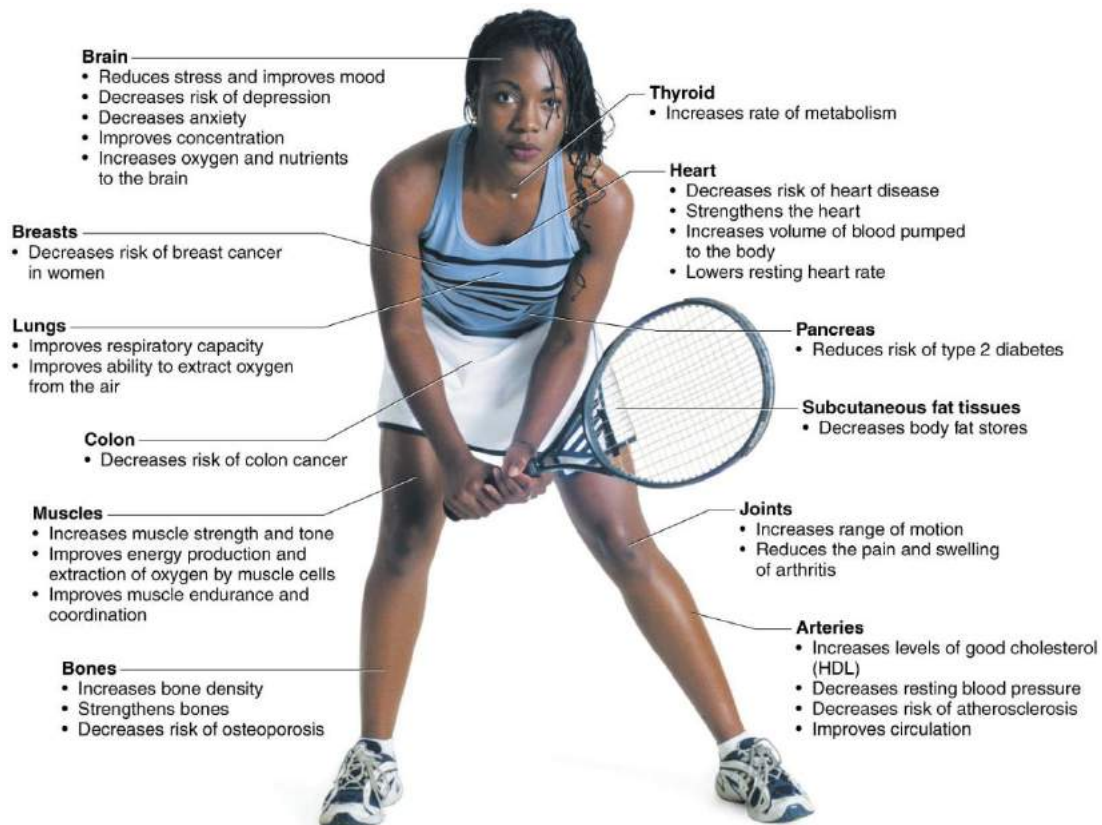
- Water
- Carbohydrates
- Proteins
- Fats and Oils
- Minerals
- Vitamins

3. Life style diseases

- Hypertension- Blood Pressure
- Sugar - Diabetes
- Hyperlipidaemia- cholesterol
- Obesity
- Cancer



4. Some Health Benefits of Regular Activity



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Hygiene Maintenance

These are certain easy and day-to-day routines, which when incorporated, help to improve the state of one's personal cleanliness.

1. Hair Hygiene

Be clean; be stylish, from top to toe. Often, while considering personal hygiene, the hair is neglected. However, many a time, the hair gets dirtier than the body. For this reason, attention must be given one's crowning glory.

- Wash your hair at least twice a week, with a suitable shampoo. Never use soap, because Sodium bicarbonate, which soap is rich in, is horrible for the hair.
- Dry your hair after a wash. However, do not blow dry too often, as this kills the roots of the hair follicles.
- Oil the scalp once a week. Coconut oil is excellent nutrition for the hair.

2. Skin Hygiene

A person sweats throughout the day, however minimally. Also, in tropical countries, germs abound and these must be got rid of immediately.

- Soap and water are vital for keeping the skin clean. A good bath once or twice a day is recommended.
- Use an anti-bacterial soap and add drops of an antiseptic liquid to the water you bathe with.
- Dry yourself well. Avoid sharing towels.
- Use a moisturiser to keep the skin supple and well-oiled.

3. Oral Hygiene

Accumulation of food in the mouth can cause problems ranging from bad breath to dental caries. For removal of food particles and oral hygiene, certain steps are to be followed.

- Brush your teeth at least twice a day, but preferably after each meal to clear your teeth of any remains of food.
- Use a brush with zig-zag bristles, to reach every nook and corner of your teeth.
- Floss regularly, for inter-dental care.
- Use a tongue scraper to keep your tongue clean.
- Use a mouthwash whenever you go out.
- Drink a lot of water to keep the mouth moist and to remove any foul odours.

4. Hand Hygiene

The commonest way we establish contact with things around us is by using our hands and that is why, one must take special care to keep them neat and clean.

- Wash your hands with soap after every meal. Wash thoroughly and in the gaps between your fingers.
- While handling food and cooking, avoid scratching or touching other parts of the body such as the eye, ears or the nose.

5. Feet Hygiene

The most neglected part of the body are the feet. Ways to keep your feet clean are as follows:

- Soak your feet in warm water and wash with soap.
- Scrub the heel of your foot with a pumice stone to keep it soft and to prevent it from cracking. Use an anti-cracking cream to heal the condition.
- Powder your feet before putting on socks to prevent perspiration and resultant smell.
- Give importance to the footwear you use, for a comfortable gait and a good posture.

6. Nail Hygiene

- Clean your nails by thoroughly removing dirt from them.
- Trim your nails often and preferably, keep them short.
- Do not keep your nails polished perpetually. It causes the keratin of the nails to split. Also, it works wonders to pamper your hands and feet once a month with a manicure and pedicure.

7. Hygiene during your menstrual cycle:

A woman's period is the dreaded time of the month for her. Periods make one feel uncomfortable. However, this is a natural process that cannot be avoided, but it can be dealt with to make it less of a problem.

- Change your sanitary towels frequently to avoid a feeling of discomfort.
- It is essential to have a bath during your period. Do not avoid the shower during menstruation. There need not be any taboo on doing so.

Conclusion

- Create an Action Plan:
- Decide what you want (your goal)
- Visualize achieving this goal
- Write it down
- Include details
- Reread it often
- Reward yourself

"There is no easy way out. If there were, I would have bought it. And believe me, it would be one of my favorite things." Oprah Winfrey.

Health & Habits: Back to the Old Age - Yoga

Smitha .K

PA to SFAO, CMFRI, Kochi

Email: jgdksm@yahoo.co.in

What is health? Does it is limited to physical level only? No, then what are the layers of our existence! It is

1. Body
2. Breath
3. Mind
4. Intellect
5. Memory
6. Ego
7. Self



Body: Body must be defuse free

Breath: Breath must be smooth and rhythmic

Mind: Stress free mind. Value of our mind is to vacillate between past and future; when it goes to past it may bring quality, regrets; sometimes may glorify also; when it goes to the future it brings anxiety. When this value continues toxins/stress gets accumulated in our body.

How we can bring our mind to the present. It cannot be controlled by mind itself: but only through our breath.

Inhibition Free Intellect: When we are listening a talk we may agree or disagree with him. But actually in that time we not listening to him properly; we are limiting our self into our own sphere of knowledge. Sit with open heart when agree or disagree then only we can grasp/learn new things.

Trauma Free Memory: Our memory must clean not trauma

Ego: Have expanded ego including the whole word as your then you can do selfless Service; Otherwise we may become timid, rigid and narrow minded.

Self: It is the positive energy. We are positive in nature; negativity is in the circumference only. We are in love, Joy and peace.

How we can get established in the self which is the positive energy. Do some pranayama, Yoga for our body; cultivate habit of practicing healthy diets; practicing breathing techniques and doing meditations regularly.

Food can be divided in to three types depending upon the nature of mind it creates.

- 1) Satvic
2. Rajasic
3. Thamasic

Satvic: More focused, calm peaceful mind includes sprouts, fresh food Vegetables and fruits etc.

Rajasic: Restless mind. Spicy food, fried food etc.

Thamasic: Dull inertia

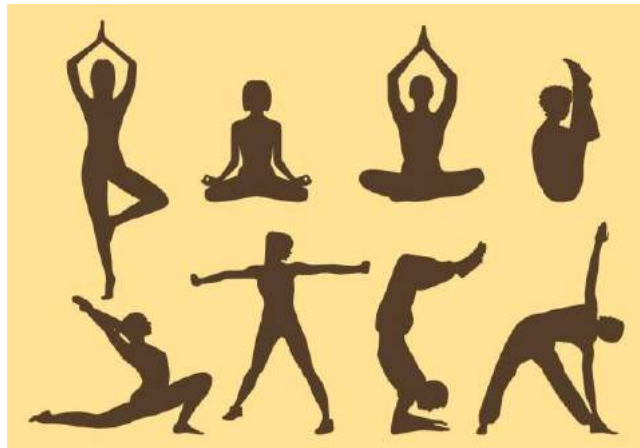
Stale food; Food cook after 6 hours is stale.

One who take one time meal, he is Tyagi, two times is Yogi, three times isRogi and more than three times is Bhogi

Yoga- Sookshma Vyayamam

Upper head sides, eyes-nose, ears, lips, teeth tongue practiced some Joint Rotation for loosing muscles by listening to body, breath and mind.

1. Neck
2. Shoulders
3. Elbow
4. Wrist
5. Fingers
6. Hip
7. Joint
8. Knee
9. Ankle
10. Feet



Konasan- Left side and then right side.
Stretches the muscle of the sides

KatiChakrasan - Small spine twist

Chest Expander- Fourth shoulders

Then instructed Nadishothana Pranayama (alternate nostril breath) which calm done our nervous system and will give more energy.

Conducted Panchakosha Meditation

Which brings relaxation, refresh ourselfInsisted them to cultivate the habit of practicing yoga, pranayams. Meditation daily for keeping them healthy, physically, mentally and spiritually and to keep then enthusiastic and initiative

Indigenous Knowledge's for Healthy Habits and Life

Salini K.P* and Smitha Rosey Xavier

Technical Officer, SEETTD, CMFRI

Email*:salinicmfri@gmail.com

Introduction

Health and habits are interrelated. Our older generations viewed nature and all living beings as the beads of the same manacle. From rising up early in the morning till the moment of sleep enraptures us at night we are entangled in various activities that goes hand in hand with nature. Our ancestors realized much earlier that the pros and cons of these deeds will reflect through our health.



Fishing is not only a livelihood option to many but also a lifestyle based on the traditional values of a group of people. This job includes hard work, risk, and uncertainty, unable to maintain proper food timing, stress occurring due to climate, odd timings; use of drugs, low financial status, limitation of living space, unhygienic toilet etc , which directly and indirectly affect the health of those involved herein.

Knowingly and unknowingly and due to certain pressure of the current scenario, we have diverted our lifestyle from that was earlier followed by our ancestors. Here we are trying to catch up or peep into the old and traditional ways followed earlier.

1. What is health?

*"samadoshasamaagnischasamadhatu mala kriyaaha
Prasannaatmaindriyamanahaswasthaitiabhidheeyate" – SushrutaSamhita*

Meaning:

One is in perfect health when the Three doshas (vata, pitta and Kapha) Digestive fire (digestion, assimilation and metabolism) all the body tissues & components (Dhatus) (the entire physical body) all the excretory functions (the physiological functions of urination and defecation) are in perfect order with a pleasantly disposed and contented mind, senses and spirit.

As defined by World **Health** Organization (WHO), "**Health** is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." It is a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. A healthy society is a gathering of individuals and families living in different level. Air (Oxygen), food, water, clothes, habits, hygiene, exercise, shelter, rest and different other entities influences health.

- **Oxygen**

In pre-historic era, the level of oxygen in the atmosphere was 30-35 %. For a healthy environment we need at least 20-22%. We can live without food and water for many days but it is impossible to live even a second without oxygen.

A healthy man having an approximate of 5 liter of blood should consist 95% – 100% oxygen and 30% – 38% should be iron content. We use only 30% - 35% of lungs for breathing. The level of oxygen is more in coastal area. Area where air pollution is more the level of oxygen is decreased to 15% - 20%. Taking deep breath is important to maintain the required level of oxygen in the body the absence of which can lead to many health issues.

- **Food**

Healthy and balanced nutrition is important for everyone. A healthy diet is the basis for a well-functioning body. Food is the source of energy for all of our bodily functions and directly affects how our bodies and minds function in every stage of life. There are a variety of reasons why a healthy diet is important, including disease prevention, maintenance of a healthy weight and quality of life. Food is also an important aspect for maintaining our health. Food is essential for our bodies to develop, replace and repair cells and tissues; produce energy to keep warm, move and work; carry out chemical processes such as the digestion of food; protect against, resist and fight infection and recover from sickness. A healthy and balanced diet provides foods in the right amounts and combinations that are safe and free from disease and harmful substances. Eat staple food with every meal. If possible eat sprouted legumes every day. Vegetables and fruit are an important part of a healthy and balanced meal. Fats, oils and sugar are good sources of energy. Drink plenty of clean and safe water. As the proverb says “If wealth is lost, nothing is lost. If health is lost, something is lost”

- **Types of Food:**

Basically there are 4 types of food, one is chewable food, second is swallowed, third is drinkable food and fourth is eaten by licking. Chewable food when chewed gets mixed with the 24 types of digestive enzymes present in saliva. The time when we hear the name of the food/see/smell/touch etc. our sense organs react and the impulses reaches the brain which in turn boosts up our digestive enzyme accordingly.

- **How to Cook:**

Pots, pans, and other tools used in cooking often do more than just hold the food. The trace elements of the cooking material that they are made from can leach into the food that is being cooked which can cause bad effects for our body. Non-enameled clay utensils are used even in our present time because this natural material, which “breathes”, has no analogue. The dish prepared in the clay utensils has a specific aroma and refined taste. A great feature of non-enameled ceramics is that clay does not come into reaction with food, does not contain toxic substances, and it is absolutely safe to prepare food in it, because while being heated it does not discharge substances that are bad for health.

Oily foods when cooked several times may contaminate the food and becomes unhealthy to be consumed. When highly unsaturated vegetable oils are heated at frying temperature (365 F) for extended periods--or even for half an hour--a highly toxic compound, HNE (4-hydroxy-trans-2-nonenal) forms in the oil thus LDL cholesterol, liver, arthritis, Parkinson, Cancer and many other problems occur. It is better to avoid red meat, but brown food is good for health. Always avoid the 4 whites-sugar, Maida, salt and white rice. The purpose of eliminating these white foods will help get you started in adopting a healthier way of eating.

- **When to eat:**

Morning never skip breakfast. The auspicious time to have breakfast is shortly after 07.00 AM-08.00AM because it directly related to sunrise and sunset. The morning intake is the most effective food for our body because we get all the required ingredients for our body development. We should consume food within 10-12 minutes. You will also want to make sure to eat at regular intervals, to help make sure your body has the fuel it needs to run all day. It is a good idea to drink water, juices, smoothies, teas, and the such. However, soda, cola, and all sorts of soft drinks should definitely be avoided since it contains chemicals, preservatives etc. Generally reduce the amount of unhealthy saturated and trans fats in your diet. These are found in foods like chips, margarine, oils and many boxed or frozen foods. Pure Coconut oil is relatively the healthiest, but still not good. Try to focus on eating foods which deliver lots of vital nutrients and minerals. You can try citrus fruits, dark greens like kale and spinach, grains like brown rice and quinoa, lean proteins like lentils and chickpeas. The best time for lunch is between 12.30 to 1.00 Pm and the best for dinner is 07.00-08.00Pm. Leaving dinner later than 08.30 pm can be a dieting disaster. People are less active in the evening, with low metabolic rate, so calories are not burned properly. The most important message is not to skip meals and not to have heavy dinner or leave dinner too late. Eating too close to bedtime increases your blood sugar and insulin, which makes it harder to sleep. Try adding a slice of lemon, lime, or orange to your water for a great taste; cucumber slices for an even crispier taste! 8 Oz. glasses of water are recommended for most adults, though some people need more and some people need less. However, unless your diet consists of crackers, you will get a lot of that water from foods. Drinking a lot at once will also be very ineffective for your body. Consume food as a medicine (i.e. ½ stomach rice, ¼ stomach water, ¼ stomach air). Chew the food items according to the number of teeth you have. Hardworking and people working under the sun, hot temperature should make it a routine to consume food which is enriched with water and saline.

When it comes to digestion, sleeping on the left side may be preferable to the right side due to the simple matter of gravity. Specifically, lying on the left side allows food waste to easily move from the large intestine into the descending colon (meaning you're more likely to have a bowel movement upon waking). Sleeping on the left side also allows the stomach and pancreas to hang naturally (our stomach lies on the left side of the body), which can keep the development of pancreatic enzymes and other digestive processes humming. Moreover *Melatonin* hormone produced in the brain helps in control your sleep and wake cycles. Natural levels of *Melatonin* in the blood are highest at night. It is linked with how our body gets ready for sleep. Once it gets into the blood melatonin goes to all parts of the body.

- **How does food influence health and character:**

All creation, including food, is composed of three subtle qualities (gunas): elevating, activating, and darkening. In Sanskrit, these qualities are called *Sattwic*, *Rajasic* and *Tamasic*. When we eat or surround ourselves with one of these qualities, our consciousness is drawn in that direction.

Any type of food has 3 types of quality (**Sattwa** = Goodness, **Rajas** = Passion, **Tamas** = Darkness, inactive).

- **Sattwic: Elevating**

Means balanced, harmony, purity, health and wellbeing. Sattwaguna is the positive quality, drawing us toward goodness, truth, purity and spirituality. Foods that are natural, calming, or cleansing are sattwic, which increase life, vitality, purity, strength, health, and joy. These include raw fruits and vegetables, nuts and seeds, as well as water, air and sunlight. They

foster within us such qualities as expansiveness, intelligence, creativity, love, sympathy, calmness, patience, devotion and truthfulness.

- **Rajasic: Activating**

Means activity, readiness, stress and anger. Rajoguna is the neutral quality—i.e, not necessarily either “good” or “bad.” It is, however, activating, creating constant activity and motion. Foods that are cooked, spiced, stimulating or gourmet tend to be rajasic, as does food that is excessively hot, bitter, sour, fatty or salty. Naturally rajasic foods include lamb, poultry, fish, whole grains, lightly cooked vegetables and fruits, onions, garlic, eggs, coffee, tobacco, refined sugar, soft drinks, fats, and oils. They lead us toward such "movement-oriented" qualities as ambition, curiosity, restlessness, impulsiveness, over-seriousness, or being demonstrative.

- **Tamasic: Darkening**

Means lethargy, dullness, laziness, inertia, ignorance. Foods that are overcooked, spoiled or unwholesome are tamasic. Tamasic foods include alcoholic beverages, moldy cheese, deep fried food, dried meats, very hot spicy foods, and foods that are over processed, chemicalized, canned or fermented. Tamasic foods lead us toward dullness, laziness, anger, negativity, covetousness, deceit, lust, and body consciousness.

Material foods impress the mind with certain good or bad qualities. And people's thoughts, actions, and health generally are determined by the foods they eat. We need to choose, those material foods which emit and lodge spiritual vibrations in man's mind and brain.” If we eat food with the right energy, it will affect our consciousness favorably.

One’s diet should be confined to foods which are easily converted into energy. This means pure, natural foods that promote good health and optimum vitality. Even fresh foods, however, have varying effects on our consciousness. We should follow a diet that promotes harmony rather than stimulation, one that keeps the nervous system calm and peaceful, and fills the body with energy, vitality and strength (i.e. a diet that includes foods with both Sattwic & Rajasic vibrations). We need to balance our need to fulfill worldly duties (Rajas) with the need to keep the breath calm for meditation (*Sattwa*)

We are all made up of different combinations of each Guna, but at certain times of your life, one Guna will be dominant. Harmonizing oneself with this fact can be profoundly empowering. No man is completely -ve / +ve. Man is a combination of the habits and mind of all living beings. Fear, anger, curiosity produces many changes in attitude, appearance, and other factors because of the adrenal glands situated just above your kidneys are absolutely vital to your wellbeing. They play a hugely important role in producing the hormones that we need, particularly during times of stress. When under stress, our brains send a signal to the adrenal glands which react instantly by releasing these stress hormones. Among other things, they slow down our digestion, increase our awareness and divert blood flow to important areas like our brain and muscles. These hormones when mixed with blood in sufficient quantity will produce a toxic resulting shivering, color change in the body, loosing temper, increasing heartbeat, fast breathing, sweating etc. When our cortisol levels (cortisol helps us meet life’s challenges by converting proteins into energy, releasing glycogen and counteracting inflammation) stay elevated, it interfere with many functions in our body, including immune function, digestion, sleep and even the ability to produce other essential hormones such as estrogen, progesterone, testosterone and thyroid hormones. This can lead to high blood pressure, high blood sugar, excess abdominal fat, and

inflammation. In the meantime, our health is compromised, along with our moods, and even our sex drive.

- **Dress:**

The right clothes can make you feel better about yourself, even smarter, but the wrong clothes can in some cases make you feel pain and even make you sick. As season changes, our body's metabolic processes also accordingly changes. Hence, it is necessary to know that what should we eat and wear during these seasons. In order to maintain our health we should wear clothes which are suitable for our climate. In summer, we should wear thin and loose cotton clothes. In winter, to bring warmth to our body we should wear warm woolen clothes like sweaters, shawls, blankets, caps, mufflers. All these clothes protect the body from cold and Hypothermia. Try to wear light color dress as white color reflects sunlight and dark colour absorbs more sunlight. Some Energy Points (*Chakrs*) are situated in our spinal cord needs different colours present in the sunlight for its well performance hence to absorb max. Sunlight to our body it is good to wear white coloured dress are light coloured dress.

- **Habit:**

Good habits help to keep our body strong and healthy. Keeping a regular and consistent sleep schedule helps your body get into a natural rhythm. Go to sleep and wake up at the same time each day. By doing so you will begin to naturally fall asleep and wake up at the same time each day. Waking up will feel more natural. In addition, it will help you fall asleep at a more regular schedule. A person who is interested in preserving the health and longevity should get up early in the morning in *Brahma-muhurta*. **Brahma muhurtai**s the second last muhurta before sunrise, which is one hour thirty six minutes before sunrise. *Brahma* means knowledge. The time apt for perceiving knowledge is known as **Brahma muhurta**. When you wake up, roll to your right side and get out of bed because at a lower level of metabolic activity, if you suddenly roll to your left, you will put pressure on your cardiac system. Slowly wake up and sit and move your hand, legs and head to both sides. Take a deep breath and fill your lungs with air. Rub your hands together and place your palms upon your eyes. There is a heavy concentration of nerve endings in your hands. If you rub your palms together, all the nerve endings are activated and the system comes awake immediately. Stretch deeply to wake up your limbs. Your heart is not located half-way down, it is placed three-fourths of the way up because pumping blood up against gravity is more difficult than pumping it down, or parallel to earth. The blood vessels which go upward are a finer arrangement compared to those going down. As they go up into the brain, they are almost hair-like, to such a point that they cannot even take one extra drop. If one extra drop is pumped in, something will burst and you will have a hemorrhage. When the body is positioned horizontally, you can immediately make out that your pulse rate drops. The body makes this adjustment because if blood is pumped at the same level, too much will go into your head, causing damage. Now, if you place your head to the north and stay that way for 5 to 6 hours, the magnetic energy pull will cause pressure on your brain. If you are beyond a certain age and your blood vessels are weak, you could have hemorrhages and paralytic strokes. Or, if your system is sturdy and these things don't happen to you, you could get up agitated because there is more circulation in the brain than there should be when you are sleeping.

After waking having water empty stomach is a good way to purify your internal system. Drinking water in the morning protects and hydrates our vital organs and makes them

healthy and maintains their functioning. When you drink water first thing in the morning on a daily basis, you help balance your body's lymph system. Lymph glands found in your lymph system fight infections helping you to perform your daily activities. They also balance the fluids in your body. Drinking water on an empty stomach helps in correcting bowel movement, which may prevent constipation, bad digestion and intestinal infections. Drinking water cleans your body, keeps your gut healthy, fight infections and keeps skin healthy. A few *Tulsi* leaves dropped in drinking water can purify and kill germs. Soak some Indian gooseberries in water overnight. In the morning, crush the fruits in the solution, strain the liquid and drink it. Follow this procedure on a regular basis to lose weight and reduce obesity.

Pranayama (Breathing) Exercise provides freedom from negative and harmful mental conditions like anger, depression, lasciviousness, greed for money, arrogance etc. It is better to avoid food containing fat, by people who are not involved in hard work and unmarried girls. Avoid taking antibiotics for pain relief. More intakes of Ayurveda medicinal plants are beneficial to get relief from many big diseases.

Cleanliness, Exercise, Rest

Cleanliness helps to prevent disease, and it also helps to give us a good appearance. Healthy living depends upon the practice of a few simple principles of health and hygiene rules. It has been rightly remarked that healthy body is the means of achieving the highest goal of life. Hence we cannot ignore the importance of personal cleanliness and personal hygiene in our life. It is a good practice to have an urge for excretion in the morning hours. Hands should be washed with soap in order to avoid any types of ailment, because germs may remain hidden beneath dirty nail. Routine washing hands before taking food or drink is necessary. Brush your teeth, after that scrape your tongue with a scrapper who is not sharp and gargle your mouth with plenty of water to remove debris of **Streptococcus** and bad taste in the mouth. Besides this, regular exercise, proper rest and sleep are also equally important for personal health- heart and lungs healthy. An ideal form of exercise will work all the muscles of the trunk, neck and limbs, and will cause full movements of all the joints in their different parts. Exercise provides an outlet for emotional tension and promotes self-confidence. Whereas, lack of exercise causes ill health in many ways. There may be loss of appetite and constipation. Similarly, sleep is an important as food. This is the only periodical rest of both the mind and the body. It restores energy after getting rid of fatigue. The amount of sleep varies with age, type of work and individual habits. In tropical countries eight to ten hours sleep is necessary. But, we should not sleep just after meals. It is better to walk for a few minutes especially after night meals. In fact personal hygiene deals with matters pertaining to the health of the individual who is himself responsible to preserve and improve the health of his body and mind. However, to live healthy every individual should be conscious of their personal health and physical changes.



**Aptitude, Motivation
And
Personality Development**

Aptitude and Power of Sub - Conscious Mind

Vipinkumar .V.P

Principal Scientist, SEETD, CMFRI

Email: vipincmfri@gmail.com

The major goal of the session is to highlight the significance of aptitude development among the trainees and the use of sub conscious mind as a powerful tool for self development.

Key Concepts: Aptitude, Skill, Talent, Attitude, Conscious and Sub-conscious mind, Visualization, Autosuggestion. An aptitude is a component of a competency to do a certain kind of work at a certain level, which can also be considered "talent". Aptitudes may be physical or mental. Aptitude is developed knowledge, understanding, learned or acquired abilities (skills) or attitude. The innate nature of aptitude is in contrast to achievement, which represents knowledge or ability that is gained through learning. Often it is difficult to set apart an outstanding performance merely because of talent or simply because of hard training.

Aptitude Tests

Grouped according to the type of cognitive ability.

Fluid Intelligence: The ability to think and reason abstractly, effectively to solve problems and think strategically. It's more commonly known as 'street smarts' or the ability to 'quickly think on your feet'. An example of what employers can learn from your fluid intelligence is your suitability for the role for which you are applying.

Crystallized Intelligence: The ability to learn from past experiences and to apply this learning to work-related situations. Work situations include producing and analyzing written reports, comprehending work instructions, using numbers as a tool to make effective decisions, etc. Theory of multiple intelligences. Combined aptitude and knowledge tests: Tests that assess learned skills or knowledge are frequently called achievement tests.

Relevance of subconscious mind

It is an unequivocal proposition to proclaim that 'with bad attitude we can never have a positive day, and with positive attitude, we can never have a bad day'. It essentially depends on the mind- set of a human being. There is distinct demarcation between the conscious and sub-conscious mind of a person. The conscious mind is the part of our mind that is responsible for logic and reasoning. It also controls all the actions that we do on intention while being conscious. For example, when a person decides to make any voluntary action like moving his hand or leg it is done by the conscious mind. So whenever we are aware of the thing we are doing, we can be confident that we are doing it by our conscious mind. The conscious mind is also known to be the gate keeper for the mind. In the mean time, the subconscious mind is the part of the mind responsible for all involuntary actions. Our breathing rate, heart beats and emotions are



controlled by the subconscious mind. It would be pertinent to have a look into the power of subconscious mind and explore its immense potential and possibilities as a character building tool.

All of us are born to lead successful lives but our conditioning actually leads us to failure. We are born to win but are conditioned to lose. Most often we hear statements like, that person is just lucky, he touches dirt and it turns to gold or, he is unlucky, no matter what he touches, it turns to dirt. This is not at all true. If we make a real practical analysis, it can be observed that the successful person is doing something right in each transaction and the person who fails is repeating the same mistake in each transaction. In the real sense, practice does not make perfect. Only perfect practice makes perfect. Practice makes permanent whatever we do repeatedly. Some people keep practicing their mistakes and they become perfect in those mistakes. So their mistakes become perfect and automatic. The real professionals make things look easy because they have mastered the fundamentals of whatever they do. Many people do good work with ulterior motives like promotions in mind. But the person to whom smart work becomes a habit quite deserves. Cultivating a habit is like plowing the field. It requires time. It has to grow from within. Habits actually generate other habits. Inspiration is what gets a person started, motivation is what keeps him on track and habit is what makes it automatic. The ability to show courage in the face of adversity; show self-restraint in the face of temptation; choose happiness in the face of hurt; show character in the face of despair; see opportunity in the face of obstacles. Strictly speaking, these traits are not coincidences; they are the result of constant and consistent training, both mental and physical. In the face of adversity, our behavior can only be the one we have practiced, regardless of whether it is positive or negative. When we practice negative traits such as hatred, dishonesty or cowardice in small events, hoping to handle the major ones in a positive way, the latter wouldn't happen because that is not what we have practiced. When we permit ourselves to tell a lie once, it is a lot easier to do it a second and a third time until it becomes a habit. Success lies in the philosophy of sustain and abstain. Sustain what needs to be done and abstain from what is detrimental until this becomes habitual. It is a reality that human beings are generally more emotional than rational. Honesty, integrity, probity and uprightness are the results of our belief system and practice. Anything we practice long enough becomes ingrained into our system and becomes a habit. A person who is honest most often gets caught the first time he tells a lie. Whereas a person who is dishonest most often gets caught the first time he tells the truth. Honesty and dishonesty to self and others both become habits. Our thinking pattern becomes habitual. We form habits and habits form character. Before we realize that we have got the habit, the habit has got us. We need to form the habit of thinking right. There is frequently used quotation in Behavioral sciences that, "Our thoughts lead to actions, actions lead to habits, and habits form character and our Character ultimately leads to our destiny".

It is a truth that most of our behavior is habitual. It comes automatically without thinking. The sum total of our habits is our character. If a person has positive habits, he is considered a person possessing positive character. Similarly a person with negative habits is a possessing a negative character. Habits are a lot stronger than logic and reasoning. Habits start by being too weak to be felt, and end up becoming too strong to get out of. Habits can be developed by default or determination. That is the major essence of our parents' advice in our early childhood, to cultivate good habits because habits determine our character.

How our Habits are cultivated?

Anything we do repeatedly becomes a habit. We learn by doing. By behaving courageously, we learn courage. By practicing honesty and fairness, we learn these traits. By practicing these traits, we master them. Similarly if we practice negative traits such as dishonesty, unjust behavior, or lack of discipline, that is what we become good at. Attitudes are the reflections of habits. They are behavioral patterns. They become a state of mind and dictate our responses. It is interesting to observe that most of our behavior comes as a result of conditioning-it is habitual. If we want to do anything well, it must become automatic. If we have to consciously think about doing the right thing, we will never be able to do it well. That means we must make it a habit. We are all being conditioned continuously by the environment and the media, and we start behaving like robots. It is our responsibility to condition ourselves in a positive manner. It can also be observed that, the trained classical musicians often practice the basics of '*sa ri ga ma*' and in martial arts even the black belts use to practice the block punch, the basics, because if they needed to use these skills, they should come automatically. Because good habits are hard to come by but easy to live with. Bad habits come easy but are hard to live with.

Conditioning of habits

Just think of the mighty elephant who can lift in excess of a ton of weight with just its trunk. How do the people condition the elephant to stay in one place with a weak rope and a stake? The elephant, when it is a baby, was tied to a strong chain and a strong tree. The baby was weak but the chain and tree were strong. The baby was not used to being tied. So it kept tugging and pulling the chain, but all were in vain. On a fine day, it realized that all the pulling and tugging will not help. It stopped and stood still. Then it was conditioned. When the baby elephant becomes the mighty giant elephant, he is tied with a weak rope and a small stake. The elephant could, with one tug, walk away free, but it goes nowhere, because it has been conditioned. Human beings are constantly being conditioned, consciously or unconsciously, by exposure to: the kind of organization we keep, the kind of literature we read; the kind of films and TV programs we watch; the kind of music we listen to; etc. Insanity is defined as doing the same thing over and over and expecting different results. If we keep doing what we have been doing, we will keep getting what we have got. The most difficult thing about changing a habit is unlearning what is not working and learning positive habits.

The effect of 'GIGO' principle

It is quite fascinating to look upon the computer phrase GIGO (garbage in, garbage out) Negativity in; negativity out. Positivity in, positivity out, Good in, Good out. Our input equals our output. Our subconscious mind does not discriminate. Whatever we choose to put into our subconscious mind it will accept and our behavior will reflect that accordingly. The television has a considerable impact on influencing our morals, thinking, and culture, for good or bad. TV, while bringing in substantial useful information, has also made an outstanding contribution to degrading our tastes, corrupting our morals, and increasing juvenile delinquency. That is a pretty high price for so-called free speech or free television. Advertisers are good at conditioning their audience. Obviously, advertisements sell products, otherwise why would companies advertise? When we watch TV or listen to a radio advertisement, our conscious mind is not listening, but our subconscious is open and we receive whatever is being dumped in. We can never argue with the TV. When we watch

the movies, we laugh and we cry. It is not because they put something in the seats. The emotional input has an immediate emotional output. When we change the input the output automatically changes.

The relevance of conscious and sub-conscious mind

Looking the true perspectives of the introductory remarks of this article on the conscious and sub-conscious mind, it was already revealed that, our conscious mind possesses the ability to think. It can accept or reject. But the subconscious mind only accepts, it makes no distinction regarding input. If we feed our mind with thoughts of fear, doubt, and hate, the auto-suggestions will activate and translate those things into reality. The subconscious mind is the data bank. Of the two, the subconscious mind is more powerful. The subconscious is like the automobile while the conscious is like the driver. The power is in the automobile but the control is with the driver. The subconscious mind can work for or against us. It is not rational. When we are not successful we need to reprogram the subconscious. The subconscious mind is like a garden; it doesn't care what you plant. It is neutral; it has no preferences. But if we sow good seeds and grow good plants, we will have a good garden; otherwise we will have a wild growth of weeds. Speaking a step further, even when we sow good seeds and grow good plants, weeds still grow and the weeding process must continue constantly. The human mind is also is exactly like this. The positive and negative thoughts can't occupy the mind simultaneously. Big companies spend millions of rupees for a 30 second advertisement, during a major event. Obviously, they do get results. We see an advertisement, for a particular brand of toothpaste or hair oil and we go to the supermarket and buy that brand. We don't want any tooth paste or hair oil or soft drink but only that brand. Why? Because, we are programmed and becoming liable to act accordingly. In order to succeed, it is inevitable that we need to get programmed in a positive way.



Getting programmed ourselves

We can think in terms of learning how to drive a car. There are four stages: The first stage is 'unconscious incompetence stage'. This is a stage where we don't know that we don't know. The person doesn't know what it is to drive a car (unconscious) nor can he drive a car (incompetence). This is the stage of unconscious incompetence. The second stage is called 'conscious incompetence stage'. This is the stage where the person grows and becomes conscious of what he is to drive a car but cannot drive one himself, so he is consciously incompetent. But then he starts learning and now comes a third stage which is called 'conscious competence stage'. Now he can drive a car but has to think every time to do it. So with all the conscious thought and effort, the person is competent to drive a car. The fourth stage is called 'unconscious competence stage.' It comes when the person has practiced consciously driving the car so much that he doesn't have to think. It becomes an automatic process. He can talk to people and wave to others while driving. That means he has reached the stage of unconscious competence. At this level, we don't need the concentration and thinking because the behavioral pattern has become automatic. This is the level that we

want all our positive habits to reach. Unfortunately, we have some negative habits too which are at the unconscious competence stage and are detrimental to our progress. Some conspicuous international studies have shown that approximately 90% of all smokers became smokers by the age of 21. If a person has not become a smoker by the age of 21, then there is a very small chance that that person will ever become a smoker. This only proves that smoking is conditioned subconsciously and our conditioning starts at a young age.

A vacuum gets abhorred by nature

We have to realize the importance of keeping us involved in positive activities. Otherwise they would be attracted to the negative because nature abhors a vacuum. Either, we have a positive or we have a negative; there is no possibility of neutral or passive ground here. Character building becomes a habit. If we want to build a pleasing personality, we have to examine our habits closely. What begin as an occasional indulgence turns into a permanent flaw. We have to examine ourselves with the queries such as 'Do I let the quality of my work deteriorate?', 'Do I indulge in gossip?', 'Are ego and envy the constant companions of me?' and 'Is empathy in short supply?' We are the creatures of habits. It is good that it is that way because if we have to constantly think before doing anything, we would never get anything done. There is just not enough time. We control our habits by exercising control and self discipline over our thoughts. It is high time that we need to harness the power of the subconscious mind. We need to cultivate the habits during childhood which build character in adulthood. Plant the right things early in life. But it is never too late to start. Every exposure to a positive or negative makes a difference. Learning new habits takes time but positive habits, once mastered, give new meaning to life. Optimism or pessimism is a habit. Habits are a matter of the pain and pleasure principle. We do things either to avoid pain or to gain pleasure. So long as the gain is more than the pain, we continue with the habit. But if the pain exceeds the gain, we drop it. For example, when the doctor tells the smoker to stop, he replies "I can't! It is a habit and I enjoy it!" and he goes on smoking. Here the pleasure is greater than the pain. Until one day, he is faced with a major medical problem, and the doctor says "You better stop smoking immediately if you want to live" and he stops. Here the pain is greater than the pleasure.

Why we impose resistance to change

Even when people recognize or become aware of their negative habits, most probably they don't change. This is essentially because they refuse to accept responsibility. Besides, the pleasure of continuing is greater than the pain. They may lack the desire to change, discipline to change, the belief that they can change and the awareness for the need to change. All these factors prevent us from getting rid of our negative habits. We all have choices. We can ignore negative behavior and hope it will go away-the ostrich approach-or face up to it and overcome it for life. Behavior modification comes from overcoming irrational fears and getting out of the comfort zone. Remember, fear is a learned behavior and can be unlearned. These excuses are generally the most common explanations for not changing negative habits such as: 'I have always done it that way', 'I have never done it that way', 'that is not my job,' 'I don't think it will make any difference' and 'I'm too busy.'

Positive habit formation

The paradigm shift for a change is imperative right now. It is never too late to change. Regardless of our age or how old the habit has been, this can be done by awareness and using techniques that modify our behavior. Often we hear that, we can't teach an old dog new trick. We are human beings, not dogs. Neither are we performing tricks. It is possible that we can unlearn self-destructive behaviour and learn positive behaviour. The secret of successful people is that they form the habit of doing things that failures don't like to do and won't do. When we think about the things that failures don't like to do, it can be realized that, they are the same things that successful people don't like to do but they do them anyway. For example, failures don't like discipline, hard work, or keeping commitments. Successful people also dislike discipline, hard work (an athlete doesn't like and want the discipline to get up and train every day but he does it regardless), but they do it anyway because they have formed the habit of doing things that failures don't like to do. All habits start small but end up eventually being very difficult to break. Attitudes are habits and can be changed. It is a question of breaking and replacing old negative habits with new and positive ones. It is easier to prevent bad habits than to overcome them. Good habits come from overcoming temptation. Happiness and unhappiness are habits. Excellence is the result of repeated conscious effort until it becomes a habit. It needs sufficient practice to become a habit. We all have some negative habits that are pulling us down. We have to analyze ourselves by sparing some time alone keeping the mind undisturbed to make a list of all the negative habits those are pulling us down.

Forming positive habits and Auto-Suggestions

The most significant part of this article to understand the relevance of what an auto-suggestion is. An auto-suggestion in simple terms is a statement made in the present tense, of the kind of person we want to be. Auto-suggestions are like writing a commercial to ourselves about ourselves for ourselves. They influence both your conscious and subconscious mind which in turn influences attitude and behavior. Auto-suggestions are a way to program our subconscious mind. They can be either positive or negative. Examples of negative auto-suggestions are: 'I have a poor memory', 'I get angry easily', 'I am tired', 'I'm not an athlete' 'I'm not good at Maths' etc. When we repeat to ourselves a negative auto-suggestion, our subconscious mind believes it and it becomes a self-fulfilling prophecy and starts reflecting in our behavior. For example, when I am talking to someone and I forget what I had to say, I tell the other person, "See, I forgot what I wanted to say. I have such a poor memory."

Auto-suggestion is a powerful self-help technique. Long before affirmations and the 'Law of Attraction' became common talk; auto-suggestion was used for many purposes, either consciously or unconsciously. The subconscious mind receives all kinds of information from the conscious mind. These bits of information come through our five senses and are related to how we see and perceive the world around us. When these experiences are repeated continuously, they sink into the subconscious mind and become an intrinsic part of who we are, what we believe and how we behave. We can condition our subconscious mind to hold certain beliefs those enhance our living experience; thus, through repetition, they become the reality we experience on a regular basis. The auto-suggestion technique when learned and applied correctly has the power to influence the subconscious mind according to our instructions. In other words, auto-suggestion helps the subconscious mind believe a specific affirmation with an intended goal. An interesting fact is that auto-suggestion goes one step beyond positive affirmations. This is because affirmations are broader in structure while the auto-suggestion technique bypasses our thinking mind and awareness of our material body

and goes to affirm our unique human spirit identified with the words: 'I AM.' This fact alone makes it a more powerful statement directed precisely to the subconscious mind. Here is an example for comparison. The first statement is a positive affirmation; the second is an auto-suggestion: "I enjoy happiness and wealth" and "I AM happy and wealthy". By reading both statements out loud, we can feel the difference while stating out loud "I AM". Use of "I AM" to state our suggestion in the present moment and in the first person. There is something intrinsic and very powerful in those two words. It centers us right at that precise moment. As stated above, one simple example of this is "I AM happy". When this self affirmation is stated on a regular basis, it becomes an auto-suggestion which eventually sinks into the subconscious mind where it will be taken at face value. Moreover, this practice will help us to focus on happy moments on a more regular basis versus the sad, anxious driven or depressed moments we may be encountering in our life.

An interesting thing to notice is that those sad, anxious moments don't just disappear; however, our subconscious mind is being trained to focus on "happy" moments instead; thus, bringing more of those experiences to our life. People, who come into contact with crime the first time, hate it. With constant exposure, they get used to it and if the exposure is long enough, they may embrace it. And they become creators of their own misfortune. When a person repeats a belief long enough, it sinks into the subconscious and becomes reality. A lie repeated long enough becomes accepted as the truth. Positive auto-suggestions are being widely used in the field of sports and medicine. Why do we make positive statements? Because we want to create a picture in our minds of what we want to have rather than what we don't. Any picture that we hold in our mind becomes reality. Auto-suggestions are a process of repetition. A person who repeats a statement long enough lets it sink into the subconscious mind. For example, I am relaxed. I am cool, calm and collected. Auto-suggestions should not be practiced in a negative way 'I am not' tense, I won't be angry etc. Positive statements are made because we think in pictures and not in words. If we say ourselves "don't think of a red elephant," the first picture that comes to our mind is that of a red elephant. If we think of "mother," the thing appearing in our mind is a picture of our mother. We never start spelling m-o-t-h-e-r. That means, when a negative word comes in the auto-suggestion, it forms a negative picture which we want to avoid. There is also a necessity to put it in the present tense. Because, our mind can never tell the difference between a real experience and an imagined one. For example, when the parents are expecting their child to come home at 9 p.m. but the kid is not at home by 1 a.m. then what is going through the parents' mind? They are probably hoping everything's okay. "I hope the kid didn't get into an accident." But it is definite that, their blood pressure level goes up! This is an imagined experience. The reality could be that the kid might be having fun at a party, and is irresponsible, and did not get home when he was supposed to. Let's look into the reverse scenario. Suppose the kid was very responsible and was actually coming home at 9 p.m. but got into an accident, and still didn't get home at 1 a.m. then also the parents' blood pressure naturally goes up! The first scenario was an imagined experience. The second one was a real experience but the body's response in both cases was identical. Our subconscious mind cannot distinctly differentiate between a real and an imagined experience.

Tuning up the subconscious mind with auto-suggestions

It is quite necessary to think how we can use auto-suggestions to eliminate negative habits and develop positive ones. We have all used auto-suggestions unconsciously. For example,

when we have to catch an early morning flight, we automatically tell ourselves that we have got to get up. And invariably, we do (sometimes, even without an alarm clock). A prepared subconscious mind has hunches and gut feelings. Auto-suggestion is a way to program and condition our mind to make a statement into a self-fulfilling prophecy. Auto-suggestion is a repetitive process through which we feed our subconscious with positive statements which translate into reality. Repetition alone is not enough, unless it is accompanied by emotions and feelings. Auto-suggestions without visualization will not produce results. The first time, when our mind receives auto-suggestion, it rejects it. Because it is an alien thought, contrary to our belief system. Success would depend on our ability to concentrate and repeat the process.

Practical Session

The practical session was focusing attention on systematic Steps to follow on auto-suggestions

The first requisite to follow an auto-suggestion is going to a spot where we won't be disturbed and writing down peacefully our suggestions. The self-discipline to finish what one starts is imperative. Auto-suggestion is a powerful character building tool. Translating auto-suggestion into reality requires the following steps:

1. Making a list of our auto-suggestions in the present tense.
2. Repeating auto-suggestions at least twice a day: first thing in the morning and at the end of the day. This is because in the morning, the mind is fresh and receptive and at night you deposit the positive picture into your subconscious overnight.
3. Repeating it consecutively for 21 days until it becomes a habit.

Auto-suggestions alone will not work. They need visualization. Let's come to final paradigm of visualization.

The Significance of Visualization

Visualization is the process of creating and seeing a mental picture of the kind of thing we want to have or do, or the kind of person we want to be. Visualization goes hand in hand with auto-suggestion. Auto-suggestion without visualization is mechanical repetition and will be ineffective. In order to see results, auto-suggestion must be accompanied by feelings and emotions (visualization). The important caution regarding the auto-suggestion is that it may not be acceptable to the mind the first time you do it because it is an alien thought. For example, if for the past few decades I have believed that I have a poor memory and now all of a sudden, I tell myself, "I have a good memory!", my mind will throw it out, saying, "You are a liar! You have a bad memory!" Because that is what it has believed up to this point. Behavioral experts through experiences and observations proclaim that it will take 21 days to dispel this notion. Because it takes a minimum of 21 days of conscious, consecutive practice to formulate a habit. The big question which may arise here is: Is 21 days of conscious effort a heavy price to pay to change a lifetime for the better? It all sounds simple but it is not easy.

Immense examples have been observed in many case studies, how auto-suggestions and the subconscious mind have been utilized to the fullest potential as a powerful character building tool. It is never too late or better late than never for a positive change by realizing the power of subconscious mind and auto-suggestions.

Motivation and Effective Ways of Self-Motivation

Binu Kaliyadan

Trainer, I Corporate Solutions

Email: binukaliyadan@yahoo.com

"All of the incredible business successes that have ever existed first existed in the minds of those who created them."- Unknown.

How to Get Motivated

Motivation is literally the desire to do things. It's the difference between waking up before dawn to pound the pavement and lazing around the house all day. It's the crucial element in setting and attaining goals – and research shows you can influence your own levels of motivation and self-control. So figure out what you want, power through the pain period, and start being who you want to be.



Self-Motivation

Ability to do what needs to be done, without influence from other people or situations. People with self-motivation can find a reason and strength to complete a task, even when challenging, without giving up or needing another to encourage them.

i) Intrinsic Motivation

Stimulation that drives an individual to adopt or change a behavior for his or her own internal satisfaction or fulfillment. Intrinsic motivation is usually self-applied, and springs from a direct relationship between the individual and the situation

ii) Extrinsic Motivation

Drive to action that (as opposed to intrinsic motivation) springs from outside influences instead of from one's own feelings

How to Maintain Motivation

Motivation determines what and how you do things.

Many times, having a clear purpose in mind and keeping an open and good attitude can be great ways to stay motivated.

Purpose: One important part of motivation is purpose. It does not matter what you need or want to do, you should understand why you are doing it. Purpose gives you a clear mental state and helps you look at your task in an objective manner. If something does not help you reach your end goal, then it should not be one of your goals.



List: Make a list of your goals, chores or jobs. This will help you stay focused during the day and know what you still need to accomplish. As you complete one task, mark it off. Seeing the list of things you have done, can help you feel like you have met your goals and motivate you for the next day.

Don't procrastinate: Avoiding a chore or job does not help you reach your goal. In order to stay motivated, you must work on your job to finish it. Many times, those who procrastinate will not get that job done at all or will feel rushed at the last minute.

Talk about it: Keeping your concerns or feelings inside can lead to reduced productivity. Talk about what is on your mind to a friend, a spouse or even in a journal. Many moms see the benefit of posting something on social sights as a way of expressing concerns with others.

Exercise: Exercise is a great way to help you reach your goals, even if it is a little amount each day. A good, brisk walk around the block or a quick swim in the pool can help clear your mind and think well during the day. Exercising can give you energy, too. You will feel better and be more motivated to get those tasks done.

Eat right: Eating right can also help you stay motivated. Junk food can make you feel sluggish and instead of conquering those jobs, you will really want an afternoon nap. Eat a healthy breakfast and drink plenty of water. Vitamin supplements can also help keep you energized throughout the day.

Expect Imperfections: You will not accomplish all of your goals every day. You should expect some imperfections. In addition, no one should be "superman". No one is perfect and if you expect perfection in yourself and in others, it will be near impossible to reach your goals. It is also ok to say no or to ask for help when you need to

Do Not Stress: Stress can sometimes motivate us to do things. However, putting yourself under stress each and every day is not healthy, nor will it inspire you. Stress can put you in a greater danger for depression and other health issues

Get Adequate Rest: Sleep and adequate rest is important thought. With a good night's rest, you will feel more motivated during the day. If you cannot seem to make it to bed at a decent hour, try to rest during the day while the kids are napping or if you work, try to take a quick rest during your lunch break.

Reward Yourself: Rewards can be a huge motivator for anyone. Even if you reward yourself with a new book or thirty minutes of quiet time, you will be more likely to reach your goals with rewards

Activity Corner

An internet Story

Once upon a time there was a bunch of baby frogs participating in a competition. The target was to get to the top of a high tower. A crowd of people had gathered to observe the race and encourage the participants..... The start shot rang out Quite honestly:None of the onlookers believed that the baby frogs could actually accomplish getting to the top of the tower.

Words like:

"Åh, it's too difficult!!!"

"They'll never reach the top."

or: "Not a chance... the tower is too high!"

One by one some of the baby frogs fell off...

...Except those who fastly climbed higher and higher..

The crowd kept on yelling:

"It's too difficult. Nobody is going to make it!"

More baby frogs became tired and gave up...

...But one kept going higher and higher.....

He was not about giving up!

At the end everybody had given up, except the one determined to reach the top!

All the other participants naturally wanted to know how he had managed to do what none of the others had been able to do! One competitor asked the winner, what was his secret?

The truth was.....The winner was deaf!!!!

The lesson to be learned

Don't ever listen to people who are negative and pessimistic...

...they will deprive you of your loveliest dreams and wishes you carry in your heart!

Always be aware of the power of words, as everything you hear and read will interfere with your actions!

Therefore: **Always Stay...POSITIVE!**

And most of all: Turn a deaf ear when people tell you, that you cannot achieve your dreams! Always believe: You can make it!

Attitude and Attainment for Personal Effectiveness

Vipinkumar .V.P

Principal Scientist, SEETTD, CMFRI

Email: vipincmfri@gmail.com

Relevance

The major goal of the session is to enlighten the most essential requisite of positive attitude development among the trainees and thereby bringing about attainment of personal effectiveness with a successful life.

Key concepts dealt: Attitude, Behaviour, and Effectiveness.

Effectiveness refers to 'doing the right thing' and efficiency refers to 'doing things rightly'. Both appear to be synonymous but possess a lot of differences. Any way for human beings, we normally use the terminology of effectiveness. Here are some glimpses of personal effectiveness. Have a glance of the following remarks and the corresponding persons who really created a difference and made their presence remarkable due to their personal effectiveness.

- *A small boy-the fifth amongst the seven siblings of a poor father, as selling newspapers in a small village to earn his living. He was not exceptionally smart at school but was fascinated by religion and rockets. The first rocket he built crashed. A missile built crashed multiple times and he was made a butt of ridicule. He was the person to have scripted the space Odyssey of India single handedly and later who became the honorable Indian President..... He was **Dr. A.P.J Abdul Kalam**.*

- *A man failed in business at age 21; was defeated legislative race at 22; failed again in business at 24; Overcame the death of his sweetheart at 26; Met with a nervous breakdown at 27; Lost congressional race at 34; Lost senatorial race at 45; failed in vice-president contestation at 47; Lost senatorial race at 49; finally won to be President of United States at 52and he was**Abraham Lincoln***

- *A candidate for a news broadcasters post was rejected because of his voice. He as also told that with his obnoxiously long name, he would never be famous.....He is **Amitabh Bachan***

- *When a gentleman invented a communications machine in 1876, it did not ring off the hook with calls from potential backers. After making a demonstration call, President Rutherford Hayes said, "That's an amazing invention, but who would ever want to see one of them? He said this to a person who made maximum inventions in the world and was none other than.....**Alexander Graham Bell***

- *A 4 year old girl, the 20th of 22 children, contracted double pneumonia and scarlet fever at a very early age, which paralysed her left leg. Thereafter at 9 years of age she removed her leg braces and started walking without them. At 13, she decided to become a runner but kept failing miserably in all races that she entered in. She kept trying in spite of several detractors and finally started winning every race she entered and became the winner of 3 Olympic gold medals. She is**Wilma Rudolph***

- *A school teacher scolded a boy for not paying attention to his mathematics and for not being able to solve simple problems. She told him that he would not become anybody in life. His mother however*

believed in him and coached him Maths. The boy went on to becomeAlbert Einstein

These above motioned personalities were the ones who never failed, but who never quitted and proved themselves to be personally effective. The average life span of a human being is 70 years i.e. 26, 500 days and in this period he consumes 60 tons of food and he breaths 23,800 times a day on an average. After finishing every breath we have to realize we are approaching graveyard. So can't we think of something productive to be done by creating a difference to improve our personal effectiveness? The most important prerequisite for improving personal effectiveness is the necessity for a self-change.

As we all know, Education is a social process or growth in the senses of producing desirable changes in the behavioral components of human behavior, The behavioral components include knowledge, skill and attitude. For a self-change, 3 things need to be changed inevitably and they are our attitude, thinking and behavior. Components of education are teaching and learning. How we are learning? We know it is by sensory techniques. It has been proved that the comprehension through learning is like this. Reading 10 %, Hearing 20 %, Seeing 30 %, Seeing and Hearing 50 % and Doing 90 %.

How to be positive in a tough work environment

In the surrounding environment, we have to beware of a couple of bullets. They are Negative work environment, other people's behavior, Negative world view, changing environment, past experience and Determination theory. Let's look into each of these bullets.

Negative work environment

In a negative work environment, we can encounter these sorts of experiences.

- Dog eats dog . . . everyone fighting to get ahead
- No one appreciates your contributions
- Too much work . . . not enough help
- Deadlines are unrealistic
- Longer hours . . . additional work
- Budget Constraints
- Competition is eating us alive
- Poor management / direction
- Job insecurity
- Donkey Works

Other people's behavior

We can observe these types of personalities around us. Bulldozers, Complainers, Gossipers, Patronizes, Whiners, Snipers, Backstabbers, Controllers, Snuffers, Exploders, Hypocrites etc. who make out daily routine miserable.

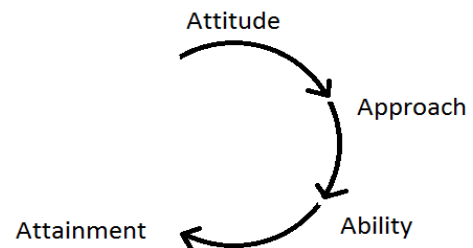
Changing environment

There is a widely accepted quotation that "*The only person who always likes change is a wet baby*". This is essentially because of the following aspects concerned with change. The change challenges our paradigms. It alters the way we think. It makes life more

difficult for a while. It causes Stress. But we have to realize and accept an inevitable truth that Change is an ongoing fact of life.

Past experience

The past experience also might have created a story in our mind. This story will lead to another story and that will lead to another one which in turn makes everything a confusing mesh, which won't make realize the difference between fact and interpretation. Past is only to be refereed for future prospects and never live in the past.



Negative world view

A recent Statistic says crime down 20% in America is being reported up to 600%. Because the trend is to create sensationalisation. Look at what you are looking at! People are bothered on sensational news as the general view of the world itself has become negative. The front page of the newspapers gives the indication that to what extent people are bothered on sensational items.

Determination theory

The determinism theory makes us conclude certain items that it is none of our faults and we find excuses of our own mistakes with justification that those are due to these genetic, psychic or environmental aspects.

GENETIC: My Grandparents did it to me. (Inherited traits)

PSYCHIC: My Parents did it to me. (Upbringing)

ENVIRONMENTAL: My Teacher, My Spouse, My Boss, the Company, the Economy, etc..is doing this to me. (Surroundings)

Life's Little Question

"Are some people just born positive thinkers.....or is it their CHOICE?" We have two luggages here. Our task is to choose the Choose the Right Luggage: We have to either dodge bullets or wear the bullet proof armor. The problem with dodging bullets is 'You're definitely going to get hit! Choice 2 is wearing a bulletproof armor. Wearing the bulletproof armor comes from 'SELF CHANGE'. So while putting on the armor. We have to change 3 Things! Attitude, Behaviour and Thinking.

How to Change Your Attitude

Now comes the relevance of the major crux of the topic: the 'Attitude.' Attitude is the positive or negative affect towards a psychological object. Attitude change happens personally from the inside out. So we have to accept our responsibility that I am responsible for who I am, for what I have and for what I do. Second step is to take control over our ownerships, values, mission and discipline.

How to Change Your Thinking

Changes in thinking come from observing logically in every situation. For that we have to observe our thinking and manage our self-talk. Henry Ford's quotation is 'If you think you can, or you think you can't...you're right'. When you get up in the morning, just feed your sub-conscious mind that, this is going to be a wonderful day!. Automatically it can be ensured that entire activities will lead to a positive mental stage bringing about a fruitful day. Instead, when you get up and feed your sub-conscious mind that this is going to be a crappy day!, entire activities will become negative leading to a totally embarrassing situation.

How to Change Your Behavior

Behaviour changes take true assessment, determination & discipline. For this we have to go for a paradigm shift from the normal reactive behaviour to a proactive/ responsible behavior. Reactive behaviour is just the normal stimulus- response behaviour. But in Proactive behaviour, in between the stimulus and response there is 'our choice'. Untiring perseverance is required to change our habits and behaviour. Four unique human endowments are Self-Awareness, Imagination, Conscience and Independent Will.

Steps towards Changing Behavior

This can be explained with an example of learning Car Driving.

1. Unconscious Incompetence: A boy in his childhood doesn't not what a car is and what driving is. He is unconscious and incompetent to drive a car.
2. Conscience Incompetence: As the boy grows, he knows what a car is. But not competent to drive.
3. Conscience Competence: Slowly when he learns driving skill, he is conscious about car driving and is very careful in driving without any distraction as he is consciously competent.
4. Unconscious Competence: In the final stage after expertise in car driving, he drives systematically while he talks or wave as if he is unconsciously competent in car driving. Out entire deeds and activities should reach to this stage for personal effectiveness to emerge as a new personality.

So influence your environment by adding positive behavior

- Replace the bad habits!
- Spread a SMILE around
- Sprinkle some "positive" on the "negatives"
- Focus on the good of each day
- Stay out of the "feeding frenzies"
- Say "please" and "thank you"
- Practice *EMPATHY*
- Evaluate *YOUR* behaviour
- Never miss an opportunity to complement
- Before you say anything to anyone, ask yourself three things
- Is it true? 2. Is it harmful? 3. Is it necessary?
- Keep promises
- Have a forgiving view of people

- Keep an open mind with changes
- Count to 100 if necessary
- See criticism as opportunity to improve
- Cultivate your sense of humour

Have a look at a very interesting quotation 'Watch your definitions.....they become thoughts, Watch your thoughts..... They become words, Watch your words they become actions, Watch your actions.....they become your destiny.'

The choice is yours, i.e with a bad attitude, we can never have a positive day and with a positive attitude, we can never have a bad day.

Choose POSITIVE Living. When you have two choices in a natural motivator's case study.

"Each morning I wake up and say to myself, I have two choices today. I can choose to be in a good mood or I can choose to be in a bad mood."

"I always choose to be in a good mood."

"Each time something bad happens, I can choose to be victim or I can choose to learn from it".

"I always choose to learn from it."

'Every time someone comes to me complaining, I can choose to accept their complaining or I can point out the positive side of life'.

'I always choose the positive side of life'.

So 'Life is all about choices. When you cut away all the junk every situation is a choice".

- You choose how you react to situations.
- You choose how people will affect your mood.
- You choose to be in a good mood or bad mood.
- It's your choice how you live your life.

I chose it, because I chose itBe happy.....

These positive changes in thinking, attitude and behaviour are inevitable for leadership. Leadership is to be observed in a broader perspective compared to management. Because management consists of planning, organizing, leading and controlling and is obvious that leadership is one of the functions of management. It is the degree to which a person can influence other people's behaviour in a desirable way. Inculcating this leadership quality is of paramount significance for personal effectiveness. For that a paradigm shift to a proactive behaviour is mandatory. In the proactive model, our choice is there between the stimulus and response and this freedom to choose is based on our self-awareness, imagination, conscience and independent will.

Here are some of the habits of highly effective people.

- **Being Proactive:** Proactive people take responsibility for their own lives. They determine the agendas they will follow and choose their response to what happens around them. On the contrary, Reactive people don't take responsibility for their own lives. They feel victimized, a product of circumstances, their past, and other people. They do not see as the creative force of their lives.

- **Beginning with the End in Mind:** These people use personal vision, correct principles, and their deep sense of personal meaning to accomplish tasks in a positive and effective way. They live based on self-chosen values and are guided by their personal mission statement. But those beginning with no end in mind, lack personal vision and have not developed a deep sense of personal meaning and purpose. They have not paid the price to develop a mission statement and thus live life based on society's values instead of self-chosen values.
- **Putting First Things First:** These people exercise discipline, and they plan and execute according to priorities. They also "walk their talk". On the other hand, those putting second things first are crisis managers who are unable to stay focused on high-leverage tasks because of their preoccupation with circumstances, their past, or other people. They are caught up in the "thick of thin things" and are driven by the urgent.
- **Thinking Win-Win:** These people have an abundance mentality and the spirit of cooperation. They achieve effective communication and high trust levels in their emotional bank accounts with others, resulting in rewarding relationships and greater power to influence. But those thinking Win-Lose or Lose-Win, have a scarcity mentality and see life as a zero-sum game. They have ineffective communication skills and low trust levels in their emotional bank accounts with others, resulting in a defensive mentality and adversarial feelings.
- **Seeking First to Understand, Then to Be Understood:** Through perceptive observation and empathic listening, these non-judgmental people are intent on learning the needs, interests, and concerns of others. They are then able to courageously state their own needs and wants. But those seeking first to be understood, put forth their point of view based solely on their auto-biography and motives, without attempting to understand others first. They blindly prescribe without first diagnosing the problem.
- **Synergizing:** Effective people know that the whole is greater than the sum of the parts. They value and benefit from differences in others, which results in creative cooperation and team-work. . Ineffective people believe the whole is less than the sum of the parts which ultimately results in compromise, fight or flight. They try to "clone" other people in their own image. Differences in others are looked upon as threats.
- **Sharpening the Saw:** Effective people are involved in self-renewal and self-improvement in the physical, mental, spiritual, and social-emotional areas, which enhance all areas of their life and nurture the other six habits. Ineffective people fall back, lose their interest, and get disordered and they wear out the saw. They lack a program of self-renewal and self-improvement and eventually lose the cutting edge they once had.

Practical Exercise:

A practical exercise on filling a schedule can be advocated which can make a true assessment of the score on Personal Effectiveness based on the remarks of trainees.

Passion Quotient- The Greatest Secret to Success

Shyam .S.Salim

Principal Scientist, SEETTD, CMFRI

Email: shyam.icar@gmail.com

The world is moving beyond the parameters of Intelligence Quotient (IQ) and Emotional Quotient (EQ) in measuring individuals. The Passion Quotient (PQ) is gaining ground in the current world due to its closeness to measure people having high degree of creativity, innovativeness and leadership traits. PQ brings out best out of the ordinary. While cultured, PQ can be helpful in cultivation of passion and makes a person passionate about doing things more actively and responsively. This book helps in developing a matrix of passion, which an individual can effectively follow in order to set and achieve the goals in his/her professional, entrepreneurial and social life.



Key Concepts

Deep love for your work is called passion, which is the most important strength of human beings and sets apart great from the good ones. Therefore it is not the intelligent quotient (IQ), but your passion Quotient (PQ) that will take you to pinnacle of success. As field marshal Foch said "the most powerful weapon on earth is human soul on fire."

Human emotions cannot be measured accurately; PQ cannot be assigned a number or figure as in case of IQ. PQ is notional, indicative and representative in nature. Passion generates creativity and creativity needs passion. Passion can fire up that creative genius which all of us possess.

Introduction

Passion quotient is part of a formula put forth by renowned New York Times and Foreign Affairs columnist and triple Pulitzer Prize winning author, Thomas Friedman. According to Friedman, passion and curiosity are key components for education in a world where information is readily available to everyone and where global markets reward those who have learned how to learn and are self-motivated to learn. Friedman's proposed formula is Curiosity quotient plus Passion quotient is greater than Intelligent Quotient. Friedman states, "Give me the kid with a passion to learn and a curiosity to discover and I will take him or her over the less passionate kid with a huge IQ every day of the week." IQ "still matters, but CQ and PQ matter even more." Friedman further states that "it is more important to be passionate and curious than to be merely smart."

How do you measure PQ?

The litmus test for identifying your passion

- a) If it is your passion, it beckons you. A cricketer will be attracted to the pitch-If s/he sees a bunch of kids playing on the street, s/he will want to bowl a delivery or face oneIf it beckons you, it is passion.
- b) It gives you satisfaction
- c) It doesn't matter what problems are thrown your way, you will find satisfaction in that activity
- d) You will have absolutely no difficulty in learning the task
- e) Once someone teaches you something, you take to it like fish to water.
- f) You do it effortlessly
- g) If you are really passionate about something it doesn't take a lot of efforts for you to accomplish the task. Look at Sachin Tendulkar playing cricket or Mary Kom boxing, they make it look effortless.

How does passion help you to do better in life?

- a) It is a source of tremendous energy
Jackie Chan is a one man industry who writes, directs and acts in his film. He lives and breathes cinema all the time - because he loves it. Shah Rukh Khan is called a power house of energy because he is passionate about acting.
- b) Becomes your inner calling
Mother Teresa worked passionately for the poor because she 'felt' for the poor and the sick. Such people work selflessly and look for no financial rewards. Many young people leave their well-paid jobs to start a meaningful NGO. The bottom line is they want to do it.
- c) Makes you walk that extra mile
It lets you perform and deliver beyond your ordinary capacity. Since you love it, it comes naturally to you. "Helps you identify your Goal Passion has been instilled in us by nature to remain 'on track'- like an inner compass. It gradually pushes you to be what you ought to be.

The 16 passions (needs) you need in your daily life are:

- Acceptance**, the need for approval
- Curiosity**, the need to understand
- Eating**, strength of interest in food
- Family**, the need to spend time with family
- Honor**, the need for character
- Idealism**, the need to improve society
- Independence**, the need for personal freedom
- Order**, the need for structure
- Physical Activity**, the need for exercise
- Romance**, the need for sex
- Power**, the need for influence of will
- Saving**, the need to collect
- Social Contact**, the need for friends
- Status**, the need for prestige
- Tranquility**, the need for safety
- Vengeance**, the need to fight back

Passion, potential purpose and perseverance

There are several cricketers and boxers who haven't reached the heights of Tendulkar and Kom. Does it mean they were less passionate than the two stars? Having passion and having

potential go hand in hand. If you are passionate about something, you will naturally have the potential to do it. But know that isn't enough. If it is unable to give your life a purpose, if you are unable to persevere like these achievers did, all your passion and potential comes to nought. Know that without perseverance none of anything matters.

- Stay hungry but don't be foolish.

If you are considering a shift in your career, don't just jump into it! Test the waters first. If you want to be a photographer, try selling a few prints. If you want to be an author, try getting your work published. Work hard; strive; put everything you have in it but don't give up your job until you know you can make it. Do a 'test drive'. Don't jump simply because you think you are passionate about it.

- Have a safety net.

If you need to survive in this world, you ought to acquire good qualifications. Because if your passion doesn't help you earn a square meal, you always have a decent job to go back to. There is no shame in having a safety net.

- Keep the flame on

In times of EMIs and home loans, you cannot throw caution to the wind. But that shouldn't mean you give up your dream. Don't let the flame die; keep chipping at what you are passionate about every day for some time. It will not only keep you sane but also help you be in touch with what you love.

- a) Age is no bar

Know that you can discover your passion when you're 20 or even 60. Keep looking for it; you never know when you will find it.

- b) Be passionate but not obsessive

There is a thin line between being passionate and being obsessive. If you get obsessed, you will lose your sense of balance. Learn to walk that line; learn to strike a balance. Most importantly, learn to disconnect.

Practical Session

Exploring passion through creativity

This highly creative representational approach to self-expression/introduction is far more liberating, stimulating and engaging than verbal methods such as conventional verbal self-introduction, or interviewing each other, which are commonly used in group introductions. If using the activity to explore issues of mutual awareness, strengths, life-aims, Johari Window, or personality, etc., then allow more time for the creative stage (5 mins at least) and an average of at least 2 mins per person for the review/discussion (plus 5 mins if Option 2 preparation). In this 'bigger exercise' situation it's important not to cut people off if they begin to release tensions and want to expose important feelings and thoughts, etc. This gives a total time of at least 20-25 minutes for a group of eight people.

Preparation:

Option 1 - The facilitator must prepare a big box of 'bits and pieces' from which each delegate can select/assemble/combine a creative symbolic representation of him/herself. What the facilitator puts into the box can be very random indeed, for example:

- magazines with lots of pictures
- pairs of scissors
- nuts and bolts, and other small mechanical components
- small children's toys (especially models, tools, and symbolic items)
- playing cards
- coins
- junk from the kitchen drawer
- pebbles, fir cones, conkers, and other 'natural' things
- modelling clay
- paper, pens, pencils
- sticky tape, string, stapler, fixings
- takeaway menus
- cloth, ribbon
- small electrical components
- other random symbolic things

This list is not fixed or complete - it's just examples. Resist guessing what the delegates will find interesting - be as random and adventurous as you can be in compiling the box contents. Remember - and emphasize - that the exercise is symbolic. To avoid a rugby scrum spread contents of the box of bits on a table to make it easier for people to look and select.

Option 2 - Alternatively (less dynamic, but virtually zero preparation for facilitator) this method does not require a prepared 'box of bits and pieces'. Instead ask the delegates to draw or write 5-10 things on separate pieces of card (or paper) - about postcard size - and these cards, put into a central pool, or ideally tacked to a wall, or spread on the floor/table, will collectively equate to the 'box of bits and pieces'. Ensure cards can be clearly understood. Make available extra blank cards and pens for delegates who need them in the next creative representational stage. In prompting delegates what to draw/write, describe these things as: "symbols of what's important in life", or similar. This option 2 of the exercise produces a slightly different activity compared with Option 1, but in essence the process and methods and possible outcomes are the same.

Creative representational stage - Ask delegates each to use whatever bits and pieces they want to create a symbolic representation of him/herself. Depending on the context/aims of the session, the facilitator can give guidance as to whether this representation is of 'self', 'dreams', 'strengths', 'challenges', - or whatever suits the group development purpose. This flexibility applies to using the activity for simple personal introductions or as a bigger exercise. Or the facilitator may choose to leave the nature of self-expression completely open to the delegates' interpretation.

Review - This next stage is for delegates to present themselves ("This is me") using their creative representations. Depending on your precise purpose of the activity, control timings tightly if the exercise is for a simple personal introductions session, or allow more time for explanations and discussion if there is a wider purpose. Consider that the nature of the exercise is liberating and may cause delegates to 'open up' more than happens in conventional verbal introductions. If serious issues emerge then make a note of them, make a time to return to them, and deal with them later, individually or in the group, as appropriate.

The method of presentation is flexible - most obviously it can be on a table-top, or by tacking cards to a wall. You can ask that people take turns to present/explain themselves/their

representations to the group, or for very large groups encourage more casual walking around and discussing with each other what the representations mean.

There is no right or wrong answers. A perfectly acceptable representation would be merely to hold up a single nut or bolt, and say "I am an engineer." Alternatively if a delegate chooses to create a 3D model of Africa, or a street, a school, a zoo, a hobby, a holiday, a garden shed, or the Starship Enterprise (subject to available time and materials) then any of this is perfectly fine too. It's about liberating and sharing people's self-expression, followed by whatever suits your session aims.

1. Activity Corner - Lessons Learnt

- i) Who put forth the PQ in terms of an equation?
- ii) How do you measure PQ?
- iii) How does passion help you to do better in life?

Creativity- The Mantra to Success

Sumithra T.G

Scientist, CMFRI

Email: sumithravet@gmail.com

Creativity is the ability to respond to all that goes on around us, to choose from the hundreds of possibilities of thought, feeling, action, and reaction that arise within us, and to put these together in a unique response, expression, or message that carries moment, passion, and meaning. In general terms, creativity is a way of looking at things with a new and different perspective or it is the tendency to generate or recognize ideas, alternatives or possibilities thus to find new solutions to problems. In other words, it is the thinking out of box. It empowers people by adding strength to their natural abilities which improves team work, productivity and where appropriate profits. It develops people's problem solving and critical thinking skills needed to achieve lifelong success. Creativity is more than 'fireworks of the mind.' It's more than making innovative connections between unrelated things. However,



“Creativity is not a talent, but it is a skill that can be learnt”.

Everybody is born with certain creativity. However, it takes some efforts to develop this ability and stimulation of the brain. Thus, there are some steps a parent might take to strengthen and help develop a child's creativity such as allowing the child freedom to develop creativity and avoiding constant adult supervision and control over them. Creativity brings with it a fresh attitude towards ideas and solutions. It is a way of breaking the conventional and traditional barriers, and going beyond the obvious.



Characteristics of the creative person

- Curious
- Seek problems
- Enjoys challenge
- Optimistic
- Able to suspend judgment
- Imaginative
- Sees problems as opportunities

- Does not give up easily

Need for creativity

1. **Creativity can solve almost any problem:** We live in a world of highly unstable things. Every day we are facing something new which may be new people, new information, new technologies or new problems. In this world traditional problem solving methods/ conventional brain storming are not always effective. Moreover, usually realities move faster than we can solve the problem by traditional methods. Thus, in many cases we must find out new flexible solutions or creative solutions to deal with the problems or various situations. The more solutions we have the greater the chance that we will achieve our goals. New ideas can open up new worlds, new insights and new way of doing old things.
2. **Creativity offers employment and wage:** Uncertain economic conditions have prompted organizations to rethink their hiring process. In their quest to find the best candidates, most organizations have now realized that they have to look beyond academic qualifications and experience. They are scouting for people who can not only complete their job at hand but also bring new perspectives to the table. Sharp thinkers and proactive resources are, therefore, in demand today as they can help a company/ Organization grow in the right direction
3. **Creative People Find New Opportunities:**
4. **To be creative is the most exciting thing you can do:** What you need to understand is that your creativity is what makes your life fun and is what gets you excited each and every day you wake up in the morning. That is when you allow yourself to be your true self- you must stop worrying about what other people think or say about you. If you have fun doing it and it keeps you constantly thinking and trying to figure out a new and better way, then that is what you need to focus on in life because creativity is what pushes passion.

Barriers to creativity

- Routines and habits: It simply is like that; it is right;
- Wrong categories: Generalizations, wrong presumptions
- Premature evaluation: Too early criticism, typical idea killers
- Emotional insecurity: Fear of exposing oneself
- Cultural barriers: Culture of logical and conclusive thinking, no intuition

- Intellectual barriers

Negative Attitudes that block creativity

- Oh no problem
- It cannot be done
- I cannot do it
- But I am not creative
- What will people think?
- I might fail
- The Right Answer
- That's Not Logical
- Follow The Rules
- Be Practical
- That's Not My Area
- Don't Be Foolish
- Avoid Ambiguity
- To Err Is Wrong



Requirements for creativity: Anyone can become a creative genius but he or she should have

1. Desire to be creative
2. Curiosity
3. Challenging spirit
4. Generation of idea: During idea generation remember following principles
 - There are no limits to imagination
 - Quantity comes before quality
 - Take up the ideas of others and develop them
 - Imagine the familiar in a new light
 - Find links among unrelated phenomena
 - Realize the impact of change
 - Accept new perspectives
 - Follow a broad and moving path
 - Avoid negative thinking
 - Any kind of criticism is strictly forbidden
 - Avoid the patterned thinking
 - Creativity takes a lot of work and perseverance

“Defer all the judgment when generating ideas”
5. Evaluation and Planning: After collecting all the ideas organize them before execution. Then set up the flow to be followed and plan all the actions required for implementing the ideas. Planning is important because it helps creative workers find focus and use their time wisely. However, evaluation has to be done only after listing out all the ideas
6. Hard work: Creativity requires hard work and patience to turn ideas into viable output
7. Rest: Whenever exhausted take a break and rest



After completing creative tasks, successful workers reflect on what they have learned during the process. They may review, for example, how often they practiced and what helped them do so more consistently. By applying these lessons to future creative endeavors, workers can improve their efficiency in finishing tasks.

Conclusion:

Creativity is a phenomenon whereby something new and somehow valuable is formed. The created item may be intangible (such as an idea, a scientific theory, a musical composition, or a joke) or a physical object (such as an invention, a literary work, or a painting). Creativity is not a talent, but it is a skill that can be learnt. As we are now living in the age of creativity developing this skill is the most crucial factor for future success. The five essential behaviors required for creativity include associating (drawing connections between questions, problems, or ideas from unrelated fields), questioning (posing queries that challenge common wisdom), observing (scrutinizing the behavior of others to identify new ways of doing things), networking (meeting people with different ideas and perspectives) and experimenting (constructing interactive experiences and provoking unorthodox responses to see what insights emerge). Always remember “There is never one good solution. But there are always solutions”.

Critical Thinking

Manjusha .U

Associate Programme Officer, Centre for Environment Education, Kannur

Email:log2manju@gmail.com

Introduction

Women are the foundation of society and breeders and teachers of the next generation. We comprise half of the population of the world, and thus should be equals in every step with men. In order to do so, logical, analytical thinking (devoid of emotional drivers and personal pride) is crucial for a society to function healthily. To incline women to realize the benefits being more curious and analytical about the decisions that is made for them by men in their lives. If women remain as a mass of silent sufferers instead of individual thinkers who challenge status quo, then lack of societal respect for and protection of women's personal decision-making in regard to unwanted pregnancies, style of dress, a their right to choose their partners, etc. will continue. Here lies the relevance of critical thinking that will allow them to become the experts in all fields.



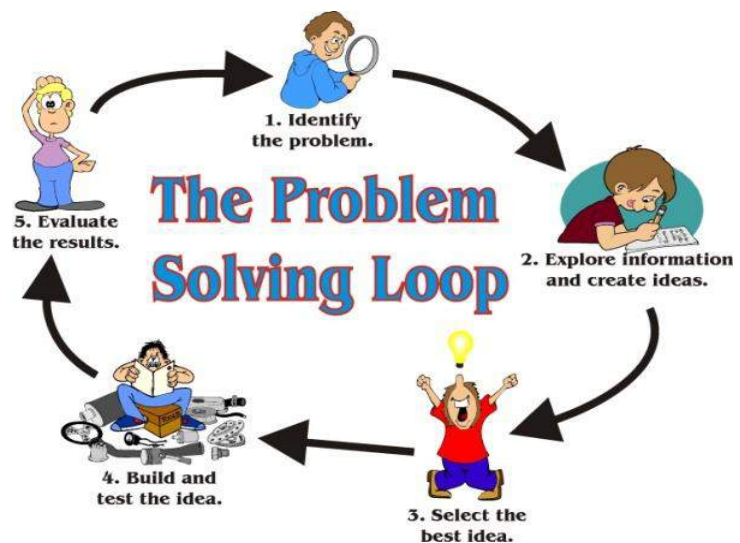
We tend to receive knowledge passively at many stages of education, although we can be highly critical in other aspects of life. Critical thinking and analysis is an everyday activity, even if we don't think of it as that. Every time you have to make a decision, the process you go through involves critical thinking, and this process can become almost automatic.

Definition: Critical thinking is the ability to think clearly and rationally about what to do or what to believe.

A person with a good memory and who knows a lot of facts is not necessarily good at critical thinking. A critical thinker is able to deduce consequences from what he knows, and he knows how to make use of information to solve problems, and to seek relevant sources of information to inform him.

The importance of critical thinking

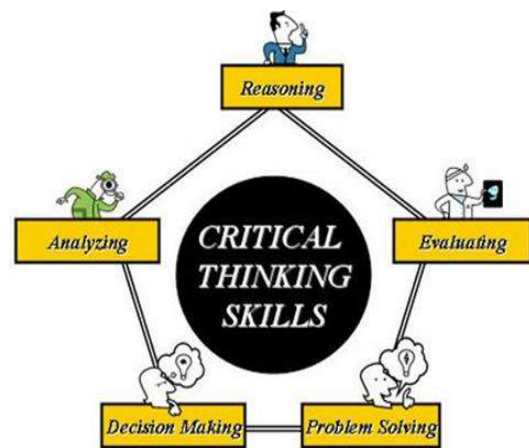
- **It is a domain-general thinking skill:** The ability to think clearly and rationally is important whatever we choose to do. Being able to think well and solve problems systematically is an asset for any career.



- **Important in the new knowledge economy:** The new economy places increasing demands on flexible intellectual skills, and the ability to analyse information and integrate diverse sources of knowledge in solving problems. Good critical thinking promotes such thinking skills, and is very important in the fast-changing workplace.
- **Enhances language and presentation skills:** Thinking clearly and systematically can improve the way we express our ideas. In learning how to analyse the logical structure of texts, critical thinking also improves comprehension abilities.
- **Promotes creativity:** Critical thinking plays a crucial role in evaluating new ideas, selecting the best ones and modifying them if necessary
- **Crucial for self-reflection:** In order to live a meaningful life and to structure our lives accordingly, we need to justify and reflect on our values and decisions. Critical thinking provides the tools for this process of self-evaluation.

Skills: The list of core critical thinking skills includes observation, interpretation, analysis, inference, evaluation, explanation, and metacognition. An individual or group engaged in a strong way of critical thinking gives due consideration to establish for instance

- Evidence through reality
- Context skills to isolate the problem from context
- Relevant criteria for making the judgment well
- Applicable methods or techniques for forming the judgment
- Applicable theoretical constructs for understanding the problem and the question at hand



Procedure

Critical thinking calls for the ability to:

- Recognize problems, to find workable means for meeting those problems
- Understand the importance of prioritization and order of precedence in problem solving
- Gather and marshal pertinent (relevant) information
- Recognize unstated assumptions and values
- Comprehend and use language with accuracy, clarity, and discernment
- Interpret data, to appraise evidence and evaluate arguments
- Recognize the existence (or non-existence) of logical relationships between propositions
- Draw warranted conclusions and generalizations
- Put to test the conclusions and generalizations at which one arrives
- Reconstruct one's patterns of beliefs on the basis of wider experience
- Render accurate judgments about specific things and qualities in everyday life

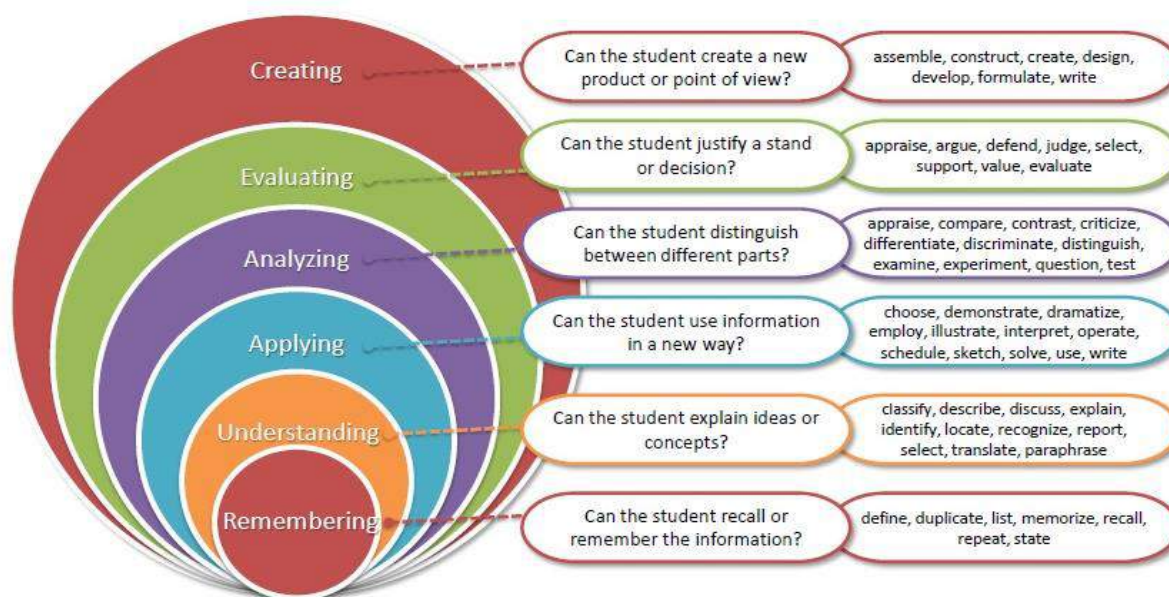
1 Knowledge Identification and recall of information	define fill in the blank list identify	label locate match memorize	name recall spell	state tell underline
	Who _____ ? What _____ ? Where _____ ? When _____ ?	How _____ ? Describe _____ ? What is _____ ?		
2 Comprehension Organization and selection of facts and ideas	convert describe explain	interpret paraphrase put in order	restate retell in your own words rewrite	summarize trace translate
	Re-tell _____ in your own words. What is the main idea of _____ ?	What differences exist between _____ ? Can you write a brief outline?		
3 Application Use of facts, rules, and principles	apply compute conclude construct	demonstrate determine draw find out	give an example illustrate make operate	show solve state a rule or principle use
	How is _____ an example of _____ ? How is _____ related to _____ ? Why is _____ significant?	Do you know of another instance where _____ ? Could this have happened in _____ ?		
4 Analysis Separating a whole into component parts	analyze categorize classify compare	contrast debate deduct determine the factors	diagram differentiate dissect distinguish	examine infer specify
	What are the parts or features of _____ ? Classify _____ according to _____ . Outline/diagram/web/map _____ .	How does _____ compare/contrast with _____ ? What evidence can you present for _____ ?		

The Six Levels of Thinking

Bloom's *Taxonomy of Educational Objectives* explains that the process of thinking actually involves several levels.

1. Gathering knowledge consists of acquiring basic pieces of information
2. Comprehending and confirming involves looking at the meaning of the knowledge that has been gathered and drawing conclusions from it.
3. Applying entails using what has been learned in new situations.
4. Analyzing involves thinking about a whole in terms of its various parts.
5. Synthesizing consists of putting parts together to form a whole.
6. Evaluating entails making comparisons and judgments.

Bloom's Taxonomy (Revised)



Someone with critical thinking skills is able to do the following:

- Understand the logical connections between ideas
- Identify, construct and evaluate arguments
- Detect irregularities and common mistakes in reasoning
- Solve problems systematically
- Identify the relevance and importance of ideas
- Reflect on the justification of one's own beliefs and values

Practical Session by Engaging Trainees: Discuss on the following

- ✚ The Impact of Social Media in Our Daily Lives What is your thoughts?
- ✚ Do you consider alcohol abuse a problem on your campus?
- ✚ Why do you think women are often unwilling to report sexual harassment and/ or assault cases?

Activity Corner

- Difference between critical thinking and creative thinking?
- Which are the processes of thinking?
- Which are the critical thinking skills?

Summary

Finally... Critical Thinking

- Help us acquire knowledge, improve our theories, think and argue independently, explore issues in depth, and strengthen arguments.
- Help to evaluate and improve our creative ideas.
- Helps you develop your own opinions.

“Education is not the learning of facts but training the mind to think”

Albert Einstein.

Values for a Successful Career and Life

Aswathy .N

Senior Scientist, SEETTD, CMFRI

Email: aswathy.icar@gmail.com

Introduction

Successful career and life depends on how well an individual balance them to achieve maximum satisfaction in life. The values which an individual associate to career/ life based on their judgment help them to choose the appropriate careers or to involve in hobbies or other activities. The value here means the things that you believe as important in the way you live and work. We are often focused on one area of life at the expense of another. We are more successful when we are in balance with every area of lifelike career, family, friends, finance, leisure, health and spirituality. Work life balance brings satisfaction and peace of mind to an individual.

Work-life balance is particularly important for women due to the multiple responsibilities they need to handle in everyday life. Women are often blessed with the inherent abilities to perform multiple tasks at a time when compared to men. These qualities might have either achieved during the course of life due to necessity or as an inherent ability. Maintaining work life balance is not an easy job. But heart of balancing can be learned. Sometimes we may have work life conflicts. In extreme cases it becomes necessary to sacrifice one for the other. In these cases choosing the priorities through wise decisions becomes important.

Steps to achieve success in career and life

1. Identifying priorities

For this one need to set priorities themselves which one feel important to them. Determining your most important current values (e.g., money, location, service to others, time with family), ranking them and deciding which one you will trade off if faced with a contradiction. It's important to know what personal values we want to achieve in life before making career choices. This will help to most possible of these values. Making an initial list of values is usually the easy part. The real challenge –is to decide on the choices we have to make in setting our priorities or in deciding which values we will give up or trade off when we face contradictions (Nicholas W. Weiler and Stephen C. Schoonover, 2001).

People often get influenced by the words of parents, mentors, organizations, and others for prioritizing the choices. It is quite natural to think on the way one's parents want to be. But each individual needs to take decision on what is their ultimate goal in life. Similarly the professional mentors such as teachers, bosses, or experienced co-workers influence persons to make decisions on life. The organizations companies in which one work also influence to act as per the organization's vision and mission. Friends, siblings, or peers are others who influence a person to decide on their priorities. However it is essential that a person need to stand for the life which really he or she wants. Similarly



if a person chooses a profession which is their passion, there won't be any boredom and they will be able to face all hurdles. But most of the time there may be other priorities than to stick on to one's passion.

2. Setting goals and achieving it

Once we have prioritized our work life values we need to set goals to achieve it.

- What career or family goals I want to achieve in a period
- How much money I need to invest or save
- How much time I need to achieve the career and family goals.
- What are the skills required to achieve my goals

To achieve the goals management of time, money and improving skills are important.

2(a).Time Management: Time management is an important aspect to improve the work life balance and quality of life. Time management will help to accomplish more in a short period of time. Keep a check on how your time was spending last week. Eliminate all time wasters and delegate whatever things which are not aligning with the set priorities. Concentrate on one thing at a time. Devote full attention to the thing which you are doing so that each one can be achieved at a stipulated time. Schedule a target for each day and see that it is achieved (www.briantracy.com).

Some of the tips for time management

- Stop doing non-priority tasks. Delegate them, outsource them, or eliminate them
- De-clutter your home and office. Get rid of everything you haven't worn, used, or referred to in more than a year.
- Introduce at least one timesaving strategy into your life each week, eg: paying bills online, organizing things at home/ workplace, introducing technology for personal or professional effectiveness.
- Cut in half the time you spend watching TV. Choose the programs you want to watch.
- Keep track on spending habits for at least one month. Stop buying things you don't need. Draw up a personal budget and stick to it.
- Start scheduling personal activities into your planner, such as recreational activities, physical fitness, and movies.
- Don't save money if it means wasting time. Time is more valuable than money. (<http://bookboon.com>)

2(b).Money management: Money even though cannot buy all the happiness in life, is able to solve at least 50 % of the issues in life. Proper planning of money, developing discipline in spending and saving habits are as important as earning. The monetary balance will help to improve the quality of present and future life.

Tips for money management

- Prepare a budget for every month.
- Try to identify the items on which excessive spending occurs
- Find ways to cut short unwanted expenditure
- Calculate how much you can save every month by cutting the unwanted expenditure
- Start saving at a young age even with small amounts

2(c). Improving technical and life skills: Improving professional and life skills makes a person successful. The skills in career can be improved through professional training. Identify what specific combinations of skills (e.g., intellectual, technical, interpersonal, physical, artistic, computational, etc.) are required to improve the efficiency in professional and personal life. Life skills are abilities for adaptive and positive behavior that enable us to deal effectively with the demands and challenges of everyday life. They are a set of human skills acquired via teaching or direct experience that are used to handle problems and questions commonly encountered in daily human life. Some of the important life skills identified through delphi method by WHO (1997) are:

- Decision making
- Problem solving
- Creative thinking
- Effective communication
- Interpersonal relationships: In order to broaden your network of contacts, you must network continually, at every opportunity. There seems to be a direct relationship between the number of people you know and how successful you are.
- Self-awareness/mindfulness
- Assertiveness
- Empathy
- Coping with stress, trauma and loss
- Resilience

Practical exercise on managing time to improve the quality of life

Ask the participants to write on their daily activities on a sheet of paper with approximate time spend during last week/ month. Ask them to identify the unwanted activities and time spends on each activity per day. Count the hours which they waste everyday on unproductive activities and arrive at how much days wasted every month/year. Ask them to find strategies to eliminate the unwanted activities and to prepare a time budget.

Making a Career Choice: From Confusion to Confidence

Grinson George

Senior Scientist, CMFRI, Cochin
Email: grinsongeorge@gmail.com

There are few elementary points which can help to identify the salient points in rightly choosing your careers. There are basically two defined classes of career a person can achieve:

- **“Best” Career**
 - Based on external factors
 - Driven by societal interpretation of a job
 - Be ready for a Mid-career crisis!!!
- **“Fulfilling” career**
 - Based on intrinsic factors
 - Lifelong satisfaction

Causes of confusion in selecting a career is due to the following factors:

- “Best” Vs “Most Fulfilling”
- Societal Vs personal interpretation
- ‘**Common sense**’ criteria are based on external factors – salary, place, company

“Best” Career: This is mostly based on external factors, driven by societal interpretation of a job and the selected persons have to be ready for a Mid-career crisis.

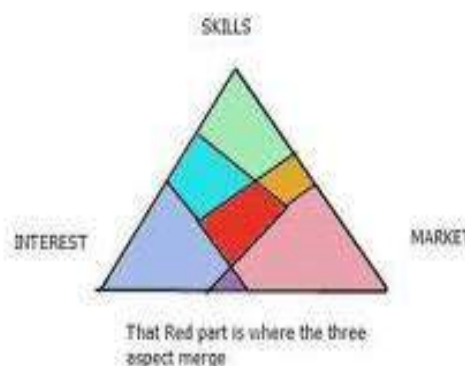
“Fulfilling” Career: The career based on intrinsic factors with a lifelong satisfaction.

In a career selection we have to measure three aspects- skills, interest and market as shown in the figure below:

An intelligent career oriented person will have to ideally spot the red part. I am illustrating the figure with a real life time study in the next section addressing the situation existing in engineering science today in our country and state.

The Issue in present day society is that of **Wrong career choice**.

- ❑ Ramans and Ramanujams are in Banks as POs and Clerks
- ❑ 300 applications for every clerk post advertised by SBI – most are BE/MBAs
- ❑ <15% of the engg graduates are truly passionate to take up a career in their specialization in engg.
- ❑ Most of today’s teachers never dreamt of being a teacher



What are the possible Current Interventions?

Government –Can come up with some new plans and they are summarized below:

- R&D Spend to be doubled
- National Science and Engineering Research Board being created (annual budget 1000 crores)
- Innovation in Science Pursuit for Inspired Research (INSPIRE)
- 5 Indian Institute of Science Education and Research (IISER) – where 50% do integrated PG

Private- sector can come up with rewards to those who can really put efforts in research and development. For example, INFOSYS Prize – Mini Nobel for Indians; 50 lakhs for each discipline in Science.

But there are limitations of Government role. Government can pay for the brick and mortar for the institutions. But “building institution”IT IS YOU AND I...

For a “fulfilling” career...?

- Know the job?
- Collect the job profile/nature of work OR Know yourself?

I am giving few examples for you to assess your job aptitudes.

What describes you the best?

First CASE

- I like doing things very systematically
- I enjoy new recipes for cooking
- I love mathematics (marks no issue)
- I ask questions to my teacher
- I can do repetitive work for a long time
- I don't mind if I get dirty, while at work.
- I play sports/games regularly
- I am a problem solver among friends
- I replace tube light / water line myself

Engineering and Technology- Quality control / Civil / Mechanical/ Software

Second CASE

- I like to try new products / services
- I love working with computers
- I enjoy discussing with people
- I easily convince people
- I have many close friends.
- I don't hesitate to talk to girls.
- I enjoy watching advertisements.
- I don't get angry at people so easily
- I love competition.

Business/ Banking- Marketing / Economist/ Accountant / Auditor

Third CASE

- My hobby is photography/ gardening
- I like travelling
- I would like to get answers to all doubts myself
- My hobby is reading books (any kind)
- I can work for long hours
- I love Discovery channels, etc
- I can work without immediate results

- I can enjoy when alone also
- I don't argue with others

Scientific Research/ Scientist / Wild Life / Marine Biologist / Ecologist

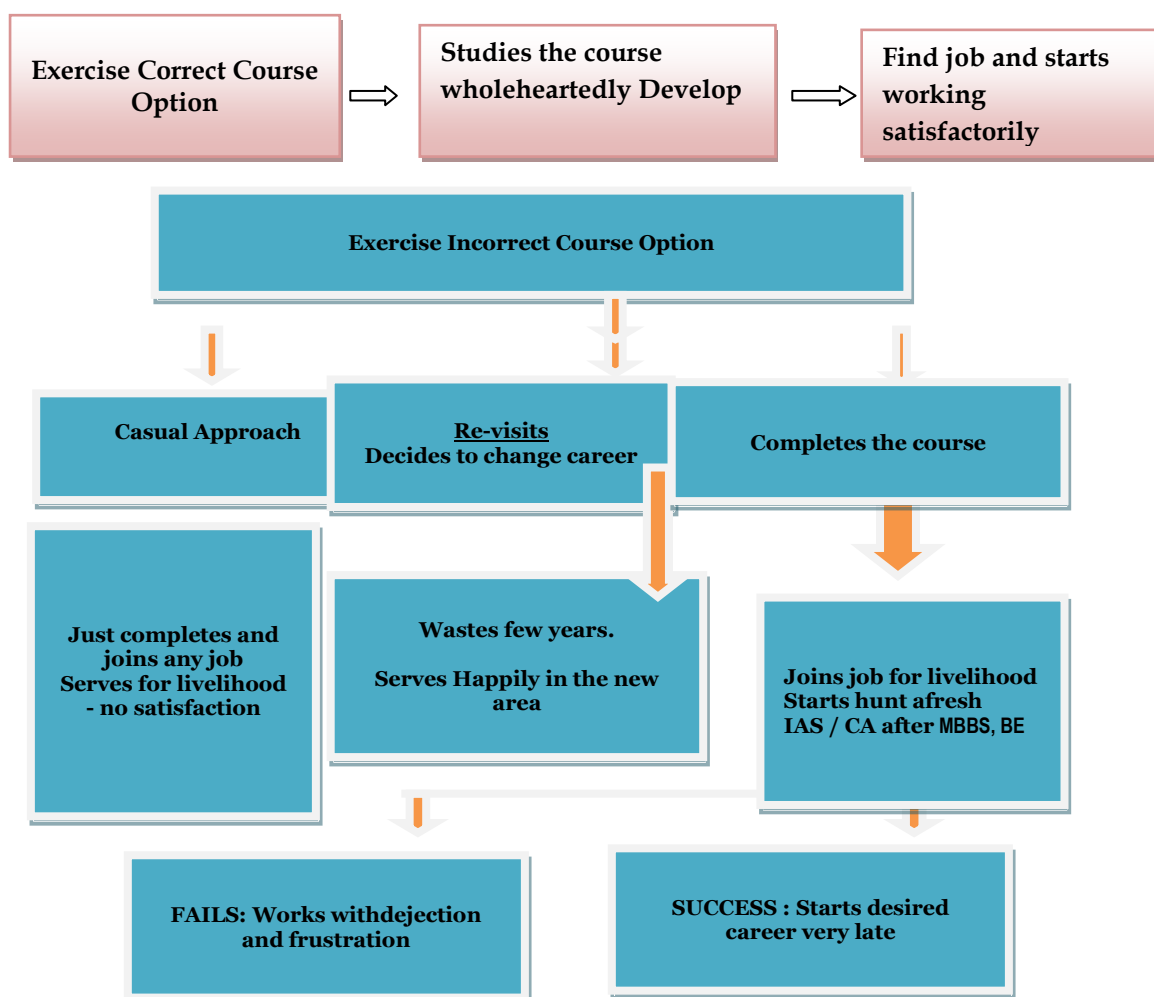
Fourth CASE

- I keep myself clean
- I enjoy helping people.
- I love children and I care for them.
- I am friendly and outgoing.
- I am with good sense of humor.
- I attend to elders /sick very kindly
- News related to loss of life disturbs
- I am a member of Scout/ NCC
- I don't get angry on people so easily

Conclusion

While choosing a career - listen to your mind and conscience... NOTHING else. Set ambitions matching to your mental makeup and then **think big / try** to do the impossible. There are elaborate theoretical texts available for future reading. But the present chapter will give you some insights on developing yourself in mind and knowledge for achieving the most fulfilling career.

Human Services Doctor/ Lawyer/ IAS/ IPS/ Politics/ Teaching



Successful Career and its Attributes

Sandhya Sukumaran

Senior Scientist, Marine Biotechnology Division, CMFRI, Kochi

Email: sandhyasukumaran@yahoo.com

Everyone wants to succeed in life and career and a few people only will realize their wish. But there is no short cut to success as it could only be realized through sustained efforts and hard work.

So to begin with we shall see the tips to a successful career.



Tips to a successful career

1. Set priorities and goals

It is very important to set your priorities. Think deeply and decide about what you want to achieve. Discuss with your peers and make an appropriate decision. Probably at this stage you can set 2-3 achievable goals. Once the goals are set, plan it accordingly. Make a daily plan and fix priorities for each day. The most important and urgent ones should be mentioned at the top.

2. Have adequate focus

You should be mentally and physically ready for the goal. All distractions should be blocked so that you get adequate time to focus on your tasks and career. It needs a single minded devotion.

3. Enhance and broaden your skills

It is the most important step to reach into a successful career. You should be able to judge yourself and identify the weak points. Update your knowledge and skills. You should aim at continuous improvement of your skills and be ready to learn anything new from any source. Attend any kind of conferences, seminars, read books and be an eternal reader.

4. Improve socialization skills

Socialization is an important step in improving your personality traits. You should be an active listener first and should show some interest and enthusiasm in knowing the other person. You should try to know more about them so that you will get adequate attention and respect.

5. Know about yourself; your merits and demerits

You should be aware of your strengths and weaknesses. Be confident enough to claim a promotion or position if you feel you deserve it.

6. Accept challenge

Accepting challenges will help you to discover different facets of your personality. You may be able to realize your hidden talents. Step away from your comfort zone and explore new horizons. If you are settling into a routine and playing safe all the time you are not going to get beyond that and will never get ahead in your career. 'If you always do what you've always done, you'll only get what you've already got'.

7. Improve your communication skills

You should be able to communicate effectively which is the most essential step to a successful career. Listening to other's viewpoints, giving constructive suggestions and feedback, persuading effectively and asking for help and information are some of the important traits of an effective communicator.

8. Avoid gossips inside the organization

We should avoid gossips about colleagues and the boss. Keep respect and work sincerely for the organization.

9. Find time to relax

Find time to do a hobby or anything which can make us happy. Take time off from your work. This will boost your productivity.

10. Have satisfaction and enjoyment

If you are unable to find satisfaction and enjoyment in what you are doing, avoid doing it and find some alternative. Never hang on it. You will be a total failure.

Every human being has two sides on their personality; one side will ask us to advance further and the other side will ask us to pull back. We can cultivate any of these and that determine what we become ultimately. Hence training is important, as proper training enables us to cultivate the best trait and thus we could also succeed in life. But you cannot wait for others to assist you towards it. Achievement and advancement in our career is about gaining self-control and will power, setting firm resolutions and making a commitment to conquer your weakness and bad habits. You should always try to improve regardless of your position in the organization. Success is attained by excessive learning and using that knowledge to set firm goals and then trying to see that the accomplishments are taken till the end. Instead of focusing on problems, focus on solutions. We may not be able to visualize a solution immediately, but it does not mean it is not there. It is best to make use of our subconscious voice to gain answers and move beyond your horizon instead of listening to our own inner voice which says that a particular goal or aim can't be achieved. People who have a strong sense of self-worth think that they will be able to handle any hurdles that arise in pursuit of their goals. Those who are willing to pay the price will succeed. We develop ourselves when faced with a difficult situation, which requires effort and utilization of our faculties. We should also learn to get rid of distractions, focus on our priorities. We should not concentrate on easy things first; rather it will be good to prioritize commitments which provide the highest return. Try to understand what will be of value to you, the type of job you want, type of people that you would like to be around, money that you want to make and the type of knowledge that you wish to gain. When you interact with people with sincere caring, positivity and understanding you get back cooperation and friendship. You

may look for the good in every one. When we focus on the positive traits we win their trust and loyalty. We should surround ourselves with can-do people. This will improve our chance for success. Never make friendship with people who try to hinder our ambition and creativity. When we interact with people with positive attitudes we catch their ambitious attitudes and beliefs. Successful people are good fighters and they will hang on something after others let it go. Resiliency is an important attribute on the road to achievement. Problems should be viewed as temporary and surmountable so as to meet hurdles. Those who are less successful at work see the smallest set-backs as tragedies and quit the scene. If you choose a career that is enjoyable, you will be able to give your best to the job and money and success will follow. When you are able to find pleasure in your work, you achieve more and happiness only will breed creativity and ambition. So those who are contented with their work will give out maximum. If you aim for something great, remember that it cannot be achieved alone. When you listen to other people's viewpoint with sympathy and appreciation you will be successful in gaining their trust.

Planning for a successful career

Career planning should be done regularly so as to move forward in our jobs and careers and hence you should start as early as possible. It should be taken as an enjoyable activity which is liberating and fulfilling and it helps you to achieve your goals in your career. It should be taken as a rewarding and positive experience. Career planning should be done annually. Block all distractions and focus on your career and think what you really want to get out of your career and life. When career planning is done annually, you feel more secure in career choice and you will be prepared for any uncertainties that lie ahead in your jobs and career. Once it is done, take time off to review and reflect on the path; whether it was the correct decision. Also think of the things that you could have done differently. Your attitudes, likes, dislikes, needs and wants might have changed and hence move on with the new passion. Even after the review and self-assessment, if you find that you wish to continue with the same decision, and then your choice was correct. Sometime your hobbies could be made to transform into a career which will give you dedication and success. Keep a record of accomplishments in work so that a powerful resume is always ready in hand. Identify the transferable skills in you which would be valuable for many other jobs. Information about trends in career and job is also important and vital for long-term success. Once you gain knowledge about career trends, you can concentrate on developing a unique set of accomplishments, skills and education. Exploring new education and training opportunities also leads to power and success. We should never miss an opportunity to learn and grow more as a person and hence always find new training opportunities.

Conclusion

A successful career is a culmination of hard work, good attitude, will power and resilience. Hence building these capacities will ensure your success.

Problem Solving

Deepa .P.N

Upper Division Clerk, CMFRI, Cochin

Email: deepapmanoj@gmail.com

Man needs his difficulties because they are necessary to enjoy success

- Abdul Kalam

Meaning

It is the process of working through details of problem to reach a solution. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skill. Problem solving refers to a state of desire for reaching a definite 'goal' from a present condition either is not directly moving toward the goal, or needs more complex logic for finding a missing description of conditions or steps toward the goal.

- Stop talking about your problems and start thinking about solutions
- A problem is a chance for you to do your best
- Problems are nothing but wake-up calls for creativity
- Most people spend more time and energy going around problems and then in trying to solve them.
- A systematic approach to defining the problem (question or situation that presents uncertainty, perplexity or difficulty)
- Creating vast number of possible solutions without judging these solutions.



In problem solving there are four basic steps,

1. Define the problem
2. Generate alternative solutions
3. Evaluate and select an alternative
4. Implement and follow up on the solution

Define the Problem

Diagnose the situation so that your focus is on the problem, not just its symptoms. These steps support the involvement of interested parties, the use of factual information, comparison of expectations to reality and a focus on root causes of a problem.

Generate alternative solutions

- Postpone the selection of one solution until several alternatives have been proposed.
- A standard allows us to evaluate the different intended results offered by alternatives.
- When you try to build toward desired results, it's very difficult to collect good information about the process.

- Considering multiple alternatives can significantly enhance the value of your final solution. Once the team or individual has decided the “what should be” model, this target standard becomes the basis for developing a road map for investigating alternatives.
- Brainstorming and team problem-solving techniques are both useful tools in this stage of problem solving.
- Many alternative solutions should be generated before evaluating any of them.
- A common mistake in problem solving is that alternatives are evaluated as they are proposed, so the first acceptable solution is chosen, even if it’s not the best fit.
- If we focus on trying to get the results we want, we miss the potential for learning something new that will allow for real improvement.

Evaluate and select an alternative

- Skilled problem solvers use a series of considerations when selecting the best alternative. They consider the extent to which:
- A particular alternative will solve the problem without causing other unanticipated problems.
- All the individuals involved will accept the alternative.
- Implementation of the alternative is likely.
- The alternative fits within the organizational constraints

Skills used in problem solving

- Making judgments
- Analytical skills
- Decision making
- Collecting information
- Planning

Problem solving strategies

- **Brainstorming:** Suggesting a large number of solutions or ideas and combining and developing them until an optimum solution is found
- **Lateral Thinking:** Approaching solutions indirectly and creatively
- **Research:** Employing existing ideas or adapting existing solutions to similar problems
- **Divide and Conquer:** Breaking down a large, complex problem into smaller, solvable problems
- **Root Cause Analysis:** Identifying the cause of a problem
- **Trial and Error:** Testing possible solutions until the right one is found
- **Monitoring and Sending Feedback:** The last stage is about reviewing the outcomes of problem solving over a period of time, including seeking feedback as to the success of the outcomes of the chosen solution. The final stage of problem solving is concerned with checking that the process was successful. This can be achieved by



monitoring and gaining feedback from people affected by any changes that occurred. It is good practice to keep a record of outcomes and any additional problems that occurred.

- **Cultivate your own attitude**

Generally there are three types of people:

1. Optimist
2. Pessimist
3. Realist

Locks are never manufactured without a key. Similarly, God never gives problems without solutions. Only we need to have patience to unlock them.

Promise Yourself...

- To be so strong that nothing can disturb your peace of mind. To talk health, happiness and prosperity to every person you meet'.
- Take the help or right persons whom you trust and who can really help you.
- Don't get disappointed on problems....
- Keep knocking at doors....
- To avoid obstacles give attention to the manner of interaction with others
- Avoid acting before others...
- Be sincere
- Smile towards problems...
- If you get struck, get away from your desk. Take a walk, take a bath, draw, listen to music, meditate, exercise, whatever you do, don't joint stride there scowling at the problem
- We always hope for the easy fix; the one simple change that will erase a problem in a stroke. But a few things in life work this way. Instead success requires making a hundred small steps to go right - one after other, no slip ups, no goofs, and every one pitching in.
- Be confident...
- Do your duty at your level best...
- success will follow you
- Love your life..... All the best.....

Time Bounded Planning Towards Success

Solaman .K

Technical Assistant, SEETTD, CMFRI

Email*:solomankcmfri@gmail.com

നമ്മുടെ ജീവിതത്തിൽ സമയം വളരെ പ്രധാന പങ്ക് വഹിക്കുന്നു. സൃഷ്ടിയുടെ അധിപനായ ബ്രഹ്മാവ് എല്ലാ ജീവജാലങ്ങളെയും സൃഷ്ടിക്കുക മാത്രമല്ല അവയ്ക്ക് ഓരോന്നിനും അനുയോജ്യമായ ജീവിതകാലം നിശ്ചയിക്കുകയും ചെയ്തു.

ഒരു ജീവി ജനിക്കിലെന്നു ദൈവം
കരുതീട്ടു വനുള്ള മൃത്യുകാലം
ഒരു ലേശമിതൊന്നുമാറ്റിവയ്ക്കാൻ
അരുതാർക്കും വിഹലം മനുഷ്യയത്നം.

എന്ന കവി വാക്യം ഓരോ ജീവികൾക്കും അനുവദിച്ചു നൽകിയ സമയത്തിൽ നിന്ന് ഒരു അനുവിട അങ്ങോട്ടോ ഇങ്ങോട്ടോ മാറ്റുവാൻ മനുഷ്യനാൽ ആവില്ല എന്ന യാഥാർത്ഥ്യത്തെ ഓർമ്മിപ്പിക്കുന്നു. ആകയാൽ അനുവദിക്കപ്പെട്ട സമയത്തിനുള്ളിൽ അനുഷ്ടിക്കേണ്ട കർമ്മങ്ങൾ മുൻഗണനാക്രമത്തിൽ തയ്യാറാക്കി ആവിഷ്കരിക്കുന്ന വർക്കേ ജീവിതത്തിൽ വിജയം വരിക്കാനാവൂ.

“പറന്നുപോയ കിളിയെ
പക്ഷെ വീടും പിടിച്ചിടാം
കാലമോ പോവുകിൽ പോയി
കരുതി ജോലി ചെയ്ക നീ”



എന്ന കവി വാക്യം സമയത്തിന്റെ പ്രാധാന്യത്തെ വിളിച്ചോതുന്നു.

ആർക്കും വേറി കാത്തുനില്ക്കാതെ ഒരിക്കലും നിലയ്ക്കാതെ അനസ്സുതം കടന്നു പോകുന്ന ഒരു പ്രതിഭാസമാണ് സമയം. നല്ല നീരൊഴുക്കുള്ള നദിപോലെയാണത്. ഒരിക്കൽ തൊട്ട ജലകണത്തെ രാമതും തൊടാൻ ആവാത്തവിധം അത് ഒഴുകി അകലുന്നു. നാം കടന്നുപോകുന്ന ഓരോ നിമിഷവും നമുക്ക് നഷ്ടപ്പെട്ടുകൊണ്ടിരിക്കുന്നു എന്ന യാഥാർത്ഥ്യത്തെ ഉൾക്കൊള്ളിച്ച് പ്രവർത്തിക്കുകയാണെങ്കിൽ നമുക്കീ ലോകത്ത് നമ്മുടെ ജീവിതം അനാർത്ഥമാകുംവിധം ധന്യമാക്കാൻ കഴിയും. ദിവസങ്ങൾക്ക് ദൈർഘ്യമേകുവാൻ നമുക്കാവില്ലെങ്കിലും ലഭ്യമായ സമയത്തെ ഏറ്റവും നന്നായി വിനിയോഗിക്കുവാൻ കഴിഞ്ഞാൽ നാമീ ജീവിതയാത്രയിൽ വിജയിച്ചു എന്നു പറയാൻ കഴിയും. ഈ ജീവിതമെന്ന നാടകത്തിൽ നന്നായി അഭിനയിക്കുന്നവർ ചരിത്രത്തിൽ ഇടം നേടുകയും അല്ലാത്തവർ വിസ്മൃതിയിൽ ആകും പോകുകയും ചെയ്യും. അർപ്പണ മനോഭാവത്തോടെ സമയബന്ധിതമായി ചിട്ടപ്പെടുത്തിയ കർമ്മപദ്ധതികളാണ് ഇവരെ വിജയത്തിലേക്ക് നയിച്ചത് എന്ന തിരിച്ചറിവാണ് നമ്മെയും അതിന് പ്രേരിപ്പിക്കുന്നത്. ഇന്നു നാം ഏറെ ചർച്ച ചെയ്യപ്പെടുന്ന വിഷയമാണ് സമയം. പരീക്ഷയിൽ തോക്കുമ്പോഴും ജോലിയിൽ വീഴ്ചവരുത്തുമ്പോഴും എന്നുവേണ്ടി എന്തിനും ഏതിനും നാം സമയത്തെ പഴിപറഞ്ഞ് രക്ഷപ്പെടുന്നു. എന്തുകൊണ്ട് ചെയ്തില്ല എന്ന ചോദ്യത്തിന് സമയം കിട്ടിയില്ല എന്നു പറയാത്ത എത്ര പേരും നമ്മുടെയിടയിൽ. സമയം എല്ലാവർക്കും ഒരേ അളവിലാണ് ലഭ്യമാകുന്നത്. എന്നാൽ പദ്ധതികളെ മുൻഗണനാക്രമത്തിൽ ചിട്ടപ്പെടുത്തി സമയബന്ധിതമായി നടപ്പിലാക്കുന്നവർ ജീവിതത്തിൽ വിജയം കൈവരിക്കുന്നു.

സ്നേഹത്താൽ പ്രചോദിതവും അറിവിനാൽ നയിക്കപ്പെടുന്നതുമാണ് ഒരു നല്ല ജീവിതം. സ്നേഹം നമ്മിൽ ജനിക്കേണ്ടതും അറിവ് പുറത്തുനിന്ന് ആർജ്ജിക്കേണ്ടതുമാണ്. ആകയാൽ അറിവ് നേടുക എന്ന തീവ്രശ്രമത്തിലേർപ്പെടുകയാണ് വേണ്ടത്. അറിവ് മരീചികപോലെയാണ്. നാം എത്ര നേടുന്നുവോ അതിനേക്കാൾ കൂടുതൽ അവശേഷിക്കുന്നു. അതിന്റെ സമ്പാദനം ചുട്ട മുതൽ ചുടല വരെ നീളുന്നു. സമയം ആർക്കും വേറി കാത്തുനില്ക്കാറില്ല. സമയത്തിന്റെ ദീർഘാവസ്ഥയെ കാലം എന്ന അളവുകോലിൽ നാം അളക്കുന്നു. രംഗബോധമില്ലാത്ത കോമാളിയാണ് കാലം. അത് ക്ഷണിക്കാതെ

എത്തികടന്നുപോകുന്നു. ഇപ്രകാരം കാലയവ നികയ്ക്കുള്ളിൽ മരഞ്ഞുപോയിക്കൊ ിരിക്കുന്ന കോടാനുകോടി ജീവകുലത്തിന്റെ ആവാസകേന്ദ്രമാണ് ഭൂമി. ജീവകുലത്തിന് ഭൂതവും വർത്തമാനവും ഭാവിയും സൃഷ്ടിയിൽ കാലം എന്ന അവസ്ഥാവിശേഷമാണ്.

സമർത്ഥനായ സീസറും

പ്രസിദ്ധനായ ഹോമറും

സമത്വമറ്റ സോളമൻ

തുടങ്ങിയുള്ള വിജയവും

അമർന്നുപോയി കാലചക്ര

വിഭ്രമത്തിലിരിക്കിലീ

നമുക്കുപിന്നെ എന്തു ശങ്ക

മാറ്റമൊന്നുമില്ലതിൽ.

നാം ആഗ്രഹിച്ചാലും ഇല്ലെങ്കിലും കാലം എല്ലാം മാറ്റങ്ങളെയും ഉൾക്കൊ ികടന്നു പോകും. ഒരാൾ ഒരു പ്രവൃത്തിയും ചെയ്യാതെ വെറുതെയിരുന്നാൽപോലും കാലത്തിന്റെ കുത്തൊഴുക്കിൽപ്പെട്ട് ഇഹലോകവാസം വെടിയും.

“സമ്പത്ത് കാലത്ത് തൈപത്തുവച്ചാൽ

ആപത്തു കാലത്ത് കാപത്തുതിന്നാം”

എന്ന പഴഞ്ചൊല്ല് സമയോചിതമായ പ്രവൃത്തിയേ ഫലം നല്കൂ എന്നാണ്.ഒരിക്കൽ ഒരു പെരുമഴകാലത്ത് ഒരു വജ്രവയോധികൻ തന്റെ തോട്ടത്തിൽ മാഞ്ഞെ കൾ നടന്നതുക ി ഒരു വഴിയന്ത്രികൻ ചോദിച്ചു ഈ തൈകൾ വളർന്ന് അവയിൽ മാമ്പഴം ഉ ാകുന്നതുവരെ താങ്കളു ാകുമോ? അപ്പോൾ ആ പട്ടു വൃദ്ധൻ പറഞ്ഞു.

“ ഞാനിക്കാലമത്രയും ആഹരിച്ചതെല്ലാം എന്നാൽ ഉല്പാദിപ്പിച്ചവയല്ല. അതിനാൽ ഞാനിപ്പോൾ അവയുടെ കടം വീട്ടുന്നതിനുള്ള ശ്രമത്തിലാണ്. ഈ പ്രവർത്തിയെ സമയോചിതമായ പ്രവർത്തി എന്നു വശേഷിപ്പിക്കുവാനാവില്ല. ലോകത്തിലെ സപ്താത്മ്യങ്ങൾ എല്ലാം യാഥാർത്ഥ്യമായത് സമയബന്ധിതമായി നടപ്പിലാക്കി എന്നതുകൊ ാണ്. ഷാജഹാൻ മുന്താസിനോടുള്ള പ്രേമം പിന്നീടുള്ളവർ ക്ക് ഉ ാകണമെന്നില്ല. അപ്പോൾ താജ്മഹൽ ഒരു മരീചികയായി മാറുമായിരുന്നു. ജവഹർലാൽ നെഹ്രുവിന്റെ ഭരണകാലത്ത് തറക്കല്ലിട്ട വിഴിഞ്ഞം പദ്ധതി സമയബന്ധിതമല്ലാതിരുന്നതിന്റെ ഫലമായി കോടികണക്കിന് ജനങ്ങൾക്ക് ലഭിക്കേ ിയിരുന്ന സമ്പത്തും സന്തോഷവും നഷ്ടപ്പെട്ടു എന്നു മാത്രമല്ല ഇപ്പോൾ അതിന്റെ ചിലവും പതിമടങ്ങായി വർദ്ധിക്കുകയും ചെയ്തു. ഇന്ത്യ - പാകിസ്ഥാൻ വിഭജനത്തോടെ തീർപ്പാക്കേ ിയിരുന്ന കാശ്മീർ പ്രശ്നം വലിച്ചുനീട്ടിയതിന്റെ ഫലമായി നിത്യേന നിരപരാധികളായ ഒട്ടധികം പേർക്ക് ജീവൻ നഷ്ടപ്പെടുന്നു എന്നു മാത്രമല്ല പ്രശ്നം കൂടുതൽ സങ്കീർണ്ണമാകുകയും ചെയ്യുന്നു. ബ്രിട്ടീഷ് സാമ്രാജ്യത്വത്തിന്റെ വറ്റിക്കൽ നയത്തിന്റെ ഫലമായി വറ്റിവരുന്നൂപോയ ഇന്ത്യൻ സമ്പദ്ഘടനയെ പ്രോജലിപ്പിച്ച് മറ്റു ലോകരാജ്യങ്ങൾക്കുമുമ്പിൽ തലയുയർത്തി നിൽക്കുവാൻ പ്രാപ്തമാക്കിയത് സമയബന്ധിതമായി നടപ്പിലാക്കിയ പഞ്ചവത്സര പദ്ധതികളാണെന്ന് കാണുവാൻ കഴിയും.

കള്ളപ്പണത്തിനെതിരെ പോരാടുന്ന സമ്മുടെ സർക്കാർ സമയബന്ധിതമല്ലാതെ നോട്ടുകൾ പിൻവലിച്ചതുകൊ ിയ ഭവിഷ്യത്തുകൾ അനുഭവിച്ചറിഞ്ഞവരാണെന്നും. ആകയാൽ സമയബന്ധിതമായ പദ്ധതികൾക്കേ ജീവിതത്തിൽ വിജയം കൈവരിക്കാൻ കഴിയൂ.

As the old Irish text Quotes:

“Take the time to work, for it is the price of success.

Take the time to think, it is the source of strength.

Take the time to Play, it is the secret of youth.

Take the time to read, it is the seed of wisdom.

Take the time to be friendly, for it brings happiness.

Take the time to dread, for it will carry you to the stars.

Take the time to love, it is the joy of life.

Take the time to be content, it is the music of the soul. ”

Every moment of your life is infinitely creative and the universe is endlessly beautiful.

“Time is Valuable. Enjoy every moment of life.”



Interpersonal Relationships

Interpersonal Skills: Moving Forward

Shyam .S .Salim

Principal Scientist, SEETTD, CMFRI

Email: shyam.icar@gmail.com

Interpersonal skills are the life skills we use every day to communicate and interact with other people, both individually and in groups. To effectively communicate and interact with one another, human beings need interpersonal skills. These skills are vital when interacting with other people at an individual or group level. Developing your interpersonal skills enhances your success both personally and professionally.



Why Interpersonal Skills?

A good interpersonal skill will allow you to network effortlessly and effectively.

What Are Interpersonal Skills?

- Effectively translating and conveying information.
- Being able to accurately interpret other people's emotions.
- Being sensitive to other people's feelings.
- Calmly arriving at resolutions to conflict.
- Avoiding gossip.
- Being polite.

Today, the fittest is that person who knows how to:

- collaborate,
- negotiate,
- listen,
- make themselves liked,
- influence,
- be assertive,
- communicate clearly and concisely,
- build a positive image of themselves in the eyes of those around,
- Gather around themselves people that are appreciating them, accept them as they are, challenge them in a positive way to aspire and accomplished great things, people that are treating them with respect and dignity.



Ways to improve your Interpersonal skills?

➤ Put on a happy face

If you smile often and have an upbeat attitude, others will be drawn to you. And when you're having a bad day, don't try to pull others down with you. You may find that people pass you by in favor of those with a more cheerful outlook.

- #### ➤ Show that you care
- When it comes to praise, don't hold back the applause. If someone has done something you appreciate – no matter how small – thank them

for it. Identify at least one attribute you value in each of your coworkers, and let them know about it. Give others a warm welcome whenever they call you or visit you.

➤ **Be considerate of colleagues**

Take note of what's happening with your coworkers. Recognize the happy events in their lives – from a birthday to a kid's kindergarten graduation – and be sure to show your genuine compassion when they face any personal tragedy. Look people in the eye when you speak to them, and refer to them using their first names. Show colleagues you value their input by asking their opinions.

➤ **Be an active listener**

Unfortunately, active listening is becoming a lost art. Being an active listener shows that you intend to both hear and recognize another's perspective. Using your own words, repeat what the speaker has said. By doing this, you'll know that you've processed their words, and they'll realize that your answers have been genuinely thought out. Your partner will feel more connected to you knowing that you're an active listener, and you'll develop a better understanding of them.

➤ **Promote togetherness**

Help others thrive by creating a friendly, cooperative environment. Treat everyone the same, not like they're part of a hierarchy, and don't act like one person's opinion is more important than another's. Don't gossip about your team mates. Always consider your coworkers' suggestions. After addressing a crowd, make sure you've been understood

➤ **Settle disputes**

You know how to bring people together, and now it's time to become the person they can turn to when disputes arise. When co workers disagree, it can bring the mood of the whole day down, but you can improve the situation by taking on the role of moderator. Arrange to have a discussion with both of the aggrieved parties, and try to help them resolve their conflict.

➤ **Be a great communicator**

You need to have otherwise great communication skills. When in a discussion with others, don't blurt out the first thing that comes to mind. Instead, think carefully about the words you use. With clear communication, you'll be able to avoid any potential misunderstandings with your near ones. A good speaker comes to be known as intelligent and mature, no matter their age.

➤ **Make them laugh**

Funny people are popular for a reason, so if you've got a great funny bone, use it. As long as you avoid inappropriate jokes and don't laugh off serious situations, you'll find that others will be drawn to you. Humor can even be a great way to break down barriers with that super shy coworker or moody boss.

➤ **Put yourself in their shoes**

An empathetic person can understand how another person feels, and empathy is an important trait when working with others. Always consider circumstances from another person's viewpoint. What may seem like the obvious, correct answer to you could have entirely different implications when seen from another perspective. Above all, keep tabs on your own feelings; people who are unable to tap into their own emotions often have difficulty empathizing with others.

➤ **Don't be a whiner**

Almost every office has a chronic complainer, and you'll notice they tend to be the least popular person in the office. If you constantly whine about this and that, your negativity will push others away from you. If there's something you really need to get off your chest, write about it in your journal or briefly chat about it with your friends and family. Otherwise, you'll risk being known as the office brat.

The benefits of improving your interpersonal skills:

- It is increasing your ability to build long-lasting and meaningful relationships.
- Makes your communication effective; you get the results you want because you know where you are going and how to get there.
- Gives you confidence and drive to advance your career.
- Helps you to understand yourself and others better.
- Provides the tools you need to manage and live your emotions with positive effects.
- Creates the perfect ground for you to use and expand your potential and talents.
- Allows you to feel connected to other people.
- Gives you the opportunity to search and find the place where you feel you belong and where you are useful, liked, loved and wanted.

Activity Corner

Game Chart

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

GREY	RED	GREEN	BLUE	YELLOW
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This game will be played in teams & each team will have a leader.

Step 1: You will be shown a Color chart for a short time and will be asked to remember the colors each number has been given in the chart.

Step 2: Now you will be given 5 numbers and each team has to guess the color of the number in the chart.

Step 3: Now each team has to decide among themselves & only the Team leader is allowed to make the final decision.

Step 4: Once the team leader has written down the colors of all the numbers or if the time is over, The Game ends!.

Step 5: The winner will be the team that gets most colors right within the time given or earlier.

This game encourages team discussion & the leaders will have a tough time deciding who is right or wrong. Have fun ☺.

Finding the colour codes

Team	Numbers					
A	7	1	8	14	21	25
B	3	9	17	24	29	12
C	4	11	26	19	6	30
D	3	17	13	22	18	10
E	2	5	15	28	19	12
F	4	14	23	16	18	29

Woman Rights and Empowerment

Smitha Kuriakose,

Advocate, M/s Chandrasekharan and Chandrasekhara Menon, Advocates

Email: smithasinjo@yahoo.co.uk

Woman Rights and Empowerment

“When you educate a boy, you educate one individual, when you educate a girl you educate a nation” - Larry Summers

Relevance

Women Empowerment itself elaborates that Social Rights, Political Rights, Economical stability, judicial strength and all other rights should be also equal to men and women. It is the increasing and improving of the social, economic, political and legal strength of the women, to ensure equal-right to women, and to make them confident enough to claim their rights. It is ironical that a country, which has recently acclaimed the status of the first Asian country to accomplish its Mars mission in the maiden attempt, is positioned at the 29th rank among 146 countries across the globe on the basis of Gender Inequality Index. There has been improvement in the position of women, but their true empowerment is still awaited. True empowerment happens when women are educated and financially independent.



Key Concepts

- **Education** - Education is the basic right and an essential tool for achieving equality, development and growth of future generations.
- **Equality as enshrined in the constitution**- Right to equality under Article 14 of the Indian Constitution guarantees to all Indian women equality before law; Equal pay for equal work under Article 39(d), Maternity Relief under Article 42, allows provisions to be made by the state for securing just and humane condition of work and maternity relief for women.
- **Dowry Prohibition Act, 1961**, prohibits the request, payment or acceptance of a dowry. Asking or giving dowry can be punished by imprisonment as well as fine.
- **Protection of Women from Domestic Violence Act, 2005**, provides for a more effective protection of the rights of women who are victims of domestic violence. A breach of this Act is punishable with both fine and imprisonment.
- **Sexual Harassment of Women at Work Place (Prevention, Prohibition and Redressal) Act, 2013**, enacted to ensure safe working spaces for women and to build enabling work environments that respect women’s right to equality of status and opportunity. An effective implementation of the Act will contribute to the realization of their right to gender equality, life and liberty, equality in working conditions everywhere
- **Compulsory registration of marriage**

- **Authorities under different Acts:** where women can approach for the redressal of their grievances

1. Introduction

Based on the ideas championed by our founding fathers for women empowerment, many social, economic and political provisions were incorporated in the Indian Constitution. Women in India now participate in areas such as education, sports, politics, media, art and culture, service sector and science and technology. But due to the deep-rooted patriarchal mentality in the Indian society, women are still victimised, humiliated, tortured and exploited in different places including one's own home. Even after almost seven decades of Independence, women are still subjected to discrimination in social, economic and educational field. Though remedies are available under various laws, many are ignorant of these. Social stigma is another issue, which prevents women from exercising their rights.

2. Importance/Advantages

1. Better opportunities to education and work
2. Enabling woman to take decisions in terms of education, career, family and other things
3. Helping to be assertive
4. Being part of nation building, law making process etc.
5. Benefit to self and the families
6. Having access to resources and information for the protection in cases of infringement of rights
7. Positive attitude to bring about a change
8. Develop new skills for group power and self-improvement
9. Overcoming stigma and staying focused on increasing positive self-image.
10. Eradicate extreme poverty and hunger.
11. Promote gender equality and empower women.
12. Reduce child mortality.
13. Improve maternal health
14. Combat HIV/Aids, malaria and other diseases

How to achieve

- **Human Rights or Individual Rights:** A woman is a being with senses, imagination and thoughts; she should be able to express them freely. Individual empowerment means to have self-confidence to articulate and assert power to negotiate and decide.
- **Social Empowerment:** A critical aspect of social empowerment of women is promotion of gender equality. Gender equality implies a society in which women and men enjoy the same opportunities, outcomes, rights and obligations in all spheres of life.

- **Educational Empowerment:** It means empowering women with the knowledge, skills and self-confidence necessary to participate fully in the development process. It means making women aware of their rights and developing a confidence to claim them.
- **Economical and occupational empowerment.** It implies a better quality of material life through sustainable livelihoods owned and managed by women. It means reducing their financial dependence on their male counterparts by making them a significant part of human resource.
- **Legal Women Empowerment:** It suggests the provision for an effective legal structure, which is supportive of women empowerment. It means addressing the gaps between what the law prescribes and what actually occurs. Also it covers how to address the issues legally and which authority to approach in case of their needs.
- **Political Women Empowerment:** It means existence of a political system favouring the participation in and control by the women of the political decision-making process and in governance.

Practical Session

Divide the trainees into small groups

Role-play

- 1) Actions you can take against harassment at workplace.
- 2) Harassment at home. How would you deal with?
- 3) At home, your brother is treated better than you, given more opportunities of development. How would you react?
- 4) You are denied a job opportunity because the company prefers only male workers.

What would be your reaction to it?

Activity Corner -Lessons learnt

- What is gender equality?
- Which law in India protect women from harassment at work places?
- How do you distinguish between “welcome” behaviour and “unwelcome” behaviour?
- What are the remedies available to women against violence at home?
- What are the benefits of women empowerment?
- You have filed a complaint in a police station against harassment to the nearest police station. The police is not taking any action against the offender.

What is the remedy available to you?

Summary

- What is empowerment
- Why it is important
- Rights of women and protection available under Indian law
- Benefits of educating and empowering women
- Disadvantages of not having education and equality
- How to achieve social, economical and political equality.

Woman centric Government programs and schemes

Sreelu N.S

Joint Director Fisheries, Kadungaloor

Email: sreeluns@yahoo.co.in

Kudumbashree

This programme was launched by the Government of Kerala in 1998 for wiping out absolute poverty through concerted community action under the leadership of Local Self-Governments registered as the "State Poverty Eradication Mission" (SPEM), a society registered under the Travancore Kochi Literary, Scientific and Charitable Societies Act 1955. The three critical components of this programme are: micro credit, entrepreneurship and empowerment. This programme works under a three tier structure. The grassroots of Kudumbashree are Neighborhood Groups (NHG). The NHGs send representatives to the ward level Area Development Societies (ADS) and the ADS sends its representatives to the Community Development Society (CDS).

Asraya

Destitute Identification Rehabilitation and Monitoring Project designed by Kudumbashree for the poorest of the poor is asraya. The main objectives are :

- Rehabilitation with the full support of the LSGI
- Bringing the destitute families into the mainstream of society
- Providing basic necessities such as food, housing, drinking water, sanitation, health care and clothing based on the specific needs and requirements of each of these families

BUDs schools

This is a disability mainstreaming program for mentally retarded children by providing them an opportunity for schooling. Now there are 63 approved BUDs school in the state

BUDs Rehabilitation Center: BRC

This programme is to take care of the mentally challenged persons above the age of 18. As on 1/4/2016 there are 93 BRCs in Kerala.

സ്നേഹിത

അതിക്രമത്തിനിരയാകുന്ന സ്ത്രീകളും കുട്ടികളും അടിയന്തിര സഹായവും മാർഗനിർദ്ദേശവും നിയമസഹായവും അവശ്യഘട്ടങ്ങളിൽ താൽക്കാലിക താമസസൗകര്യവും കൗൺസിലിംഗും ലഭ്യമാക്കുന്നതിനുള്ള കുടുംബശ്രീയുടെ അഭയകേന്ദ്രം .കുടുംബശ്രീയുടെ സ്ത്രീശാക്തീകരണ പ്രവർത്തനങ്ങളുടെ ഭാഗമായാണും ഇരുപത്തിനാല് മണിക്കൂറും പ്രവർത്തിക്കുന്ന ഹെൽപ്പ് ഡെസ്കും ഷോർട്ട് സ്റ്റേ ഹോമും ആരംഭിച്ചിരിക്കുന്നത്.

- ഏറണാകുളം: 82817-71111
- മലപ്പുറം: 82817-71700
- തിരുവനന്തപുരം: 82817-70114 , 0471-2313661

Gender Self-Learning Programme (GSLP)

The issues such as work, health, mobility, and entertainment are developed and deliberated in NHG meetings.

Sreesakthi web portal

This has been put up to help make the GSLP a productive and successful initiative. This portal provides a useful venue for discussing issues and ideas, creating modules, collating programme reports, clearing doubts, and, most importantly, helping women become computer and technology savvy.

State Government Schemes

Social Justice Department

This department handles different programmes which are listed below:

Flagship Programme on Finishing School for Women

This was initiated in the year 2007-08 and proposes to equip and upgrade the faculties and skills of women job seekers through additional training so as to make them employable. To achieve this objective the services of a number of institutions like ITIs, Engg. Colleges, IITs, Public, Private agencies etc. are used.

Flagship Programme for Gender Awareness

This is combined programme of Central & State Government. This is mainly intended to give general awareness on the rising menace of domestic violence, sexual harassment, dowry demands and to initiate a sustained campaign for creating awareness that would enable young girls and women to use the various provisions of law to defend themselves and seek remedial measures. The Beneficiaries include all women who need help.

Marriage Assistance to Differently Abled Women and to Daughters of Differently Abled Parents

A one - time assistance of Rs. 10, 000/- is provided to the beneficiaries. The application forms are to be obtained from District Social Justice Offices and to submit to the same office with required documents.

Scheme of Widow Remarriage - 'Mangalya'

The proportion of the widowed female population in Kerala is 11.56 percent. The scheme imparts financial assistance for the widows / divorced to remarry. Women belonging to the age group of 18 - 50 yrs who are legally divorced and widowed can be a beneficiary of this programme. Financial Assistance of Rs. 25,000/- is provided after the review of relevant documents. Remarriage certificate (remarriage taken place before the respective registrar) should be produced.

Educational Assistance to Children of Women Headed Families

This is a one-time assistance.

- **Category I**
Children below 5 years & between 1st and 5th standard: Rs 300 per month
- **Category II**
Between 6th & 10th standard: Rs 500 per month

- **Category III**
Plus one, Plus two: Rs 750 per month
- **Category IV**
Degree and above: Rs 1000 per month

Educational Assistance to Children of Prisoners

An amount of Rs. 500 per month will be given to children up to 10th standard and an amount of Rs. 1000 per month from plus two and above. The eligibility criteria of this grant are: Children of women and other prisoners sentenced for imprisoning for 2 years or more should belong to BPL family and only one time assistance will be given. Applications are accepted by the District Social Justice Offices, through the jail superintendents.

Nutrition Supplement to HIV affected Women and Children

A majority of HIV/AIDS patients are from poor families and their nutrition status is poor. Malnourishment can worsen HIV/AIDS. The main aim of this programme is to supply a nutritional mix according to WHO guidelines. The nutritional mix is supplied by Kudumbasree unit.

Victim Rehabilitation Scheme

This programme includes compensation to victims for treatment, housing, destruction of crops, education, income generating activities and rape cases. Victims include dependants (sons/daughters/parents/minor sisters/brothers) of victims expired. Maximum amount of compensation shall be Rs. 10,000/-

Vocational Training in Tailoring, DTP, Book Binding, Leather Work, MS Office, Mobile Phone Repairing, Printing, Computer Software and Hardware to Disabled

Vocational Training Centre's at Thiruvananthapuram and Kozhikode providing vocational training to disabled youths.

- Thiruvananthapuram: Book Binding, Tailoring and Embroidery works, Computer training in DTP course and Fashion Designing.
- Kozhikode centre: book binding, Leather works and Computer training in DTP course. course duration :2 years for Book Binding, Tailoring and Embroidery and Leather works and 6 months for DTP course

Psychosocial Counseling for Adolescent Girls in Schools

Redesigned Kishori Shakti Yojana to this Programme. School Health clinic/counseling programme being implemented in 163 selected schools. Service of a full time expert and qualified lady counselor is provided. Health checkup and related activities were also implemented in co-ordination with other departments such as Health, Education and Local self Government Institutions.

Central Government Schemes

UJJAWALAA

This is a comprehensive Scheme for Prevention of Trafficking

- PREVENTION of trafficking of women and children for commercial sexual exploitation

- RESCUE: of victims from the place of their exploitation and place them in safe custody.
- REHABILITATION: of victims by providing basic amenities/needs such as shelter, food, clothing, medical treatment including counseling, legal aid and guidance and vocational training.
- RE-INTEGRATION: of the victims into the family and society at large
- REPATRIATION: of cross-border victims to their country of origin

Nutrition Programme for Adolescent Girls (NPAG)

This programme is implemented in Malappuram and Palakkad districts by National Nutrition Mission, Govt. of India. In the other districts the funds are provided by the state government. The main aim of this programme is the improvement of nutritional and health status of girls by providing 6 kg of free food grain (rice) per month per beneficiary. And promotion of health, hygiene, nutrition, family welfare, home management and childcare.

Kishori Shakti Yojana (KSY)

This is to create awareness among adolescent girls about health, nutrition, family life, personal identity and skill development. Adolescent girls' clubs have been formed in every Anganwadi in the ICDS network. Yoga and self-defense techniques are also taught. Charter meetings are held at the panchayat level once every three months.

Integrated Child Development Services (ICDS) Scheme

This is one of the world's largest and most unique programmes for early childhood development. The services include: supplementary nutrition, immunization, health check-up, referral services, pre-school non-formal education and nutrition & health education.

KERALA SOCIAL SECURITY MISSION

This is a charitable society sponsored by Social Justice Department, Govt. of Kerala. The programme includes: *We Care, Cancer Suraksha scheme, Snehapoorvam, Samashwasam, Snehasanthwanam, Aswasakiranam, Hunger Free City, Vayomithram and Snehasparsham.*

Cancer Suraksha

Children, under 18 years, who have been diagnosed with cancer and are under treatment in the designated hospitals, shall be the beneficiaries. The entire cost of treatment, including the cost of investigations, would be borne by the hospitals through the funds provided by the Mission. The ceiling of expenditure per child would be initially Rs 50,000 which can be raised according to need.

Aswasa Kiranam

This is mainly intended to assist the care givers (family members or relatives) of physically and mentally disabled bed-ridden patients. Monthly assistance of Rs.525/- is provided which is apart from the pension given to the patient. The coverage of diseases includes: All bed-ridden patients who need a full-time caregiver, mentally challenged- (Autism, Cerebral Palsy, Mental retardation, Mental illness), 100 % blind, Bed-ridden cancer patients, old-aged bed-ridden and Brittle bone disease.

Vayomithram

This programme provides health care and support to elderly above the age of 65 years residing at Corporation/Municipal Areas. Provides free medicines through mobile clinics, Palliative care, Help desk to the old age and work as joint initiative with LSGD in the area

Snehasparsham

This is intended to protect and help unwed mothers who have special need for education, employment, health care especially reproductive and child health. Govt. to pay Rs. 1000 per month. The largest number of unwed mothers belonging to ST communities lives in Waynad district

Beti Bachao Beti Padhao Scheme

Child Sex Ratio (CSR), defined as number of girls per 1000 of boys between 0-6 years of age is 918 in 2011. The objectives include, Prevention of gender biased sex selective elimination, Ensuring survival & protection of the girl child and ensuring education and participation of the girl child.

Working Women Hostel

This is to provide safe and affordable accommodation to working women. Women under training for job may also be accommodated. Children of working women, up to the age of 18 years for girls and up to the age of 5 years for boys may be accommodated. The gross income must not exceed Rs. 50,000/- p.m. in metros, or Rs 35,000/- p.m. in any other place, not more than three years.

Rajiv Gandhi National Creche Scheme for the children of working mothers

This programme provides group care to children, who need care, guidance and supervision away from their home during the day. The scheme focuses on children of 6 months to 6 years, of working women in rural and urban areas who are employed for a minimum period of 15 days in a month, or six months in a year. This is open for 26 days in a month and for seven and half (7-1/2) hours per day and is located 698 creches in Kerala.

- **Mahila Mandirams:** Widows, Divorced, Deserted and Destitute Women above 18 yrs 13
- **Asha Bhavans** for the care and protection of mentally cured patients having nobody to look after them. Six Asha Bhavans in the state of which 3 are for women above the age of 13
- **Rescue homes** to provide care and protection to women who are guilty of immoral traffic and women prone to moral danger.
- **After-Care Homes:** for women between the ages of 14 and 21 released from correctional institutions under the Social Justice Department such as children's home, poor homes, rescue homes and orphanages 2
- **Short-Stay Home:** women (age between 15-35 years) who have no social support system due to broken families, mental strains, social ostracism, exploitation or moral danger. 1
- **One-day Homes** Women above the age of 13 years, who come from other places to cities such as Thiruvananthapuram, Kochi email-genderadvisorkerala@gmail.com

Decision making-The power & utility of communication and Problem solving

Dhanya.G

S.Technician, SEETT Division
Central Marine Fisheries Research Institute
Email:gdhanya06@gmail.com

All of us have heard of Swami Vivekananda, the wandering monk who lived from 1863 to 1902 was one of the finest minds that our country ever produced. Vivekananda's spirituality was a reflection of his understanding of life. He viewed life dispassionately and saw divinity in every being. This understanding of the broader meanings of life also made him a champion of women's rights. He wanted the women to be empowered so that they could deal with their lives themselves. His advice to men was, "our right of interference is limited entirely to giving education. Women must be put in a position to solve their own problems in their own way. No one can or ought to do this for them. And our Indian women are capable of doing it as any in the world."



Empowering women may sound simple but is not that easy to execute. It involves a series of interconnected aspects. The solution may differ from case to case depending on the context. It involves two main processes.

- Creation of the right environment.
- Women being able to act in such an environment.



While the task of creating the right environment is mostly external, something which has to be done by the society, the second one - viz women being able to act is such an environment - is an individual choice. A woman can choose to act or not to act in a particular situation. But this would require her to make an informed decision. It is this decision making process that we are going to focus in this lecture.

The dictionary meaning of "decision" is "a conclusion or resolution reached after consideration" and decision making is the step by step process through which one reaches such conclusion. What this basically tells us is that 'decision making' is a mental process but it depends on several external factors.

Let me explain it with a story. There once lived a naughty child. While he was growing up, he happened to notice for the first time a fire burning and wanted to know what it was. His father told him that it produces a lot of heat and advised him to stay away from it lest it burn him. But the kid wasn't convinced and decided to try. He tried to touch the fire and got his hands burnt.



So the child made a decision to touch the fire though his father had told him not to and burnt his hands. This means that though he had someone advising him against doing it, his own mind was not mature enough to understand it. This means that the decision making capacity of a person is not only dependent on external

factors, but also has to do with the mental maturity of each person.

Women are roughly 50 percent of the world's population and have a key role to play in the day to day affairs. Womanhood is a gift of nature and women are blessed with some unique traits. We are called the weaker sex by the West but the truth is they are mistaking our kindness as weakness. A woman has to play several roles in her personal and professional life. She is a daughter, a student, a professional, a mother, a wife, an aunt, a teacher, a cop, a minister, a lawyer, a grandmother and what not. The different roles require her to take different decisions depending on the facts and circumstances.

What should I study today, what should I eat today, what should I wear today, what should I say today, what job should I do, am I happy in my job and life, should I marry that particular person or should I marry at all, should I have kids, should I be bothered only about my rights or should I think about others too - these are questions all of us ask ourselves in some point in our lives.

The answer to each depends on our decision making capacity. And this capacity matures with time. Looking back at our teens, haven't we all wondered how silly we were then? What it actually means is that the decision that we made then appears to be immature to us now.

So those aiming for women empowerment should strive to create not only the tangible infrastructure in which women can take their own decisions, but also the intangible infrastructure to groom their minds to be mature enough to take those decisions. The intangible infrastructure begins right at home; with the kind of emotional support you are willing to give your child. Parents are the first teachers and only then come the school.

The girls should also get the right support in school as it where they pick up the basics of social living. These are days when cases of child sexual abuse are on the rise. Such disturbances can upset the emotional balance of the child and affect their growing up process and make their decision making process clouded.

Women Empowerment refers to the creation of an environment for women where they can make decisions of their own for their personal benefits as well as for the society.

It also refers to increasing and improving the social, economic, political and legal strength of the women, to ensure equal-right to women, and to make them confident enough to claim their rights, such as:

1. Freely live their life with a sense of self-worth, respect and dignity.
2. To have complete control of their life, both within and outside of their home and workplace.
3. To make their own choices and decisions.
4. Have equal rights to participate in social, religious and public activities.
5. To have equal social status in the society.
6. To have equal rights for social and economic justice.
7. Determine financial and economic choices.

8. To get equal opportunity for education.
9. To get equal employment opportunity without any gender bias.
10. To get safe and comfortable working environment.

Lack of decision making skills makes one indecisive and fills life with uncertainty which is a huge drain on our faculties. Thus making the right decision not only gives us peace, but also save time.

Concept of decision making in detail:

I. Power and Utility of communication

Communication helps to understand a person or situation in a better way. It enables us to solve the differences, build trust and respect among people. Communication helps us to resolve problems with both's point of view. Communication helps us to connect well with kids, spouse, boss, colleagues, etc. It helps us in decision making.

The Impact of Communication on the Decision-Making Process

Decisions may be made by a single leader, a committee or a large group of people, depending on the nature of the organization. When communication is thorough and accurate, decisions tend to be more informed and effective.

- a) **Acceptance**-Communication is improved when everyone in the decision-making process feels that their contribution is being respected. In a harsh or judgmental environment, some people will not communicate their thoughts and feelings because they fear negative reactions. A group environment of acceptance leads to more comprehensive input from all people, which in turn leads to better communications and decisions that take all aspects of the situation into account.
- b) **Cooperation**-Cooperative communication involves an equal exchange of ideas between engaged parties in a decision. While this process can take longer period and can be unwieldy, it can also result in decisions acceptable to everyone involved because the decisions are made by everyone equally.
- c) **Secrecy**-Secrecy is the opposite of communication. The people holding the secrets should be aware of the impact of secrecy on decision-making.

Common Barriers to Effective Communication on decision making:

- Emotional barriers and taboos: Some people may find it difficult to express their emotions and some topics may be completely 'off-limits' or taboo.
- Lack of attention, interest, distractions, or irrelevance to the receiver.
- Differences in perception and viewpoint.
- Physical disabilities such as hearing problems or speech difficulties.
- Expectations and prejudices which may lead to false assumptions or stereotyping. People often hear what they expect to hear rather than what is actually said and jump to incorrect conclusions.

II. Approaches to the decision making

Three primary decision making approaches: Avoiding, Problem solving and Problem seeking. Every decision-making process reaches a conclusion, which can be a choice to act or not to act, a decision on what course of action to take and how, or even an opinion or recommendation. Sometimes decision making leads to redefining the issue or challenge. Accordingly, three decision-making processes are known as avoiding, problem solving, and problem seeking.

a) Avoiding

One decision-making option is to make no choice at all. There are several reasons why the decision maker might do this:

There is insufficient information to make a reasoned choice between alternatives.

The potential negative consequences of selecting any alternative outweigh the benefits of selecting one.

No pressing need for a choice exists and the status quo can continue without harm.

The person considering the alternatives does not have the authority to make a decision.

b) Problem Solving

Most decisions consist of problem-solving activities that end when a satisfactory solution is reached. In psychology, problem solving refers to the desire to reach a definite goal from a present condition. Problem solving requires problem definition, information analysis and evaluation, and alternative selection.

c) Problem Seeking

On occasion, the process of problem solving brings the focus or scope of the problem itself into question. It may be found to be poorly defined, of too large or small a scope, or missing a key dimension. Decision makers must then step back and reconsider the information and analysis they have brought to bear so far. We can regard this activity as problem seeking because decision makers must return to the starting point and re-evaluate the issue or problem they want to address.

III. Making Effective decisions

1. Perception
2. Priority
3. Acceptability
4. Resources
5. Goals
6. Demands
7. Judgments

IV. Barriers to decision making

- Hasty: Making much decisions without having much thought
- Narrow: Decision making is based on limited information.
- Scattered: Our thoughts in making decisions are disconnected or disorganized.
- Fuzzy: Sometimes the lack of clarity on important aspects of decisions causes us to overlook certain important concepts.

V. Decision making in family

Making decisions in life can be a difficult task. Throughout your life you will make decisions that will affect your life. Infact, the decisions you make today will not only impact your future, but also other people at the world in which you live.



Decision making involves thinking talking and searching for information related to a problem. You gather that help you with the decisions you need to make. When families and individuals know their values, they use them as a guide for all aspects of life. Whether choosing a career, using money, or deciding what to wear, values are the basics for all decisions. Most decisions are not made all at once. Decisions take time to complete.



a) Four Factors Influencing Family Decision Making

- Sex-role stereotypes - separation of decision-making for sex-typed products.
- Spousal Resources - spouse contributing the greater resources (usually, but not always, money) has the greater influence.
- Experience - individual decisions are made more frequently when the couple has gained experience as a decision-making unit.
- Socio-Economic Status - middle class families make more joint decisions than either upper or lower class families.



VI.Types of family decisions

- Husband dominated decisions
- Wife dominated decisions
- Joint decision making
- Child dominated decision making

➤ Husband dominated decisions:

Husband takes the purchase decisions. Traditionally in products like Automobiles, Insurance etc.

➤ Wife dominated decisions:

Wife takes the household decisions. Traditionally in purchasing items, food and kitchen appliances.



➤ Joint decision making:

Both husband and wife make the decision. Traditionally in school choice, vacations and household matters.”

➤ Child dominated decision making:

Child makes the final product decision. Traditionally on child related items.



VII. Career decision making:

A career decision is a lifelong process. It is all about exploring and experiencing the world of work. It is all about understanding abilities, interests, skills, values and combining these to create a meaningful framework for life. If someone has to join a career course, so many options might be in front of them. They should have the capability to take the right decision. For that they should have self-awareness about the career and what are the different options for it. That finally leads to the decision on career path.



Conclusion

To sum it up, decision making has a powerful impact on our personality and social development because they effect on how we effectively respond to a given circumstance using our judgment.

Activity corner

Decision making Quiz

1. When you are making a decision, what is your main goal?
 - Live up to the other peoples expectation
 - Make a decision and move on as far as possible
 - Avoid the decision
2. Your best friend keeps pressuring you to do things that your parents wouldn't want you to do. You don't want to lose her friendship, but you can't take it anymore! What would you do?
 - You will do what she says
 - Give her a funny excuse
 - You will make her understand about the situation
3. If you do not follow rules or good decision making, consequences will not happen.
 - True
 - False



References

1. /Decision making pptslideshowwww.slideshare.net/ashgrover/decision-making-ppt
2. The Impact of Communication on the Decision-Making Process in an Organization
smallbusiness.chron.com › ... › Communication in Organizations
3. Barriers of effective communication in a descion making
www.skillsyouneed.com/ips/barriers-communication.html
4. Making effective decision making
pptslideshowwww.slideshare.net/Aima.Masood/management-presentation

Art of Positive Thinking

Livi Wilson

Scientist, Demersal Fisheries Division, CMFRI

Email:liviwilson@gmail.com

“Think like a queen. A queen is not afraid to fail. Failure is another steppingstone to greatness” - Oprah Winfrey

What is positive thinking?

Positive thinking is a mental attitude in which you expect good and favorable results. A positive mind waits for happiness, health and a happy ending in any situation. However, positive thinking actually means approaching life's challenges with a positive outlook. It does not necessarily mean avoiding or ignoring the bad things; instead, it involves making the most of the potentially bad situations, trying to see the best in other people, and viewing yourself and your abilities in a positive light.



Thinking often starts with self-talk. Self-talk is the endless stream of unspoken thoughts that run through your head. These automatic thoughts can be positive or negative. Some of your self-talk comes from logic and reason. Other self-talk may arise from misconceptions that you create because of lack of information. If your thoughts are mostly positive, you're likely an optimist - someone who practices positive thinking. If the thoughts that run through your head are mostly negative, your outlook on life is more likely pessimistic.

We have around 60,000 thoughts a day, many of which come and go so quickly that we're not aware of them. And how many of these prevent us from fulfilling our potential?

Quality of thoughts

Thinking about the Past:

Thinking about the past is one kind of waste thoughts. Imagine how much time we spent thinking about past events and life. There are very few times we think about the sweetness of past. Most of these thoughts are about the past mistakes or decisions. It is all right to learn from the past but it is totally wastage of time to think about the sad and bad memories of past again and again. It may be hard to believe that 80% of your thoughts are about the past.

Worrying about the Future:

Another part of waste thoughts is thinking too much about tomorrow. We forget to live in the present while worrying about the future. An average person spent 15% of the time thinking too much about future. What portion of thoughts left for positive, negative and necessary thoughts? It is only 5%.

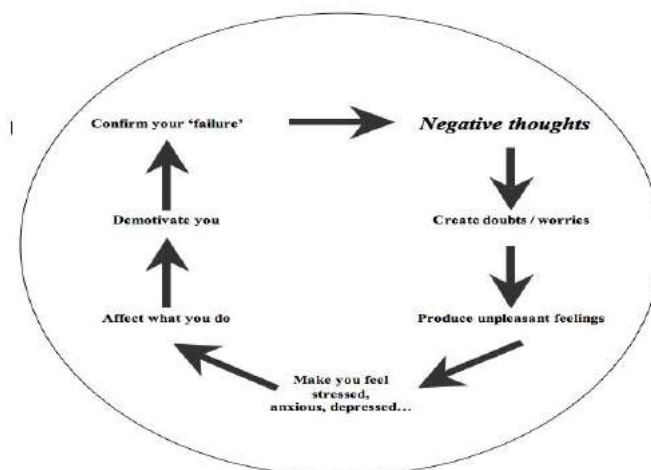
Thinking about Present:

Only 5% of our thoughts are about the present. Let us divide these thoughts into Positive, Negative and Necessary. What do you think that how much of these thoughts are positive? It is just 1 or 2%. This is the volume of positive thinking of the average human being.

This is the quality of our thoughts and our life. You know very well that our happiness, peace and love purely depend on the positive thoughts. Therefore, it is important to have healthy thoughts in our mind.

- Positive thoughts: These are thoughts related to peace, affirmations, happiness, love and purity.
- Negative thoughts: Feelings related to ego, anger, grudge and fear comes into Negative thoughts.
- Necessary thoughts: Thoughts related to daily activities and planning comes into necessary thoughts.
- Waste thoughts: Even if we have no power on circumstances, we still keep thinking about them. Thoughts about these situations are called waste thoughts.

“Positive thinking will let you do everything better than negative thinking will.”- Zig Ziglar



Reframing your thinking

Example 1: Girl getting dressed for a party

“I’m too fat, I won’t know what to say, and I won’t fit in”.

Reframe: I’ll have fun; I look fine, and my friends like me the way I am.

Example 2: “This assignment is too big; I’ll never get it finished”.

Reframe: “If I relax and focus, break down the assignment into smaller bits and manage my time well, I’ll finish by the deadline”;

Example 3: “I’ve never done something this big before, what if I can’t do it”?

Reframe: “I love a challenge. This assignment is simply a bigger version of my past successes it’s time to step up”.

Example 4: “I’ve bombed the exam and now I’m going to fail this subject”.

Reframe: “It’s too early to tell yet, maybe I did better than I expected, let’s wait and see”

Example 5: “You are an idiot!”

Reframe: “Don’t worry, its ok. Let’s be careful next time” .

Example 6: “You are a loser!”

Reframe: “You didn’t make it this time but next time we will try again.”

Remember: In reframing, we are not changing the situation or neglecting responsibility for a mistake but we change the way we look at ourselves and therefore have access to more supportive ways to deal with the situation. Give it a go!

Practice these simple exercises and suggestions to keep your thoughts on the positive side.

- **Only use positive words while talking.** If you’re constantly telling yourself “I can’t” you may convince yourself that’s the truth. Replace these negative words with positive ones instead. Tell yourself you will do your best or that you will try your hardest instead.
- **Direct your thoughts.** This technique, used by psychotherapists, can help you to control your thoughts when you start to feel down or anxious. Create a happy thought, a positive image, or give yourself positive feedback to keep bad feelings in check.
- **Believe you will succeed.** There is nothing like believing in yourself to create a successful reality. Give yourself the benefit of the doubt and believe that you will succeed in fulfilling your goals.
- **Analyze what went wrong.** Thinking positively doesn’t mean denying that there is anything wrong. Instead, give yourself some time to think about the things that led up to your current situation so you can avoid future mistakes and look toward a more positive tomorrow.
- **Give yourself credit.** Often when we feel frustrated or upset we only concentrate on the bad things or the mistakes we’ve made instead of giving ourselves credit for what we do right. Allow yourself to feel confident about the things you have accomplished, even if you’ve messed up in other areas.
- **Forgive yourself.** Constantly beating yourself up about things that have gone wrong won’t change them. Tell yourself that you’re forgiven for your mistakes and allow yourself to move on.



- **Learn from the past.** The past is behind you and no matter how badly things went there is nothing you can do to change them. Whenever you feel negative thoughts about the past come up, replace them with positive thoughts about the future.
- **Remember things could be worse.** No matter how bad things get to, remember that they could be worse and be grateful for all the good things that are in your life, even when it seems there's more bad than good.
- **Look for opportunity.** In every failure, there's an opportunity to improve. Spend time thinking of ways you can turn your setbacks at work into ways you can get ahead in the future.
- **Stop making excuses.** There are always a million excuses for any person not to do something even if that something can make them feel happier. Stop putting up obstacles to your happiness and ditch those lame excuses when you hear yourself making them.
- **Don't play the victim.** Bad things happen to everyone from time to time. Pitying yourself and wanting others to feel sorry for you isn't going to make things better. Pick yourself up and start working towards a happier future.
- **Associate yourself with those who think positively.** Positivity is contagious, so find friends and family members who look on the bright side to surround yourself with.
- **Come up with ideas of how to turn negative thoughts into positive ones.** If you find yourself thinking you should have done this or that differently, try changing your thoughts around. Instead give yourself credit for what you did. Do remember that you are not perfect or that you can do better next time.
- **Visualize a successful outcome.** Sometimes it can be helpful to picture yourself completing a project successfully or getting the promotion you desire. This can encourage you and make you feel better about the situation.
- **Think of ways to turn visualization into action.** The next natural step of this is to think of just how you're going to get to where you see yourself. Just picturing it isn't going to make it happen, so create a plan to take it one step at a time until you've made it.
- **Take control of your decisions.** You're the boss of what is going on in your life, even when you feel like you don't have a choice. Take back control of your decisions and make the choice to be happier and more positive.
- **Smile.** Sometimes all it takes to feel good is to put a smile on your face.

Difference between positive & negative thinking

Positive thinking	Negative thinking
They are winners	They are losers
Always has a program	Always has an excuse
Says " let me do it for u"	Says " that is not my job"
Sees an answer for every problem	Sees a problem for every answer

Stand firm on values but compromise on petty things	Stand firm on petty things but compromise on values
Says "it may be difficult but it is possible"	Says "It may be possible but it is too difficult"
Makes a mistake & says "I was wrong"	Makes a mistake & says " it wasn't my fault"
Are a part of the team	Are apart from the team
See the gain	See the pain
See possibilities	See problems
Believe in win/ wins	Believe for them to win someone has to lose
Plan & prepare to win	Plan but no preparation

The health benefits of positive thinking

Researchers continue to explore the effects of positive thinking and optimism on health. Health benefits that positive thinking may provide include:

- Increased life span
- Lower rates of depression
- Lower levels of distress
- Greater resistance to the common cold
- Better psychological and physical well-being
- Reduced risk of death from cardiovascular disease
- Better coping skills during hardships and times of stress

"Your beliefs become your thoughts,
 Your thoughts become your words,
 Your words become your actions,
 Your actions become your habits,
 Your habits become your values,
 Your values become your destiny."

— Mahatma Gandhi

Goal Setting

Rajool Shanis C.P.

Technical Assistant, NBFGR, CMFRI
Email: rshanis@gmail.com

Importance

Goal-setting is a powerful technique for helping a person develop a solid foundation for future planning and organization. By knowing what he/she wants to achieve in life, a person may know where they want to concentrate and what to improve. Everyone has dreams. These dreams may be for a college degree, a better life for loved ones, financial security, or the acquisition of material items such as a new car or home. Goal setting is the first step toward turning a dream into a reality. This important process provides focus and identifies specific steps that need to be accomplished. It is also a common practice used by successful individuals and organizations. A goal is a target. Think of a goal as a reward at the top of a ladder. Studies by Edwin A. Locke (2006) and his colleagues have shown that more specific and ambitious goals lead to more performance improvement than easy or general goals.

Setting goals is a fundamental component to long-term success. The basic reason for this is that you can't get where you are trying to go until you clearly define where that is. Research studies show a direct link between goals and enhanced performance in business. Goals help you focus and allocate your time and resources efficiently, and they can keep you motivated when you feel like giving up. Goals help employees stay aware of what is expected from them and leave little room for people to hide behind the curtain of unspecified expectations. Furthermore, setting and achieving goals translates to feelings of success for both individuals and companies, which in turn spurs greater productivity and confidence.



Significance

Men and women process goals differently. Women care about their goals more than men. Women tend to develop a greater emotional connection to their goals than men. This increased heartfelt connection helps women stick to their goals when the going gets tough. But women are more likely to procrastinate than men. Women feel less urgency to achieve their goals than men. This lack of urgency can result in procrastination and even goal failure. This can solve by attach a greater sense of urgency to your goals by setting more urgent deadlines, establishing immediate rewards, and limiting choices to override any tendencies towards procrastination. Ask yourself "What must I have accomplished today in order to keep on track to achieve my goals," to reach higher levels of focus and urgency. Next, accomplish at least one thing each day that pushes you closer to your goals. Or, try setting a deadline at the same time you set a goal to help fight the temptation to put off taking action

Types of goals

Goals that can happen quickly are called short-term goals. Goals that take a long time to achieve are called long-term goals. Short-term goals are achieved within a year's time and are needed to reach long-term goals. Long-term goals are set to be achieved in five to ten years. More difficult goals typically take longer to achieve. Goals provide focus; increase self-concept; and help overcome procrastination, fear, and failure.

There are several types of goals that you can establish for yourself depending on your life's purpose and direction.

- **Personal Goals** - Self Growth is important for our psyche. Find out how you can set your own personal development goals including hobbies/ recreation, friendship goals and family goals.
- **Financial Goals**- Find out how to set financial goals so you can achieve financial security to provide for your family and for your own satisfaction and happiness.
- **Career Goals**- Good career goals are essential for your financial security and your own personal happiness. Find out how to get the most out of your career.
- **Social Goals**- More often your success will be measured by what you do for the society rather than your personal achievements. As a human being it is your responsibility to give back to society more than what you receive from it. Any goals that you set for this purpose are Social Goals.
- **Health Goals**- Find out how to set Health goals to maximise your enjoyment of life – lose weight, get fit, gain energy – it's all possible if you set goals.

The best goals are **SMART** goals. This means that they should be Specific, Measurable, Achievable, Realistic, and Timely.

Specific: Your goal must be clear and well defined. Vague or generalized goals are unhelpful because they don't provide sufficient direction. Remember, you need goals to show you the way. Make it as easy as you can to get where you want to go by defining precisely where you want to end up. A specific goal will usually answer the five 'W' questions:

What: What do I want to accomplish?

Why: Specific reasons, purpose or benefits of accomplishing the goal.

Who: Who is involved?

Where: Identify a location.

Which: Identify requirements and constraints.

Measurable - Measurable goals means that you identify exactly what it is you will see, hear and feel when you reach your goal. Establish concrete criteria for measuring progress toward the attainment of each goal you set. When you measure your progress, you stay on track, reach your target dates, and experience the exhilaration of achievement that spurs you on to continued effort required to reach your goal.

A measurable goal will usually answer questions such as:

How much?

How many?

How will I know when it is accomplished?

Achievable/Attainable - When you identify goals that are most important to you, you begin to figure out ways you can make them come true. You develop the attitudes, abilities, skills, and financial capacity to reach them. You begin seeing previously overlooked opportunities to bring yourself closer to the achievement of your goals. You can attain most any goal you

set when you plan your steps wisely and establish a time frame that allows you to carry out those steps. Goals that may have seemed far away and out of reach eventually move closer and become attainable, not because your goals shrink, but because you grow and expand to match them. When you list your goals you build your self-image. You see yourself as worthy of these goals, and develop the traits and personality that allow you to possess them.

Realistic- To be realistic, a goal must represent an objective toward which you are both *willing* and *able* to work. A goal can be both high and realistic; you are the only one who can decide just how high your goal should be. But be sure that every goal represents substantial progress. A high goal is frequently easier to reach than a low one because a low goal exerts low motivational force. Some of the hardest jobs you ever accomplished actually seem easy simply because they were a labor of love.

Timely – A goal should be grounded within a time frame. Make a tentative plan of everything you do. Everybody knows that deadlines are what makes most people switch to action. So install deadlines, for yourself and your team, and go after them. Keep the timeline realistic and flexible, that way you can keep morale high. Being too stringent on the timely aspect of your goal setting can have the perverse effect of making the learning path of achieving your goals and objectives into a hellish race against time – which is most likely not how you want to achieve anything.

T can also stand for Tangible – A goal is tangible when you can experience it with one of the senses, that is, taste, touch, smell, sight or hearing. When your goal is tangible you have a better chance of making it specific and measurable and thus attainable.

The Ten Commandments of Goal-Setting (By Gary Ryan Blair)

1. Thou Shall Be Decisive

The difference between what one person and another achieves depends more on goal choices than on abilities. The profound differences between successful people and others are the goals they choose to pursue. Individuals with similar talents, intelligence, and abilities will achieve different results because they select and pursue different goals.

2. Thou Shall Stay Focused

Focus creates a powerful force: goal power. The moment you focus on a goal, your goal becomes a magnet, pulling you and your resources toward it. The more focused your energies, the more power you generate. There is a seismic shift in performance that takes place when you move from decisiveness to focus.

3. Write Down Thy Goals

Writing challenges thought. When you write a goal, you actually see what you're thinking. You have a target to aim for... something that takes shape and grows legs. By writing your goals, you take a step toward achieving them.

4. Thou Shall Plan Thoroughly

You can virtually guarantee your success in any endeavour if you know who you are, what you want, where you are going, how you will get there, and what you will do once you arrive. Planning before you act helps you to do things better, faster, and cheaper.

5. Thou Shall Involve Others

Nobody goes through life alone. Establish your own "Personal Board of Directors", people whose wisdom, knowledge and character you respect to help you achieve your goals

6. Thou Shall Welcome Failure

People are naive about the benefits of failure. Wrongly founded assumptions about failure replace potentially accurate assessments of what is necessary to achieve success.

7. Thou Shall Take Purposeful Action

Success is not a spectator sport - achievement demands action. You cannot expect to arrive at success without having made the trip. The acid test of goal setting is purposeful action.

8. Thou Shall Inspect What Thou Expect

The purpose of measuring performance and inspecting expectations is to improve performance. Therefore inspect frequently and closely, it's an insurance policy on your success.

9. Thou Shall Reward Thyself

A reward provides an effective but uncomplicated means of reinforcing the actions most important to success. Rewards are reminders of our potential for achievement. We should reward ourselves daily for small accomplishments; this simple act becomes fuel for future achievement.

10. Thou Shall Maintain Personal Integrity

Personal integrity means maintaining a commitment to your commitment. Set your goals; promise yourself that you will achieve them. Eliminate wiggle room and excuses.

Goal Setting is definitely an ongoing process that is accomplished over time. When we first sit down and start to define goals it can seem like a difficult and daunting task but over time it begins to get much easier. Patience is required. All goals due in the next year should be reviewed at least once a week and daily if possible. The great thing about frequent review is that this forces us to make big decisions and determine priorities in our life. We should keep watch for goals that aren't being achieved on time or for goals on which we keep extending the deadline.

Activity Corner

Use this worksheet to identify the specific SMART criteria you will use to write your goal statement

What is your basic goal?		
1.	Is it specific? (Who? What? Where? When? Why?)
2.	Is it measurable? How will I measure progress? (How many? How much?)
3.	Is it attainable? (Can this really happen? Attainable with enough effort? What steps are involved?)
4.	Is it realistic? (What knowledge's, skills, and abilities are necessary to reach this goal?)
5.	Is it time bound? (Can I set fixed deadlines? What are the deadlines?)

Work Life Balance-Art of Prioritizing **Shyam.S.Salim* and Smitha Rosey Xavier**

Principal Scientist, SEETTD, CMFRI

Email*: shyam.icar@gmail.com

“Life is all about balance, too much and too little can kill. The best way to balance life is by setting your boundaries in learning to say enough.”

Relevance

Balancing work and life is a comfortable state of equilibrium achieved between an employee's primary priorities of their employment position and their private lifestyle. Positive work-life balance is the product of greater flexibility-employees want greater control of their work and their schedules. As with most things in life, moderation is the key. People who are constantly tied to their jobs deal with the symptoms of stress and burnout. Overworked employees are more likely to suffer health problems, more like to be absent and/or sick, less efficient, less sociable, and overall more difficult to work with. It is in the best interest of both the employee and employer to avoid these pitfalls through smart human resource management.

Introduction

Work life balance is a broad concept including proper prioritizing between “work” (career and ambition) on one hand and “life” (Health, pleasure, leisure, family and spiritual development) on the other.

Through a broad lens, we simply define work-life balance as the healthy blend of an employee’s professional and personal responsibilities. It’s about being able to make the two work together over the long term, understanding that on any given day, employees may not fully “balanced” one way or the other

The women who chose to balance both families and careers often felt guilt they were not at home more, but have a sense of self-worth and accomplishment they earned from their careers ultimately made them better and more inspiring mothers. Some are of the view that there never is an ideal work- life balance because the balance is always shifting depending on our place in life.

As your life changes, your priorities change, so it’s about reprioritizing and making shifts to your focus. Many of the women need a sound financial footing which they can cover the risk of unexpected events such as divorce or death.

Reasons for Imbalance

- Global Economy
- Longer working hours
- International business
- Competition
- Individual career ambitions.

Solutions

- Prioritize ruthlessly
- Learn how to say NO
- Organize
- Use technology

Here are the 10 lessons about career, family and legacy

- **Communicate your aspirations.**
Define both your family and career aspirations. Reflect and revisit them often. Communicate your aspirations to your organization or network, as well as your family.
- **Get an education**
An education early in life is critical to achieving career advancement, financial security and independence.
- **Be financially prepared for the unexpected**
Plan for an emergency before an emergency happens.
- **Develop business acumen**
Seek opportunities to develop your ability to make sound business judgments.
- **Understand the trade-offs of a career break**
Consider long-term financial and skills implications when making the decision to opt out of the labour market.
- **Rethink guilt**
Focus on the positive, long term benefits and outcome of a career.
- **Be confident – take career & life risks**
Be aware of the self-imposed obstacles that could be holding you back. • Take risks, both in career and life, to achieve the life you want.
- **Find trusted mentors and mentees**
build your network of mentors to help guide and support you. Help others to develop leadership skills.
- **Network, network, network!**
Think carefully, creatively and strategically about how you develop and maintain your networks.
- **Think about your legacy.**
Identify your legacy early and revisit it often. Use your plan as a guide to achieving your goals.

How to achieve work life balance

1. Purpose
To focus on how to successfully combine work, family relationships and leisure time into a satisfying life.
2. Approach
 - To create a skill set that enhances the ability to evaluate priorities, focus on the big picture and use long range planning.
 - Determining your priorities
 - Prioritizing the tasks and planning the activities can help to take out some free time which can be utilized for other purposes.
 - TIME MANAGEMENT is one of the best solutions which can help to reduce the imbalance between the personal and the work life of the employees.

3. Learn how to say YES as well as NO.
4. Establish your absence as well as your presence.
5. Do a little bit of everything as well as all of one thing.
6. Determine your tasks as well as your priorities.
7. Work until your time is up as well as until your task is done.
8. Bring some of your home to work as well as some of your work to home.
9. Seek to integrate your professional and personal activities as well as to separate work and play.

Ten Most Essential Work Life Balance Retention and Attraction Strategies to be followed in an organization

1. Flexible working hours - providing more flexible and consultative rostering arrangements and working hours to all employees, including shift workers.
2. Part time work - providing more part time jobs with less hours or fewer shifts, or job sharing arrangements to all employees.
3. Reasonable working hours - reducing excessively long working hours and double shifts.
4. Access to childcare - improving access to childcare with onsite childcare facilities and giving shift workers, who need access to childcare facilities, regular fixed shifts.
5. Flexible leave arrangements - providing greater flexibility in leave arrangements to suit employees' personal circumstances, including leave for school holidays through purchased leave arrangements and extended leave without pay to provide full time care to family members.
6. Leave in single days - allowing employees to request and take leave in single days and accrued hours as time off in lieu of payment.
7. Job mobility - providing increased mobility for employees to transfer between wards, hospitals, work areas and health services to find more suitable working arrangements that will assist them to better balance their current work and family/personal responsibilities.
8. Safety and wellbeing - improving safety, wellbeing and respect for all employees in the workplace.
9. Telephone access - ensuring all employees are able to receive urgent telephone calls or messages from family members at work and have access to a telephone to remain contactable with their family during working hours.
10. Casual work - introducing pools of permanent flexible part time or casual employees, similar to Nurse West, in other occupations to cover leave and other absences

ACTIVITY**Answer these questions****WORK- LIFE HOME**

Name :

Do you have children :

(If yes, then No. of children) :

♣ Are you presently working

a. Yes b. No

♣ What are the type of work you do at home

♣ How much time you spend on domestic activities

a. Less than 2 hour's b. 2-4 hours c. 4-6 hours d. More than 6 hours

♣ Do you feel you have an organized work style at home

a. Yes b. No

♣ Do you have elders to look after at your home?

a. Yes b. No

♣ Do you spend as much time as you'd like with your family

a. Yes b. No

♣ Do you think your job will make you feel tired to do the things that need attention at home?

a. Yes b. No

♣ Does your spouse help you at your household work?

a. Yes b. No

♣ Do you feel you will be satisfied with your personal life and at the same time being employed?

a. Strongly Satisfied b. Satisfied c. Neutral d. Dissatisfied

♣ Do you feel you will be able to balance your work life?

a. Yes b. No

♣ Do you wake up early in the morning?

a. Yes b. No

♣ Do you enjoy getting up late in the morning

a. Yes b. No

♣ Will you enjoy working on holidays

a. Yes b. No

♣ Will you prefer to work a bit late without any extra pay

a. Yes b. No

♣ Do you feel you will miss out quality time with your family and friends because of work pressure

a. Yes b. No

♣ Do you suffer from stress related diseases like hypertension etc.

a. Yes b. No

♣ How will the following factors affect you in balancing your work life and family commitments?

Factors	Will not Affects	Will Sometimes	Affects Many times	Always affects
Work Hours				

Overtime				
Work from home after office hours				
Work on holidays				
Travelling away from home				
Spending time with friends				
Get home on time				
Excessive household work				
Do any study or training you want to do				
Keep healthy and fit				
Take part in community activities or fulfill religious commitments				
Take care of family and spend time with them				
Negative Attitude of family / spouse				
Negative Attitude of superior / colleagues				

♣ Tick the factor that motivate you to work

Personal Satisfaction	
Financial Independence	
Support from family	
Constructive Utilization of Time	
Any other, Specify:	

♣ Give priorities to the following (1to 5)

- Career Health Family Wealth Hobbies

♣ On a scale of 1 to 10 (where 1 means strongly disagree and 10 means strongly agree)express the extent to which you agree with the following statement:

I feel that I will have the right balance between work and life outside of work.

1 2 3 4 5 6 7 8 9 10

Work Life wheel activity

Work Life Balance Wheel Activity:

The activity aims to analyse the highs and lows of a person’s life, and helps in attaining a balance. A Wheel (Circle with sections) with essential entities for life, is made.

1. Health,Family &Friends,Fitness,Education,Happiness,Exploration,Relaxation, Spirituality Carrier,Fun,Love life,Finances

Now the participant honestly marks a dot at the outer edge of the circle if he feels good about that factor, and marks a dot near the centre of the circle if he feels otherwise. The same is to be done for all the factors. The participant then joins the dots. If a circle is not achieved, and has too many ups and downs, corrective measures need to be taken to balance life.

Final Thought

Work Life Balance Wheel



How to Influence People

Sandhya Sukumaran

Senior Scientist, Marine Biotechnology Division, CMFRI, Kochi
Email: sandhyasukumaran@yahoo.com

“We never know which lives we influence, or when, or why.”
-Stephen King

One of the most important skills that you need to develop for success in life is to influence people. By influencing people you help people to do better and encourage them to see things from a different view point.

Important traits to influence people

There are certain traits that are important in influencing people.

Be outgoing

You should have a friendly and outgoing personality and this will have an influence on the people around you. People will respond to those who are comfortable with them and thus follow their lead. But you should never treat them as someone lower than you. Everyone should be treated like a friend.

Smile

Everyone appreciates a smile. People will feel that you are approachable and trustworthy.

Ask questions

It is important to engage other people in conversations. Show an interest in them and they will become more open and responsive. Simply ask for a help or help them with something they are struggling with.



Plan activities

You should take the initiative and organize a group trip. This will help you make them friends and show them that you like them and include them.

Demonstrate interest in others

In order to make a good impression, you need to show an active interest in the person you're talking to. Listen to what they are saying. A good listener learns a lot about people. Ask stimulating questions about the other person's interests and opinions. Respond to their questions with a sense of the topic. Responding correctly will generate a sense of trust and create a bond between you.

Address people by name

People are more likely to respond when they hear their name, as the use of their name makes your message more personal to them.

By remembering to use someone's name, you will seem like an interesting person who pays close attention to details. It is the same as remembering their birthday, so take notice in what they have to say about themselves.

Be an active participant in discussions

Building a relationship with someone is a two way process. It's about response and trust. You shouldn't use a conversation as a vehicle for forcing your ideas and opinions on others. Equally, you shouldn't get out of a conversation either; nobody wants to feel like they're talking to themselves.

Talk about the interests of others.

Encouraging someone to talk about the things they are passionate about is another great way to demonstrate an interest in others. It is also one of the best ways to get to know someone, a vital component in building a relationship. When you speak about the topic they love, people will open up. Never try to overpower the other person by talking too much about your own interests.

Respect the opinions of others.

It is important to always respect other people's opinions, even during a disagreement. You do not need to agree with the other person, but you should allow them to express their opinions and beliefs without contradicting or belittling them. Relationships are built on trust and mutual respect, so it is important to recognize and accept your differences.

Secure your place within a social circle.

Establish your place within a social circle by becoming friends or respected acquaintances with as many people within that circle as possible. This will increase your influence and power over that circle as a whole. When your friends introduce you to a new group of people never look bored. Instead you should seize the opportunity, interact with them and try to understand them. You should also try to speak to people within the circle you don't normally hang out with. Try to become friends with them for their own sake. Host a party or group activity of some kind and invite as many friends, acquaintances and friends of friends as possible.

Admit your mistakes first and foremost.

If you are wrong, be sure to admit it quickly and emphatically. The quick way to generate animosity is by failure to admit your mistakes when you are obviously at fault. So if you want to build credibility and respect, be sure that you are quick to admit your errors as soon as you realize them. People will admire your honesty and honesty inspires trust.

Point out mistakes in a helpful, indirect way.

If it is necessary to point out someone else's mistakes, make sure to do it in a constructive, positive way. The last thing you want to do is make another person feel small or stupid. If you are humble and matter-of-fact with your correction, you will find that your comments are more likely to be heard and taken to heart. Never correct someone in front of another person. Keep it between the two of you.

Establish your expertise.

If you have extensive knowledge on a given topic, it is worthwhile making this fact known, especially if that knowledge could potentially be used to help someone else. Don't brag about your knowledge or talk about it endlessly. This will make you seem like a know-it-all and will discourage people from asking you about for help. Make your expertise known and let people know you are happy to help, if needed.

Live a clean life worth looking up to.

If you want to influence people, it is important that you live the kind of life that people can respect and look up to. You need to live life to the full and be the best person you can be. Some ways to achieve this include:

- Holding a good job.
- Taking care of your appearance.
- Eating healthily and staying fit.
- Avoiding drug and alcohol abuse.
- Having interests and hobbies
- Respecting others.

Demonstrate a willingness to learn.

Although having firm opinions and beliefs is an admirable trait, it is also important to keep an open mind and to be willing to try new things and learn from your experiences. Strive to broaden your horizons. Engage in stimulating and thought-provoking discussions, read books and newspapers, travel as much as possible. You should be a yes person. If somebody offers to teach or show you something new, take them up on it.

Take a friendly approach.

Always begin in a friendly manner if you are trying to influence others to your way of thinking. Avoid being bossy or demanding. Start by asking questions that they will quickly say yes to, in order to get cooperation.

Sympathize with opposing beliefs.

Try to understand where the other person is coming from. Ask yourself, what motivates them to do certain things? Again, it's about reciprocity; if you respect others' beliefs, they will appreciate you and your beliefs as well. By sympathizing with beliefs that you disagree with, you can help establish an air of open-mindedness which will help increase your influence.

Plead a noble case.

People are more likely to change their behaviors, if the change will benefit society as a whole, rather than just you.

Avoid giving orders.

Never give orders (even with the word please). This makes the other person feel like you don't respect them or care about their input and might lead them to deliberately ignore or do the opposite of what you want. Instead, ask questions or make subtle suggestions.

Praise others

Praise is the best motivator for behavior, so be generous with your praise. However, don't give praise just to give it, this will come off as being insincere. It means more to the recipient if it's about something they recognize as praiseworthy.

Make others feel as though the idea belongs to them

This is very important to influence others to your way of thinking. People can be critical of others' ideas, but if it's their idea, they will be much more in favor of it. Give the other person lots of hints and clues, but let them reach the conclusion themselves. If you want your partner to take you away for the weekend, make comments about needing a break from reality, wanting to spend some quality time together etc.

Let others save face.

Helping others to save face is a good way of building trust. By saving them from an embarrassing situation, the other person will feel grateful towards you and might even feel like they owe you a favor. You may pretend that nothing happened. Help to deflect attention away from the person after an embarrassing occurrence. For example, if somebody says something they're not supposed to or accidentally cause offense, you can help by quickly changing the subject.

How to Handle Criticism
Sunil P.V.*,Manjusha U. and Salini K.P
 Technician, SEETTD, CMFRI, Cochin
 Email*: sunilcmfri@gmail.com

Any fool can criticize, condemn, and complain but it takes character and self-control to be understanding and forgiving - Dale Carnegie

Introduction

Compared to all other nations Constitution of India guarantees to all its citizens the right to freedom of speech and expression. People's everyday lives are shaped through language and communication. They choose what to do with their time based on opinions and ideals formed through the discourse they are exposed to and Criticism is an inevitable part of the environment that surrounds us.



Criticism is painful and praise feels good for both men and women. What other people think affects women more dramatically though. Women are relationship oriented. When people don't like what they are up to, it can feel like disharmony or a break in their relationships, which they deeply value. Women pick up more information about what others think. A host of studies show women are more adept at reading facial expressions and body language than men. For most of history, women couldn't protect themselves through legal, political, or financial means. Research shows that when women get negative feedback, it tends to be more personal than the feedback men get. It can also be more angry and even violent or vulgar, especially in our internet age.

It is true that we face criticism in our day to day life and when somebody criticizes, it feels bad and depressing. Nobody likes being criticized but, unfortunately it is a fact of life. To be able to respond to criticism with nobility and detachment is an important life skill, which few people have. If we respond to criticism without careful consideration, it can easily lead to unnecessary suffering.

Dealing with criticism positively is an important life skill. At some point in your life you will be criticized, perhaps in a professional way. Sometimes it will be difficult to accept - but that all depends on your reaction. You can either use criticism in a positive way to improve, or in a negative way that can lower your self-esteem and cause stress, anger or even aggression.

Definition: Criticism is the study, evaluation, and interpretation of literature, artwork, film, and social trends. The expression of disapproval of someone or something on the basis of perceived faults or mistakes. The words "critic" and "critical" existed in the English language from the mid-16th century, and the word "criticism" first made its appearance in English in the end of 16th century (primarily literary criticism) on Samuel Johnson's contemporary Alexander Pope's *Essay on Criticism*.

Advantage and disadvantage of criticism

- When people criticize, it can have a fruitful, enriching and constructive effect on the recipient, because new ideas and viewpoints may be generated in trying to solve a problem.
- People can also be hurt by criticisms, when they experience the criticism as a personal attack.
- At some point in your life you will be criticized, perhaps in a professional way. Sometimes it will be difficult to accept – but that all depends on your reaction. You can either use criticism in a positive way to improve, or in a negative way that can lower your self-esteem and cause stress, anger or even aggression.
- Criticism is a form of communication. If someone has a criticism on what you're doing for them – that means an opportunity to learn more about the person who you're working for and how to convert them into a satisfied customer or audience member. Feedback helps make your product stronger.
- Some individuals are critical by nature and do not always realize that they are hurting the feelings of another person.



Dealing with criticism- Procedure

I) Change Your Perspective

- **Know the difference between destructive and constructive criticism.** Constructive criticism is, ideally, meant to help you. Destructive criticism is only intended to cause hurt. You have to know where the feedback is coming from and understand the intentions of the person who is giving it to you. If it's a teacher or a superior, then chances are the person only wants you to perform better; but when it's coming from a supposed friend, or even an enemy, then you have to wonder whether or not the person has your best interest in mind.
- **Accept that you're not perfect.** Nobody's perfect, so if you think you're perfect, then you're nobody. Okay, but seriously: every person has flaws, and if you don't see any of yours, then you're not analyzing yourself as closely as you should.
 - **Don't take it personally.** If your boss says you've been a little less productive than usual lately, it's not because he thinks you're fat and lazy; it's because he wants you, his employee, to step up your game.



If the criticism is constructive, then it's intended to guide you and to help you improve as a person, not to bring you down and make you feel inadequate. If your teacher has given you rather critical feedback on a paper, it's not because she thinks you're stupid or annoying in class; it's because she thinks you have some work to do when it comes to making an argument.

- **Work on being less sensitive.** If you always find yourself crying, getting defensive, and feeling generally upset when someone gives you what was supposed to be helpful feedback, then you have to start thickening your skin. Think about where the message is coming from. Control your emotions.

II) Dealing with Constructive Criticism

Constructive criticism is designed to point out your mistakes, but also show you where and how improvements can be made. Constructive criticism should be viewed as useful feedback that can help you improve yourself rather than put you down. When criticism is constructive it is usually easier to accept, even if it still hurts a little. In either scenario always try to remember that you can use criticism to your advantage.

- Understand what you're really being told.** If you want to deal with criticism, then you have to understand the message behind it. Then you have to break it down so you can start figuring out what to do next. Sometimes, you may be focused on the hurtful aspects of the feedback and your pride may be too wounded for you to see what is right in front of you.
- See if there's some truth to it.** If the feedback is coming from a person who has your best interest in mind, then you have to consider the possibility that there really is some truth to those words.
- Make a game plan for addressing it.** You've got to write down the thing you need to work on, and make a plan for addressing it. This can take a long time, and it's never too late to start. Once you come up with a plan, a way of adjusting your expectations and actions, you can begin to address the criticism and become a better person.
- Thank the person for being honest (if he's also being kind).** If you have received some criticism that was delivered in a friendly and helpful way, or just in a way that was meant to be honest and clear, then take the time to thank the person and to say that you appreciate the fact that the person told you something that can make you an even better friend, girlfriend, student, or professional. Thanking people who give you honest criticism is also a sign of maturity. Suck it up and say "thank you" even if you're gritting your teeth.
- Stop making excuses.** If you get defensive and make excuses, then the person won't be able to finish telling you exactly what he or she means, and you won't get the information you need to really improve. It's natural that we feel defensive and get the feeling that we can do no wrong, but it's important to hear people out before you cut them off to prove you're perfect.
- Remember that constructive criticism can make you a better person.** Sure, it's tough to deal with even the most well-meaning criticism, especially if you're convinced you're perfect and that you can do no wrong. But if you're so invested in being an awesome person, then remind yourself that being aware of your flaws and shortcomings and making a plan for addressing them will make you an even more amazing person.

III) Dealing with Destructive Criticism

- Understand the person's true motives.** If you have recognized the criticism as completely destructive and hurtful, then you can think about why the person might have said such a thing to make yourself feel better.
- Look for the grain of truth.** Okay, so maybe the criticism was delivered in a way that was completely mean, unnecessary, and hurtful, and most of the things that were said were way off base.

- c) **Remember that words can never hurt you.** Remind yourself that criticism only consists of *a* bunch of words.
- d) **Stay confident.** Maintain your confidence. No matter what people are saying about you, you have to stay strong, remember who you are, and not let other people influence your own self-worth. Being confident doesn't mean thinking that you're flawless, but it does mean loving who you are and how you look.
- e) **Keep doing what you're doing.** If the criticism has no basis whatsoever, then the best thing you can do is to ignore it completely. Don't feel bad if you're not able to push all of these negative words aside right away. It takes practice to stop caring about what people think.

Activity Corner

Make a list of your 10 biggest flaws. Can you think of 10 things that need improvement? This exercise isn't meant to make you feel bad about yourself; it's only meant to make you see that you have room for improvement.

Summary

We all make mistakes all the time, it is human nature. As we go through life we have plenty of opportunity to learn and improve ourselves. Therefore, no matter what kind of criticism is aimed at you, analyse it to find something you can learn from it. If people formulate their criticism in the right way, it is more likely that other people will accept it. If the criticism is badly expressed, people might reject it, not because it is wrong in itself, but because they do not like being talked to in that way.

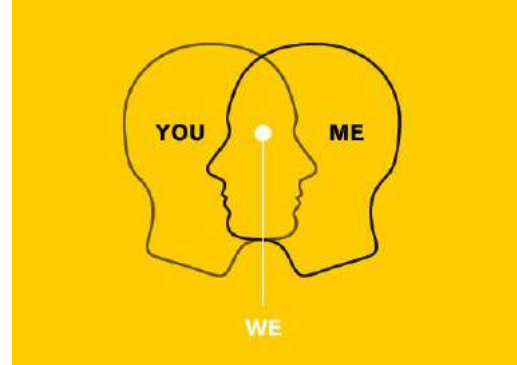
Tips

- If the criticism is faulty, ignore what has been said or contact the person who sent the criticism.
- Criticism means constructive advice pointing out your faults.

Empathy: Living in their shoes
Shyam. S. Salim and Reeja Fernandez
 Principal Scientist, SEET Division, CMFRI
 Email:shyam.icar@gmail.com

Empathy is the awareness of the feelings and emotions of other people. It is a key element of Emotional Intelligence, the link between self and others, because it is how we as individuals understand what others are experiencing *as if we were feeling it ourselves*.

Empathy is the power of entering into another's personality and imaginatively experiencing his experiences. It is the awareness of others feelings, needs and concerns.



Elements of empathy

1. Understanding others

This is sensing others feelings and perspectives and taking an active interest in their concerns. These are people who:

- Listen well and pay attention to non-verbal communication, picking up subtle cues almost subconsciously.
- Show sensitivity and understand others perspectives.
- Are able to help other people based on their understanding of those people's needs and feelings.

2. Developing others

Developing others means acting on their needs and concerns and helping them to develop to their full potential. These people are who:

- Reward and praise people for their strengths and accomplishments and provide feedback designed to focus on how to improve.
- Provide mentoring and coaching to help others to develop to their full potential.
- Provide stretching assignments that will help their teams to develop.

3. Having a service Orientation

Primarily aimed at work situations having a service orientation means putting the needs of customers first and looking for ways to improve their satisfaction and loyalty. These are people who:

- Go the extra mile for customers
- They will genuinely understand customers' needs and go out of their way to help meet them.



- They become trusted advisor to customers. Developing long term relationship between customer and organization.

4. Leveraging Diversity

This means being able to create and develop opportunities through different kinds of people, recognizing and celebrating that brings something different. People with this skill

- Respect and relate well to everyone regardless of their background.
- They see diversity as an opportunity, understanding that diverse teams work much better than teams.
- They challenge intolerance, bias and stereotyping when they see it.
- They create an atmosphere that is respectful towards everyone.



5. Political Awareness

This means sensing and responding to a group's emotional undercurrents and power relationships.

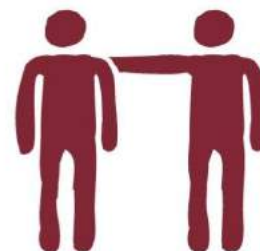
- Can help individuals to navigate organizational relationships effectively allowing them to achieve where others may previously have failed.

Types of Empathy

- **Cognitive Empathy-** Understanding someone's thoughts and emotions in a very rational rather than emotional sense.
- **Emotional Empathy-** This is catching someone else's feelings so that you literally feel them too.
- **Compassionate Empathy-** Understanding someone's feelings and taking appropriate action to help.

Why Practice Empathy?

- Will be more likely to treat the people you care about the way they wish you would treat them.
- Will better understand the needs of people around you.
- Will more clearly understand the perception you create in others with your words and actions.
- Will understand the unspoken parts of your communication with others.
- Will better understand the needs of your customers at work.
- Will have less trouble dealing with interpersonal conflict both at home and at work.
- Will be able to more accurately predict the



- actions and reactions of people you interact with.
- Will learn how to motivate the people around you.
 - Will more effectively convince others of your point of view.
 - Will experience the world in higher resolution as you perceive through not only your perspective but the perspectives of those around you.
 - Will find it easier to deal with the negativity of others if you can better understand their motivations and fears.

How to Practice

Listen

Listen intently when people speak to you. Conversations, especially regarding heated topics, often form a rhythm of back and forth speaking, with each party starting a point just before the conversation partner has ended his or her point. Before whoever is speaking has finished, you have already formulated your response, and you can't wait to spit it out. Force yourself to listen to the words you're hearing. Consider the speaker's motivation behind saying what he or she is saying.



Watch and Wonder

Look at the people around you and imagine who they might be, what they might be thinking and feeling, and where they are trying to go right now. Are they frustrated? Happy? Singing? Looking at their phones? Try to actually wonder and care.

Know Your Enemies

Imagine the entire situation from that person's point of view. How does this person feel about how you respond to them when you disagree? What fears cause the other person to be tense and hard to reason with? How do you exacerbate those fears rather than calm them? What *valid* arguments could this person make against your views and your handling of the situation. Just going through this exercise (maybe a couple of times with the same subject) can greatly reduce your frustration and anxiety over some of the most stressful interpersonal situations.

Choose the Other Side

It requires a forced third person perspective, which takes a lot of discipline when you're thinking about your own stress and emotions.



Instructional and non-instructional responsibilities

Pearly Antony O

Assistant Professor, St. Teresa's College

Email: pearlyantony@gmail.com

Goal and relevance

In the globalised era, it is important to equip the job seekers with maximum qualities that they can acquire which will make them fit for competition. Instructional and non-instructional responsibilities explain what is expected from an employee in his particular position in an organization. Knowing these responsibilities will enable the prospective employees to perform in a better way which will be beneficial for the organization. This session intends to provide an understanding of various instructional and non-instructional responsibilities of an employee.

Key concepts

Responsibility: - Responsibility may be defined as an individual's obligation to carry out assigned duties.

Instructional responsibilities: - Instructional responsibilities are the specific responsibilities of a job. For a teacher instructional responsibility is to teach.

Non instructional responsibilities: - Non instructional responsibilities are the responsibilities other than the specific responsibility expected from a person in his specific position. For a teacher non instructional responsibility includes super vision of students before, during and after schools, in-serve meetings, mentoring etc.

Social responsibility: - Social responsibility is the responsibility of all the individual and organization towards society.

Introduction

A proper working environment is essential for increasing the productivity in any occupation. To ensure a conducive environment, it is essential that all the members perform their responsibility in the most effective manner. For a workplace to function, both employees and employers must live up to their responsibilities. While some of these responsibilities are formal and easy to understand or enforce, others are more difficult to conceive and enact. By understanding workplace responsibilities and working to meet them in all areas, a workforce can keep its members safe and productive. Instructional and non-instructional responsibilities explain what is the specific responsibility of a particular job and also what are the other responsibilities associated with the job. An understanding of these responsibilities enables the prospective employees to perform their function in an efficient way. This information is highly useful for women who are multi takers. An idea about these responsibilities will enable the women to proceed with a proper vision.

Every individual have many responsibilities in their different capacities. A proper knowledge of these responsibilities will enable the person to perform these duties in its best way. Responsibility may be defined as an individual's obligation to carry out assigned

duties. Define these assigned duty is the most important prerequisite for carry out the work. If one can have a clear idea of what is to be done then half of the work is done.

Instructional and non-instructional responsibilities enable one to define his various responsibilities in his capacity. Instructional responsibilities are the responsibilities specific to a job. Instructional responsibility of a teacher is to teach.

Non instructional responsibilities are the responsibilities other than the specific responsibility expected from a person in his specific position. This is what is expected from an individual other than his routine work which is essential for the betterment of the organization where he is working.

Take the example of a teaching profession. What are instructional responsibilities of a teacher? Instructional responsibilities are the specific tasks involved with in an instructional programme that are teacher's responsibility to execute. Following are the important **instructional responsibilities** of a teacher.

- Meet all classes at the place and times specified. If unable to do so, notify your immediate supervisor or division office.
- Be well prepared for each class session.
- Attend orientation/semester start-up meetings.
- Prepare and distribute a course syllabus for each course to be taught.
- Maintain accurate class rolls.
- Be familiar with the contents of handbooks, instructional resources, guides, and other items of information which are distributed for faculty use.

Instructing students is the primary mission of the school system. Generally, in order to carry out the responsibilities of the school system, teachers and other employees may also be required to perform certain non-instructional and extracurricular duties. Assigned additional duties are considered part of all employees' responsibilities. Non-instructional duties refer to those duties that are not directly involved with the instructional program or the implementation of the Common course, but that all teachers are expected to do.

Non-Instructional Duties that the teachers are expected to perform include the following:

- Conference with administration
- Supervision of students before, during, and after school
- Faculty meetings/Staff meetings
- Parent Teacher Conferences
- Open House
- Back-to-School Night
- In-service Meetings
- Actively serve on one school committee.
- To maintain an open classroom, understanding that the school has many visitors and that classrooms reflect who we are and what we do.
- To exemplify the best ideals of the teaching profession.

Responsibility in the Workplace

First you need to understand what responsibility in the workplace means. Without showing responsibility in the position you hold now, you won't likely be granted additional responsibilities until you are able to demonstrate the ability to do so. There are different types of work place responsibility.

- **Job Responsibility**

Some of an employee's more basic and important responsibilities involve meeting job expectations and fulfilling daily work duties. As a related workplace responsibility, employers must find ways to communicate what each worker's job entails. Formal job descriptions spell out employees' responsibilities clearly and in written form for future reference. Performance evaluations ensure that employees are living up to their work responsibilities, or provide discipline or training when they aren't.

- **Self-Responsibility**

Another type of workplace responsibility is self-responsibility, which refers to each employee taking responsibility for his own actions outside of normal job duties. Self-responsibility is related to accountability, which requires workers to accept blame for their errors or omissions and acknowledge the successes and contributions of others. Accountability is especially important among business leadership to establish a positive workplace culture. Workers are responsible for dealing with their colleagues and superiors honestly and with integrity.

- **Mutual Responsibilities**

An extension of self-responsibility in the workplace is the list of mutual responsibilities that all members of a workforce share and have to one another. Workers are responsible for reporting illegal or suspicious behaviour and policy violations. Everyone who works for a business has the responsibility of living up to the corporate code of ethics.

- **Responsibility for Safety**

Employers have legal responsibilities to provide safe work environments for their employees. Workers also bear some of the responsibility for a safe workplace. This includes reporting safety violations, following prescribed safety methods and using safety equipment as directed. Employers are also responsible for providing safety training to employees whose job duties require it.

- **Social responsibility**

Social responsibility means that all people and organizations have a responsibility to society. It is an ethical framework which suggests that an entity, be it an organization or individual, has an obligation to act for the benefit of society at large. Social responsibility is a duty every individual has to perform so as to maintain a balance between the economy and the ecosystems.

There are basic responsibilities like:

- Showing up for work on time and putting in expected hours
- making appropriate choices – such as how you dress and how you interact with others

- Being reliable – your boss, the people you work with, and clients should be able to rely on you on a daily basis, especially during peak or urgent periods

In addition, to show you truly fulfil the responsibilities of your position you should be able to:

- meet deadlines (or complete work prior to deadline)
- meet or exceed each of your current job goals.
- quantify and present your successful results

With these responsibilities in mind an employee can excel in his work and reach greater heights.

Practical Session

Participants are asked to take a chit from the box where the name of different occupations is written. They are asked to form the group based on the occupation in the chit in such a way that one occupation form one group. Then the group members are asked to sit together and assume the role of the person in their chit. Each group is asked to write down the instructional and non-instructional responsibilities of their job. Finally group leaders of each group present their responsibilities.

Activity Corner

1. What is the difference between instructional and non-instructional responsibilities?
2. What are the different types of work place responsibilities?
3. What do you mean by social responsibility?

References

<http://www.ccohs.ca/oshanswers/hsprograms/basic.html>

<http://www.lakeview-academy.com/index.php/for-faculty/employee-handbook>

<http://smallbusiness.chron.com/types-workplace-responsibility-13598.html>

<http://www.job-interview-site.com/responsibility-at-work-responsibilities-to-take-for-getting-promoted.html>

https://en.wikipedia.org/wiki/Social_responsibility

<http://pcspolicy.com/7000-personnel/item/279-extracurricular-and-non-instructional-duties>

<http://www.brookhavencollege.edu/employees/adjunct-faculty/Pages/chapter3>

Summary

- Each job has specific instructional and non-instructional responsibilities.
- Instructional responsibilities are the specific responsibility of a job. For a teacher instructional responsibility is to teach.
- Non instructional responsibilities are the responsibilities other than the specific responsibility expected from a person in his specific position.
- There are various types of work place responsibilities like job responsibility, individual responsibility, Mutual responsibility, Social responsibility etc.
- A proper knowledge of these responsibilities will enable the person to perform these duties in an efficient way.
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Stress Management

Ajith Thomas

Associate Professor - Marketing,
Saintgits Institute of Management, Kottayam.
Email: ajitht@duq.edu

Relevance

Have you been stressed in the past, any time? The answer I got from most participants, when I asked this question, was "yes".

Stress is your body's way of responding to any kind of demand, is a common definition. Most of us feel stressed at one time or another. Whether we talk of job related pressures or any sort of tension induced by personal relationships and family problems, stress affects all of us. There are many day-to-day situations that can bring stress in our lives.

Avoiding these situations may prove to be an impossible task. The solution, therefore, lies in knowing how to manage stress. If not managed properly, stress can have a very negative impact on our mental and physical health.

Key Concepts:

What is stress?

Stress is the way we respond to pressure or to demands that are being made of us. Situations which evoke strong emotions such as anger, fear, depression, sadness, and sometimes even happiness produce stress. Stress occurs when the demands made on a person exceed (or they feel they exceed) their ability to cope.

Common symptoms of stress:

- Tight muscles
- Headaches
- Inability to concentrate
- Fatigue
- Compulsive behavior (recurrent, unwanted thoughts (obsessions))
- Health problems
- Irritability
- Sleep disturbances
- Irrational behavior

Eustress: Eustress means beneficial stress. The term was coined by endocrinologist Hans Selye, consisting of the Greek prefixeu-meaning "good", and stress, literally meaning "good stress". A psychological term that refers to the good form of stress that that helps an individual or business grow and remain healthy. A business might find it desirable to add types of eustress to its work environment to promote higher performance and the pursuit of excellence within its workforce.

Wheel of life:

Ask participants to review the 8 areas on the Wheel of Life. The Wheel must, when put together, create a view of a balanced life for them. If necessary they can split categories to add in something that is missing for them. They can also re-label an area so that it is more meaningful for them. Common categories are:

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Strategies to manage stress:

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McGonigal is a Stanford University psychologist who explains that while we have all spent the last 30 years thinking that stress, and its physical manifestations, were unhealthy; that's actually not exactly the case. Over the course of her talk at TED, she discusses three studies that shed new light on the stress response, and how to reprogram our thoughts about it to make us healthier.

Change your beliefs

The first study follows groups of people who experience varying levels of stress over several years, and then tracks death records. Not only does it show that the people that believe stress can kill, die at a much higher rate; but also it shows that the people who are under more stress, but don't believe or know about its "negative" effects are actually healthier and more likely to live long happy lives. She explains that it has been shown that the dangerous part of the physical stress responses is in the vascular constriction that occurs while the heart is pumping at an increased rate. This vaso-constriction however, has only been documented in people who already believe that stress is dangerous.

So what does this teach us? We need to change our beliefs about stress, that's for sure. Kelly suggests to go after what it is that creates meaning in your life and then trust yourself to handle the stress that follows.

Stress facilitates social connection

The physical stress response has been shown to release the neuro-hormone oxytocin. Heard of it? If you have, it was probably in reference to cuddling, and the happiness response our

brain has to physical and social connections. Studies show that not only does the stress response itself NOT cause dangerous vaso-constriction, but also that; it allows for and increases the release of oxytocin. Kelly comments “When oxytocin is released in the stress response, it is motivating you to seek support. Your biological stress response is nudging you to tell someone how you feel instead of bottling it up. Your stress response wants to make sure you notice when someone else in your life is struggling so that you can support each other. When life is difficult, your stress response wants you to be surrounded by people who care about you”.

Show you care

The final research presented by her, followed about 1,000 adults in the US, and watched both how they described their level of stress, and whether or not they spent time helping people, whether it be friends, family, or community members. It also tracked death records of the folks in the study. The results are:

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Discussion topic: How do I plan to manage stress?

Relevance to you...

- Knowing yourself
- Exit from your body and see yourself from outside
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Substance of the Topic

How to relieve stress?

1. Relaxing Walks
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- Lessons learnt - discussion
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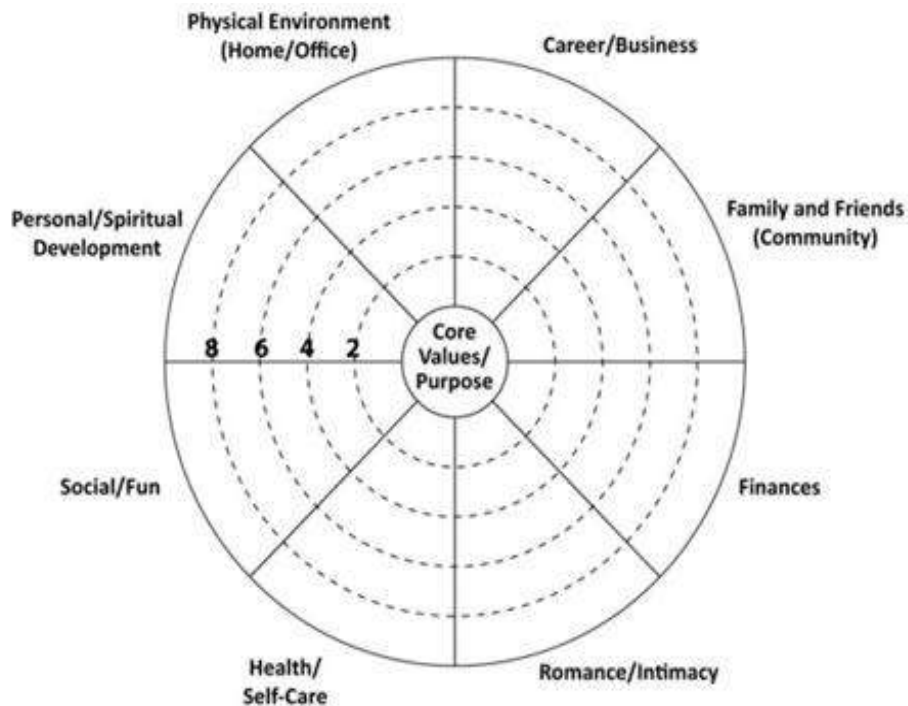
- <http://www.businessdictionary.com/definition/eustress.html#ixzz3yEWgtY5z>
- http://www.thecoachingtoolscompany.com/free_resources/wheel-of-life-coaching-tool
- <http://deliveringhappiness.com/making-stress-friend-3-things-know/>
- <https://www.youtube.com/watch?v=RcGyVTAoXEU>

QUOTES

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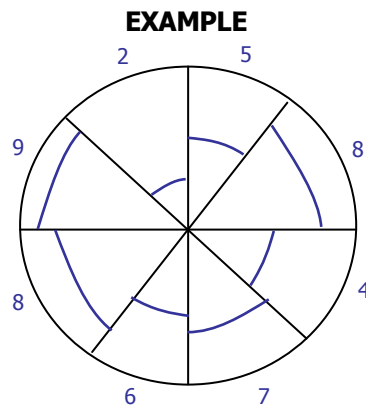
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WHEEL OF LIFE INSTRUCTIONS

The 8 sections in the Wheel of Life represent balance.

- Please change, split or rename any category so that it's meaningful and represents a balanced life for you.
- Next, taking the centre of the wheel as 0 and the outer edge as 10, rank your **level of satisfaction** with each area out of 10 by drawing a straight or curved line to create a new outer edge (see example)
- The new perimeter of the circle represents **your** 'Wheel of Life'. Is it a bumpy ride?



Notes:

- This exercise will help clarify priorities for goal-setting, allowing the client to plan so that their life is closer to their definition of balance.
- Balance is personal and unique to each individual – what may be balance for some may be stressful or boring for others.
- Balance must be assessed over time. So, a regular check on how balanced the client is can highlight useful patterns and help them learn even more about ourselves. You can do this with them, or recommend they do it for themselves
- Another option with this exercise is that they can ask someone who knows them well to complete the scores for them. It can be helpful sometimes to see an outside perception of your life 'balance'. Note: This must be someone they trust AND whose opinion they value.

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- 2 Ask them to think about what success feels like for each area.
 - 3 Now ask them to rank their level of satisfaction with each area of their life by drawing a line across each segment. Place a value between 1 (very dissatisfied) and 10 (fully satisfied) against each area to show how satisfied they are currently with these elements in their life.
 - 4 The new perimeter of the circle represents their 'Wheel of Life'. You can ask them, "Is it a bumpy ride?"
 - 5 Now, looking at the wheel here are some questions to ask the client and take the exercise deeper:
 - a. Are there any surprises for you?
 - b. How do you feel about your life as you look at your Wheel?
 - c. How do you currently spend time in these areas?
 - d. How would you like to spend time in these areas?
 - e. Which of these elements would you most like to improve?
 - f. How could you make space for these changes?
 - g. Can you effect the necessary changes on your own?
 - h. What help and cooperation from others might you need?
 - i. What would make that a score of 10?

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REFERENCES:

- <http://www.businessdictionary.com/definition/eustress.html#ixzz3yEWgtY5z>
- http://www.thecoachingtoolscompany.com/free_resources/wheel-of-life-coaching-tool
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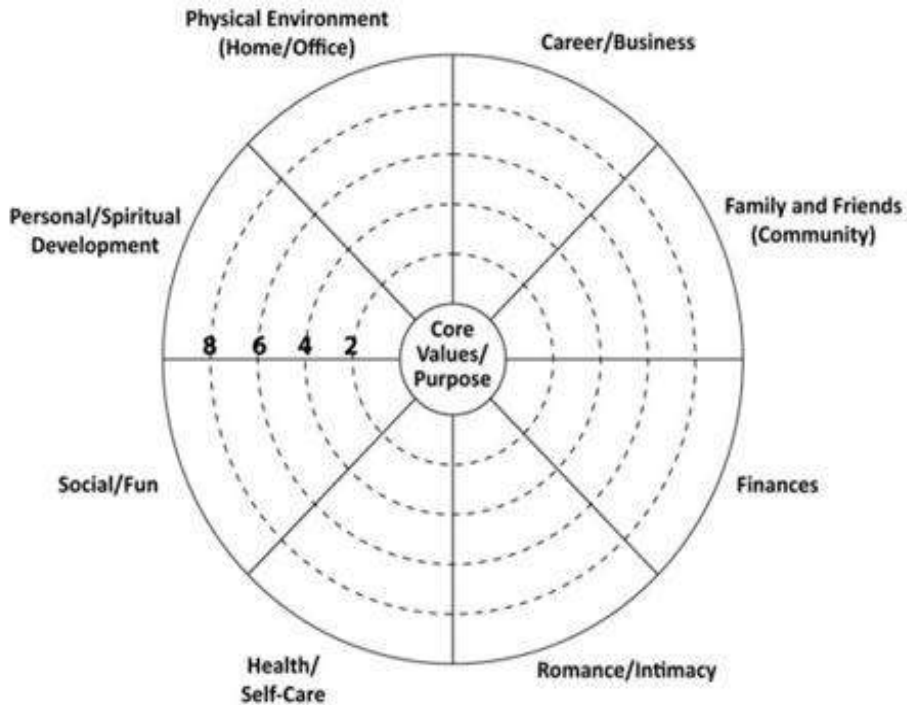
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Activity Corner

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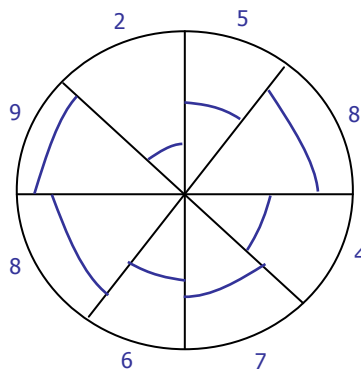


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The Wheel of Life Exercise - Coz EXAMPLE ns



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 - j) Others could include security, service, leadership, integrity, achievement or community.
2. Ask them to think about what success feels like for each area.
3. Now ask them to rank their level of satisfaction with each area of their life by drawing a line across each segment. Place a value between 1 (very dissatisfied) and 10 (fully satisfied) against each area to show how satisfied they are currently with these elements in their life.
4. The new perimeter of the circle represents their 'Wheel of Life'. You can ask them, "Is it a bumpy ride?"
5. Now, looking at the wheel here are some questions to ask the client and take the exercise deeper:

- a. Are there any surprises for you?
- b. How do you feel about your life as you look at your Wheel?
- c. How do you currently spend time in these areas?
- d. How would you like to spend time in these areas?
- e. Which of these elements would you most like to improve?
- f. How could you make space for these changes?
- g. Can you effect the necessary changes on your own?
- h. What help and cooperation from others might you need?
- i. What would make that a score of 10?

Anger management and Keeping Cool

Reeja Fernandez

Senior Research Fellow, SEETT Division, CMFRI

Email:reejafernandez@gmail.com

Anger is "an emotional state that varies in intensity from mild irritation to intense fury and rage. Like other emotions, it is accompanied by physiological and biological changes; when you get angry, your heart rate and blood pressure go up, as do the levels of your energy hormones, adrenaline, and noradrenaline.



Expressing anger

The instinctive, natural way to express anger is to respond aggressively.

Anger is a natural, adaptive response to threats; it inspires powerful, often aggressive, feelings and behaviors, which allow us to fight and to defend ourselves when we are attacked. People use a variety of both conscious and unconscious processes to deal with their angry feelings. The three main approaches are **expressing, suppressing, and calming**.

- Expressing your angry feelings in an assertive—not aggressive—manner is the healthiest way to express anger.
 - Anger can be suppressed, and then converted or redirected. This happens when you hold in your anger, stop thinking about it, and focus on something positive.
 - Unexpressed anger can create other problems. It can lead to pathological expressions of anger, such as passive-aggressive behavior (getting back at people indirectly, without telling them why, rather than confronting them head-on) or a personality that seems perpetually cynical and hostile.
 - Finally, you can calm down inside. This means not just controlling your outward behavior, but also controlling your internal responses, taking steps to lower your heart rate, calm yourself down, and let the feelings subside.



Causes of anger

Stress

Stress related to work, family, health and money problems may make you feel anxious and irritable.



Frustration

You may get angry if you fail to reach a goal or feel as if things are out of your control.



Fear

Anger is a natural response to threats of violence, or to physical or verbal abuse.

Annoyance

You may react in anger to minor irritations and daily hassles.

Disappointment

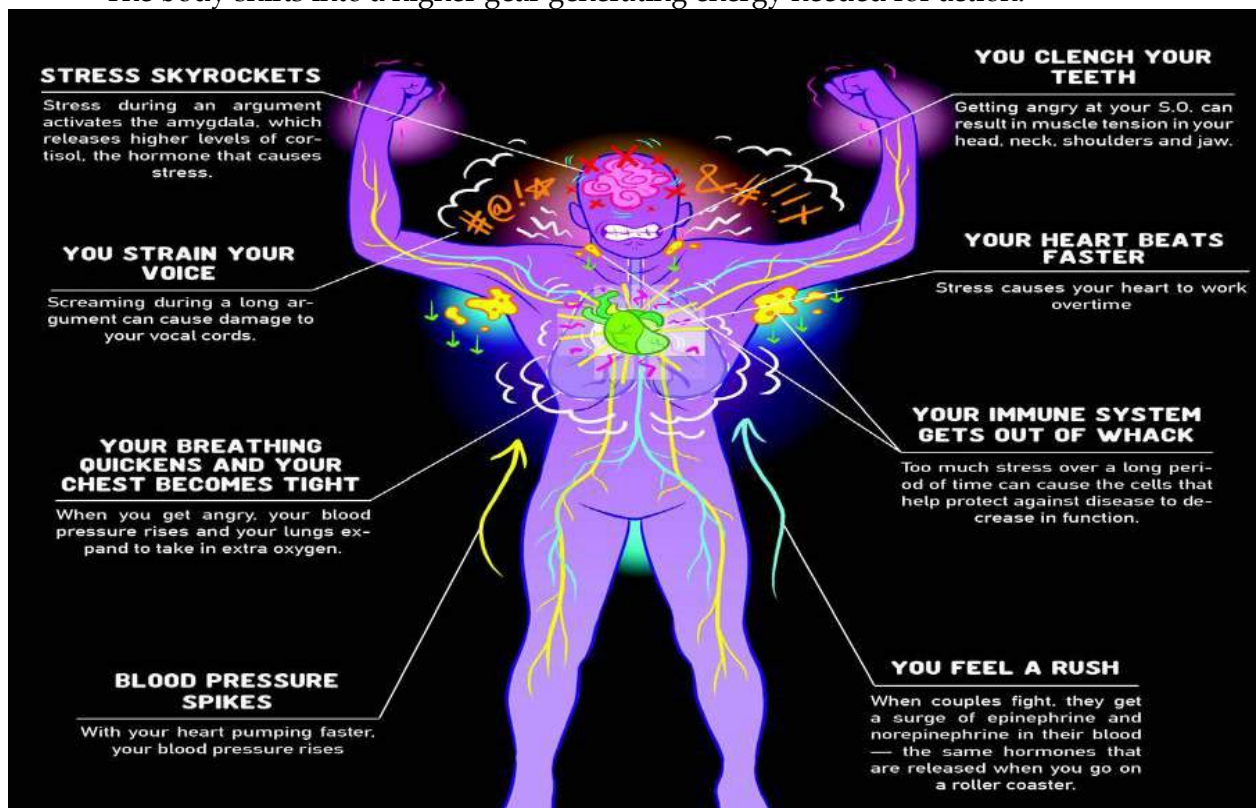
Anger often results when expectations and desires aren't met.

Resentment

You may feel angry when you've been hurt, rejected or offended.

How does body react to anger????

- Adrenaline and other chemicals enter your bloodstream.
- Your heart pumps faster.
- Your blood flows more quickly.
- Your muscles tense.
- The body shifts into a higher gear generating energy needed for action.



Managing anger

The goal of anger management is to reduce both your emotional feelings and the physiological arousal that anger causes. You can't get rid of, or avoid, the things or the people that enrage you, nor can you change them, but you can learn to control your reactions.



Are you too angry?????????

Some people really are more "hotheaded" than others are; they get angry more easily and more intensely than

the average person does. People who are easily angered generally have what some psychologists call a low tolerance for frustration, meaning simply that they feel that they should not have to be subjected to frustration, inconvenience, or annoyance. They can't take things in stride, and they're particularly infuriated if the situation seems somehow unjust: for example, being corrected for a minor mistake.

A number of things. One cause may be **genetic** or **psychological**: There is evidence that some children are born irritable, touchy, and easily angered, and that these signs are present from a very early age. Another may be sociocultural. Anger is often regarded as negative; we're taught that it's all right to express anxiety, depression, or other emotions but not to express anger. As a result, we don't learn how to handle it or channel it constructively.

Research has also found that family background plays a role. Typically, people who are easily angered come from families that are disruptive, chaotic, and not skilled at emotional communications.

Strategies to keep angry at bay

Relaxation

Simple relaxation tools, such as deep breathing and relaxing imagery, can help calm down angry feelings. Some simple steps you can try are:

- Find a quiet place. Wear loose, comfortable clothing. Sit or lie down.
- Close your eyes. Take slow, deep breaths.
- Concentrate on a single word, object or calming thought.
- Don't worry if other thoughts or images enter your mind while you are doing this. Just relax and return to what you were focusing on.
- Continue until you feel relaxed and refreshed.
- **Deep-breathing exercises**
- These can help keep anger from getting out of control. Follow these steps:
- Sit comfortably or lie on your back.
- Breathe in slowly and deeply for a count of 5.
- Hold your breath for a count of 5.
- Breathe out slowly for a count of 5, pushing out all the air.
- Repeat several times until you feel calm and relaxed.
- Picture your breath coming up from your "gut."
- Slowly repeat a calm word or phrase such as "relax," "take it easy." Repeat it to yourself while breathing deeply.
- Use imagery; visualize a relaxing experience, from either your memory or your imagination.
- Non strenuous, slow yoga-like exercises can relax your muscles and make you feel much calmer.



Practice these techniques daily. Learn to use them automatically when you're in a tense situation.

Cognitive Restructuring

Simply put, this means **changing the way you think**. Angry people tend to curse, swear, or speak in highly colorful terms that reflect their inner thoughts. When you're angry, your thinking can get much exaggerated and overly dramatic. Try replacing these thoughts with more rational ones.

- Instead of telling yourself, "oh, it's awful, it's terrible, everything's ruined," tell yourself, "it's frustrating, and it's understandable that I'm upset about it, but it's not the end of the world and getting angry is not going to fix it anyhow."
- Be careful of words like "never" or "always" when talking about yourself or someone else. "This !&*%@ machine never works," or "you're always forgetting things" are not just inaccurate, they also serve to make you feel that your anger is justified and that there's no way to solve the problem.
- Remind yourself that getting angry is not going to fix anything that it won't make you feel better (and may actually make you feel worse).
- So use cold hard logic on yourself. Remind yourself that the world is "not out to get you," you're just experiencing some of the rough spots of daily life. Do this each time you feel anger getting the best of you, and it'll help you get a more balanced perspective.
- As part of their cognitive restructuring, angry people need to become aware of their demanding nature and translate their expectations into desires. In other words, saying, "I would like" something is healthier than saying, "I demand" or "I must have" something. When you're unable to get what you want, you will experience the normal reactions – frustration, disappointment, hurt – but not anger.



Problem Solving

Sometimes, our anger and frustration are caused by very real and inescapable problems in our lives. Not all anger is misplaced, and often it's a healthy, natural response to these difficulties. There is also a cultural belief that every problem has a solution, and it adds to our frustration to find out that this isn't always the case. The best attitude to bring to such a situation, then, is not to focus on finding the solution, but rather on how you handle and face the problem.

- Make a plan, and check your progress along the way.
- Resolve to give it your best, but also not to punish yourself if an answer doesn't come right away.
- If you can approach it with your best intentions and efforts and make a serious attempt to face it head-on, you will be less likely to lose patience and fall into all-or-nothing thinking, even if the problem does not get solved right away.



Better Communication

Angry people tend to jump to—and act on—conclusions and some of those conclusions can be very inaccurate.

- The first thing to do if you're in a heated discussion is slow down and think through your responses. Don't say the first thing that comes into your head, but slow down and think carefully about what you want to say.
- Listen carefully to what the other person is saying and take your time before answering.
- Listen, too, to what is underlying the anger. For instance, you like a certain amount of freedom and personal space, and your "significant other" wants more connection and closeness. If he or she starts complaining about your activities, don't retaliate.
- It's natural to get defensive when you're criticized, but don't fight back. Instead, listen to what's underlying the words: the message that this person might feel neglected and unloved. It may take a lot of patient questioning on your part, and it may require some breathing space, but don't let your anger—or a partner's—let a discussion spin out of control.
- Keeping you cool can keep the situation from becoming a disastrous one.



Using Humor

"Silly humor" can help defuse rage in a number of ways. For one thing, it can help you get a more balanced perspective.

- When you get angry and call someone a name or refer to them in some imaginative phrase, stop and picture what that word would literally look like.
- If you're at work and you think of a coworker as a "dirt bag" or a "single-cell life form," for example, picture a large bag full of dirt sitting at your colleague's desk, talking on the phone, going to meetings. Do this whenever a name comes into your head about another person.
- If you can, draw a picture of what the actual thing might look like. This will take a lot of the edge off your fury; and humor can always be relied on to help unknot a tense situation.

There are two cautions in using humor.

- ♣ First, don't try to just "laugh off" your problems; rather, use humor to help yourself face them more constructively.
- ♣ Second, don't give in to harsh, sarcastic humor; that's just another form of unhealthy anger expression.

What these techniques have in common is a refusal to take you too seriously. Anger is a serious emotion, but it's often accompanied by ideas that, if examined, can make you laugh.



Changing Your Environment

Sometimes it's our immediate surroundings that give us cause for irritation and fury. Problems and responsibilities can weigh on you and make you feel angry at the "trap" you seem to have fallen into and all the people and things that form that trap.

- Give yourself a break.
- Make sure you have some "personal time" scheduled for times of the day that you know are particularly stressful.
- One example is the working mother who has a standing rule that when she comes home from work, for the first 15 minutes "nobody talks to Mom unless the house is on fire." After this brief quiet time, she feels better prepared to handle demands from her kids without blowing up at them.



Some Other Tips for Easing Up on Yourself

Timing: If you and your spouse tend to fight when you discuss things at night—perhaps you're tired, or distracted, or maybe it's just habit—try changing the times when you talk about important matters so these talks don't turn into arguments.

Avoidance: If your child's chaotic room makes you furious every time you walk by it, shut the door. Don't make yourself look at what infuriates you. Don't say, "well, my child should clean up the room so I won't have to be angry!" That's not the point. The point is to keep yourself calm.

Finding alternatives: If your daily commute through traffic leaves you in a state of rage and frustration, give yourself a project—learn or map out a different route, one that's less congested or more scenic. Or find another alternative, such as a bus or commuter train.



Some useful thoughts... ..

- ♣ The key to anger reduction is knowing yourself.
- ♣ Do important job now before they become urgent.
- ♣ When you make mistakes learn from them, rather becoming angry.
- ♣ Don't criticise, condemn and complain because it makes you angry.
- ♣ Choose a job you love and you will not have a day of anger in your working life.
- ♣ Most problems are really the absence of ideas. Think ahead. Anticipate. Do it or get done. Even if second best you will be less angry.
- ♣ Organise your mind and organise your desk for 5 minutes every hour.
- ♣ Accept what you cannot change and change what you cannot accept.
- ♣ Say sorry at the right moment you to reduce the anger of others. For every 10 minutes you are angry you lose 600 seconds of happiness. A little pot soon hot.
- ♣ Never get angry to a person who has nothing to lose.
- ♣ Never reply to a letter/ email when you are angry.



- ♣ Never go to bed with an argument unsettled.
- ♣ Expectation breeds frustration. Frustration breeds anger.
- ♣ Work is the best remedy for all angers. People who do not know how to fight anger die young.
- ♣ You cannot change others as easily as you can change yourself.

Exercise

Emotions wheel.

Check your weekly emotions and draw the emotions wheel if possible and assess which emotions rule your week. Make necessary changes. Repeat the process and check your emotions wheels of the week in a month. Do you see any changes??? Gain control of your emotions, definitely you will succeed in life.



Overcoming barriers in life

Reeja Fernandez

Senior Research Fellow, SEET Division, CMFRI

Email:reejafernandez@gmail.com

What holds women back?

The reality of many women's lives makes 'traditional' conceptions about work and careers (i.e. that work is central to one's identity, the main way to meet one's needs, can be separated from other aspects of life, and that progression is linear and rational) problematic. Not only can the working environment present barriers to women's success but other issues may inhibit progress as well.

The Types of Obstacles You May Face

There are three types of obstacles that you will likely face along your journey towards your goals. These include personal obstacles, environmental obstacles and social obstacles. Each is outlined separately below.

Personal Obstacles

Personal obstacles are related to our psychology, behaviours and state-of-mind. They can include limiting habits, debilitating emotions, fears and beliefs. These obstacles prevent us from moving forward towards the attainment of our goals and objectives because of the thoughts that we tend to dwell upon every day. These thoughts naturally prevent us from making effective decisions and undertaking the actions that will help us create the momentum we need to get to our end destination.

Here is a list of personal obstacles that could be preventing you from moving forward in your life:

- Lack of pain
- Lack of discipline
- Lack of knowledge
- Lack of inspiration
- Lack of desire
- Lack of skill
- Fear of change
- Fear of failure
- Feeling unworthy
- Procrastination
- Perfectionism
- Disorganization
- Pessimistic thoughts
- Too many time constraints
- Too much complacency
- Too much blaming of self and others
- Too many excuses
- Too much complaining



Identify if any of these obstacles are currently preventing you from getting what you want most out of life, and choose today to take control of your thought patterns and begin making better and far more effective decisions.

Social Obstacles

Social obstacles are related to people who either do not cooperate with you, sabotage you, or are simply incompetent and unable to fulfill the responsibilities assigned to them. You will go out of your mind if you try to control everyone's behavior, decision and action. Instead try to subtly influence people and understand their needs, motives and desires. Only in this way will you successfully improve your chances of maneuvering through the social obstacles in your life.

Environmental Obstacles

Environmental obstacles are often unexpected conditions, occurrences and circumstances that you have very little control over. Because these events and circumstances are unexpected, we are often ill-prepared and unable to deal with them effectively. When you plan for the future, you gather a better understanding of the possible scenarios and consequences of your decisions and actions. Planning also gives you insight into additional resources you may need to help you overcome environmental obstacles that lie on the journey ahead.

Questions to Help You Overcome Your Obstacles

Given below are a series of questions that help to gain new perspectives and understandings about the circumstances in life.

Question the Problem

What are the indications that this is a problem for you? How do you know this is accurate?

Question the Origins of Problem

How did all this start? Who or what perpetuates this problem?

Identify the Details

When did it happen? How did it happen? Where did it happen?

Determine the Consequences

What would happen if you ignored it? When could it become a bigger problem? What could lead to this specific outcome? How does this affect you? How does this affect others? How does this affect life? Could resolving this cause other problems?

Take Control

Whose behaviour do you control? What aspects of this problem can you control? What aspects of this problem can't you control? How must you respond to what you can't control?

Identify the Positives

What is happening that is good? What would you like to have continue to happen?



Gain Perspective

What are your assumptions about this? How are your assumptions contributing to the problem? What is another perspective you haven't considered? Who has successfully overcome this? What can you learn from this person?

Expand Your Options

What could you do differently? Who could assist you? Where haven't you looked for a solution? How will you know when this problem has been resolved? What is your criteria for success?

Tips to overcome barriers

1. Stay focused on the positives instead of the negatives. No matter what obstacles have come my way, staying positive has allowed me to overcome them. When I was in tenth grade, I had to miss 29 days of school in order to have major back surgery, where seven vertebrae were removed due to spinal cord compression. I knew that the back surgery was crucial and I found a way to make up the school work that I had missed. Staying positive allowed me to keep up with my classmates and graduate on time.

2. Don't ever give up. When I first moved out to Los Angeles after growing up in Boston, I went on one hundred job interviews before starting my current position. If I wasn't right for those one hundred positions, I knew there still had to be an opportunity out there for me.

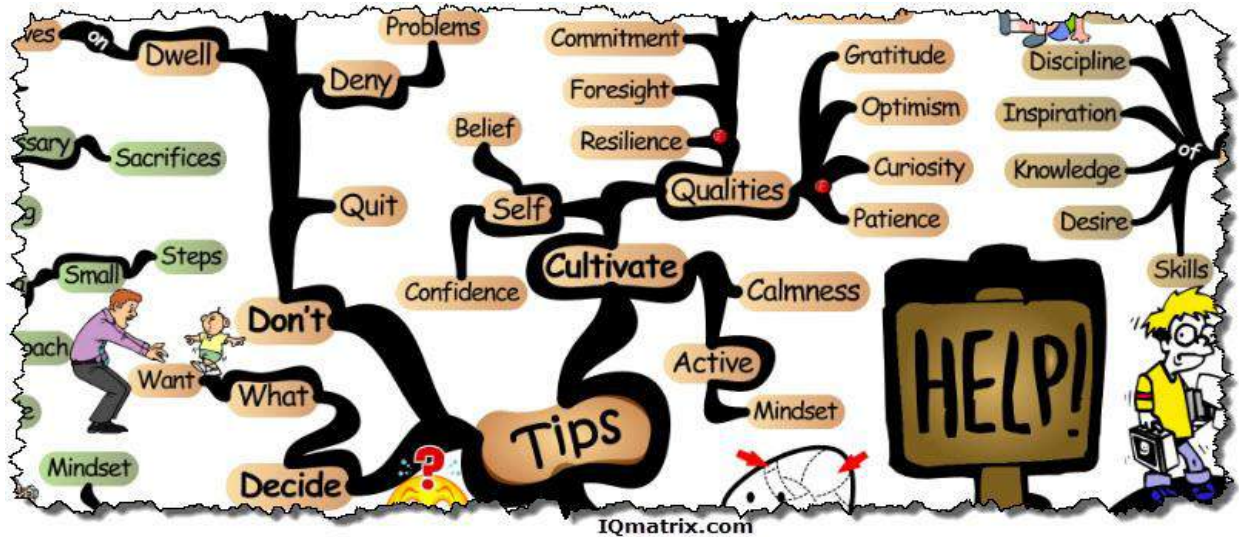
3. Challenge yourself and try new things every day. As soon as I wake up in the morning, I encounter a new challenge – whether it's trying to reach something high in the kitchen or volunteering to participate in an optional pitch lunch at work. As long as you try, that's all that matters in the end.

4. Each day you should ask yourself if you're happy. If there's something that's making you unhappy, you should find a way to make change. I find myself unhappy whenever I'm surrounded by negative people. Now I'm more cautious of the people with whom I surround myself.

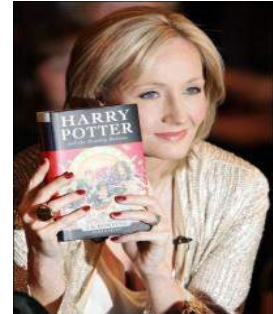
5. Smile. A smile goes a long way. Whenever people are staring or laughing at me for whatever reason, keeping a smile on my face causes them to wonder why I don't react.

6. Don't compare yourself to others and find time to celebrate your little accomplishments. I always set my own goals. Although we all wish we could get there as fast as it seems others have, I've found ways to enjoy the journey and celebrate each little success on the way. After missing almost a whole season on the youth soccer team, due to my back surgery during the spring of my sophomore year in college, I found a way to play in the last game of the season. I never scored a goal but participating was just as important to me. After long recovery, this was a huge accomplishment for me.

Next time you're out and about, try to find someone to smile at and say hello to. If they look like they're struggling, try to help them out. Take the chance to learn from them.



Living example- J.K Rowling- The woman behind the popular Harry Potter series was a single mother living on welfare when she wrote the first book of the series. She was rejected by 12 different publishers before selling her book for a measly \$4000. The work was an international hit and Rowling went on to write 6 more books for the series, which sold into the hundreds of millions of dollars, and was adapted into a huge blockbuster film franchise. Rowling is now the 13th wealthiest person in Britain, even wealthier than the Queen.



Quotes to remember

- We were all brought to this earth for a reason and have the ability to do whatever we want with our lives.
- The truth is that everyone struggles in their everyday life in one way or another.
- It's about staying positive and making the best of what you have.
- Our real disabilities come from the inside.
- If you have never failed you have not tried anything new.

Stop Worrying and Start Living

Remya R.

Research Associate, SEETTD, CMFRI
Email: remyarraj@gmail.com

Humans are unaware of the deleterious effects that excessive worrying can cause to their lives. In their panic to conquer more heights, they completely ignore the fact that in the long run, a life without worries is one of the greatest blessings that a person can possess. The present article is an attempt to understand more about worrying and how worrying can be a potential threat towards healthy living. It also deals with a book review of "How to Stop worrying and Start Living" by Dale Carnegie one of the renowned writers in public speaking.

What is Worrying?

Worry refers to the thoughts, images and emotions of a negative nature in which mental attempts are made to avoid anticipated potential threats.

What Happens With Excessive Worrying?

With excessive worrying, our mind and body go into overdrive as we constantly focus on "what might happen". Chronic worrying can affect our daily life so much that it may interfere with our appetite, lifestyle habits, relationships, sleep, and job performance. Many people who worry excessively are so anxiety-ridden that they seek relief in harmful lifestyle habits such as overeating, cigarette smoking, or using alcohol and drugs.

Can Excessive Worry and Anxiety Cause a Stress Response?

Stress comes from the demands and pressures we experience each day. Long queues we experience at various places, rush hour traffic, a phone ringing nonstop, or a chronic illness are all examples of things that can cause stress on a daily basis. When worries and anxiety become excessive, we trigger the stress response. There are two elements to the stress response. The first is the perception of the challenge. The second is an automatic physiological reaction called the "fight or flight" response that brings on a surge of adrenaline and sets our body on red alert.

Can Excessive Worry Make Us Physically Ill?

Chronic worry and emotional stress can cause a host of health problems. The problem occurs when fight or flight is triggered daily by excessive worrying and anxiety. The fight or flight response causes the body's sympathetic nervous system to release stress hormones such as cortisol. These hormones can boost blood sugar levels and triglycerides (blood fats) that can be used by the body for fuel. The hormones also cause physical reactions such as:

- Difficulty in swallowing
- Dizziness
- Dry mouth
- Fast heartbeat

- Fatigue
- Headaches
- Inability to concentrate
- Irritability
- Muscle aches
- Muscle tension
- Nausea
- Nervous energy
- Rapid breathing
- Shortness of breath
- Sweating
- Trembling and twitching

When the excessive fuel in the blood is not used for physical activities, the chronic anxiety and outpouring of stress hormones can have serious physical consequences, including:

- Suppression of the immune system
- Digestive disorders
- Muscle tension
- Short-term memory loss
- Premature coronary artery disease
- Heart attack

If excessive worrying and high anxiety go untreated, they can lead to depression and even suicidal thoughts.

Whether or not we become ill depends on how we handle stress. Physical responses to stress involve our immune system, our heart and blood vessels, and how certain glands in our body secrete hormones. These hormones help to regulate various functions in our body, such as brain function and nerve impulses.

All of these systems interact and are profoundly influenced by our coping style and psychological state. It is not the stress that makes us ill. Rather, it is the effect of interaction of responses such as excessive worrying and anxiety on our various physiological systems that causes physical illness.

What Lifestyle Changes Might Help Excessive Worriers?

Although excessive worrying and high anxiety can cause an imbalance in our body, there are many options that can re-establish harmony of mind, body, and spirit.

- **Talk to your doctor.** Start by talking with primary care physician. Get a thorough physical exam to make sure other health problems are not fuelling our feelings of anxiety. Your doctor may prescribe medication such as anti-anxiety drugs or antidepressants to help you manage anxiety and excessive worry.
- **Exercise daily.** With your doctor's approval, begin a regular exercise program. Without question, the chemicals produced during moderate exercise can be extremely beneficial in terms of enhancing the function of the immune system. Regular aerobic and strengthening exercise is also a very effective way to train our body to deal with stress under controlled circumstances.

- **Eat a healthy, balanced diet.** Stress and worrying provoke some people to eat too little, others too much, or to eat unhealthy foods. Keep your health in mind when worrying nudges you toward the fridge.
- **Drink caffeine in moderation.** Caffeine stimulates the nervous system, which can trigger adrenaline and make us feel nervous and jittery.
- **Be conscious of your worries.** Set aside 15 minutes each day where you allow yourself to focus on problems and fears -- and then vow to let them go after the 15 minutes is up. Do whatever you can to remind yourself to stop dwelling on worries.
- **Learn to relax.** Relaxation techniques can trigger the relaxation response -- a physiological state characterized by a feeling of warmth and quiet mental alertness. This is the opposite of the "fight or flight" response. Relaxation techniques can offer a real potential to reduce anxiety and worries. They can also increase our ability to self-manage stress. With relaxation, blood flow to the brain increases and brain waves shift from an alert, beta rhythm to a relaxed, alpha rhythm. Practiced regularly, relaxation techniques can counteract the debilitating effects of stress. Common relaxation techniques include deep abdominal breathing, meditation, listening to calming music, and activities like yoga.
- **Meditate.** Daily meditation -- instead of worrying -- may help us move beyond negative thoughts and allow us to become "unstuck" from worries that keep our body on high alert. With meditation, we purposefully pay attention to what is happening at the present moment without thinking of the past or future. Meditation decreases hormones such as cortisol and adrenaline, which are released during the "fight or flight" or stress response.
- **Have a strong social network.** Chronic feelings of loneliness or social isolation are hindrances to effective management of stress. People who are happily married and/or have large networks of friends not only have greater life expectancies compared with those people who do not, but they also have fewer incidences about all types of disease.
- **Talk to a professional therapist.** Psychological counseling can help us develop appropriate coping strategies to deal with issues that trigger excessive worrying. Psychological intervention can give coping methods that we can use either within or outside other treatment programs. The therapist will help us identify what types of thoughts and beliefs cause the anxiety and then work with us to reduce them. Therapy is only successful if we work on getting better.

Fundamental Facts You Should Know About Worry

1. Live in "Day-tight Compartments"
2. How to face trouble
3. Prepare to accept the worst
4. Keep calm and try to make it the best
5. Remind yourself of the exorbitant price you can pay for worry in terms of your health

Basic Techniques in Analyzing Worry

1. Get all the facts
2. Weigh all the facts - then come to a decision
3. Once a decision is reached, act!
4. Write out and answer the following questions
 - What is the problem?
 - What are the causes of the problem?
 - What are the possible solutions?
 - What is the best possible solution?

How to Break the Worry Habit Before It Breaks You

1. Keep busy
2. Don't fuss about trifles
3. Use the law of averages to outlaw your worries
4. Cooperate with the Inevitable
5. Decide just how much anxiety a thing may be worth and refuse to give it more
6. Don't worry about the past

Seven Ways to Cultivate A Mental Attitude That Will Bring You Peace and Happiness

1. Fill your mind with thoughts of peace, courage, health, and hope
2. Never try to get even with your enemies
3. Expect ingratitude
4. Count your blessings, not your troubles
5. Find Yourself and Be Yourself (Remember There Is No One Else on Earth Like You)
6. Try to profit from your losses
7. Create happiness for others

The Perfect Way to Conquer Worry

1. Pray

How to Keep From Worrying About Criticism

1. Remember that unjust criticism is often a disguised compliment
2. Do the very best you can
3. Analyze your own mistakes and criticize yourself

Six Ways to Prevent Fatigue and Worry and Keep Your Energy and Spirits High

1. Rest before you get tired
2. Learn to relax at your work
3. Protect your health and appearance by relaxing at home
4. Four Good Working Habits That Will Help Prevent Fatigue and Worry
 - Clear your desk of all the papers except those relating to the immediate problem at hand
 - Do things in the order of their importance

- When you face a problem, solve it then and there if you have the facts necessary to make a decision
 - Learn to organize, deputize, and supervise
5. Put enthusiasm into your work
 6. Don't worry about insomnia

It has been found from research that people who spent money more on experiences in life are happier than those who spend money on things. So, let us be wise to choose a life far from worries.



Management Strategies

Performance Appraisal of Female Employees / Managers in Fish Business

Mini Sekharan.N

Assistant Professor, School of Industrial Fisheries, CUSAT
Email: minisekharan@yahoo.com

Introduction

Fish business generally carried out by women are culture of food fish and marketing, pre-processing and marketing of captured fish, value addition of fish and marketing, preparation of ready to cook food products and marketing, marketing of ready to eat seafood products, ornamental fish culture and marketing, etc. Business is a dynamic activity and therefore it must have competent, devoted employees and manager. A manager is a person in an organization who is responsible for the work performance of one or more other persons. The manager's role is to help the organisation achieve a high level of performance through the utilisation of its human and material resources. Essential managerial skills are technical, human and conceptual. Technical skills include ability to use tools, techniques and specialised knowledge. Human skills include ability to work effectively in interpersonal relationships. Conceptual skills include ability to see the organisation as a whole and solve problems to the benefit of the total system.

Workers/employees are the real asset of enterprise and the basic resource of any business organisation. They use material resources such as information, equipment, and facilities to produce a good or service and must be skilled, trained and motivated to perform well. Only if the employees perform well organisation perform well. A business enterprise must maintain a personnel record and maintain a systematic performance appraisal.

Management Functions

Four important management functions are Planning, Organising, Directing and Controlling. Controlling is the fourth of the management functions. The control process begins with planning and clarification of performance objectives. Controlling can be facilitated by systems of performance appraisal, pay and rewards, employee discipline and management by objective (MBO). Process of monitoring performance and taking corrective action is the responsibility of all managers in organisations.

The four elements of control process are,

1. Establish performance objectives and standards
2. Measure actual performance
3. Compare actual performance with objectives and standards
4. Take necessary action

NEED FOR ACTION = DESIRED

PERFORMANCE- ACTUAL PERFORMANCE

What is Performance Appraisal?

Performance appraisal is an important means for controlling individual behaviour in organisations. Performance appraisal is a process of formally evaluating performance and providing feedback. Initial clarification for



objectives and standards are set for performance appraisal. The Performance appraisal facilitates the identification of discrepancies between objectives and results as well as what actions may be necessary. Performance appraisal can be done at the individual, group or total organisational level. A manager can use variety of methods to carryout performance appraisal. Performance appraisal has to be constructive and effective.

Importance /Objectives of Performance Appraisal

1. Understanding the worth of employees

Personal appraisal measures the ability and the physical performance of the employees. It enables the management in understanding the utility of the employee for the business.

2. Improving the performance of the employees

The performance appraisal reveals the weakness of the employees as regards their behaviors and performance. Effective measures are suggested to the employee for the improvement. The employee adopts remedial measures and improves his performance.

3. Helping employees in knowing their current status

Performance appraisals enable employees in understanding their present performance and evaluate him.

4. Boosting employees morale

Employees morale is boosted when he finds that his plus points are not unnoticed and he will suitably rewarded for his excellent performance

5. Determination of reasonable remuneration of employees

Employee's remuneration is related to their performance. It helps in determining reasonable wages and salaries of employees.

Table 1. Benefits of Performance Appraisal System

The benefits to the individual	The benefits to the supervisor	The benefit to the organisation
Understanding - performance clarifies past achievement, the methods of evaluation, and future expectations.	Understanding- performance appraisal helps identify what support people need	Performance- performance appraisal helps improve the predictability of desirable performance
Opportunities- performance appraisal is a reminder that one's concerns, ideas, needs and plans should be communicated to the supervisors.	Human resource planning- performance appraisal helps identify staff replacement and training needs	Personal administration- performance appraisal provides information that can be store and used for decision making on matters such as promotion, termination or transfers.
Confidence- performance appraisal is a reminder that performance is taken seriously by higher management.	Confidence- performance appraisal is a way of letting people know how well they have done and what is expected of them in the future.	Training and development- performance appraisal provides information about personal strength and weakness that can be used to plan training and development programmes.

Methods of Performance Appraisal

A more widely used classification of appraisal methods into two categories is traditional methods and modern methods. While traditional methods lay emphasis on the rating of the individual's personality traits, such as initiative, dependability, drive creativity, integrity, intelligence, leadership potential, etc.; the modern methods, on the other hand, place more emphasis on the evaluation of work results, i.e., job achievements than the personal traits. Modern methods tend to be more objective and worthwhile. The various methods included in each of the two categories are listed in Table 2.

Table. 2 Methods of Performance Appraisal

Sl.No	Traditional Method	Modern Appraisal Method
1.	Ranking method	MBO (Management by Objective)
2.	Paired Comparison	360 degree appraisal
3.	Grading	Behavioural Anchored rating scale (BARS)
4.	Rating scale method	Assessment centre
5.	Critical incident method	Cost Accounting Method
6.	Checklist method	
7.	Graphic scale method	
8.	Confidence report	
9.	Forced distribution method	
10.	Forced choice method	
11.	Essay method	

Traditional Methods

Ranking Method

It is the oldest and simplest formal systematic method of performance appraisal in which employee is compared with all others for the purpose of placing order of worth. The employees are ranked from the highest to the lowest or from the best to the worst.

Paired Comparison

In this method, each employee is compared with other employees on one- on one basis, usually based on one trait only. The rater is provided with a bunch of slips each coining pair of names, the rater puts a tick mark against the employee whom he insiders the better of the two. The number of times this employee is compared as better with others determines his or her final ranking.

Grading Method

In this method, certain categories of worth are established in advance and carefully defined. There can be three categories established for employees: outstanding, satisfactory and unsatisfactory. There can be more than three grades. Employee performance is compared with grade definitions. The employee is, then, allocated to the grade that best describes his or her performance.

Modern Methods

MBO (Management by Objective)

Planning and controlling are directly intertwined in Management by Objectives (MBO) a technique that involves participatory objective setting and performance review between supervisor and subordinate. MBO helps direct behaviour towards important objectives and control results. Because it involves the element of participation it allows a good deal of self-control to be exercised.

The concept of MBO involves a formal agreement between supervisor and subordinate concerning

- (1) The subordinates performance objectives for a given time period
- (2) The plan through which they will be accomplished
- (3) Standards for measuring whether or not they have been accomplished
- (4) Procedures for reviewing results

The 360 degree appraisal

The 360 degree method of performance appraisal is used to make the appraisal process more transparent, objective and participative. It introduced the concepts of self-appraisal subordinates appraisal, peer appraisal and appraisal by customers. It is called a 360 degree method because it involves the evaluation of an employee by persons above him, below him and alongside him. Structured questionnaires are used to collect information from the seniors, subordinates and peers. The employee to be evaluated thus acquires a central position and everyone around him participates in the appraisal process in the 360 degree method. The following four are the main components of 360 degree appraisal- Self appraisal, appraisal by supervisors, appraisal by subordinates, peer appraisal, potential appraisal.

(BARS) Behaviorally Anchored Rating Scales

The problem of judgmental performance evaluation inherent in the traditional methods of performance evaluation led to some organisations to go for objective evaluation by developing a technique known as "Behaviourally Anchored Rating Scales (BARS)" around 1960s. BARS are descriptions of various degrees of behaviour with regard to a specific performance dimension.

It combines the benefits of narratives, critical incidents, and quantified ratings by anchoring a quantified scale with specific behavioral examples of good or poor performance. The proponents of BARS claim that it offers better and more equitable appraisals than do the other techniques of performance appraisal we discussed so far.

Developing BARS typically involves five steps-

1. Generating Critical Incidents,
2. Developing Performance Dimensions,
3. Reallocating Incidents,
4. Scaling Incidents,
5. Developing Final BARS Instrument.

SWOT Analysis for Assessing Entrepreneurship Readiness

Shinoj .P

Scientist, SEETTD, CMFRI, Kochi

Email:pshinoj@gmail.com

Introduction

SWOT analysis (strengths, weaknesses, opportunities, and threats analysis) is a framework for identifying and analyzing the internal and external factors that can have an impact on the viability of a project, product, place or person. SWOT analysis guides to identify the positives and negatives inside an institution / organization / group (S-W) and outside of it, in the external environment (O-T). Developing a full awareness of a situation can help with both strategic planning and decision-making. The technique is credited to Albert Humphrey of the Stanford University, USA and was originally developed in the 1960s for business and industry, but it is equally useful in other arenas, and even personal growth. SWOT is not the only assessment technique you can use, but is one with a long track record of effectiveness. The strengths of this method are its simplicity and application to a variety of levels of operation. The technique that enables a group / individual to move from everyday problems / traditional strategies to a fresh perspective.

Analyzing internal and external environment

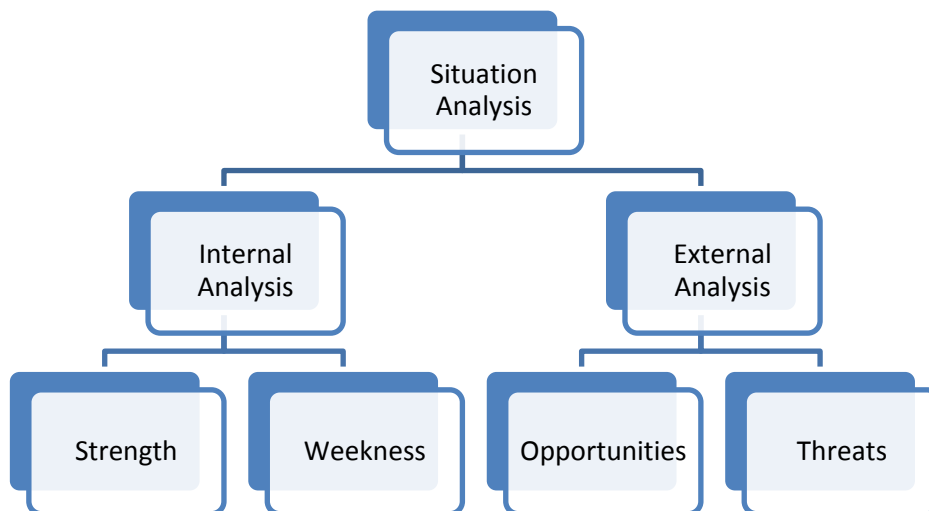


Figure 1: Depiction on the dimensions of SWOT

As depicted in Figure 1, **Strengths and Weaknesses** are considered *internal* factors---that can be controlled internally. How the market or business is managed controls whether it is a strength or weakness. Similarly, **Opportunities and Threats** are considered *external* factors--over which the members of the organization/group have little control. Accordingly, it is the job of the manager of the group/organization to **respond** appropriately.

Strengths

- Characteristics of the business or a team that give it an advantage over others in the industry.
- Positive tangible and intangible attributes, internal to an organization.

- Beneficial aspects of the organization or the capabilities of an organization, which includes human competencies, process capabilities, financial resources, products and services, customer goodwill and brand loyalty.
- Examples -, Well-known brand name,, Lower costs [raw materials or processes], Superior management talent, Better marketing skills, Good distribution skills, Committed employees.

Weaknesses

- Characteristics that place the firm at a disadvantage relative to others.
- Detract the organization from its ability to attain the core goal and influence its growth.
- Weaknesses are the factors which do not meet the standards we feel they should meet. However, sometimes weaknesses are controllable. They must be minimized and eliminated.
- Examples - Limited financial resources, Limited distribution, Higher costs, Out-of-date products / technology, Weak market image, Poor marketing skills, Limited management skills.

Opportunities

- Chances to make greater profits in the environment - External attractive factors that represent the reason for an organization to exist & develop.
- Arise when an organization can take benefit of conditions in its environment to plan and execute strategies that enable it to become more profitable.
- Organization should be careful and recognize the opportunities and grasp them whenever they arise. Opportunities may arise from market, competition, industry/government and technology.
- Examples - Rapid market growth, Changing customer needs/tastes, New uses for product discovered, Economic boom, Sales decline for a substitute product.

Threats

- External elements in the environment that could cause trouble for the business - External factors, beyond an organization's control, which could place the organization's mission or operation at risk.
- Arise when conditions in external environment jeopardize the reliability and profitability of the organization's business.
- Examples - Entry of foreign competitors, Changing customer needs/tastes, Rival firms, adopt new strategies, Increased government regulation, Economic downturn.

Aims of SWOT Analysis

The following are the main aims of SWOT analysis;

- i. To help decision makers share and compare ideas.
- ii. To bring a clearer common purpose and understanding of factors for success
- iii. To organize important factors linked to success and failure in the business world.

- iv. To provide linearity to the decision making process allowing complex ideas to be presented systematically.

When to use SWOT?

A SWOT analysis can offer helpful perspectives at any stage of an effort. It may be used for the following purposes;

- Explore possibilities for new efforts or solutions to problems.
- Make decisions about the best path for your initiative. Identifying your opportunities for success in context of threats to success can clarify directions and choices.
- Determine where change is possible. If you are at a point of making a decision, an inventory of your strengths and weaknesses can reveal priorities as well as possibilities.
- Adjust and refine plans mid-course. A new opportunity might open wider avenues, while a new threat could close a path that once existed.
- SWOT also offers a simple way of communicating and is an excellent way to organize information you have gathered from studies or surveys.

How to conduct SWOT Analysis?

Conducting a SWOT analysis involves three main steps, viz., (i) Analyzing internal and external environment, (ii) Performing SWOT analysis and document and (iii) Preparing action plans.

As indicated earlier, analyzing internal and external environment involves developing a clear understanding on the various decisive factors that could influence the success or failure of an endeavor. These factors could be later identified as strength, weakness, opportunities and threats based the nature in which they interact with the task on hand as well as the stakeholders involved. The second step is actually carrying out the analysis. This involves the following specific activities;

- Establishing the objectives for which the SWOT analysis is carried out – This could be wide/narrow, general/specific.
- Select contributors – Expert opinion may be required for SWOT.
- Allocate research and information gathering tasks – This may be carried out in two stages - explorative and detailed.
- Creating a workshop environment that enables free flow of information among the people involved.
- Listing strengths, weaknesses, opportunities and threats.
- Evaluating listed ideas against objectives – sorting and grouping ideas in relation to the stated objectives.
- Carry the findings forward by making sure that SWOT analysis is used in subsequent planning. It is also helpful to revisit the findings at suitable intervals.

The third main step involves preparing the action plans. The action plans are subsequently categorized into (i) Things that must be addressed immediately (ii) Things that can be handled now (iii) Things that should be researched further and, Things that should be planned for future.

Pitfalls of SWOT Analysis

- SWOT can be very subjective. Two people rarely come up with the same version of a SWOT. It can only be used as a guide but not as a prescription.
- May cause organizations to view circumstances as very simple due to which certain key strategic contacts may be overlooked.
- Categorizing aspects as strengths, weaknesses, opportunities and threats might be very subjective as there is a great degree of uncertainty in the real world.
- To be effective, SWOT needs to be conducted very regularly. The pace of change makes it very difficult to anticipate developments.
- The data used in the analysis may be based on assumptions that subsequently prove to be unfounded (good and bad).
- It lacks detailed structure, so key elements may get missed.

Evolving Fisherwomen Livelihoods to Business

Shyam .S .Salim* and Ramees Rahman .M

Principal Scientist, SEETT Division, CMFRI

Email*: shyam.icar@gmail.com

Introduction

What is a **business**?

A business can be defined as an organization or economic system where the exchange of goods and services happen. The primary objective of a business is profit maximization, along with other goals such as growth, customer service, retention, and efficiency. Business management can be defined as planning, organizing, leading, and controlling of human and other resources to achieve organizational goals effectively and efficiently. Managing a business requires knowledge, dedication, organizational skills and ingenuity. The overall vision for the business may be to address a need, provide a service or create something new. Generating revenue is a given goal for businesses, so the vision statement should be broader than a statement about profits.

Basic forms of business ownership

- ❖ **Sole proprietorship:** a single person owned business is known as sole proprietorship. It is the least cost form of business ownership and is very easy to set up.
- ❖ **Partnership:** a legal form of business operation between two or more individuals who share management and profits.
- ❖ **Corporation:** a corporate structure in which the business is a separate, legal entity guided by a group of officers known as the board of directors.
- ❖ **Cooperative:** an autonomous association of people united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled business.
- ❖ **Franchises:** a firm which already has a successful product or service (the franchisor) enters into a continuing contractual relationship with other businesses (franchisees) operating under the franchisor's trade name and usually with the franchisor's guidance, in exchange for a fee.
- ❖ **Limited liability company:** a business structure that combines the pass-through taxation of a partnership or sole proprietorship with the limited liability of a corporation.

Classifications

- **Primary/ raw material:** The primary sector is the sector of an economy making direct use of natural resources. This includes agriculture, forestry, fishing and mining.
- **Secondary/ manufacturing:** The secondary sector is the manufacturing sector which mainly uses the output of the primary sector. The sector includes industries that produce a finished, usable product or are involved in construction.
- **Tertiary/ service:** The tertiary sector involves commercial services that work to provide support to distribution and production processes.

What is needed for a business?

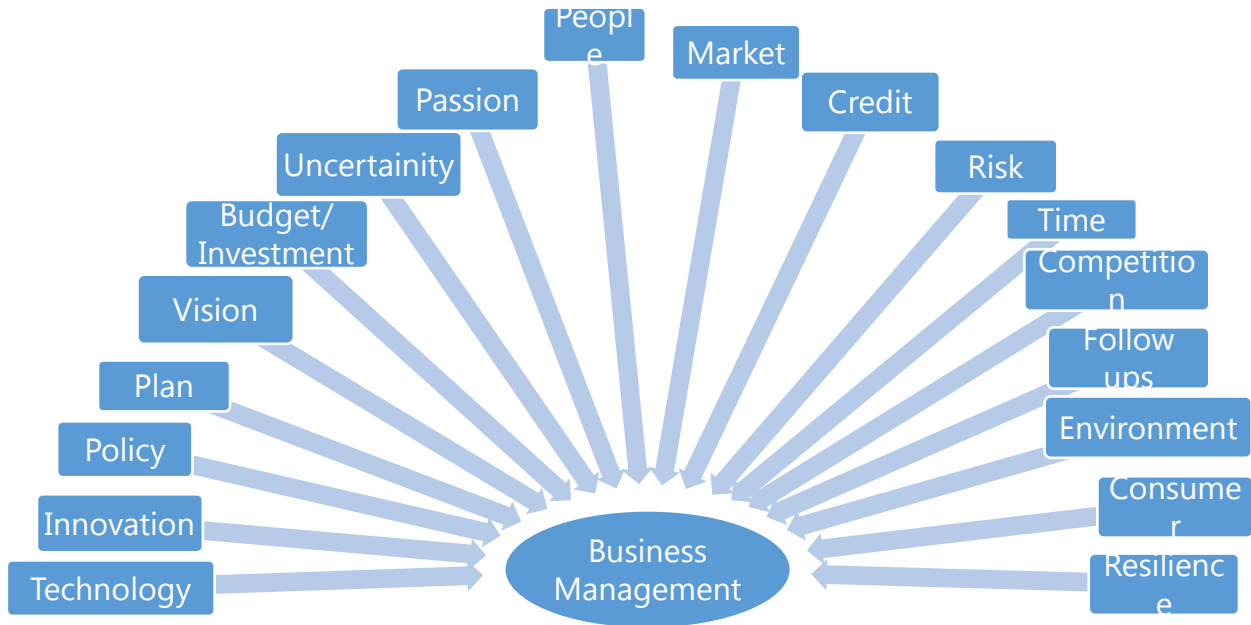


Fig 1: What is needed for a business.

Society for Assistance to Fisherwomen (SAF)

Society for Assistance to Fisherwomen (SAF) is an agency under Kerala government that works for the social and economic empowerment of fisherwomen in Kerala, through its multifarious and integrated developmental programmes. SAF was established in 2005 as a charitable society under the State Fisheries Department. SAF assists fisherwomen – both individuals and their Self Help Groups (SHGs)- to address common challenges such as livelihoods, poverty eradication and social development. The major emphasis of SAF lies in providing livelihood support to fisherwomen by promoting their self-employment ventures under its flagship programme 'Theeramythri'. SAF, under the Theeramythri programme, provides continued handholding and mentoring to the micro-enterprises and livelihood ventures that were established under the earlier Tsunami Rehabilitation Programmes. Besides sustaining and strengthening the existing enterprises, each year marginalized women from fishermen community are identified, trained and assisted to start new microenterprises for income generation. Theeramythri programme today occupies a central space in the lives of Malayali fisherwomen.



Fig 2: Opportunities under SAF.

Areas of management

- **Human resources:** The personnel or department of a business or organization, regarded as a significant asset in terms of skills and abilities.
- **Marketing:** The action or business of promoting and selling products or services, including market research and advertising.
- **Operations:** Concerned with designing and controlling the process of production and redesigning business operations in the production of goods or services.
- **Information:** It is of immense importance in business to gather, analyze and disseminate information regarding market, rivals, competitors, etc.
- **Financial:** The efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the organization.

Basic management skills

- **Technical skills:** abilities an individual acquires through practice and learning.
- **Conceptual skills:** skills that allow a person to think creatively while also understanding abstract ideas and complicated processes. A person who has conceptual skills will be able to solve problems, formulate processes and understand the relationship between ideas, concepts, patterns and symbols.
- **Time management skills:** the process of organizing and planning how to divide your time between specific activities.
- **Human relations skill:** the process of training employees, addressing their needs, fostering a workplace culture and resolving conflicts between different employees or between employees and management.
- **Decision making skill:** the skill to take the right decision at right and there by solve the problems.

To sum up, the mere individual skills could be improved by proper trainings and can be turned out into a business activity. A business activity is a dynamic and an on-going process which continues to operate so long as there is an organized action for the achievement of group goals. It is to direct the resources and the efforts of the business toward opportunities for economically significant results.

Reference

1. <http://www.wikihow.com/Manage-a-Company>
2. <http://www.alleywatch.com/2013/10/10-keys-to-managing-the-business-after-the-startup/>
3. <http://www.bizmove.com/general/m6b.htm>
4. www.educationscotland.gov.uk
5. http://www.archive.india.gov.in/business/manage_business/index.php
6. <https://hbr.org/1963/05/managing-for-business-effectiveness>

Financing Women Business

Roshan .G. S

Manager (Training), State Bank Learning Centre

Email: rosh.gs@sbi.co.in

Supporting and sustaining micro enterprises has always been a challenge for development administration. Financial inclusion has emerged as a strategy to bring the so called excluded people into the mainstream. Financial inclusion is the delivery of banking services at an affordable cost to the vast sections of the disadvantaged and low income groups. Financially excluded sections include marginal farmers landless labourers, migrants, socially excluded groups, senior citizens and women. In order to increase the saving habit of the people bank has introduced several savings bank account facilities. They are:

Savings bank deposits

Basic Savings Bank Deposit Account (BSBDA) has been defined by RBI vide its circular dated 10.08.2012.

Eligibility Criteria:

- Applicant's age (between 18 to 60 years)
- Account at least six months old
- Account seeded with Aadhaar

Its salient features are:

- There is no requirement of minimum balance.
- The services available include deposit and withdrawal of cash at bank branch as well as ATMs;
- receipt/credit of money through electronic payment channels or by means of collection/deposit of
- Cheques.
- Maximum of 4 withdrawals a month including ATM withdrawal. No such limit for deposits.
- Facility of ATM card or ATM-cum-Debit card.
- These facilities are to be provided without any extra cost.



Quantum of Loan:

- 50% of credit summation during the last six months or
- Average balance for the last four months or
- Rs. 5000/- (whichever is less)

Recurring Deposit - RD

- Monthly deposits of Minimum Rs.100/- and in multiples of Rs 10/- No maximum.
- Minimum period 12 months maximum 120 months.
- Nomination facility available and it is advised to avail of the facility.
- Passbooks are issued

Bhagya Rekha Loan

Eligibility Criteria:

- 60 months RD - Min Rs.400/-
- 36 months RD - Min Rs.600/-
- Loan after 12 months of RD

Quantum of Loan:

- Twice the amount in RD
- Minimum Loan – Rs.5,000/-
- Maximum Loan – Rs.50,000/-

SELF HELP GROUPS

Muhammad Yunus is a Bangladeshi social entrepreneur, banker, economist and civil society leader who were awarded the Nobel Peace Prize for founding the Grameen Bank and pioneering the concepts of microcredit and microfinance.



Eligibility Criteria:

SHG should have been in active existence for at least a period of six months. The groups should have successfully undertaken savings and credit operations from its own sources. The group should preferably have a homogeneous background.

Purpose:

The loan is given to SHGs for meeting the entire credit requirements of SHGs, namely,

- a) Income generation activities,
- b) Social needs like housing, education, marriage, etc., and
- c) Debt swapping.

Quantum:

- Loan amount linked to saving corpus of SHG
- First loan : up to 4 times of saving corpus
- Repeat loans : higher quantum beyond four times of the group's corpus may be considered
- Maximum loan per SHG member should not exceed Rs.50,000/-
- No security
- No margin
- No processing charges
- No insurance

Pradhan Mantri Jan-DhanYojana

Pradhan Mantri Jan-DhanYojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.

RuPay Debit Card

RuPay Debit Card is an indigenous domestic debit card introduced by National Payment Corporation of India (NPCI). This card is accepted at all ATMs (for cash withdrawal) and at most of the PoS machines (for making cashless payment for purchases) in the country. Beneficiary of RuPay Card are required to keep the Card in safe custody. PIN should be changed at frequent intervals and should never be shared with anyone. While using the card at ATM Machine or PoS, PIN should be entered in machine very secretly so that nobody could even guess about the PIN Number. As far as possible, Card should be used at authorized places / centers only. Besides, PIN number should never be written on the Card. The special advantage of this card is it provides accidental insurance cover up to Rs.1.00 lac without any charge to the customer.

Linking Mobile Number with Bank Account

Mobile Number of an account holder is entered in customer's account in CBS System by the Bank on the basis of information given in the Account Opening Form. Also, for existing accounts, banks permit seeding through ATM, SMS from registered mobile, net-banking or on making a request in the branch (there may be variations depending on the bank).

How long the debit card is valid and how to get Debit Card renewed

Debit Card expiry date is mentioned on the Card itself. Account-holder is advised to get issued new card well before expiry date of his/her existing card by giving fresh application to the concerned bank.

PoS Machine

PoS stand for Point of Sale. PoS Machine is a small device installed at almost all Business Centers to facilitate cashless purchases to their customers.

USSD based transaction

USSD is abbreviated form of "Unstructured Supplementary Service Data". USSD based Mobile Banking offers basic Banking facilities like Money Transfer, Bill Payments, Balance Enquiries, Merchant Payments etc. on a simple GSM based Mobile Phone, without the need to download application on a Phone as required at present in the Immediate Payment Service (IMPS) based Mobile Banking. Transactions can be performed on basic phone handsets. The user needs to approach his bank and get his mobile number registered. The bank will issue an MPIN (Mobile PIN) to the user. The user thereafter needs to dial *99# and the menu for using USSD opens. Thereafter customer has to follow selections on the menu to complete the transaction. Charges as applicable by the Telecom Operator (not more than Rs.1.50 per transaction as mandated by TRAI) may be applicable.

Micro-Enterprises for Rural Population and their Marketing Strategies

P. S. Sivaprasad

Technical Assistant, Society for Assistance to Fisherwomen (SAF)
Email:siva.fish75@gmail.com

Introduction

The concept of microenterprise and microfinance was pioneered in 1976 by Nobel Prize recipient Muhammad Yunus, founder of the Grameen Bank (Bank of the Poor), in Bangladesh. The bank was established for the purpose of making small loans to the poor—predominantly women – to help them obtain economic self-sufficiency. Micro-enterprise projects are aimed at improving the status of poor through income generating activities and social development activities. Income generating activities therefore are not an end in itself, but a means to achieve the overall goal of improved status of persons' lives. A business is "any venture which involves production of goods and/or services to obtain profit."

Four types of business in rural areas are:

- a. Production: producing goods for selling, e.g. aquaculture, growing fruits and vegetables, sheep rearing
- b. Processing/manufacturing: converting raw materials into finished product, e.g. processing of fish into value added products, fruits into jams
- c. Trading: buying and selling of the same product(s), e.g. grocery shop, market stall
- d. Services: Main line of business is providing a service e.g. hire services, beauty parlour

Micro-Enterprise

Microenterprises contribute significantly to economic growth, social stability and equity. The sector is one of the most important vehicles through which low-income persons can escape poverty. With limited skills and education to compete for formal sector jobs, they find economic opportunities in microenterprise as business owners and employees. Although capital requirements of a micro-enterprise may be low, to the poor it is considered high. Therefore, the risk of undertaking micro-enterprise is not low. For the poor it is very hard to recover from failure of the micro-enterprise. The main differences between micro-enterprises and other enterprises are: -

1. Level of capitalization
2. Number of people involved
3. Ownership

Characteristics of Micro-Enterprise

- a. small level of capitalization
- b. initiated and managed by a household or few individuals
- c. self-employment (owner is manager and worker)
- d. simple technology and equipment
- e. utilization of local resources/raw materials

- f. transactions are often informal (no written agreement, based on personal contacts)
- g. ease of entry

The role of micro-enterprise in rural development

The main role of micro-enterprise development is "Improving the Socio-economic Status of households through Income generating and Social Development Activities". Encouraging rural population to engage in micro-enterprise, means encourage initiative, risk taking, decision making and income earning. They are able to participate in socioeconomic activities in their communities. Limited technical, literacy and business skills are other major reasons for low status of rural population. Micro-enterprises undertaking requires relatively simple technology and management. When they are engaged in micro-enterprise they can gradually improve their skills. In the case of women, they have a high burden and sometimes many children. Microenterprises usually are household based and women can choose an enterprise which they can combine with their other chores. Employment in other enterprises would not contribute as much to improving women's status, because women would be employees rather than managers. As a consequence, they are not able to experience the personal changes which have been enumerated above. Lack of funds is an obstacle to develop micro-enterprises. As a group, they can mobilize resources through savings from which members can borrow for micro-enterprise development.

Group members can study together and share experiences, e.g. on technical and financial matters, market information, etc. Through these group activities member's skills improve faster and to a higher extent. As a group, micro-entrepreneurs can be more organized and can use group strength in addressing constraints. For example, the group can arrange training, can buy inputs or run facilities together, can negotiate with buyers, mobilize support from village leaders, etc.

Causes of success or failure of a micro-enterprise

In general, the poor cannot take unnecessary risks. Their resources and conditions are such that they do not have enough to be able to incur losses. If their venture fails, they lose more than their material resources. It erodes their self-confidence. Furthermore, the poor have some kind of distrust of external assistance. When they fail in projects with external assistance, this could reinforce their lack of confidence in external agents.

Business cycle and aspects

Resources and conditions of poor who participate in micro-enterprise are such that they do not have enough to be able to incur losses. If their venture fails, they lose more than their material resources. It erodes their self-confidence and they will be even more dependent on others than before. The supporting institution therefore has to make sure that sufficient safeguards are provided so that success and not failure results. Providing capital funds alone is not enough. To be able to provide adequate assistance we need to have a thorough understanding of the factors that cause success or failure of a microenterprise.

External and internal factors affecting the success or failure of a micro-enterprise

A. Internal factors are those that are within the control of the entrepreneur. These include the knowledge, skills, attitude and resources of the entrepreneur. If the factors contribute to the success of the enterprise they are called "strengths" or positive internal factors. When internal factors are an obstacle to success, they are called "weaknesses" or negative internal factors.

B. External factors are those that are outside the control of the entrepreneur. These include the market situation, economic situation of the community, the weather, etc. External factors that contribute to the success of the enterprise are called "opportunities" or positive external factors. When external factors may become obstacles to the success are called "constraints".

Analysis of the factors affecting the success or failure of a business serves as a guide to determine: ·

- What external factors (constraints) must be avoided or need to be resolved
- What external factors (opportunities) facilitate the success of the micro-enterprise
- What internal factors (weaknesses) should be improved
- What internal factors (strengths) must be capitalized on

This helps to identify what actions need to be taken by either the supporting organization or the micro-entrepreneur.

Stages in micro-enterprise development

Opportunity scanning

B. Business planning

- a. production
- b. marketing
- c. finance
- d. organization

C. Implementation

- a. production
- b. marketing
- c. finance
- d. organization

D. Evaluation

Once an enterprise has started (one business cycle) there are three choices:

- to continue with the existing business
- to cease to operate the existing business
- to open a new business

Common weakness and constraints of micro-enterprises

Planning stage		
Stage	Internal (weakness)	External (constraint)
Marketing	No thorough market investigation due to lack of information	Information not available to micro-entrepreneur
Production	Limited technical skill	Government service in enhancing skill is limited to certain groups
Financial	Lack of capital	No access to credit
Organization and management	Limited skill in estimating income, shortsightedness, low business consciousness	Lack of information/education
Implementation stage		
Marketing	<ul style="list-style-type: none"> • Lack of market information • No contract/ lack of negotiation skills • Inability to adjust to market changes 	<ul style="list-style-type: none"> • Market fluctuation/ price control • Information not available
Production	<ul style="list-style-type: none"> • Problems with quality of products • In-efficient production 	<ul style="list-style-type: none"> • No adequate training and advisory services available
Financial	<ul style="list-style-type: none"> • No record keeping • No profit/loss statement • Mixed accounts of the project with other projects/household accounts 	<ul style="list-style-type: none"> • Lack of training programs in household budgeting and financial recording

Marketing strategies for micro-enterprise

The product or the services of micro-enterprises are generally marketed locally. Mouth publicity is the main means to enhance business. Due to the shift in the technology and the taste in the customer preferences, the micro-enterprises need to adapt these new innovative practices for promoting and expanding their business. Implementation of the few innovative practices can help the micro-enterprise to fasten their decision-making process and get closer to being customer oriented.

1. Direct- Marketing

This is the most effective tool for micro-enterprise as this is the direct channel to reach and deliver goods and services to customer without using marketing middleman and avoiding unlikely costs. Effectiveness of direct marketing can be enhanced by using direct mails, bulk SMS, telecalling.

2. Events

Organizing, sponsoring and participating in various events like *fairs, exhibitions, school and college promotion, flash -mob, etc.*, will be a good platform for micro- enterprise where they can have direct interaction with their target customers. Events provide an opportunity to induce the feelings for the product and give a real time experience.

3. Advertising

It is an indirect approach and has a long term perspective, like brand image and brand recall. Being flexible and selective in nature, it is the best medium for micro-enterprise for advertising their products. Local newspapers, local radios, paper inserts, local magazines, and outdoor medium such as pamphlets, posters, banners, hoardings etc are the conventional mediums through which the micro-enterprise can reach the target customers effectively and efficiently in minimum cost. Due to high competition, co-branding is also in practices nowadays, where two entrepreneurs either promote their products together in a single medium or they pool their resources to promote each other's products which can be termed as barter advertising.

4. Sales promotion

It makes the consumer to take a favorable purchase decision by providing one or other kind of direct inducement like discount, price off, gift, coupon etc. It is a short term and direct approach and expects an immediate response in terms of sales. Free samples, premiums, exchange offers are effective method of sales promotions in the introduction stage of any micro-enterprise.

5. Website

The importance and benefits of internet in today's competitive era is well acclaimed. This promotional tool is efficient, cost effective and its reach is unassuming and overwhelming. Micro- enterprise can create their own website and promote their products and services at a global level. Social media now a days is also one of the most effective and affordable ways to be in touch with customers.

6. CSR

Since the 1990s, environmental and social factors have become increasingly important strategic considerations for enterprises of any size. To be in the good books of the existing and potential customers, micro- enterprise too should continuously do activities related to social cause. Some common practices which a small enterprise can adopt are:

- *Say no to Polybags*
- *Minimizing pollution level*
- *Maintaining the quality of the product and checking on regular basis.*

Issues in marketing

Out of several problems faced by micro-enterprise, the absence of adequate marketing facilities is one of the major concerns. Almost all types of enterprises face marketing problems, but the micro-enterprise face greater difficulty in the marketing and distribution of their products.

Some of these are:-

- Micro-enterprise tends to face tough competition from the products and sales/marketing strategies of large scale enterprises. They face the difficulty in terms of cost, quality, standards, popularity, meeting ever-changing demands/ preferences of consumers, etc.
- They lack their own marketing distribution network.
- Most of the micro-enterprise are unaware of the modern marketing and business strategies. As a result, they are unable to cope quickly with changing market scenarios. Though the products they produce has huge market potential but they unable to opt for efficient marketing techniques.
- They lack effective sales promotion because of the lack of funding and resources. They cannot afford to spend much on advertising, sales promotion, market analysis, etc.
- They find it difficult to sell their output at a profit because of higher cost of production and non-standardized quality of products.
- They also have to sell their products at a loss because they cannot bargain with the big buyers and requirement for the urgent need of working capital.

Thus, it is right to say that most of micro-entrepreneurs do not correctly understand as to what kind of products are actually needed by the market, how big/small is the market, when the products are needed and how to deliver such products. All these problems keep them mainly isolated from the market trends and conditions and, thus, tend to restrict their operation.

Modern tools in marketing

The micro-enterprise cannot generate revenue by selling same old products to the same old market in the same old way. There is vast possibility of changing marketing practices. There are many innovative marketing techniques, which can be considered for micro-enterprises.

WWW as a Promotional Tool: Last two decades has shown the Indian business houses that, what an impact an internet can make it to their business. Generating own website and promoting your products and services on globe is now cost-effective.

Customer Relationship Management (CRM): The importance of CRM is known fact to each and every enterprises. As now all the entrepreneurs know that 80 percent of their business comes from their 20 percent loyal customers.

Digital Advertising: There is a large number of ways of advertising on the internet and it is expected that advertising will grow exponentially in this connection. The activates can be video

recorded and uploaded in the internet, which intern will help the potential industrial buyers to understand the functioning of the micro-enterprises.

Mobile applications as a Service tool: Mobile applications can be used as the service tool, the regular updating of payments, receipts, and other business related information will help the customers in meeting their commitments without overlooking at them.

Improving feedback mechanism: Marketing function totally depends on your customer information. Micro-enterprise should know exactly who are our end users, why do they purchase our products, when do they purchase in a year, how we can motivate them to do repeat purchase. They need to redouble their efforts at dialogue through social media, internet (Website) and get direct feedback from customers or clients.

Generate new sparks (Idea): Micro-enterprise should not relay on their small marketing channels, rather than they need to include even each customer to give their valuable ideas to improve their products.

Cluster Approach: Micro-enterprise need to adopt cluster approach to face the competition. This approach depends on the mutual understanding of members. The cluster member must be involved in complementary product rather than competitive products to ensure the working of this approach. The formal way of establishing the cluster will enhance the market capabilities of the micro-enterprise and it gives the cluster members more bargaining power. By this approach the micro-enterprise can get better results and facilities from the Government and they can do co-branding to reach potential customers.

Roadmap to Understand a Customer

Ramees Rahman. M

Senior Research Fellow, SEETT Division, CMFRI
Email:ramezzrahmanm@gmail.com

Introduction

In today's business landscape, reaching out to the desires and needs of consumers is more important than ever. Every business needs a reason for their customers to buy from them and not their competitors. This is called a Unique Sales Proposition (USP) which can be identified by completing the phrase "Customers will buy from me because my business is the only..."¹. Any USPs are important because they are driven by what the customer looks for when making a buying decision. It's very important to review our USP as well as the competitor's USP to win the market. Identifying a customer along with his needs, the nature of the product, how the customer perceives the business from the start, and the ways to make him satisfied is significant in a quality service organisation.

Who is a customer?

A customer can be defined as an individual or business that purchases the goods or services produced by a business¹. He is the most important resource upon which the success of the business depends. Generally, a customer can be defined as a person or organization that a marketer believes will benefit from the goods and services offered by the marketer's organization. Customers will expect to be given accurate and reliable information about products and services. Customer service is an organization's ability to identify and supply their customers' wants and needs. Customers can be categorized in three³, as;

- i. Existing Customers: this category Consists of customers who have purchased or otherwise used an organization's goods or services, typically within a designated period of time. Existing Customers are by far the most important of the three customer groups since they have a current relationship with a company and, consequently, they give a company a reason to remain in contact with them. Also, they represent the best market for future sales, especially if they are satisfied with the relationship they presently have with the marketer.
- ii. Former Customers: This group consists of those who have formerly had relations with the marketing organization typically through a previous purchase. However, the marketer no longer feels the customer is an Existing Customer either because they have not purchased from the marketer within a certain time frame or through other indications. The value of this group to a marketer will depend on whether the customer's previous relationship was considered satisfactory to the customer or the marketer.
- iii. Potential Customers: The third category of customers includes those who have yet to purchase but possess what the marketer believes are the requirements to eventually become Existing Customers.

Customer needs and satisfaction

Customer needs can be defined as the problems that customers intend to solve with the purchase of a good or service. Steve Jobs, CEO of Apple Inc., said, “ You’ve got to start with the customer experience and work backwards to the technology. You cannot start with the technology and try to figure out where you are going to sell it”. Identifying the customer needs before developing solutions is the crucial part of a business. The more you know about your customers, the more effective your sales and marketing efforts will be. Customer needs can be assessed by analysing the factor such as **who** they are, **what** they buy, and **why** they buy it.

The major heads that a business firm has to be aware about its customers can briefly pointed as follows²:

1. **Who they are:** A firm must be aware of the gender, age, marital status and occupation of the customers, if it is the firm should be aware of the selling its product directly to individuals. The firm should be aware of the size and kind of business, If it is selling to other businesses
2. **What they do:** It's worth knowing the occupations and interests of the customers as well as the aim of the businesses, to which the product is sold.
3. **Why they buy:** If you know why customers buy a product or service, it's easier to match their needs to the benefits your business can offer.
4. **When they buy:** A business can massively increase its chances of success if it approaches a customer just at the time they want to buy.
5. **How they buy:** For example, some people prefer to buy from a website, while others prefer a face-to-face meeting.
6. **How much money they have:** A business can be more successful if it can match its offering to what it know its customer can afford.
7. **What makes them feel good about buying:** If you know what makes them tick, you can serve them in the way they prefer.
8. **What they expect of you:** For example, if your customers expect reliable delivery and you don't disappoint them, you stand to gain repeat business.
9. **What they think about you:** If your customers enjoy dealing with you, they're likely to buy more. And you can only tackle problems that customers have if you know what they are.
10. **What they think about your competitors:** If you know how your customers view your competition, you stand a much better chance of staying ahead of your rivals.

The requirements of a customer can be further categorized in to three;

- ◆ **NORMAL REQUIREMENTS** – requirements typically what one gets by just asking customers what they want.
- ◆ **EXPECTED REQUIREMENTS** – these are the obvious / compulsory requirements. For example, if meal is served hot, customers barely notice it. If it's cold or too hot, dissatisfaction occurs. Expected requirements must be fulfilled.
- ◆ **EXCITING REQUIREMENTS** – These are beyond the customer's expectations. If provided, customer would be excited. If not ,they would hardly complain

Customer satisfaction can be defined as a marketing term that measures how products or services supplied by a company meet or surpass a customer's expectation. It can also be defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals"⁴. According to J. Willard Marriott, the founder of Marriott corporation, "Customer needs may vary, but their bias for quality never does". Hence, satisfying the customer is also one of the crucial objectives of a business firm.

Why customer satisfaction is important?

Customer satisfaction is a marketing term that measures how products or services supplied by a company meet or surpass a customer's expectation. Customer satisfaction is important as it provides marketers and business owners with a metric that they can use to manage and improve their businesses.

The top six reasons which make customer satisfaction much important can be briefly explained as follows⁵.

- 1. It's a leading indicator of consumer repurchase intentions and loyalty:** Customer satisfaction is the best indicator of how likely a customer will make a purchase in the future. Asking customers to rate their satisfaction on a scale of 1-10 is a good way to see if they will become repeat customers or even advocates. Any customers that give you a rating of 7 and above, can be considered satisfied, and you can safely expect them to come back and make repeat purchases. Customers who give you a rating of 9 or 10 are your potential customer advocates who you can leverage to become evangelists for your company. Scores of 6 and below are warning signs that a customer is unhappy and at risk of leaving. These customers need to be put on a customer watch list and followed up so you can determine why their satisfaction is low. Hence, satisfaction is one of the leading metrics businesses use to measure consumer repurchase and customer loyalty.
- 2. It's a point of differentiation:** Businesses who succeed in the cut-throat environments of a competitive market are the ones that make customer satisfaction a key element of their business strategy. Companies who offer experiences create environments where satisfaction is high and customer advocates are plenty.

- 3. It reduces customer churn:** An Accenture global customer satisfaction report (2008) found that price is not the main reason for customer churn; it is actually due to the overall poor quality of customer service. By measuring and tracking customer satisfaction you can put new processes in place to increase the overall quality of your customer service.
- 4. It increases customer lifetime value:** A study by Info Quest found that a 'totally satisfied customer' contributes 2.6 times more revenue than a 'somewhat satisfied customer'. Furthermore, a 'totally satisfied customer' contributes 14 times more revenue than a 'somewhat dissatisfied customer'. Satisfaction plays a significant role in how much revenue a customer generates for your business. Successful businesses understand the importance of customer lifetime value (CLV). If you increase CLV, you increase the returns on your marketing dollar.
- 5. It reduces negative word of mouth:** Customer satisfaction is tightly linked to revenue and repeat purchases. What often gets forgotten is how customer satisfaction negatively impacts your business. It's one thing to lose a customer because they were unhappy. It's another thing completely to lose many other customers because of some bad word of mouth. To eliminate bad word of mouth you need to measure customer satisfaction on an on-going basis.
- 6. It's cheaper to retain customers than acquire new ones:** This is probably the most publicized customer satisfaction statistic out there. It costs six to seven times more to acquire new customers than it does to retain existing customers. Some major customer retention strategies such as blogs (to educate customers), email (to send special promotions), customer satisfaction surveys, Delight customers by offering personalized experiences, etc can be carried out.

How to measure customer satisfaction?

Usually, organizations use survey method to identify or to assess the satisfaction level of the customers. The most fruitful way is to ask them directly about their experience and opinion of a particular product. Any of the following ways can be followed to measure the satisfaction level of a customer. All the ways mentioned below are various survey methods of asking the opinion either directly or indirectly.

- Comment card
- Customer questionnaire
- Focus groups
- Toll free telephone no.
- Customer visits
- Internet and Social media

Nowadays, it's quite familiar to invite customers to rate the products in internet, as most of the people are reviewing the ratings and opinions about various goods and services in

internet before doing a deal. This is most productive and easy method, by which the opinions or rating of a product can be displayed around the globe in no time.

How to increase customer satisfaction?

In a business world where customer acquisition costs are sky-rocketing, small and medium businesses must focus on building a customer experience to increase customer satisfaction. Some of the ideas are pointed below:

- a. **Treat your customers like they are your boss::**
 - Thank all your customers for their business
 - Go out your way to help customers
 - Try to impress your customers as if you want a pay raise
 - Think about your paycheck every time you talk to a customer
 - Keep your promises and integrity
- b. **Focus on measuring customer satisfaction**
- c. **Build customer loyalty to increase customer satisfaction:** According to Jeffrey Gitomer, the eminent American author and business trainer, "Customer satisfaction is worthless whereas Customer loyalty is priceless⁶. Businesses should focus their efforts on creating loyal customers that are sticky and not easily influenced by competitors.
- d. **Avoid making these customer retention mistakes:** No business is immune to unhappy customers. In fact, even companies with the best customer service in the world will still lose up to 9% of their customers to competitors by ignoring customer feedback, taking customer feedback to personally, or using long, boring customer feedback surveys.
- e. **Set customer expectations early:** Setting expectations too high, making ridiculous promises to push a deal over the line, etc are the common mistakes that kills the customer satisfaction. There's no better feeling than as a customer to have your expectations exceeded.
- f. **Learn how to survey your customers the right way:** A customer feedback survey is the best way to find out how satisfied your customers are, find ways to improve your product or service, and identify customer advocates who really love your product. A quick and relevant survey will help increase survey response rates.
- g. **Tap into social media to track and monitor customer satisfaction so you can keep your customers happy:** Social media provides a great opportunity to increase customer satisfaction. Use social media monitoring tools to keep track of positive and negative feedback, and resolve them accordingly. It can also be used to monitor brand mentions and sentiment, as a customer support channel, and to hold Q&A sessions with customers.

Conclusion

Customer satisfaction is the leading indicator to measure customer loyalty, identify unhappy customers, reduce churn, increase revenue, and also the key point of differentiation that assists to attract new customers in competitive business environments. Hence, identifying a customer along with his needs is essential for ensuring the success of a business.

Reference

1. www.investopedia.com
2. www.infoentrepreneurs.org
3. www.knowthis.com
4. Farris, Paul W.; Neil T. Bendle; Phillip E. Pfeifer; David J. Reibstein (2010). *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*.
5. <http://blog.clientheartbeat.com/why-customer-satisfaction-is-important/>

Customer Relations

Ajith Thomas

Associate Professor – Marketing
Saintgits Institute of Management, Kottayam
Email: ajitht@duq.edu

Goal and Relevance

Customer relations refer to the way a business communicates and interacts with the public to gain and retain customers. It is necessary for a business to cultivate good customer relations to attract and keep a loyal base of customers.

Cost of Customer Acquisition vs Customer Retention?

“Conventional business wisdom contends that it costs 10 times as much to obtain a new customer as it does to retain an existing customer.” John L. Daly (2002), *Pricing for Profitability: Activity-Based Pricing for Competitive Advantage* John Wiley and Sons ISBN 0471221597 p85.

“Attracting a new customer can cost as much as **15 times** more than retaining an existing customer.” Terry Gillen (2005), *Winning New Business in Construction* Gower Publishing Ltd. ISBN 0566086158 p89.

"Research shows that it can cost up to 30 times as much to get a new customer as it does to keep an existing one. It pays to stay very close to your customers, so you know their exact needs, today and tomorrow. Your aim is to be irreplaceable as their supplier." Mike Johnston, The Chartered Institute of Marketing.

Key Concepts

- Paradigm shift in the idea of selling and customer relationships is solicited in this training.
- Ideas for selling and customer relations.

Introduction

Be a great sales person by being an expert; gain that knowledge about the product.

- Go out and find this information, talk to experts.
- Take the accountability for yourself for selling, irrespective whether the company has a training program or not. Talk to customers what they liked about your product.

Substance of the topic

- Selling is 20% sales skills and 80 % strategy - Mindset
- Sharing experiences and selling to benefit them; Selling is not pressurizing
- Emphasize the benefits of the product; help them to get a benefit
- Delete the old model of selling (negative)
- Customers are smart today

- How do we become good at selling?
 - Know your product/understand the product
 - Who is your target audience
 - Sequence/process we will follow
 - Break it up into smaller process – pre approach, approach and closing.
- People wants to buy
- Help them understand what they want to buy
- Lot of information in front of them; clear the path for them after finding the need.
- Provide insight to the customer (beyond the obvious).
- Educate and enlighten them
- Connect with the client
- Learn to sell what you have; if they don't buy that is not your right target market.

Here are 6 ideas to build customer relationships:-

1. Follow up with the customer after the sale.
2. Send an email newsletter or offer subscriptions to your company blog. Present information your customers need to achieve their goals. Don't say, "Buy my stuff." Offer a case study in which your services helped a customer achieve a business goal—make more sales, save money, or increase employee productivity.
3. Arrange phone calls, Skype calls or even a Google Hangout with customers periodically to learn more about their businesses. The more you know, the more you can help with your services and products.
4. Offer special webinars or reports just for existing customers. Context is the key here. Tips for driving safely in the rain make sense when coming from an auto repair shop or tire store.
5. Celebrate customer appreciation days. Invite customers to your office to welcome the New Year, celebrate a holiday, or when your business has reached a milestone. It doesn't have to be expensive. It just has to be heartfelt.
6. Ask for feedback and welcome all comments...even the negative ones. Use customer feedback to fix problems and identify successes. Sometimes you can't respond directly but do so whenever you can. Don't let a problem sit in the room like a giant elephant. That drives customers away.

Source: Keep it simple, stay in touch, Follow the rule – (Your front-line staff will treat your clients the way you treat them; treat your team the way you want your clients treated), pay attention, Care for customers, Be consistent and say thank you.

Practical Session

- Think of 3 things that you enjoyed in the coffee shop regarding the service in the shop and write an appreciation letter praising or thanking the shop owner. – 10 minutes and 10 min. Discussion.

Activity Corner

- ✓ Role play of customer relations.
- ✓ Eye, smile, speak enthusiastically, stay connected.

References

- <https://www.linkedin.com/pulse/what-cost-customer-acquisition-vs-retention-ian-kingwill>
- <https://www.youtube.com/watch?v=Tl6yL4wucqk>
- <https://www.youtube.com/watch?v=ynlgqCaGQJc>
- <http://www.customerrush.com/6-ideas-to-build-customer-relationships>
- <http://www.customerrush.com/6-ideas-to-build-customer-relationships/>

Quotes

- ✓ *"Your most unhappy customers are your greatest source of learning." -Bill Gates, Microsoft*
- ✓ *"Get closer than ever to your customers. So close that you tell them what they need well before they realize it themselves." - Steve Jobs, Apple*
- ✓ *"It is not the employer who pays the wages. Employers only handle the money... It is the customer who pays the wages." - Henry Ford, Ford Motor Company*
- ✓ *"We see our customers as invited guests to a party, and we are the hosts. It's our job to make the customer experience a little bit better." - Jeff Bezos, Amazon.com*
- ✓ *"The best way to find you is to lose yourself in the service of others." - Mahatma Gandhi*

Powerful Success Strategies

Pearly Antony O

Assistant Professor, St. Teresa's College, Ernakulum
Email: pearlyantony@gmail.com

Goal and relevance

Success is important in life which gives a confidence to lead a happy life. Success means different things to different people. Its depend on the priorities that gives in your life .If you know the strategies of success, this will smoothen your journey to the success. Successful persons achieved their success because they knew how to proceed in their journey to success. Success strategies enable the trainees to crystallize their goal and achieve it through conscious effort.



Key concepts

Success: - The achievement of something desired, planned or attempted.

Strategies: - A plan of action resulting intended to accomplish a specific goal. It is a way of describing *how* you are going to get things done.

Positive thinking:- Positive thinking is a mental attitude in which you expect good and favorable results. In other words, positive thinking is the process of creating thoughts that create and transform energy into reality.

Introduction

“A strong positive self-image is the best possible preparation for success” - Joyce Brothers

Success means achieving something which you are aiming at. Success really means to lead happy life and make others happy and thereby making the world a better place to live in. If you go through the life history of successful people you can notice that their success is the result of a systematic life. Success doesn't happen all on a sudden. It is the result of the efforts and hard work that one is putting in. When one gets the desired result he gets satisfaction. This is the state of mind that gives pleasure and peace. If women know the

secret of success it is easy for her to lead the family towards success. If all the persons knew how to be successful, that nation can attain greater heights.

A good strategy will help you to achieve success in life. A strategy is a plan of action resulting intended to accomplish a specific goal. It is a way of describing *how* you are going to get things done. Applying techniques and success strategies are the best ways to discover and stay focused on your life's journey. The following points will help you in attaining success.

1. Meditation and prayer

Meditation will help us to control and listen to our mind. This will help us to have a stress free mind so that we feel mentally fresh. This will enable us to handle any difficult situations in life. Prayer is an opportunity to spend time with God. Prayer helps us to build a strong relationship with God which will help you to lead through right path. Entrust everything in your life to God which will give you a confidence which will lead you to success.



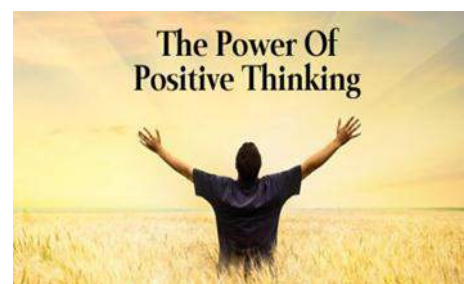
2. Setting up of Goals

For becoming success full person one should have a goat first. When you set up your goals think high. This will enable to reach greater heights. The setting up of goal will enable you to be focused in life that leads you to success.



3. Positive thinking

Positive thinking helps you to deal with life more easily. It can bring constructive changes in life. Try to find out the positive aspect of every person or incident that you come across. It gives lots of energy to you. A positive person anticipates happiness, health and success, and believes he or she can overcome any obstacle and difficulty. This brings brightness to the eyes, more energy, and happiness. We walk tall, our voice is more powerful, and our body language shows the way we feel.



In order to turn the mind toward the positive, some inner work is required, since attitude and thoughts do not change overnight.

1. Read about positive attitude, think about its benefits, and persuade yourself to try it. The power of your thoughts is a mighty power that is always shaping your life.
2. Use your imagination to visualize only favorable and beneficial situations.
3. Use positive words in your inner dialogues, or when talking with others.
4. Smile a little more, as this helps to think positively.
5. Once a negative thought enters your mind, you have to be aware of it, and endeavor to replace it with a constructive one.

4. Happiness

Happiness is a state of mind. Quality of our life depends on our emotions. Happiness is closely related to optimism. Optimistic people come up with solution to every problem in life. Happy people will be healthier and have a long life.

According to Shawn Achor, a decade of research in the business world proves that happiness raises nearly every business and educational outcome: raising sales by 37%, productivity by 31%, and accuracy on tasks by 19%, as well as a myriad of health and quality-of-life improvements. The greatest advantage in the economy is a happy workforce.



We are taking many things for granted. Try to find happiness in the small things in life. Following tips will help you in this regard.

- Write down three new things you are grateful for each day.
- Write for two minutes a day describing one positive experience you had over the past 24 hours.
- Exercise for 10 minutes a day

5. Value of time

Time is one of our most important resources. Effective time management is a skill. If a person wants to succeed, he must realize the value of time. Lost time means lost opportunity. The first two crucial steps in taking control of time are



- Establishing goals
- And following a schedule.

Punctuality is a habit where an individual does things on time. It is one of the secrets for success and one of the hallmarks of leaders. Punctuality means being systematic, maintaining everything in orderly manner and completing the task and being available on time. Punctuality is all about doing things timely and being aware of the importance of time. It helps in managing one's own time thereby respecting others' as well.

6. Hard work

You do not come across success just by hoping for it. To achieve true success, you need the strength of mind and body to struggle and work hard to reach your fullest potential. You need the right attitude, self-discipline and the ability to put your goal before your own needs, if you are really driven towards reaching success. Intense hard work along with great skills shall help you win one success after another. There shall be innumerable obstacles strewn in your path towards success, however, what makes a man truly worthy of the success that he attains is the ability to keep struggling until he can reach his goal. Giving up after a few failed attempts makes you a loser. A truly successful man will keep trying and keep struggling until he perfects his art. Thomas Edison failed approximately 10,000 times while he was working on the light bulb and yet he never dreamed of giving up – this is the hard work and the determination that marks a true success.



Comparison of successful people and unsuccessful people

Successful people

Think long term
 Know that success takes lot of hard work
 Take responsibility
 Talk about ideas
 Humble and eager to learn
 Know purpose and mission
 Driven by growth
 Want others to succeed
 Embrace change
 Complaint others

Unsuccessful people

Think that success is only luck
 Blame others
 Think they know it all
 Talk about people
 Focus on Rank and status
 Driven by money
 Want others to fail
 Avoid change
 Criticize others

Compare the habits of successful and unsuccessful persons. Find out if you have any habit which is the characteristics of an unsuccessful person. Try to remove such habits from you. Try to adopt the habit of successful person which will help in your journey to success.

Case study

Nicholas James "Nick" Vujici, born 4 December 1982 is a Serbian-Australian Christian evangelist and motivational speaker born with Phocomelia, a rare disorder characterized by the absence of all four limbs. As a child, he struggled mentally and emotionally as well as physically, but eventually came to terms with his disability. He presents motivational speeches worldwide which focus on life with a disability and finding hope and meaning in life.

During secondary school, Vujicic was elected captain of Runcorn State High School in Queensland and worked with the student council on fund raising events for local charities and disability campaigns. When he was seventeen, he started to give talks at his prayer group and later founded his non-profit organization, Life Without Limbs. Vujicic has written that he keeps a pair of shoes in his closet due to his belief in miracles. In 1990 he won the Australian young citizen award for his bravery and perseverance. In 2005 he was nominated for the Young Australian of the Year Award.

Vujicic graduated from Griffith University at the age of 21 with a Bachelor of Commerce degree, with a double major in accountancy and financial planning. Subsequently he became a motivational speaker, travelling internationally and focusing on teenage problems. Having addressed over three million people in almost 57 countries on five continents. Vujicic promotes his work through television shows and through his writing. After sowing an inspirational video of Vujicic, participants are asked to share their views on it.

Activity corner

1. List out five things that you give importance in your life .
2. Write down two positive things that happened in your life .
3. What are your suggestions to bring happiness in life?

Reference

<http://edition.cnn.com/2012/03/19/opinion/happiness-success-achor/index.html>

http://www.successconsciousness.com/index_000009.htm

<http://www.success.com/article/25-books-for-success#sthash.LLX2IXx5.dpuf>

<http://ctb.ku.edu/en/table-of-contents/structure/strategic-planning/develop-strategies/main>

<http://www.uwgb.edu/tutoring/resources/managing.asp>

<http://profmsr.blogspot.com/2009/07/punctuality-is-key-to-your-success.html#ixzz3yQzLw5oa>

http://www.selfgrowth.com/articles/the_importance_of_hard_work_in_success.

Personalizing Time

Athira. N.R

Senior Research Fellow, SEETTD, CMFRI, Kochi

Email:aathira31@gmail.com

The personal time management skills are to build a stronger foundation for your success. One skill at a time. With good time management skills you are in control of your time and your life, of your stress and energy levels. You make progress at work. You are able to maintain balance between your work, personal, and family lives. You have enough flexibility to respond to surprises or new opportunities.

What is Personal Time?

Who does your time belong to? When you wake up tomorrow, you'll start with exactly 24 hours of personal time. However, most of us have traded part of our 24 hours for benefits. If you work or go to school, you have traded part of your time for education or pay. Personal time is what we call "free time" or the time we haven't already bartered away.

How do we spend our time?

The average person spends the following amount of time in an average day:

1. 8.5 hours sleeping.
2. 1 hour devoted to personal care.
3. 2.5 hours on household chores (cooking, cleaning, gardening, shopping, etc)
4. 8.5 hours at work and/or school related activities on weekdays and (4 to 5 hours on the weekend).
5. 3 hours caring for others, either those who live with us (children and spouses) or those outside of our homes (elderly relatives, volunteer work).



If you add up the numbers, you'll see that "free time" is really at a premium!

Respecting Priorities

We all have many things to do. How do you decide what to do first? A very common answer is to start from what is most urgent or from what feels most comfortable. This is what you often do automatically, if you don't learn to prioritize. The truth is that the most important things are typically not urgent, and the urgent things are often not that important for your long-term success. Without solid prioritizing skills you rarely have time for what is most important, you are getting stuck where you are.

Always prepared for unplanned

In personal time management, you always face some unexpected events or unpredictable delays that leave less time to the planned activities than you initially planned. The more clear priorities you have each day, the more prepared you are for such unpredictable situations. Instead of being totally kicked out of the planned way, you simply sacrifice a few of lower priority tasks, and you are still getting most out of your time. You know that you are prepared and you do your best.

Ability to say NO

With all good intentions of people around you, if they get a chance to put their own problems on your shoulders, they will do so. Your ability to say no is an important component of your time management skills. It determines how much of your time will be

wasted on solving someone else's problems. That does not mean you have to be too selfish. You just need to see the line between helping people and simply being used by them.

Merits and Measures of Personal Time Management

Most of us do want to be more effective and efficient in our use of time. We want to be more organized; more accomplished, and feel better about how we manage time, one of our most precious resources. We want to move away from missed deadlines, late nights trying to finish things we have procrastinated about for months, lost opportunities, and strained relationships with people we care about. The following steps for effective time management can provide a guide for putting your intentions into action, lowering your stress, and helping you achieve your goals.

1. Identify your personal and work-related priorities.

This is a key step in the process. Think carefully about outcomes that are important to you. Write them down, being as specific as possible. Specify exactly what you want to accomplish and by when. If you have multiple priorities in the same area (personal or professional), try to select only one or two initially, or try to rank them as to importance. Trying to work on too many at the same time will increase, rather than lower, your stress level.

ABC analysis: allows you to prioritize your tasks into 3 categories.

- A- Tasks that is important and urgent.
- B- Tasks that is important but not urgent.
- C- Tasks that is not important and not urgent.

By prioritizing your tasks into three categories you will get an excellent overview of all your tasks, their importance and urgency.

2. POSEC method

POSEC is an acronym that stands for prioritizing by Organizing, Streamlining, Economizing and Contributing, which shall help you to focus our attention on your daily responsibilities. The POSEC method can be summarized as a method to break the main goals into smaller sub goals and tasks, which makes it easier to address one sub goal after another until the main goal is finally accomplished.

The POSEC method is comprised by the following stages:

- Prioritize responsibilities accordingly to your goals and the available time
- Organize what needs to be achieved regularly to maintain success (financial security)
- Streamline tasks you are not fond of, but have to be done (work)
- Economize tasks you would like to perform that are not urgent/important (pastime)
- Contribute to others. ("Giving something back", social obligations)

The advantages of the POSEC method are that it does not only focus on prioritizing tasks at the workplace but also helps you to prioritize pastime activities and social obligations. In contrast to this is it a disadvantage for people that want to prioritize their tasks and duties at work in a very precise way.

3. Translate your priorities into concrete goals, with component activities.

Break each goal into its component activities; identify what steps are needed to achieve the goal. Identify the requirements and resources you need related to each activity step. This helps you organize for success and have what you need to move forward towards goal

attainment. Pinpointing resources is especially important if accomplishment of your goal requires the cooperation or assistance of other people.

4. Consider your monthly calendar or planning notebook a timesaving device.

Keep it with you and use it to schedule important activities, due dates, deadlines, and appointments. Consistent use of your calendar will provide you with a visual reminder and help you keep track of your commitments. Periodically review your calendar to assess your progress in accomplishing the steps to your goals. Highlight important dates with a marker; this will keep them visible and can serve as a colorful reminder of your planned steps towards goal attainment.

5. Eliminate distractions

Distractions of all kinds will decrease your concentration and interrupt you from performing your tasks. In order to manage your time efficiently you need to eliminate distractions that prohibit you from performing your tasks or delay the completion of projects. Distractions vary from the internet, emails or the telephone up to multiple tasks that are performed simultaneously (multi-tasking).

6. Eliminate tasks

Every once in a while you might notice that you are performing tasks that have absolutely no outcome and are not even important. Sometimes you might have even "created" your very own tasks that no one else is performing and that don't need to be performed to accomplish your goals. You should try to eliminate as many of these tasks as possible, as these are simply a waste of time.

7. Identify your own barriers to effective use of time.

Discovering the motivation for your resistance to time management may assist in understanding your behavior, or lack of it. Is the task to be done boring? Do you really want to do it? Do you feel "too controlled" by the use of a calendar or planner?

Reflecting on your own thoughts and feelings about using time may help identify areas you may want to explore further, especially if you aren't satisfied with your achievement of personal or professional goals.

8. Strive for a balance between "doing" and "being."

Remember to plan some "fun time" in your schedule. With better time management strategies, you can be more productive, experience improved relationships, and enjoy more "good times" with a minimum of anxiety and stress. Doing "more" is not the ultimate goal of effective time management. More is not necessarily better, and cramming your schedule full of "to do" items doesn't necessarily lead to higher life satisfaction.

9. Monitoring

Monitoring helps you to find out how much time you spend for different tasks and - which is more important - it lets you realize how much time you spend with ineffective activities. You can monitor yourself by creating an activity report where you note down your activities, the time that it took and the importance of these activities. As soon as you have monitored your own behavior for a few days you can start analyzing it and if necessary reduce or eliminate unimportant activities.

10. Time Management Tools

Modern software applications that allow us to manage time have become very popular with the technological development. These time management tools vary from simple reminders and calendars that can be used with PDAs, mobile phones and smart phones up to software products that were developed for the computer. However, the more complicated and precise such an application becomes, the more time intensive and the less useful they will probably be.

Practical Session:- Game

Jar of Life

Things required: - Jar, pebbles, sand, small balls or pieces of rock, water

Lessons Learnt

- What is personal time management?
- How to achieve personal time management?
- How can we measure personal time?
- What are the different skills to utilize personal time?

Summary

With good personal time management skills:-

- You are in control of your time and your life, of your stress and energy levels.
- You make progress at work.
- You are able to maintain balance between your work, personal, and family lives.
- You have enough flexibility to respond to surprises or new opportunities.

Time Management Resources and Priorities

Mary Matilda

Principal, Maharajas College
Email: metildamary@yahoo.com

Time is an important resource to be managed. Because of lack of time management skills most of the people complain about time.

- I need more time
- I want to enjoy my life more. I am always running around. I never have time for myself
- My friends and family want more of me- but how do I give it to them.
- I am always in crisis because I procrastinate, but I procrastinate because I am always in crisis.
- I have no balance between my personal life and work. It seems like when I take time one for the other, it just makes matters worse.
- There is too much stress!
- There is too much to do- and it is all good. How do I choose?

We always listen to such statements from various people. If we don't understand the basic problem for time mismanagement we may not be able to practice effective time management. This session on time management will help the participants

- (i) To understand the causes of time mismanagement based on the time management matrix by Steven Covey.
- (ii) To have a discussion on time cheaters in participant's personal life
- (iii) To have awareness for role prioritization
- (iv) To have discussion on effective time management.

The following time management matrix will give us the major cause of our time mismanagement.

Time Management Matrix

URGENT	NOT URGENT
I	II
III	IV

The above matrix says that all activities we do can be categorized into four quadrants on the basis of the two characteristics of the activities namely importance and urgency.

Quadrant I represent things that are both "urgent "and "important". We need to spend time in quadrant I.

Quadrant II includes activities that are "important, but not urgent ". This is the quadrant of quality. Here we do our long range planning, prevent problems, empower others, broaden our minds and increase our skills through reading and continuous professional development. Ignoring this quadrant feeds and enlarges quadrant I, creating stress.

Quadrant III includes activities which are urgent but not important. This is the quadrant of deception. The noise of urgency creates the illusion of importance. But the actual activities, if they are important at all are important to some one else. Many phone calls, meetings and drop in visitors fall into this category. Both society and family members struggle with a lot of expectations on women too much to do in too little time. So women spend a lot of time in quadrant III meeting other people's priorities and expectation thinking that they are in quadrant II.

Quadrant IV is reserved for those activities that are neither important nor urgent. This is also known as quadrant of waste.

There are various time cheaters which compel us to be in quadrant III. A list of time cheaters and the ways to beat them are given in the following list.

Time cheaters come in all shapes and sizes. They can be physical and mental, created by you or imposed upon you by other people. The important thing is to become aware of them and then you can learn to deal with them.

10 STEPS TOWARDS BETTER TIME MANAGEMENT

- Develop a personal sense of time.
- Identify long term goals.
- Make middle-term plans.
- Plan the day.
- Make the best use of your best time.
- Organize your office work
- Manage *meetings*.
- Delegate *effectively*.
- Make use of your committed *time*.
- Manage your health.

Assertive communication is an effective way to solve many problems related to time mismanagement. We are unable to stick on to our priorities mainly because of our inability to say no to the unwanted requests. The clarity in communication will be helpful for delegating effectively.

Videos to illustrate

1. How time mismanagement causes stress
2. Value of time
3. Exercise on role Prioritization.

Group Dynamics
Thankam Theresa Paul
 Scientist, CIFRI, Cochin
 Email:thankamtheresa@gmail.com

Studies show that women feel intimidated and tongue tied in groups with men. This programme which is exclusively meant for women would give them an appropriate platform to express their great ideas and share their opinions in the group made of almost like-minded individuals. This would make them aware about the importance of working in a group and the easiness with which their achievements are made handy while working in a group. The schedule would help them in acquiring the skills necessary to intervene and improve individual and group performance, and in identifying and analysing the social processes that impact on group development and performance.

Key Concepts:

A group may be defined as two or more individuals who are connected to one another by social relationships. There are many approaches that deal with group formation and group dynamics, of which social identity approach is the most prominent one. The approach revolves around the concept that “ an individual’s identity has two components: *personal identity* and *social identity*, a social groups can act as critical source of information about individual identity”. There are studies which show that groups being instrumental in shaping a society. The memberships in a group are highly rewarding, since it involves interpersonal happiness and strivings for goal. These interpersonal relationships are intimate, enduring and sometimes sustaining. That’s why it said that group formation starts with psychological bond.



Introduction:

The social process by which people interact with each other in small groups can be called group dynamism. A group has certain common objectives and goals and members are bound together with certain values and culture.

Characteristics of group

1. *Influential and synergic*: The group can influence the thinking of its members. The members are always influenced by the interactions of other members in the group. Even the attitude, perceptions, and ideas of members depend on group dynamism.
2. *Leader dependent performance*: A group with a good leader performs better as compared to a group with weak leader.
3. *Job satisfaction*: Group dynamism can give job satisfaction to the members.

4. *Team spirit*: The group can also bring team spirit among the members.
5. *Cohesiveness*: If the group works as a cohesive group, the cooperation and convergence can result in maximization of productivity. Group dynamism can reduce the labour unrest and labour turnover due to emotional attachment among the group members.

Advantages and disadvantages of a group

The advantages of joining a group are sense of security, have a status, develop Self-esteem, power and goal achievement.

Small groups are disadvantageous with less number of ideas and less effectiveness, whereas large groups are affected with problem of communication and coordination and conflicts.

Conditions for a group to be successful

1. *Being a real team*: which results from having a shared task, clear boundaries and stability in group membership.
2. *Compelling direction*: This results from a clear, challenging and consequential goal.
3. *Enabling structure*: which results from having tasks which have variety, an adequate group size, talented group members, and strong norms that specify appropriate behavior
4. *Supportive context*: such as reward systems that reward performance and cooperation
5. *Expert coaching*: which occurs on the rare occasions when group members feels they need help with task or interpersonal issues.

Steps towards formation of a group

1. **Forming**: This represents a time where the group is just starting to come together and is characterized with anxiety and uncertainty. Members are cautious with their behavior, which is driven by the desire to be accepted by all members of the group.
2. **Storming**: The storming stage is where conflict and competition are at its greatest. This is because now that group members have an understanding of the task and a general feel for who they are as a group and who group members are, they feel confident and begin to address some of the more important issues surrounding the group.
3. **Norming**: Once a group receives the clarity that it so desperately needs, it can move on to the third stage of group development, known as the norming stage. The norming stage is the time where the group becomes a cohesive unit.
4. **Performing**: The performing stage is marked by high productivity. Group members are unified, loyal and supportive. Competence in all members is seen, allowing for a high level of autonomy in decision making.
5. **Adjourning**: At this stage, the groups disperse after their targets are achieved

Group Structure

The group dynamics depends on various capacities enjoyed by individuals in group (Group structure). Group Structure refers to the pattern of interrelationship that exists among the group members, and makes the group functioning orderly and predictable. Four important aspects of group's structure are:

Role: The typical part played by an individual group member in accordance with the expectations of other members from him

Norms: The rules and mutual expectations that develop within the group. This refers to the generally agreed upon rules that guide the group members behaviour.

Status: The relative prestige or social position given to groups or individuals by others.

Group Cohesiveness: The degree of attraction of the group members for each other and the 'we-feeling' among the members.

Types of groups

A variety of groups are formed by interactions between people such as:

- **Primary groups:** are characterized by small size, face to face interaction and intimacy among members of group. Eg: family, neighbourhood group.
- **Secondary groups:** characterized by large size, individual identification with the values and beliefs prevailing in them rather than cultural interaction. eg: occupational association and ethnic group.
- **Task groups:** are composed of people who work together to perform a task but involve cross-command relationship.
- **Social groups:** refers to integrated system of interrelated psychological group formed to accomplish defined objectives. Eg: political party with its many local political clubs.
- **Reference groups:** one in which they would like to belong.
- **Membership groups:** those where the individual actually belongs.
- **Command groups:** formed by subordinates reporting directly to the particular manager are determined by formal organizational chart.
- **Functional groups:** the individuals work together daily on similar tasks.
- **Problem solving groups:** it focuses on specific issues in their areas of responsibility, develops potential solution and often empowered to take action.

Activity Corner- Tower Making

Materials required: Newspaper, Roll tape, Stop Watch, Measuring Tape

Activity: The group is divided into small sub groups of 4-5 members. The newspaper stack is placed in the corner of the room. The members have to collect the newspapers and then each group has to make a tower with these newspapers and tape roll. The group which makes the tower with maximum height wins the game.



Lessons Learnt

1. Which is the role that you adopt in your group?
2. How did you select the leader in your group?
3. Which is your type of group?



Communication: Audio Visual

Public Speaking Skills: Winning Hearts

Shyam .S.Salim

Principal Scientist, SEETTD, CMFRI, Cochin

Email*:shyam.icar@gmail.com

Introduction

Public speaking (sometimes termed oratory or oration) is the process or act of performing a presentation (a speech) focused around an individual directly speaking to a live audience in a structured, deliberate manner in order to inform, influence, or entertain them. Public speaking is commonly understood as the formal, face-to-face talking of a single person to a group of listeners. It is closely allied to "presenting", although the latter is more often associated with commercial activity. Most of the time, public speaking is to persuade the audience.

Relevance

Even if you don't need to make regular presentations in front of a group, there are plenty of situations where good public speaking skills can help you advance your career and create opportunities.

For example, you might have to talk about your organization at a conference, make a speech after accepting an award, or teach a class to new recruits. Speaking to an audience also includes online presentations or talks; for instance, when training a virtual team, or when speaking to a group of customers in an online meeting.

Good public speaking skills are important in other areas of your life, as well. You might be asked to make a speech at a friend's wedding, give a eulogy for a loved one, or inspire a group of volunteers at a charity event.

In short, being a good public speaker can enhance your reputation, boost your self-confidence, and open up countless opportunities.

However, while good skills can open doors, poor ones can close them. For example, your boss might decide against promoting you after sitting through a badly-delivered presentation. You might lose a valuable new contract by failing to connect with a prospect during a sales pitch. Or you could make a poor impression with your new team, because you trip over your words and don't look people in the eye.

Make sure that you learn how to speak well!

Strategies for Becoming a Better Speaker

The good news is that speaking in public is a learnable skill. As such, you can use the following strategies to become a better speaker and presenter.

1. Plan Appropriately

First, make sure that you plan your communication appropriately. Think about how you'll structure what you're going to say. When you do this, think about how important a book's

first paragraph is; if it doesn't grab you, you're likely going to put it down. The same principle goes for your speech: from the beginning, you need to intrigue your audience.

For example, you could start with an interesting statistic, headline, or fact that pertains to what you're talking about and resonates with your audience. You can also use story telling as a powerful opener.

Planning also helps you to think on your feet . This is especially important for unpredictable question and answer sessions or last-minute communications.

2. Practice

There's a good reason that we say, "Practice makes perfect!" You simply cannot be a confident, compelling speaker without practice. To get practice, seek opportunities to speak in front of others. If you're going to be delivering a presentation or prepared speech, create it as early as possible. The earlier you put it together, the more time you'll have to practice.

Practice it plenty of times alone, using the resources you'll rely on at the event, and, as you practice, tweak your words until they flow smoothly and easily. Then, if appropriate, do a dummy run in front of a small audience: this will help you calm your jitters and make you feel more comfortable with the material. Your audience can also give you useful feedback Add to My Personal Learning Plan, both on your material and on your performance.

3. Engage With Your Audience

When you speak, try to engage your audience. This makes you feel less isolated as a speaker and keeps everyone involved with your message. If appropriate, ask leading questions Add to My Personal Learning Plan targeted to individuals or groups, and encourage people to participate and ask questions.

Keep in mind that some words reduce your power as a speaker. For instance, think about how these sentences sound: "I just want to add that I think we can meet these goals" or "I just think this plan is a good one." The words "just" and "I think" limit your authority and conviction. Don't use them. A similar word is "actually," as in, "Actually, I'd like to add that we were under budget last quarter." When you use "actually," it conveys a sense of submissiveness or even surprise. Instead, say what things are. "We were under budget last quarter" is clear and direct.

Finally, avoid reading word-for-word from your notes. Instead, make a list of important points on cue cards, or, as you get better at public speaking, try to memorize what you're going to say – you can still refer back to your cue cards when you need them.

4. Pay Attention to Body Language

Pay attention to your body language: stand up straight; take deep breaths, look people in the eye, and smile. Don't lean on one leg or use gestures that feel unnatural. If you're nervous, you might talk quickly. This increases the chances that you'll trip over your words, or say something you don't mean. Force yourself to slow down by breathing deeply. Don't be afraid to gather your thoughts; pauses are an important part of conversation, and they make you sound confident, natural, and authentic.

Many people prefer to speak behind a podium when giving presentations. While podiums can be useful for holding notes, they put a barrier between you and the audience. They can also become a "crutch," giving you a hiding place from the dozens or hundreds of eyes that are on you.

Instead of standing behind a podium, walk around and use gestures to engage the audience. This movement and energy will also come through in your voice, making it more active and passionate.

5. Think Positively

Positive thinking Add to My Personal Learning Plan can make a huge difference to the success of your communication, because it helps you feel more confident. Fear makes it all too easy to slip into a cycle of negative self-talk, especially right before you speak, while self-sabotaging Add to My Personal Learning Plan thoughts such as "I'll never be good at this!" or "I'm going to fall flat on my face!" lower your confidence and increase the chances that you won't achieve what you're truly capable of. Use affirmations Add to My Personal Learning Plan and visualization Add to My Personal Learning Plan to raise your confidence. This is especially important right before your speech or presentation. Visualize giving a successful presentation, and imagine how you'll feel once it's over and when you've made a positive difference for others. Use positive affirmations such as "I'm grateful I have the opportunity to help my audience" or "I'm going to do well!"

6. Cope with Nerves

How often have you listened to or watched a speaker who really messed up? Chances are, the answer is "not very often."

When we have to speak in front of others, we can envision terrible things happening. We imagine forgetting every point we want to make, passing out from our nervousness, or doing so horribly that we'll lose our job. But those things almost never come to pass! We build them up in our minds and end up more nervous than we need to be.

Many people cite speaking to an audience as their biggest fear, and a fear of failure Add to My Personal Learning Plan is often at the root of this. Public speaking can lead your "fight or flight" response to kick in: adrenaline courses through your bloodstream, your heart rate increases, you sweat, and your breath becomes fast and shallow.

First, make an effort to stop thinking about yourself, your nervousness, and your fear. Instead, focus on your audience: what you're saying is "about them." Remember that you're trying to help or educate them in some way, and your message is more important than your fear. Concentrate on the audience's wants and needs, instead of your own.

7. Watch Recordings of Your Speeches

Whenever possible, record your presentations and speeches. You can improve your speaking skills dramatically by watching yourself later, and then working on improving in areas that didn't go well.

As you watch, notice any verbal stalls, such as "um" or "like." Look at your body language: are you swaying, leaning on the podium, or leaning heavily on one leg? Are you looking at the audience? Did you smile? Did you speak clearly at all times?

Pay attention to your gestures. Do they appear natural or forced? Make sure that people can see them, especially if you're standing behind a podium.

Last, look at how you handled interruptions, such as a sneeze or a question that you weren't prepared for. Does your face show surprise, hesitation, or annoyance? If so, practice managing interruptions like these smoothly, so that you're even better next time.

SUMMARY

Key Points

Chances are that you'll sometimes have to speak in public as part of your role. While this can seem intimidating, the benefits of being able to speak well outweigh any perceived fears. To become a better speaker, use the following strategies:

- Plan appropriately.
- Practice.
- Engage with your audience.
- Pay attention to body language.
- Think positively.
- Cope with your nerves.
- Watch recordings of your speeches.

If you speak well in public, it can help you get a job or promotion, raise awareness for your team or organization, and educate others. The more you push yourself to speak in front of others, the better you'll become, and the more confidence you'll have.

Communicative English

Rahul .G.Kumar

Young Professional, NBFGR, CMFRI

Email:cichlidiot@gmail.com

Communicative English emphasizes the ability to communicate the meaning of the message, instead of concentrating on grammatical perfection. This module will introduce participants to the use of English in everyday situations and is intended to encourage the use of English in their daily lives.

Communicative English covers 5 major areas;

1. Personal: Talking about yourself; introductions, storytelling, character.
2. Interpersonal: Talking to others, asking simple questions, giving simple answers.
3. Directive: Asking others to do things, telling others to do things.
4. Referential: Talking about events, other people.
5. Imaginative: Expressing creativity and artistic ability.

Introduction

The purpose of language is to communicate i.e., to transfer ideas, thoughts and feelings from one person to another. English is, today, the most widely spoken, and understood, language around the world, especially in the business world. Communicating effectively in English is, therefore, a valuable skill in the workplace. With its high levels of literacy and a non-discriminatory attitude towards women, Kerala has the potential to produce highly skilled workers to meet workplace requirements across the country and beyond. The state is known for the quality and competence of its women in professional fields such as teaching and nursing the world over. The challenge now is to train workers, who may not have had the benefit of a technical education, with the soft skills necessary to achieve success in a competitive marketplace. Opportunities exist, for candidates willing to apply themselves, in fields such as the hospitality and tourism industry, in customer service and in sales. By providing an introduction to communicating effectively in English, this workshop hopes to help participants take their first steps towards a fulfilling career and self-sufficiency.

What is Communicative English?

The Communicative approach is intended to effectively convey the speaker's meaning, instead of focussing on grammar or pronunciation. Thus, the method is based on the concept of using the language rather learning the language. The Communicative English method relies on teaching via active student interaction, using both the learners' personal experiences and situations as well as unrehearsed contexts. The biggest advantage of the communicative method is it encourages the student, even first time learners, to start speaking and using the language. Contrary to a popular misconception, communicative English is not just about conversation, it introduces students to tools that enable them to start speaking the language while encouraging them to study and improve their grasp of grammar and vocabulary. The biggest disadvantage of the method is students can get lazy and develop bad habits if they do not practice and expand on what is taught in class.

Personal

The first lesson will encourage students to introduce and describe themselves in simple language. This will cover general information such as name, native place, school(s) attended etc. Participants will be asked to read out and complete simple sentences;

"My name is _____. I was born at _____. I went to _____ School. At present, I live at _____ with my _____.

[Mother/father/brother/sister(s)/grandparent(s)/husband/child (ren)]"

The goal of this lesson is to get students to start using the English language. This session will also lead to interactions in future lessons.

Interpersonal

The next lesson will encourage students to hold a simple conversation with another person or persons. This will include appropriate greetings, asking questions, making requests and giving directions. Students will be asked to respond to situations requiring the use of "Hello, Good morning/afternoon/evening/night, Please, Thank you, May I..., etc." in person and over the telephone. Students will also be taught the importance of simplicity and clarity in answering questions relating to directions, time etc. The goal of this lesson is to get students used to conversing in simple English, and aid in daily tasks such as answering the phone, interacting with customers, getting and giving directions etc.

Directive

Students will be asked to participate in simple scenarios that involve asking others to do things.

"Please sit down. Open the door for me, please. Can you tell me the time?"

This is a continuation of the previous lesson in that it requires interaction, but here, the goal is to get the listener to complete a task.

Referential

In this lesson, students will be asked to describe an event from their lives, describe a picture or a short video clip and participate in "what happens next" exercises.

The goal of this exercise is to introduce students to the practice being creative and also simultaneously expressing those creative thoughts in English. This will be carried forward in the next lesson as well.

Imaginative

In this lesson, the students will be asked to talk about imagined scenarios, made up on the spot by themselves. They will also be asked to translate their favourite pieces of literature or music into English. The goal of this exercise is to push the limits of the students' vocabulary and encourage them to expand it.

Practical Sessions

Lesson 1:

Students will be given prompts with simple, incomplete, sentences in English, along with a Malayalam translation. They will be asked to fill in the blanks / complete the sentences.

Lesson 2:

Role playing scenarios involving, students and instructors or groups of students, Students may answer in Malayalam and then translate into English.

Lesson 3:

Role playing scenarios amongst students, Prompts will be given in Malayalam.

Lesson 4:

Images or video clips will be shown and students will be asked to describe the scene, answer questions or discuss what happens next.

Lesson 5:

Students will be asked to narrate a short story or translate a story, a recipe or music into English.

Activity Corner

1. Name the various members of your family and your relation to them (one line per family member)
2. Describe the shortest way to reach the hospital from the railway station, using the given map.
3. Name your three favourite movies from the past year, and reasons for why you like them.
4. Describe your favourite recipe in English. Names for common ingredients are given.

Improving Communicative English Skills- Verbal

Miriam Paul Sreeram

Scientist, CMFRI

Email: miriampaul@yahoo.com

English is a global communicative medium, the knowledge of which opens doors to enhanced career opportunities. In the cent per cent literate Kerala, the ability to express oneself in English gives an added advantage to prospective employees and entrepreneurs. In a world which is increasingly more networked and technologically advanced, a good grasp of English is becoming increasingly imperative. A plethora of employment sectors, especially health, hospitality, tourism and education, which employ a maximum of women in Kerala require employees and entrepreneurs conversant with English. Primary and secondary schooling provides most with the opportunity to assimilate at least a very basic knowledge of English but as in the case of all languages it is the continued and enhanced usage of English which equips a person with the expertise which is required in practical situations. The role of Communicative English is to provide for such basic experience and confidence to develop good communication skills by multi-sensorial and multi-modal learning through non-conversational, conversational and theatrical exercises.

What's and whys of Communicative English

Development of communicative skills requires competence in five areas:

- Listening
- Understanding
- Speaking
- Reading
- Writing

In order to become an effective user of English, the student has to work on each of these skills to gradually build up confidence which comes only from repetitive and improved usage.

The Communicative method is employed to accomplish this in a relative shorter period of time, as opposed to years of study of the language. The emphasis is more on colloquial usage for everyday situations and effective communication of ideas, feelings or information without relying heavily on grammatical and literary considerations. Communicative methods rely on interaction as the main platform for skill development.

Mastering communicative skills can be likened to building a house. The basic requirements are a vocabulary and understanding of grammatical usage. Words are the building bricks and grammar the cement that holds the words together. Building up a minimal vocabulary and the correct usage in simple sentences are the first steps. Further competence in developing correct pronunciation, using idioms and phrases, metaphors and similar and

other higher nuances in literature can be compared to interior decoration and furnishing of the house- the more competence acquired, the more grand the final structure will be. Short term communicative English courses concentrate on equipping the student with a basic vocabulary and understanding of grammar which will make them proficient in dealing with ordinary situations, especially in the workplace.

How do we proceed with Communicative English?

Situational exercises in the four areas of skill development are used to create a preliminary understanding and practical usage of English. The exercises are held at five levels:

- Introductory exercise: Developing the ability to describe oneself or others
- Conversational exercises: Holding simple conversations with others
- Directive exercises: Instructing or directing others to perform tasks
- Narrative exercises: Describing events, concepts or situations
- Creative exercises: Applying ones imaginative and artistic skills effectively in English

As expression is a direct measure of confidence, these simple exercises concentrate on developing the practical application of the five communicative skills in as short a time as possible. The key to competence is repetition; the more the student practices the language, the more expertise and confidence she gains.

Introductory exercise:

The first lesson in learning any language, including English, lies in identifying oneself and one's immediate antecedents. This is done in a few simple sentences. The sentences can be written in Malayalam and translated to English.

Conversational exercise: The students are encouraged to form small groups and hold conversations with simple questions and answers.

Directive exercise:

An extension of the above exercise, this lesson will enable the student in making a listener achieve a goal. It involves giving instructions in simple sentences and a clear manner about undertaking a particular task or series of tasks. For example "Please shut the door and sit down." "Can you please look at your watch and tell me the time?" "Please answer the telephone".

Narrative exercise:

The students are encouraged to express their views on situations, happenings or ideas. This exercise is meant to push them into exploring their vocabulary and its appropriate usage.

Creative exercise:

This exercise is meant to bring out the full potential of the student in terms of her command over language. The capacity of the student to process, organize and express in English is accomplished.

Lesson 1:

The students are encouraged to write down sentences stating their names, place of residence and occupation and reading them aloud. They may write down the details in Malayalam and translate them into English.

Lesson 2:

Interactions between students or students and instructors by holding conversations with simple questions and answers.

Lesson 3:

Role playing by students as a teacher in a class or any other authoritative figure.

Lesson 4:

Students can be asked to write a letter answering a matrimonial advertisement. They can also be asked to express their views on a video clipping.

Lesson 5:

Students will be asked to describe an imaginary journey or will be shown a few pictures and asked to make up a story using them.

Official Language -Hindi **E.K. Uma* and Vandana.V**

Assistant Chief Technical Officer (Hindi Translator) CMFRI, Cochin
Email*:ekumamohan@gmail.com

Definition of Language

The method of human communication, either spoken or written, consisting of the use of words in a structured and conventional way. India is linguistically diverse country. Starting from Jammu - Kashmir in north to Kanyakumari in south and Gujarat in West to Arunachal Pradesh in east, people speak different languages and dialects. As you all know “A different language is a different vision of life”. Hindi language is considered as Official Language of India.

Importance of Hindi Language

- National and Official Language of India
- Most commonly spoken language in India
- Important role in establishing Unity in Diversity
- Second most spoken language in the world after Mandarin

Skill Development is very important for learning language. During the first session of “Official Language” class written skill development was stressed and speaking skill was discussed during the second session.

Speaking Skill Development

The quality of your life depends upon the quality of your communication. Speaking is an interactive process of constructing meaning that involves producing and receiving and processing information. The four language skills of listening, speaking, reading, and writing are all interconnected. Proficiency in each skill is necessary to become a well-rounded communicator, but the ability to speak skillfully provides the speaker with several distinct advantages. The capacity to put words together in a meaningful way to reflect thoughts, opinions, and feelings is important for speaking skill development. For communicating with others good speaking skills is essential. During the second session for improving speaking skills, first a self - introduction in Hindi was shown through PowerPoint presentation which will help them to face an interview. Speaking Sills are essential for career success. In order to familiarize with common words with different meanings in Malayalam and Hindi, examples are shown and copy of the same was distributed.

Written Skill Development

As we all know Hindi is our National Language, Official Language and most popular language also. Popularity of Hindi is increasing day by day through media and movies. Due to the migration of laborers from Hindi speaking belt to South India now a day’s popularity

of this language increased in Kerala also. People in Kerala are aware of Hindi, because Hindi is a compulsory language they study in school level.

Writing skill is an important part of communication. Good writing skills allow you to communicate your message with clarity and ease to a far larger audience than through face-to-face or telephone conversations. You might be called upon to write a report, plan or strategy at work. And, of course, a well written CV or Resume with no spelling or grammatical mistakes is essential if you want a new job. During the session commonly used words in Hindi such as fruit's name, flower's name and commonly used sentences etc were discussed and copy of the same were distributed to familiarize them with Hindi language. In order to improve their writing skill exercises were given in the class by including Hindi words taught during the class.

फलों के नाम / Names of fruits

अंगूर	മുന്തിരി
संतरा	ഓറഞ്ച്
सेब	ആപ്പിള
केला	പഴം
अमरूद	പേരക്ക
कटहल	ചക്ക
पपीता	പപ്പായ
अनन्नास	പൈനാപ്പിള
आम	മാങ്ങ
नीम्बु	നാരങ്ങ
अनार	മാതള നാരങ്ങ
तरबूज	തണ്ണിമത്തങ്ങ
कद्दू	മത്തങ്ങ
खजूर	ഈന്തപ്പഴം

फूलों के नाम / Flower's Name

गुलाब	റോസ്
चमेली	മുല്ല
कमल	താമര
गेंदा	ജമന്തി
सूरजमुखी	സൂര്യകാന്തി
गुडहल	ചെമ്പരത്തി

पक्षियों के नाम / Bird's Name

तोता	തത്ത
बतख	താറാവ്
उल्लू	മൂങ്ങ
कौआ	കാക്ക
कोयल	കുയില്
मोर	മയില്
मुर्गी	കോഴി
मैना	മൈന

जानवरों के नाम / Animal's Name

कुत्ता	പട്ടി
बिल्ली	പൂച്ച
हाथी	ആന
बकरी	ആട്
बन्दर	കുരങ്ങൻ
शेर	സിംഹം
भालू	കരടി
मेंढक	തവള
सुअर	പന്നി
बैल	കാള
ऊँट	ഒട്ടകം
हिरन	മാൻ
घोड़ा	കുതിര
भैंस	പോത്ത്
चींटी	ഉറുമ്പ്
गाय	പശു
मच्छर	കൊതുക്
चूहा	എലി

सब्जियों के नाम / Vegetables Name

गाजर	കാരറ്റ്
करेला	പാവയ്ക്ക
भिण्डी	വെണ്ടയ്ക്ക
बंदगोभी	കാബേജ്
फूलगोभी	കൊളിഫ്ളവർ
आलू	ഉരുളക്കിഴങ്ങ്
टमाटर	തക്കാളി
बैंगन	വഴുതനങ്ങ
प्याज	ഉള്ളി
हरी मिर्च	പച്ചമുളക്
अदरक	ഇഞ്ചി
लहसुन	വെളുത്തുള്ളി
पालक	ചീര

सप्ताह के दिन / Days of the Week

सोमवार	തിങ്കള്
मंगलवार	ചൊവ്വ
बुधवार	ബുധന്
गुरुवार	വ്യാഴം
शुक्रवार	വെള്ളി
शनिवार	ശനി
रविवार	ഞായര്

Month / महीने

जनवरी	ജനുവരി
फरवरी	ഫെബ്രുവരി
मार्च	മാർച്ച്
अप्रैल	ഏപ്രിൽ
मई	മെയ്
जून	ജൂൺ
जुलाई	ജൂലൈ
अगस्त	ആഗസ്റ്റ്
सितंबर	സെപ്റ്റംബർ

अक्तूबर	ഒക്ടോബർ
नवंबर	നവംബർ
दिसंबर	ഡിസംബർ

Parts of the Body / शरीर के अंग

सिर	തല
आँख	കണ്ണ
नाक	മൂക്ക്
जीभ	നാക്ക്
दांत	പല്ല
कान	ചെവി
बाल	മുടി
हाथ	കൈ
पैर	കാല്
उंगली	വിരല്
ओंठ	ചുണ്ട്
पेट	വയര്
त्वचा	ചർമ്മം
छाती	നെഞ്ച്

Activity Corner

अभ्यास

पूरा करो / വിടുപോയത് പൂരിപ്പിക്കുക

1. मछली में रहती है. (वायु, पेड़, पानी, मिट्टी)
2. केला एक मीठा है. (पुष्प, पत्ता, फल, रंग)
3. मोर है. (गाता, नाचता, उड़ता, तैरता)
4. समुद्र की ओर बहती है. (जंगल, वायु, नदी, हवा)
5. सूरज को उठता है. (शाम, रात, मध्याह्न, सुबह)
6. गाय देती है. (चाय, दूध, पानी, चास)
7. सीता से लिखती है. (कागज़, कलम, केला, पत्ता)
8. मुर्गी देती है. (डंडा, झंडा, अंडा, मीठा)
9. आकाश का रंग है. (लाल, नीला, पीला, काला)

10. भारत हमारा है. (राज्य, देश, स्थल, जमीन)
11. छुट्टी का दिन है. (सोमवार, गुरुवार, मंगलवार, रविवार)
12. हम से सामान खरीदते हैं. (स्कूल, दुकान, मंदिर, कार्यालय)
13. भारत का देशीय पुष्प है. (मोगरा, चमेली, कमल, गुलाब)
14. प्रधान मंत्री की नयी योजना है..... (स्वतंत्र भारत, स्वच्छ भारत, स्वस्थ भारत, सुन्दर भारत)
15. केरल का पश्चिम भाग में है. (बंगाल समुद्र, अरब सागर, प्रशांत समुद्र, इंडियन महा समुद्र)

✚ 16. हिन्दी और मलयालम में समान उच्चरित पदों के अर्थ भेद

क्रम सं.	शब्द	मलयालम अर्थ	हिन्दी अर्थ
1.	अनुवाद	Permission	Translation
2.	अनुमोदन	Congratulation	Approval
3.	अपेक्षा	Application	Requirement
4.	अवधि	Holiday	Leave
5.	कलम	Pot	Pen
6.	शिक्षा	Punishment	Education
7.	नाक	Tongue	Nose
8.	चोर	Rice	Thief
9.	आलोचना	Thinking	Criticism
10.	नीति	Justice	Policy

Introduction to Computers

Mini .K.G

Senior Scientist, FRAD, CMFRI

Email: mini.anish02@gmail.com

Our lifestyles have undergone a sea change with the advancement in technology especially in the field of computers. Computers are an integral part of our lifestyles today and are found at offices, banks, homes, schools, colleges, hotels, shops etc. This advance in technology has made our lives easy and comfortable. For instance, we can execute a number of activities using computer based systems- we can write a draft on word processor and email it, make calculations using an electronic spread sheet and incorporate graphics, create a database of friends with their phone numbers, addresses and e-mail ids etc. This chapter gives overview of components of computer, different types of input and output devices, different types of memory, classification of computer, various computer generations, different types of computer languages and various applications in today's arena.



Computer is an electronic device that takes raw data as input from the user and processes these data under the control of set of instructions (called program) and gives the result (output) and saves output for the future use. The three main building blocks in a computer's functioning are input, processor and output (fig.1.)



Fig. 1. Functioning of a computer

The data is entered through input devices like the keyboard, disks or mouse. These input devices help convert data and programs into the language that the computer can process. The process that the computer does on the input data goes into the main part of the computer called Central Processing Unit (CPU). The processed data is sent to the output device. Output devices translate the processed information from the computer into a form that we can understand.

Components of Computer System

Input: This is the process of entering data and programs into the computer system. A large number of input devices are available that can be



used to enter information directly into the computer. Most commonly used input devices are keyboard and mouse. Image scanner joystick, light pen, track ball, webcam, audio input device like microphone etc. are some of the devices used to input information to computer.

Process: CPU is the brain of the computer. The CPU does the processing of the input data and instructions. It also controls the functions of all the components attached to it. Besides this, CPU is the place where the memory of the computer is present. CPU is made up of Arithmetic & Logic unit, control unit and memory unit.

Arithmetic and Logic Unit	Control Unit	Memory Unit
<ul style="list-style-type: none"> •is capable of performing addition, subtraction, division and multiplication as well as operations like comparisons. 	<ul style="list-style-type: none"> •controls all the operations of a computer based on the instructions received from the input devices. 	<ul style="list-style-type: none"> •stores the data and instructions temporarily for processing.

Output: This is the process of producing results from the data for getting useful information.



Monitors, commonly called as Visual Display Unit (VDU), are the main output device of a computer. Printer is another output device, which is used to print information on paper.



Memory: We remember words, faces, names or the lessons we read, because we have a memory. A computer also has a memory. It can remember data and instructions. The data and instructions are stored in its memory. Different types of memory are detailed below.

Primary memory is the internal memory of the CPU. This memory can be quickly accessed by the CPU. Primary memory is of two types - Read Only Memory (ROM) and Random Access Memory (RAM). RAM is the temporary storage memory, which is volatile i.e., when the computer is turned off both data and instructions get lost from the RAM. ROM is permanent in nature and non-volatile. As the name suggests, computer can only read the data and instructions from it, but cannot make any changes to it. These instructions remain permanently in the computer, even when the computer is switched off.

Secondary memory refers to storage devices that cannot be accessed directly by the CPU. These storage devices store data and instructions permanently. The input and output can be stored for later use in storage devices. Hard disk, CD-ROM, DVD, flash drive are examples of storage devices.

Cache memory is now part of a computer. It is a high

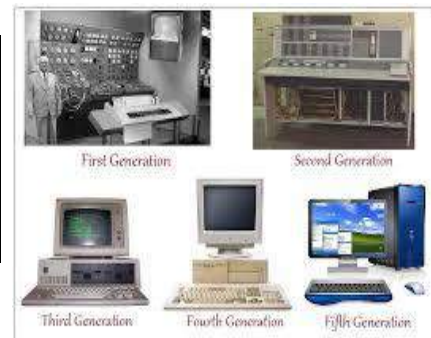


speed memory used for temporarily storing the most frequently used data and instructions. It can be accessed more quickly than a regular RAM in computer.

Generations of computers

Using size and features as the bases, computers are classified into various generations. There are totally five computer generations known till date.

Generation	Period & Description
First	1946-1959, Vacuum tube
Second	1959-1965, Transistor
Third	1965-1971, Integrated Circuit
Fourth	1971-1980, VLSI Microprocessor
Fifth	1980-onwards, ULSI microprocessor

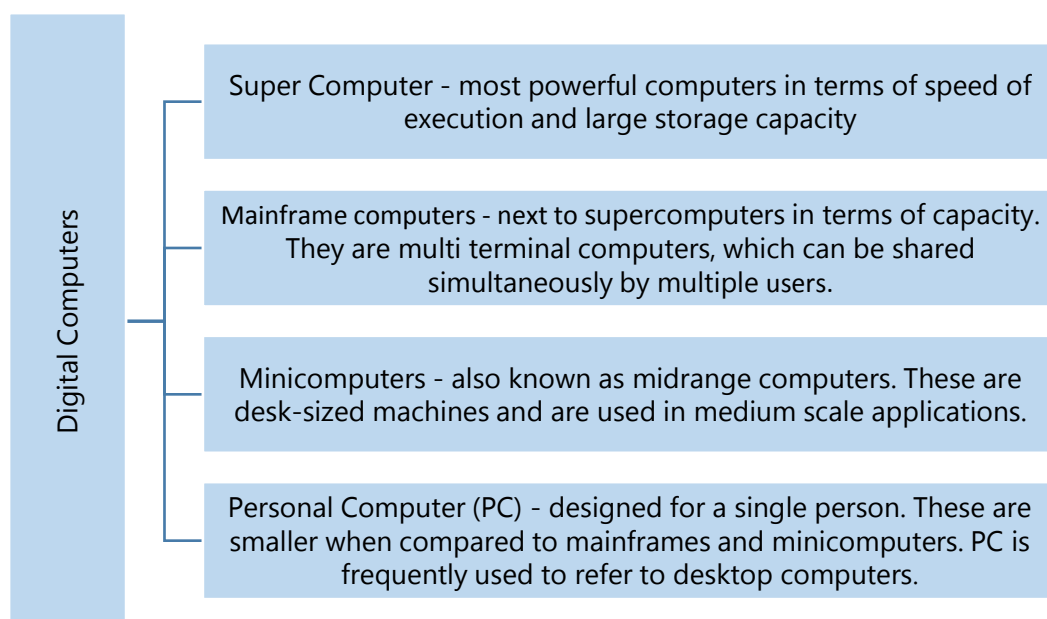


Types of computers

Computers can be classified in a variety of ways depending upon their physical size, processing speed, storage capacity, cost and ability to get connected to other computers and input or output devices. Various types of computers are discussed in this section.

Analogue computers: The varying quantities like temperature, air pressure, weight etc. are converted by analogue computers into varying voltages and then these voltages become input to the analogue computers. Today analogue computers are used for industrial process control.

Digital computers: Computers that process digital signals are known as Digital Computers. The Digital signal is a discrete signal with two states 0 and 1. In practice, the digital computers are used and not analogue. Examples of digital computers are personal computers, supercomputers, mainframe computers etc.



Computer languages

The computer performs its functions based on the instructions given by the user. The set of such instructions written for a particular task is known as a computer program. Program is the set of instructions that tells the computer how to process the data into the form desired by the user. The language in which a computer program is written is known as programming language. Computer can process information only in the form of a series of numbers. So, all information and instructions given to a computer must finally reach it in a special language which consists of numbers only. The language of numbers is called machine language. This was the first computer language. In the first generation of computers, all instructions and data had to be fed in this language. This was an extremely difficult task and could be done by an expert only. Later, a number of other computer languages are developed and used in different generations of computers. Third generation of computer languages are known as high-level languages. Today you do not even need the knowledge of a computer language to work on the computer. The graphic environment makes working on the computer very simple. You only have to select and click icons to start using applications. Computers have now become extremely user-friendly and can be used by anyone with very little knowledge of computers.



Advantages of computers

Compared to traditional systems, computers offer many noteworthy advantages. This is one reason that traditional systems are being replaced rapidly by computer-based systems. The main advantages offered by computers are High Accuracy, Superior speed of operation, large storage capacity, User-friendly features, portability and platform independence.

Applications of Computers

Now let us look into some of the applications of computers in today's arena in various fields.

Business: computer is an integrated part in all business organisations and used for Payroll calculations, Budgeting, Sales analysis, Financial forecasting, Managing employees database, Maintenance of stocks etc.

Banking: Today banking is almost totally dependent on computer. Banks provide facilities on online accounting facility, which includes current balances, deposits, overdrafts, interest charges, shares, etc. ATM machines are making it even easier for customers to deal with banks.

Insurance: Insurance companies are keeping all records up-to-date with the help of computers. Insurance companies maintains a database of all clients with information showing procedure to continue with policies, starting date of the policies, next due instalment of a policy, maturity date, interests due, survival benefits, bonus etc.

Education: The computer has provided a lot of facilities in the education system. The computer provides a tool in the education system. There are number of methods in which educational institutions can use computer to educate the students. It is used to prepare a database about performance of a student and analysis is carried out on this basis.

Advertising: With computers, advertising professionals create art and graphics, write and revise copy, and print and disseminate ads with the goal of selling more products.

Online Shopping - shopping has been made possible through use of computerised catalogues that provide access to product information and permit direct entry of orders to be filled by the customers.

Health Care: Computers have become important part in hospitals, labs, and dispensaries. The computers are being used in hospitals to keep the record of patients and medicines. It is also used in scanning and diagnosing different diseases. ECG, EEG, Ultrasounds and CT Scans etc. are also done by computerised machines.

Engineering Design: Computers are widely used in engineering purpose. One of major areas is CAD (Computer aided design).that provides creation and modification of images. Some fields are Structural Engineering, Industrial Engineering, and Architectural Engineering.

Military: Computers are largely used in defence. Modern tanks, missiles, weapons etc. Military also employs computerised control systems.

Communication: Communication means to convey a message, an idea, a picture or speech that is received and understood clearly and correctly by the person for whom it is meant for. Some main areas in this category are: E-mail, chatting, file transfer protocol, video-conferencing.

Government: Computers play an important role in government. Some major fields in this category are: budgets, sales tax department, income tax department, computerization of voters lists, weather forecasting etc.

Activity Corner



Evolution of Computer Technology
 Advantages of Computers
 Digital and Analog computers
 Computer generations
 Different types of digital computers
 Difference between RAM and ROM
 Primary Vs. Secondary Memory
 Programming languages
 Applications of computer
 Advantages of computer

Summary

- ✳ Computer is an electronic machine that can store, organise and find information, do calculations and control other machines.
- ✳ A computer system exhibits four characteristics: speed, precision, reliability and memory.
- ✳ Information and the instructions given to the computer are the input. Eg., keyboard, mouse, scanner
- ✳ Input is processed in the CPU of the computer. CPU is the brain of the computer. It is made up of ALU, memory unit and control unit.
- ✳ Result obtained by the computer is the output. It is obtained on output devices. Eg., monitor, printer
- ✳ ROM stands for Read Only Memory and it stores data and instructions permanently.
- ✳ RAM or Random Access Memory stores data and instructions temporarily.
- ✳ Devices that store data and programs permanently are called secondary storage devices. Eg., Hard disk, flash drive, CD-ROM, DVD etc.
- ✳ Computers are classified as Super Computer, Mainframe computer, Minicomputer and Personal Computer.

Introduction to MS Office

Somy Kuriakose

Principal Scientist, FRAD, CMFRI

Email:somycmfri@gmail.com

Word, Excel and PowerPoint

Microsoft Office is a productivity suite which integrates office tools for personal and professional use. It includes a wide range of basic and advanced features that can help you to perform any task in a fast, efficient and productive way. The Microsoft Office suite is an essential collection of desktop applications that includes Word for documents, Excel for spreadsheets, and PowerPoint for presentations. Apart from this it integrates some other utilities such as Outlook, Access, **Publisher** and OneNote. With Microsoft Office, you can create impressive projects, from multi-media presentations to multi-page biographies.

Word

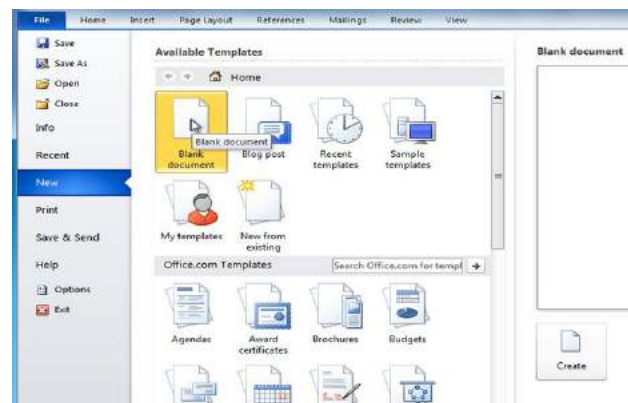
Word 2010 is a word processing application in the Microsoft 2010 Office suite that lets you easily create professional-looking documents using various themes, visual designs, formatting tools, and sharing features.

Creating and Opening Documents

Word files are called **documents**. When you start a new project in Word, you'll need to **create a new document**, which can either be blank or from a template. You'll also need to know how to **open an existing document**.

To create a new blank document:

1. Click the **File** tab.
2. Select **New**.
3. Select **Blank document** under **Available Templates**. It will be highlighted by default.
4. Click **Create**. A new blank document appears in the Word window.

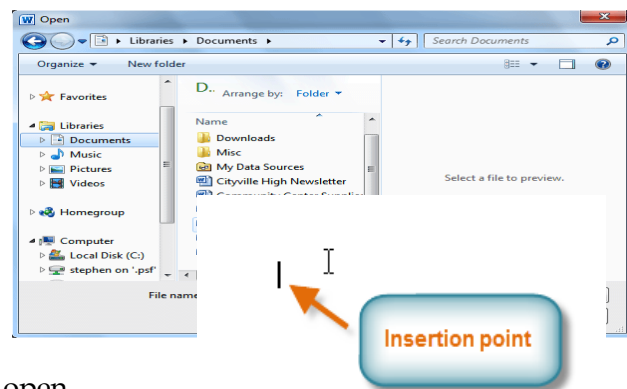


To open an existing document:

- Click the **File** tab. This takes you to the **Backstage** view.
- Select **Open**. The Open dialog box appears.
- Select your document, And then click open.

Working with text

If you're new to Microsoft Word, you'll need to learn the **basics of working with text** so you can type, reorganize, and edit text. You'll need to know how



to **insert**, **delete**, and **move text**, as well as how to **find and replace** specific words or phrases.

To insert text:

1. Move your mouse to the location where you want text to appear in the document.
2. Click the mouse. The **insertion point** appears
3. Type the text you want to appear.

To delete text:

1. Place the **insertion point** next to the text you want to delete.
2. Press the **Backspace** key on your keyboard to delete text to the **left** of the insertion point.
3. Press the **Delete** key on your keyboard to delete text to the **right** of the insertion point.

To select text:

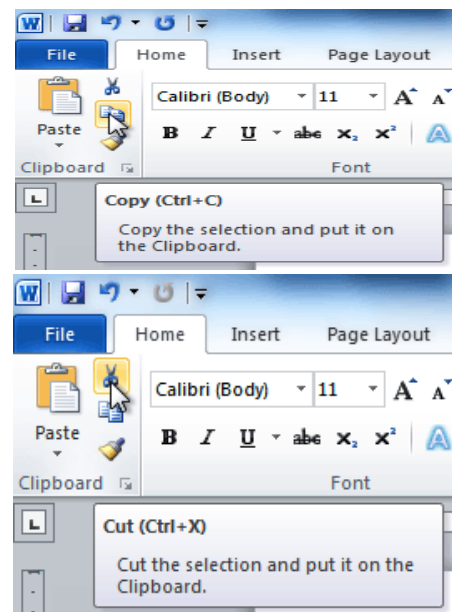
1. Place the **insertion point** next to the text you want to select.
2. Click the mouse. While holding it down, drag your mouse over the text to select it.
3. Release the mouse button. You have selected the text. A **highlighted box** will appear over the selected text.

To copy and paste text:

1. Select the text you want to copy.
2. Click the **Copy** command on the **Home** tab. You can also right-click your document and select **Copy**.
3. Place your insertion point where you want your text to appear.
4. Click **Paste** command on your **Home** tab. The text will appear.

To cut and paste text:

1. Select the text you want to copy.
2. Click the **Cut** command on the **Home** tab. You can also right-click the document and select **Cut**.
3. Place your insertion point where you want the text to appear.
4. Click the **Paste** command on the **Home** tab. The text will appear.



Finding and replacing text

When you're working with longer documents, it can be difficult and time consuming to locate a specific word or phrase. Word can automatically search your document using the **Find** feature, and it even allows you to change words or phrases using **Replace**.

To find text:

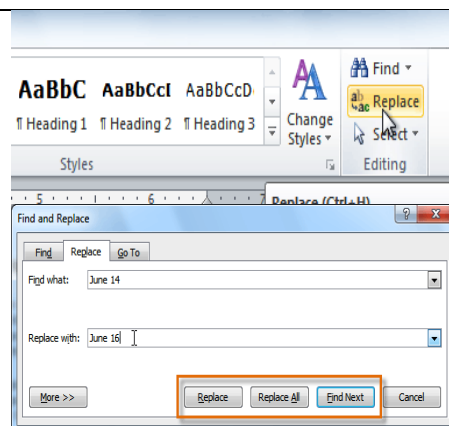
1. From the **Home** tab, click the **Find** command. The **navigation** pane will appear on the left side of the screen.
2. Type the text you want to find in the field at the top of the navigation pane.
3. If the text is found in the document, it will be highlighted in yellow, and a preview will appear in the navigation pane.
4. If the text appears more than once, you can click the **arrows** on the

navigation pane to step through the results. You can also click the **result previews** on the navigation pane to jump to the location of a result in your document.

- When you close the navigation pane, the highlighting will disappear.

To replace text:

- From the **Home** tab, click the **Replace** command.
- The **Find and Replace** dialog box will appear.
- Type the text you want to find in the **Find what** field. Type the text you want to replace it with in the **Replace with** field.
- Click **Find Next** and then **replace** to replace text. You can also click **Replace All** to replace all instances within the document.



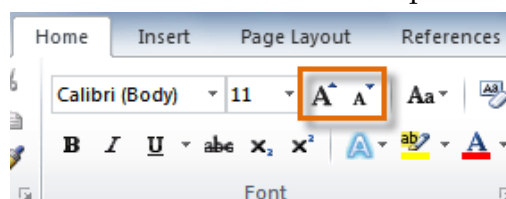
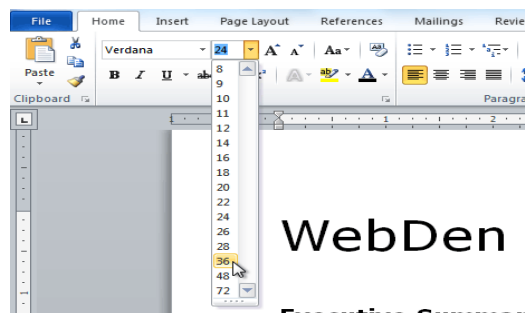
Formatting Text

To create and design effective documents, you need to know how to **format text**. In addition to making your document more appealing, **formatted text** can draw the reader's attention to specific parts of the document and help communicate your message.

Formatted text can emphasize important information and help organize your document. In Word, you have several options for adjusting the **font** of your text, including **size**, **colour**, and inserting special **symbols**. You can also adjust the **alignment** of the text to change how it is displayed on the page.

To change the font size:

- Select the text you want to modify.
- Click the **drop-down arrow** next to the **Font Size** box on the **Home** tab. A drop-down menu appears.
- Select the desired font size from the menu. Alternatively, you can type the value you want and then press **Enter** on your keyboard. You can also use the **Grow Font** and **Shrink Font** commands to change the size.



To change the font:

- Select the text you want to modify.
- Click the **drop-down arrow** next to the **Font** box on the **Home** tab. The **Font** drop-down menu appears.
- Move the mouse pointer over the various fonts. A live preview of the font will appear in the document.
- Select the font you want to use. The font will change in the document.

To change the font colour:

- Select the text you want to modify.
- Click the **Font Color** drop-down arrow on the **Home** tab. The **Font Color** menu appears.

3. Move the mouse pointer over the various font colors. A live preview of the color will appear in the document.
4. Select the font color you want to use. The font color will change in the document.

Your color choices aren't limited to the drop-down menu that appears. Select **More Colors** at the bottom of the list to access the Colors dialog box. Choose the color you want, and then click OK.

To highlight text:

1. From the **Home** tab, click the **Text Highlight Color** drop-down arrow. The **Highlight Color** menu appears.
2. Select the desired highlight color.
3. Select the text you want to modify. It will then be highlighted.
4. To switch back to the normal cursor, click the **Text Highlight Color** command.

To use the bold, italic, and underline commands:

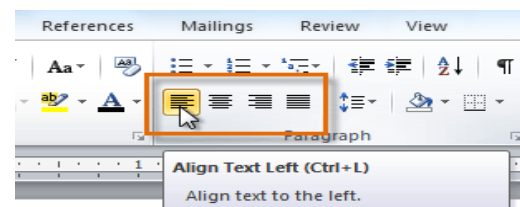
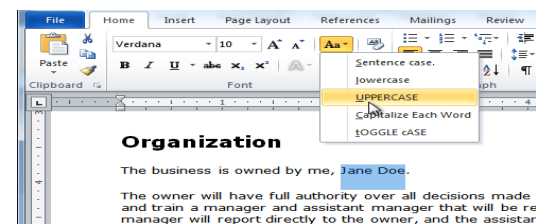
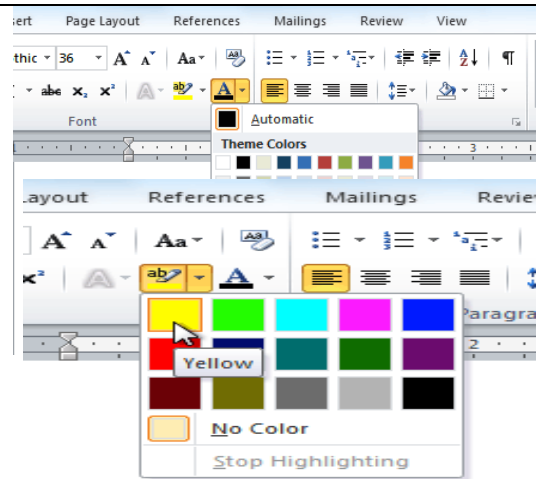
1. Select the text you want to modify.
2. Click the **Bold**, **Italic**, or **Underline** command in the **Font** group on the Home tab.

To change text case:

1. Select the text you want to modify.
2. Click the **Change Case** command in the **Font** group on the Home tab.
3. Select the desired case option from the list.

To change text alignment:

1. Select the text you want to modify.
2. Select one of the four **alignment options** from the **Paragraph** group on the **Home** tab.
 - o **Align Text Left:** Aligns all selected text to the left margin
 - o **Center:** Aligns text an equal distance from the left and right margins
 - o **Align Text Right:** Aligns all selected text to the right margin
 - o **Justify:** Aligns text equally on both sides and lines up equally to the right and left margins; used by many newspapers and magazines



How to save documents

When you create a new document in Word, you'll need to know how to **save** it in order to access and edit it later. Word allows you to save your documents in several ways.

To use the Save As command:

Save As allows you to choose a name and location for your document. It's useful if you've first created a document or if you want to save a different version of a document while keeping the original.

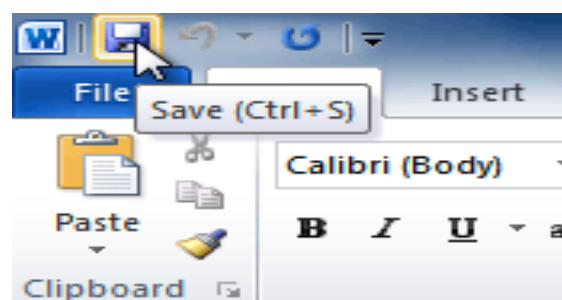
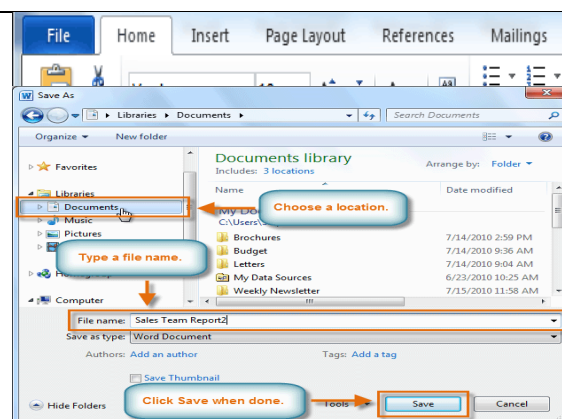
1. Click the **File** tab.

2. Select **Save As**.
3. The **Save As** dialog box will appear. Select the location where you want to save the document.
4. Enter a name for the document, then click **Save**.

If you're using **Windows 7**, you'll usually want to save files to your **Documents library**, while in other versions of Windows you'll save them to the **My Documents folder**. For more information, check out our lessons on Windows 7 and Windows XP.

To use the **Save** command:

1. Click the **Save** command on the **Quick Access toolbar**.
2. The document will be saved in its current location with the same file name.
3. If you are saving for the first time and select **Save**, the **Save As** dialog box will appear.



Page layout and formatting

Video: *Page Layout in Word 2010*

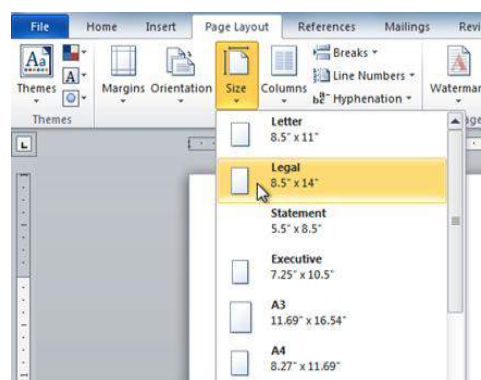
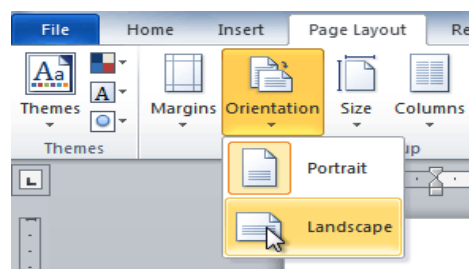
Word offers a variety of **page layout** and **formatting** options that affect how content appears on the page. You can customize the **page orientation**, **paper size**, and **page margins** depending on how you want your document to appear.

To change page orientation:

1. Select the **Page Layout** tab.
2. Click the **Orientation** command in the Page Setup group.
3. Click either **Portrait** or **Landscape** to change the page orientation.

To change page size:

1. Select the **Page Layout** tab.
2. Click the **Size** command, and a drop-down menu will appear. The current page size is highlighted.
3. Click the **size option** you want. The page size of the document changes.

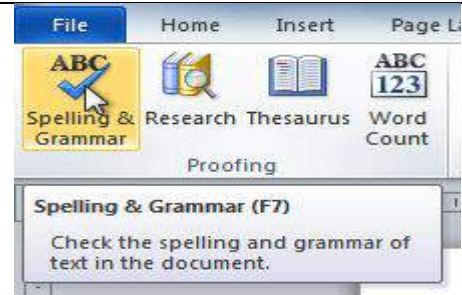


Checking spelling and grammar

To make your document appear professional, you'll want to make sure it is free from **spelling and grammar** errors. Word has several options for checking your spelling. You can run a spelling and grammar **check**, or you can allow Word to check your spelling **automatically** as you type.

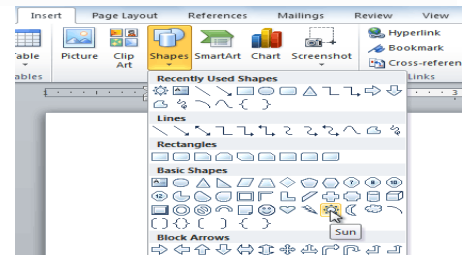
To run a spelling and grammar check:

1. Go to the **Review** tab.
2. Click on the **Spelling & Grammar** command.
3. The **Spelling and Grammar** dialog box will open. For each error in your document, Word will try to offer one or more **suggestions**. You can select a suggestion and click **Change** to correct the error.
4. If no suggestions are given, you can manually type the correct spelling.



Using shapes

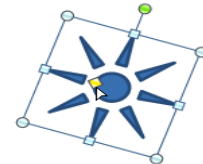
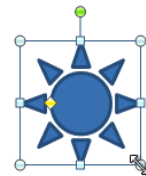
Word's large shape collection allows you to organize and design the image you want. While you may not need shapes in every document you create, they can add visual appeal. To use shapes effectively, you'll need to know how to **insert a shape** and **format** it by changing its **fill color**, **outline color**, and **shape style**, as well as add **3D effects**.



1. Select a shape from the drop-down menu.
2. Click and drag the mouse until the shape is the desired size.
3. Release the mouse button.

To resize a shape:

1. Click the shape to select it.
2. Click and drag one of the **sizing handles** on the corners and sides of the shape until it is the desired size.
3. To rotate the shape, drag the **green handle**.
4. Some shapes also have one or more **yellow handles** that can be used to modify the shape. For example, with star shapes you can adjust the length of the points.



To change the order of shapes:

If one shape overlaps another, you may need to change the **ordering** so the correct shape appears in front. You can bring a shape to the **front** or send it to the **back**. If you have multiple images, you can use **Bring Forward** or **Send Backward** to fine tune the ordering. You can also move a shape **in front of** or **behind** text.

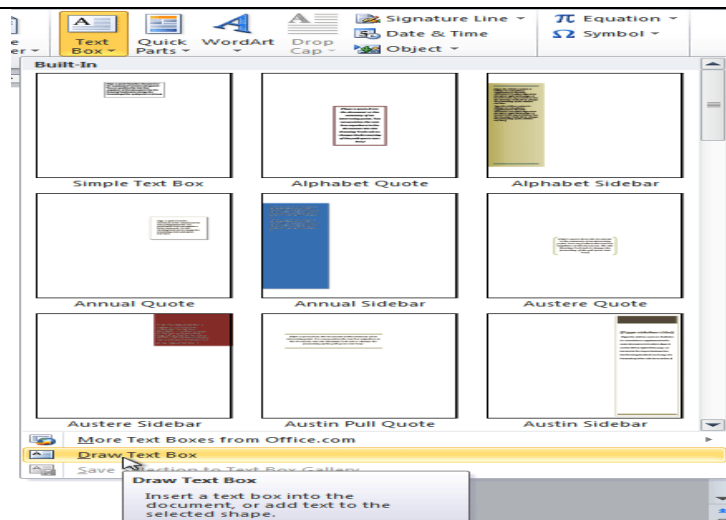
1. Right-click the shape you want to move.
2. In the menu that appears, hover over **Bring to Front** or **Send to Back**. Several ordering options will appear.
3. Select the desired ordering option. The shapes will reorder themselves.

Text boxes

Text boxes are useful for helping to organize your document. They are basically treated the same as **shapes**, so when you **insert a text box** you can **format** it by changing its **fill color**, **outline color**, and **shape style**, as well as create **WordArt** and add **3D effects**.

To insert a text box:

1. Select the **Insert** tab on the Ribbon.
2. Click the **Text Box** command in the **Text** group. A drop-down menu will appear.
3. Select **Draw Text Box**.
Click and drag on the document to create the text box.



MS Excel

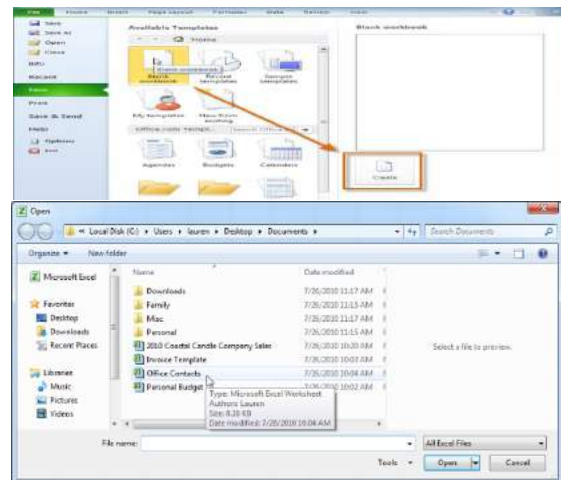
Excel is an electronic spreadsheet that enables you to create worksheets for data entry, to make calculations and to manage a database. Excel is also a useful tool when preparing graphs detailing the results of your calculations. With Excel, you can perform many types of financial, statistical or logical calculations. Excel is easy to use; it has helpful tools that effectively and quickly perform calculations that may have seemed impossible.

Creating and opening Workbooks

Excel files are called **workbooks**. Each workbook holds one or more **worksheets** (also known as spread sheets).

To open an existing workbook:

1. Click the **File** tab. This takes you to the **backstage** view.
2. Select **Open**. The Open dialog box appears.
3. Select your desired workbook and then click **Open**.

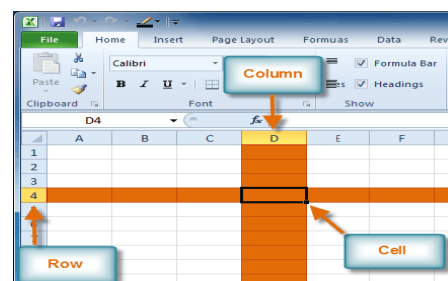


Introduction to cells and cell content

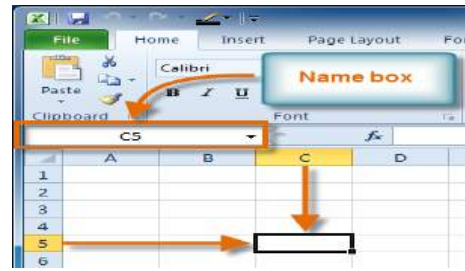
Cells are the basic building blocks of a worksheet. They can contain a variety of content such as **text**, formatting **attributes**, **formulas**, and functions. To work with cells, you'll need to know how to **select** them, **insert content**, and delete **cells** and **cell content**.

The cell

Each rectangle in a worksheet is called a **cell**. A cell is the intersection of a **row** and a **column**.



Each cell has a name, or a **cell address** based on which **column** and **row** it intersects. The **cell address** of a selected cell appears in the **name box**. Here, you can see that **C5** is selected.




You can also select **multiple cells** at the same time. A group of cells is known as a **cell range**.

Rather than a single cell address, you will refer to a cell range using the cell addresses of the **first** and **last** cells in the cell range, separated by a **colon**. For example, a cell range that included cells A1, A2, A3, A4, and A5 would be written as **A1:A5**.

To select a cell:

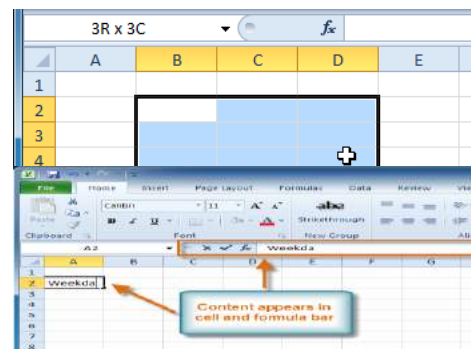
1. **Click a cell** to select it. When a cell is selected, you will notice that the **borders** of the cell appear

bold  and the **column heading** and **row heading** of the cell are highlighted.

2. Release your mouse. The cell will stay selected until you click another cell in the worksheet.

To select multiple cells:

1. **Click and drag your mouse** until all of the adjoining cells you want are highlighted.
2. Release your mouse. The cells will stay selected until you click another cell in the worksheet.



Cell content

Each cell can contain its own text, formatting, comments, formulas, and functions.

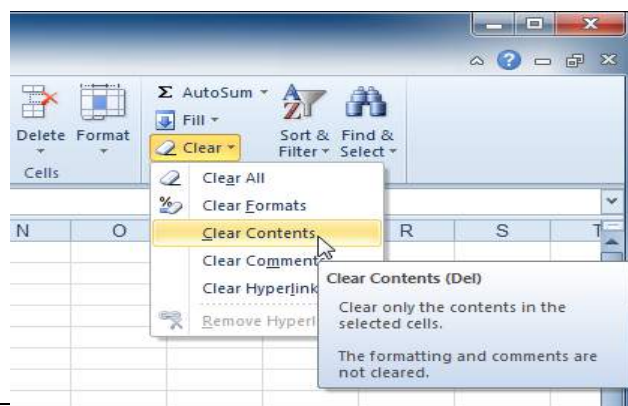
- **Text**
Cells can contain letters, numbers, and dates.
- **Formatting attributes**

Cells can contain formatting attributes that change the way letters, numbers, and dates are displayed. For example, dates can be formatted as MM/DD/YYYY or M/D/YYYY.

- **Comments**
Cells can contain comments from multiple reviewers.
- **Formulas and functions**
Cells can contain formulas and functions that calculate cell values. For example, **SUM (cell 1, cell 2...)** is a formula that can add the values in multiple cells.

To insert content:

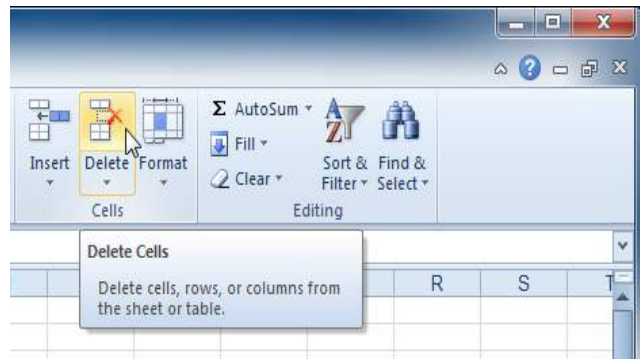
1. Click a cell to select it.
2. Enter content into the selected cell using your keyboard. The content appears in the **cell** and in the **formula bar**. You can also enter or edit cell content from the formula bar.



To delete content within cells:

1. Select the cells containing content you want to delete.
2. Click the **Clear** command on the Ribbon. A **dialog box** will appear.
3. Select **Clear Contents**.

You can also use your keyboard's **Backspace** key to delete content from a **single cell** or the **Delete** key to delete content from **multiple cells**.



To delete cells:

1. Select the cells you want to delete.
2. Choose the **Delete** command from the Ribbon.

To copy and paste cell content:

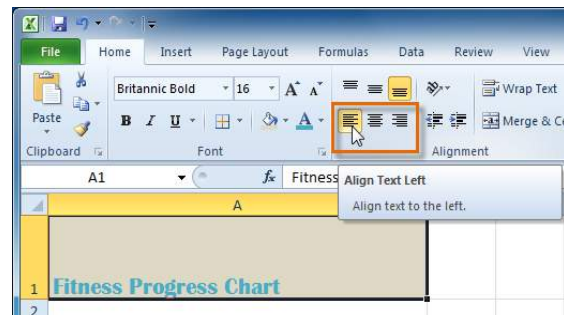
1. Select the cells you want to copy.
2. Click the **Copy** command. The border of the selected cells will change appearance.

Formatting text

Many of the commands you will use to format text can be found in the Font, Alignment, and Number groups on the Ribbon. **Font** commands let you change the style, size, and color of text. You can also use them to add borders and fill colors to cells. **Alignment** commands let you format how text is displayed across cells both horizontally and vertically. **Number** commands let you change how selected cells display numbers and dates.

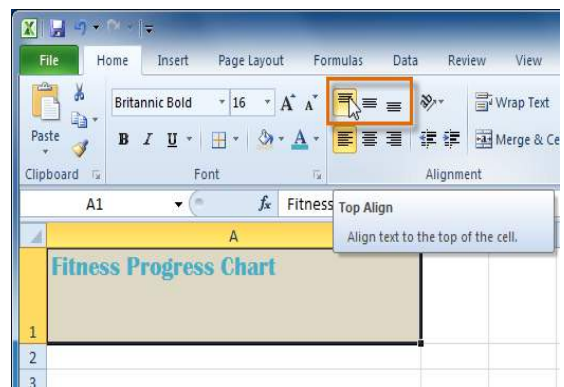
To change horizontal text alignment:

1. Select the cells you want to modify.
2. Select one of the three horizontal **Alignment** commands on the Home tab.
 - **Align Text Left:** Aligns text to the left of the cell
 - **Center:** Aligns text to the center of the cell
 - **Align Text Right:** Aligns text to the right of the cell



To change vertical text alignment:

1. Select the cells you want to modify.
2. Select one of the three vertical **Alignment** commands on the Home tab.
 - **Top Align:** Aligns text to the top of the cell
 - **Middle Align:** Aligns text to the middle of the cell
 - **Bottom Align:** Aligns text to the bottom of the cell.



Saving workbooks

When you create a new workbook in Excel, you'll need to know how to **save** it to access and edit it later. Excel allows you to save your documents in several ways.

Use the Save As command:

Save As allows you to choose a name and location for your workbook. Use it if you are saving a workbook for the first time or if you want to save a different version of a workbook while keeping the original.

1. Click the **File** tab.
2. Select **Save As**.
3. The **Save As** dialog box will appear. Select the location where you want to save the workbook.
4. Enter a name for the workbook, then click **Save**.



Introduction to worksheets

Every Excel **workbook** contains at least one or more **worksheets**. If you are working with a large amount of related data, you can use worksheets to help organize your data and make it easier to work with. When you open an Excel workbook, there are **three worksheets** by default. The default names on the worksheet tabs are **Sheet1, Sheet2, and Sheet3**. To organize your workbook and make it easier to navigate, you can rename and even color code the worksheet tabs. Additionally, you can insert, delete, move, and copy worksheets.

Simple formulas

Excel can be used to calculate numerical information. We can create **simple formulas** in Excel to add, subtract, multiply, and divide values in a workbook. There are various ways to use **cell references** to make working with formulas easier and more efficient.

A **formula** is an equation that performs a calculation. One of Excel's most useful features is its ability to calculate using a cell address to represent the value in a cell. This is called using a cell reference.

Creating formulas with cell references

When a formula contains a cell address, it is called a **cell reference**. Creating a formula with cell references is useful because you can update data in your worksheet without having to rewrite the values in the formula.

To create a formula using cell references:

1. Select the cell where the answer will appear (**B3**, for example).
2. Type the **equals sign (=)**.
3. Type the cell address that contains the first number in the equation (**B1**, for example).
4. Type the operator you need for your formula. For example, type the **addition**

	A	B	C	D
1	Budget for June	\$ 400.00		
2	Budget for July	\$ 300.00		
3	Total Budget			
4				

	A	B	C	D
1	Budget for June	\$ 400.00		
2	Budget for July	\$ 300.00		
3	Total Budget	=B1		
4				

	A	B	C	D
1	Budget for June	\$ 400.00		
2	Budget for July	\$ 300.00		
3	Total Budget	=B1+B2		
4				

	A	B	C	D
1	Budget for June	\$ 400.00		
2	Budget for July	\$ 300.00		
3	Total Budget	\$ 700.00		
4				

sign (+).

5. Type the cell address that contains the second number in the equation (**B2**, for example).
6. Press **Enter**. The formula will be calculated, and the value will be displayed in the cell.

Basic sorting

With more than 17 billion cells in a single worksheet, Excel 2010 gives you the ability to work with an **enormous amount of data**. Arranging your data alphabetically, from smallest to largest, or using other criteria can help you find the information you're looking for more quickly.

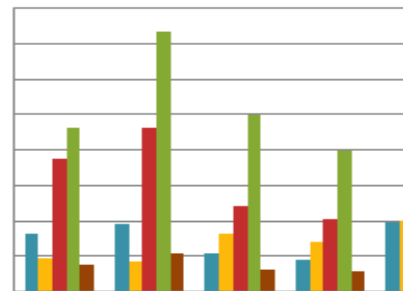
Sorting is a common task that allows you to change or customize the order of your spread sheet data. Custom sorting takes it a step further, giving you the ability to sort multiple levels..

Filtering data

Filters can be used to narrow down the data in your worksheet and hide parts of it from view. While it may sound a little like grouping, filtering is different because it allows you to qualify and display only the data that interests you. **Filters** can be applied in different ways to improve the performance of your worksheet. You can filter text, dates, and numbers. You can even use more than one filter to further narrow your results.

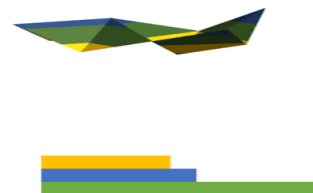
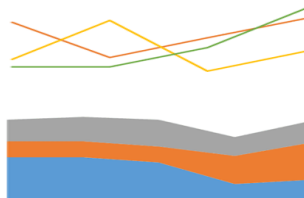
Charts

A **chart** is a tool you can use in Excel to **communicate data graphically**. Charts allow your audience to see the **meaning behind the numbers**, and they make showing comparisons and trends much easier. Excel workbooks can contain **a lot of data**, and this data can often be difficult to interpret. Excel has various types of charts, so you can choose one that most effectively represents your data.



Types of charts

Types of Charts



MS PowerPoint

PowerPoint 2010 is presentation **software** that allows you to create dynamic slide presentations that can include animation, narration, images, and videos. PowerPoint uses slides to build a **presentation**. The slides contain the information you want to communicate with your audience. This information can include text, pictures, charts, video, and

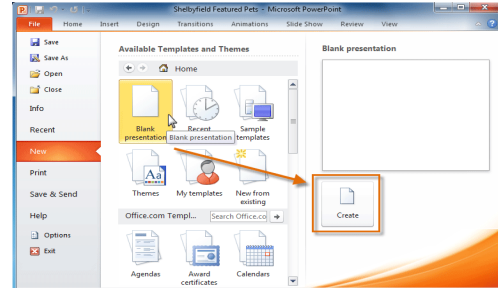
sound. You can add as many slides as you want to a presentation, and at any time you can view or play back your presentation by selecting one of the slide show play options

Creating and opening presentations

PowerPoint files are called **presentations**. When you start a new project in PowerPoint, you'll need to **create a new presentation**.

To create a new blank presentation:

1. Click the **File** tab.
2. Select **New**.
3. Select **Blank presentation** under **Available Templates and Themes**. It will be highlighted by default.
4. Click **Create**. A new blank presentation appears in the PowerPoint window.

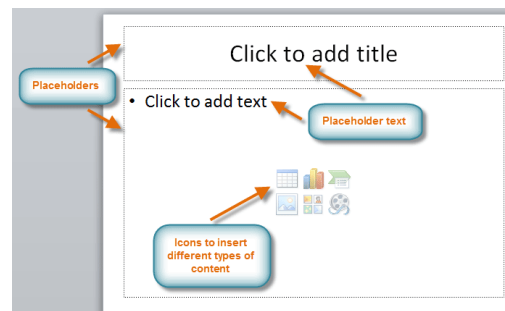


To open an existing presentation:

1. Click the **File** tab. This takes you to **Backstage view**.
2. Select **Open**. The Open dialog box appears.
3. Select your desired presentation, then click **Open**.

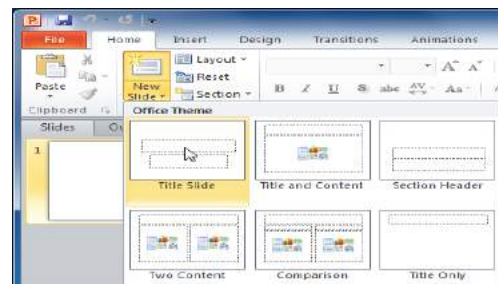
Slide basics

Every PowerPoint presentation is composed of a series of slides. Slides contain placeholders, which are areas on the slide that are enclosed by dotted borders. Place holders can contain many different items, including text, pictures, and charts. Some placeholders have placeholder text, or text you can replace. They also have thumbnail-sized icons that represent specific commands such as Insert Picture, Insert Chart, and Insert ClipArt.



Slide layouts

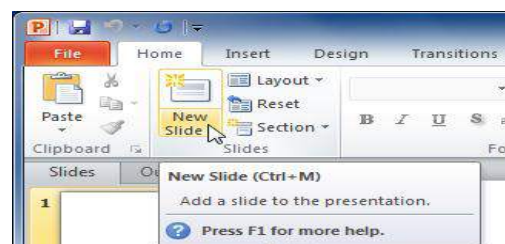
Placeholders are arranged in different layouts that can be applied to existing slides or chosen when you insert a new slide. A slide layout arranges your content using different types of placeholders, depending on what information you might want to include in your presentation.



Working with slides

To insert a new slide:

1. From the Home tab, click the bottom half of the New Slide command to open the menu of slide layout options.
2. Select the slide you want to insert.



3. A new slide will be added your presentation.

To copy and paste a slide:

1. On the **Slides** tab in the left pane, select the slide you want to copy.
2. Click the **Copy** command on the **Home** tab. You can also right-click your selection and choose **Copy**.
3. In the left pane, click just below a slide – or between two slides – to choose the location where you want the copy to appear. A **horizontal insertion point** will mark the location.
4. Click the **Paste** command on the Home tab. You can also right-click and choose **Paste**. The copied slide will appear.

To duplicate a slide:

An alternative to copying and pasting, **duplicating slides** copies the selected slide and – in one step – pastes it directly underneath. This feature does not allow you to choose the location of the copied slide, nor does it offer Paste Options for advanced users, so it's more convenient for quickly inserting similar slides.

1. Select the slide you want to duplicate.
2. Click the **New Slide** command.
3. Choose **Duplicate Selected Slides** from the drop-down menu.
4. A copy of the selected slide appears underneath the original.

To delete a slide:

1. Select the slide you want to delete.
2. Press the **Delete** or **Backspace** key on your keyboard.

To move a slide:

1. Select the slide you want to move.
2. Click, hold, and **drag** your mouse to a new location. A horizontal insertion point will mark the location.
3. **Release** the mouse button. The slide will appear in the new location.

Managing slides and presentations

As you add slides to your presentation, PowerPoint offers a variety of views and tools to help you organize and prepare your slide show.

About slide views

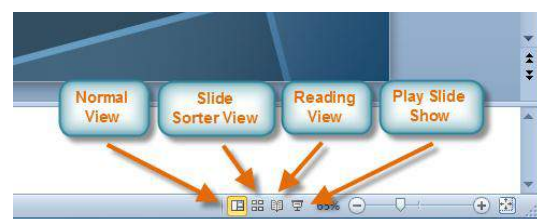
It's important to be able to access the different slide views and use them for various tasks.

The **slide view commands** are located on the bottom-right of the PowerPoint window in Normal view.

Normal view: This is the default view where you create and edit your slides. You can also move slides in the Slides tab in the pane on the left.

Slide Sorter view: In this view, miniature slides are arranged on the screen. You can drag and drop slides to easily reorder them and to see more slides at one time. This is a good view to use to confirm that you have all the needed slides and that none have been deleted.

Reading view: This view fills most of the computer screen with a preview of your presentation. Unlike Slide Show view, it includes easily accessible buttons for navigation, located at the bottom-right.



Slide Show view: This view completely fills the computer screen and is what the audience will see when they view the presentation. Slide Show view has an additional menu that appears when you hover over it, allowing you to navigate slides and access other features you can use during a presentation.

To insert text:

Text can be inserted into both placeholders and boxes text. A placeholder is a kind of text box, but it's unique because it is part of the slide layout and often contains formatting specific to the slide (a larger font size for the title of your presentation, for example). Inserting an extra textbox allows you to add to the slide layout so you can include as much text as you want.

To resize a placeholder or text box:

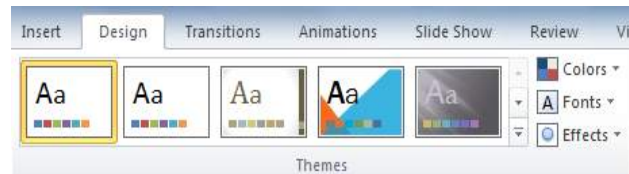
1. Click the box you want to resize.
2. Position your mouse over any one of the **sizing handles** that appear on the corners and sides of the box. The cursor will become a pair of **arrows** ⇔
3. Click, hold, and **drag** your mouse until the text box is the desired size.
4. Release the mouse button. The box will be resized.

Formatting text

You can help your text stand out on the slide by changing its formatting, including font size, color, style and alignment as in Microsoft word

Applying a Theme

A **theme** is a predefined combination of colors, fonts, and effects that can be applied to your presentation to give it a consistent, professional look. . PowerPoint includes built-in themes that allow you to easily create professional-looking presentations without spending a lot of time formatting. All of the themes included in PowerPoint are located in the Themes group on the Design tab. Themes can be applied or changed at any time.



To apply a theme:

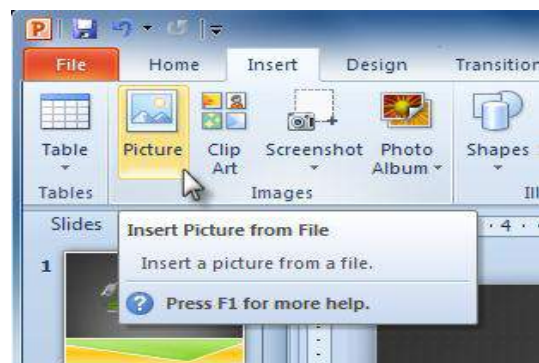
1. Go to the **Design** tab.
2. Locate the Themes group. Each image represents a theme.
3. Click the drop-down arrow to access more themes.
4. Hover over a theme to see a **preview** of it in the presentation. The name of the theme will appear as you hover over it.
5. Click a theme to apply it to the slides.

Inserting Images

Adding images to your presentations makes them more interesting and engaging. Pictures, clip art, and screenshots can be inserted into PowerPoint to help you effectively communicate your ideas to your audience.

To insert an image from a file:

1. Select the **Insert** tab.
2. Click the **Picture** command in the **Images** group. The Insert Picture dialog box appears.



3. Select the desired image file, then click **Insert**.
4. The picture will appear in your slide.

In a similar manner you can insert clip art and screen shots in your presentation

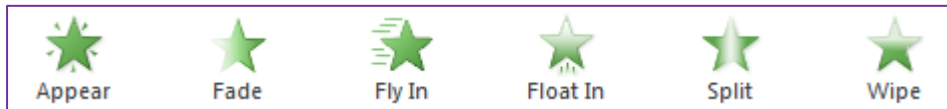
Animating Text and Objects

In PowerPoint you can **animate** text and objects such as clip art, shapes, and pictures. Animation—or movement—on the slide can be used to **draw the audience's attention** to specific content or to make the slide easier to read. PowerPoint offers a variety of **animations** you can use to enhance your presentation. Animations can be used to make text or objects **appear** on a slide, **exit** a slide, or **emphasize** the text or objects already on a slide. You can even use **motion paths** to create a customized animation.

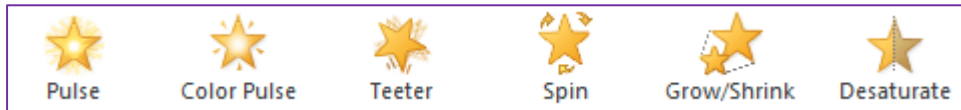
The four types of animations

There are many different animation effects you can choose from, and they are organized into four types:

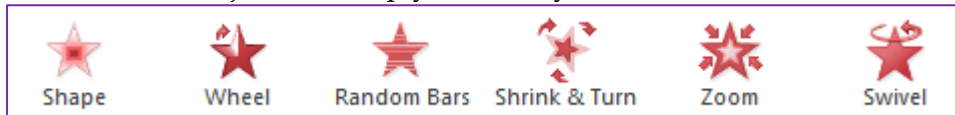
- **Entrance:** These control how the object enters the slide. For example, with the **Bounce** animation, the object will drop onto the slide and then bounce several times.



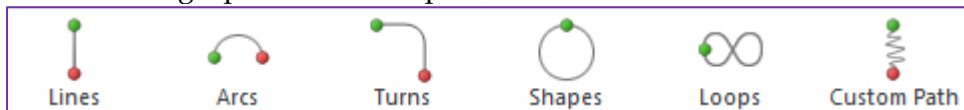
- **Emphasis:** These animations occur while the object is on the slide and are often triggered by a **mouse click**. For example, you can set an object to **Spin** when you click the mouse.



- **Exit:** These control how the object exits the slide. For example, with the **Fade** animation, the object will simply fade away.



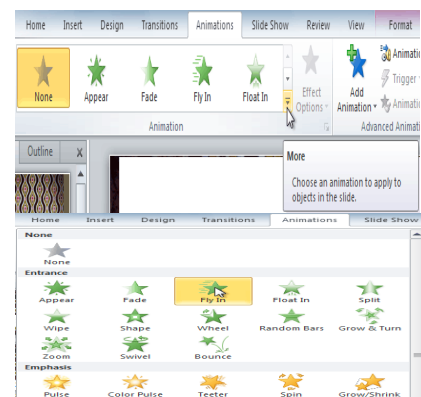
- **Motion Paths:** These are similar to **Emphasis** effects, except the object moves within the slide along a predetermined path, like a **circle**.



To apply an animation to an object:

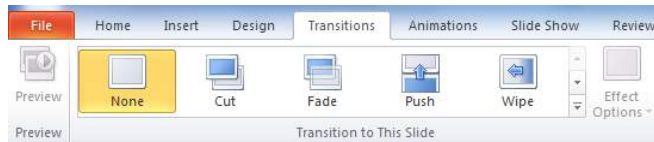
1. Select an object.
2. Click the **Animations** tab.
3. In the **Animation** group, click the **More** drop-down arrow to view the available animations.
4. Select the desired animation effect.

The object will now have a small number next to it to show that it has an animation. Also, in the Slide pane, the slide will now have a star symbol next to it.



Applying transitions

Transitions are motion effects that when in Slide Show view add movement to your slides as you advance from one slide to another. There are many transitions to choose from, each one of which allows you to control the speed and even add sound. A transition can be as simple as fading to the next slide or as complex as a flashy, eye-catching effect. This means you can choose transitions to fit the style of any presentation.



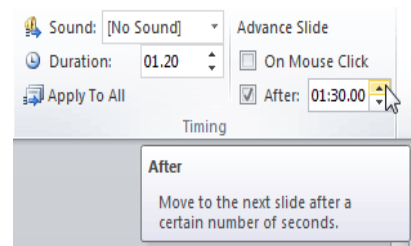
To apply a transition:

1. Select the **slide** you want to modify.
2. Click the **Transitions** tab.
3. Locate the **Transition to This Slide** group. By default, **None** is applied to each slide.
4. Click the More drop-down arrow to display all of the transitions.
5. Click a transition to apply it to the selected slide. This will automatically preview the transition as well.

Advancing slides

To advance slides automatically:

In Slide Show view, you would typically advance to the next slide by clicking your mouse or pressing Enter on your keyboard. Using the **Advance Slides** settings in the **Timing** group, you can set your presentation to advance on its own instead and display each slide for a specific amount of time. This is useful for unattended presentations, such as at a tradeshow booth.



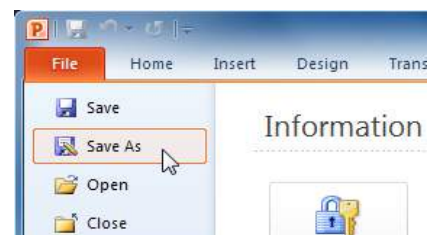
1. Select the slide you want to modify.
2. Locate the **Timing** group on the **Transitions** tab.
3. Under **Advance Slide**, uncheck the box next to **On Mouse Click**.
4. In the **After** field, enter the amount of time you want to display the slide. In this example, we'll advance the slide automatically after 1 minute 30 seconds, or 01:30:00.
5. Select another slide, and repeat the process until all the desired slides have the appropriate timing.

Presentation tools and features

PowerPoint provides convenient tools and features you can use while you are presenting your slide show. Features include changing your mouse pointer to a pen or highlighter to draw attention to items in your slides. In addition, you can jump around to slides in your presentation or access items from your computer desktop if needed.

Saving and printing presentations

When you create a new presentation in PowerPoint, you'll need to know how to **save** it in order to access and edit it later. PowerPoint allows you to save your presentations in several ways. Once you've created your document, you may want to **print** it to view and share your work **offline**. It's easy to preview and print a document in Word using the **Print** pane.



To use the *Save As* command:

Save As allows you to choose a name and location for your presentation. It's useful if you've first created a presentation or if you want to save a different version of a presentation while keeping the original.

1. Click the **File** tab.
2. Select **Save As**.
3. The **Save As** dialog box will appear. Select the location where you want to save the presentation.
4. Enter a name for the presentation, then click **Save**.

To use the Save command:

1. Click the **Save** command on the **Quick Access toolbar**.
2. The presentation will be saved in its current location with the same file name.



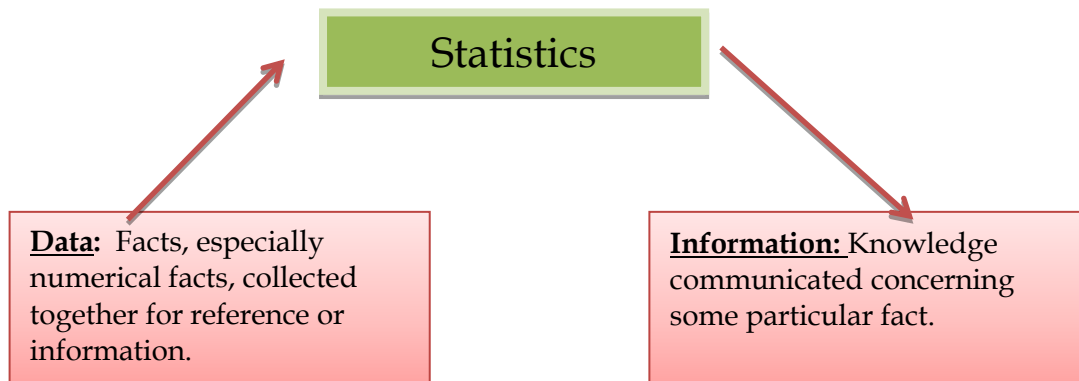
Basic Statistics

T.V.Sathianandan*, Safeena P. K and Ramees Rahman

Principal Scientist, FRAD, CMFRI

Email: tvsedpl@gmail.com

Statistics is a branch of mathematics dealing with the collection, analysis, interpretation, and presentation of masses of numerical data.



1. Key Statistical Concepts

Population: In statistics, the term population is used to mean the totality of cases (items) in an investigation.

Sample: Any subset or subgroup of a population.

Parameter: A descriptive measure of a population.

Statistic: A descriptive measure of a sample.

Variable: Some characteristic of a population or sample.

Any characteristic of an individual or entity. A variable can take different values for different individuals. Typically denoted with a capital letter: X, Y, Z... Eg: - student grades. Following are the different types of variables.

- **Quantitative and Qualitative :**

Quantative Variables that have are measured on a numeric or quantitative scale Eg : country's population, a person's shoe size, or a car's speed. Qualitative variables that is not numerical. It describes data that fits into categories. Eg: Eye colors (variables include: blue, green, brown, hazel).

- **Discrete and Continuous :**

Discrete variable is a variable whose value is obtained by counting. Continuous variable is a variable whose value is obtained by measuring.

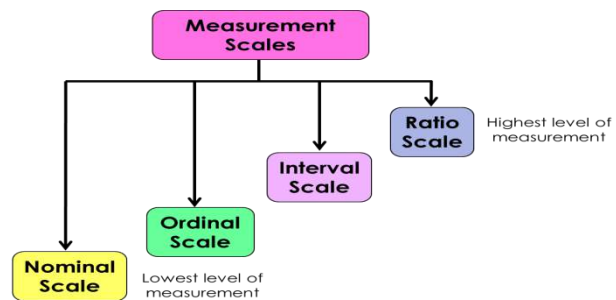
- **Dependent and independent :**

A variable whose value depends on that of another. A variable whose variation does not depend on that of another.

Data: Observed *values* of a variable.

Following are the different Data types.

- **Nominal:** Categorical variables with no inherent order or ranking sequence such as names or classes (e.g., gender). Value may be a numerical, but without numerical value (e.g., I, II, III). The only operation that can be applied to Nominal variables is enumeration.
- **Ordinal:** Variables with an inherent rank or order, e.g. mild, moderate, severe. Can be compared for equality, or greater or less, but not *how much* greater or less.
- **Interval:** Values of the variable are ordered as in Ordinal, and additionally, differences between values are meaningful, however, the scale is not absolutely anchored.
Eg : Calendar dates and temperatures on the Fahrenheit scale
- **Ratio:** Variables with all properties of Interval plus an absolute, non-arbitrary zero point.
Eg : age, weight, temperature (Kelvin).



2. Descriptive Statistics

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data.

2.1 Data collection

Information you gather can come from a range of sources. Likewise, there are a variety of techniques to use when gathering primary data. Listed below are some of the most common data collection techniques used for collecting data.

2.1.1 Interviews

- Interviews can be conducted in person or over the telephone
- Interviews can be done formally (structured), semi-structured, or informally
- Questions should be focused, clear, and encourage open-ended responses
- Interviews are mainly qualitative in nature
Ex: - One-on-one conversations with parent of at-risk youth who can help you understand the issue.

2.1.2 Questionnaires and Surveys

- Responses can be analyzed with quantitative methods by assigning numerical values to Likert-type scales
- Results are generally easier (than qualitative techniques) to analyze
- Pre-test/Post-test can be compared and analyzed
Ex: - Results of a satisfaction survey or opinion survey

2.1.3 Documents and Records

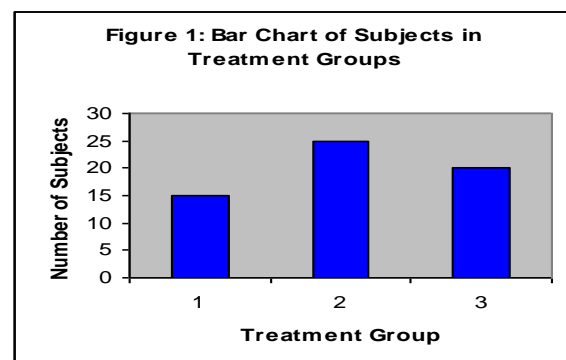
- Consists of examining existing data in the form of databases, meeting minutes, reports, attendance logs, financial records, newsletters, etc.
- This can be an inexpensive way to gather information, but may be an incomplete data source
Ex: - To understand the primary reasons students miss school, records on student absences are collected and analyzed

2.2 Data Presentation

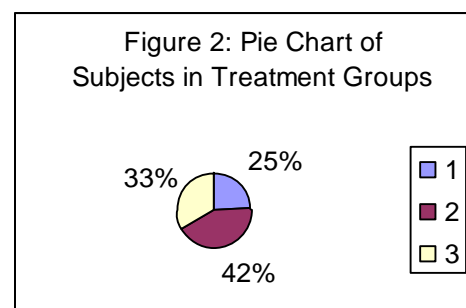
The visual representation of data may be used not only to present results/findings in the data, but may also be used to learn about the data.

2.2.1 Graphical Method

A) Bar Diagram: A bar graph is a chart that uses bars to show comparisons between categories of data.



B) Pie Diagram : A pie chart displays data, information, and statistics in an easy-to-read 'pie-slice' format with varying slice sizes telling you how much of one data element exists. The bigger the slice, the more of that particular data was gathered. The main use of a pie chart is to show comparison.



C) **Line chart** :A line chart or line graph is a type of chart which displays information as a series of data points called 'markers' connected by straight line segments.



Age	1	2	3	4	5	6
Frequency	5	3	7	5	4	2

2.2.2 Tabular method

Age	1	2	3	4	5	6
Frequency	5	3	7	5	4	2
Cumulative Frequency	5	8	15	20	24	26

Frequency table

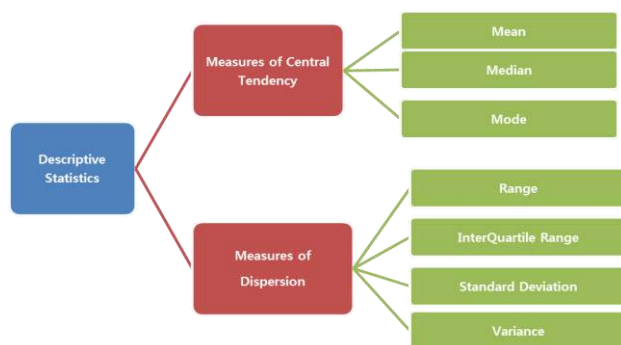
The only allowable calculation on nominal data is to count the frequency of each value of the variable. We can summarize the data in a table that presents the categories and their counts called a frequency distribution. A relative frequency distribution lists the categories and the proportion with which each occurs.

Cumulative frequency

It defined as a running total of frequencies. The frequency of an element in a set refers to how many of that element there are in the set. Cumulative frequency can also defined as the sum of all previous frequencies up to the current point.

2.3 Characterize Data/Summary Measures

Summary measures summarize and provide information about your sample data. It tells you something about the values in your data set. This includes where the average lies and whether your data is skewed. Summary measures fall into two main categories. They are Measures of location (also



called central tendency or central measurement) and Measures of spread (also called Measures of variation) .2.3.1 Methods of central Measurement

A) Mean

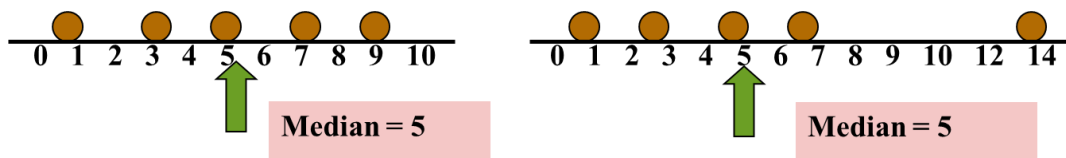
Mean is the average of all values of a variable and is computed by summing all the scores and dividing it by the number of scores. it does not have to be an observed value. it tends to be the most stable estimate of the population mean from sample mean. Mean of 20, 30, 40 is $(20+30+40)/3 = 30$.

Notation: Let x_1, x_2, \dots, x_n are n observations of a variable

x . Then the mean of this variable,

$$\bar{x} = \frac{x_1 + x_2 + \dots + x_n}{n} = \frac{\sum_{i=1}^n x_i}{n}$$

B) Median

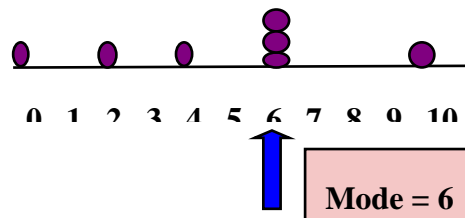


The median is the “middle” observation when the data are arranged in ascending or descending order. The median does not have to be an observable value.

- If number of observation is odd, the median is the middle number
- If number of observation is even, the median is the average of the two middle numbers

C) Mode

- The value which is most frequent. it represents the most common response.
- Used for either numerical or categorical data
- There may be no mode
- There may be several modes



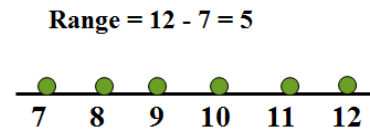
2.3.2 Measures of variation

Variability refers to how spread out a group of data is. In other words, variability measures how much your scores differ from each other. Variability is also referred to as dispersion or spread. Data sets with similar values are said to have little variability, while data sets that have values that are spread out have high variability. Following are the common measures of variation

A) Range

The range is the simplest measure of variability to calculate. The range is simply the highest score minus the lowest score.

$$\text{Range} = X_{\text{Largest}} - X_{\text{Smallest}}$$



B) Variance

The variance of a set of observations is the average of the squares of the deviations of the observations from their mean. In symbols, the variance of the n observations x_1, x_2, \dots, x_n

is

$$S^2 = \frac{(x_1 - \bar{x})^2 + \dots + (x_n - \bar{x})^2}{n-1}$$

Eg: Variance of 5, 7, 3? Mean is $(5+7+3)/3 = 5$ and the variance is $\frac{(5-5)^2 + (3-5)^2 + (7-5)^2}{3-1} = 4$

C) Standard Deviation

Square root of the variance. The standard deviation of the above example is 2.

Workout example

Example - The following sample consists of the number of jobs six randomly selected students applied for: 17, 15, 23, 7, 9, 13. Find the sample mean, variance and standard deviation.

Sample mean

$$\bar{x} = \frac{\sum_{i=1}^6 x_i}{6} = \frac{17 + 15 + 23 + 7 + 9 + 13}{6} = \frac{84}{6} = 14 \text{ jobs}$$

Sample Variance

$$s^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1} = \frac{1}{6-1} [(17-14)^2 + (15-14)^2 + \dots + (13-14)^2] = 33.2$$

Sample Variance (Short-cut method)

$$s^2 = \frac{1}{n-1} \left[\sum_{i=1}^n x_i^2 - \frac{(\sum_{i=1}^n x_i)^2}{n} \right] = \frac{1}{6-1} \left[(17^2 + 15^2 + \dots + 13^2) - \frac{(17+15+\dots+13)^2}{6} \right] = 33.2$$

Standard Deviation

$$S = \sqrt{33.2}$$

Internet and E-Mail

Mini .K.G

Senior Scientist, FRAD, CMFRI

Email: mini.anish02@gmail.com

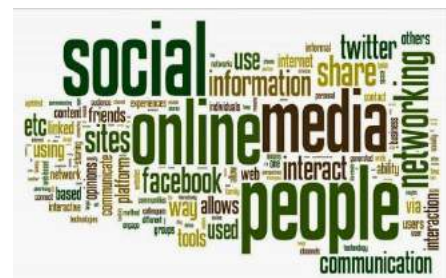
Introduction to Internet

Internet is a worldwide system of interconnected computer networks. It connects several millions of computers all over the world. There is no central computer. All computers are placed at different places and are connected to each other by phone lines, cables or wireless connections. Any two computers connected to the internet can exchange information. The internet is therefore a very fast and efficient way of sending information. According to recent statistics, there is an estimated 3,179,035,200 internet users worldwide. The number of Internet users represents nearly 40 per cent of the world's population. The largest number of Internet users is in China, followed by the United States and India.



This chapter is organized as follows. It gives an introduction to internet and its applications in day to day life followed by basic requirements for connecting to internet. Subsequently a brief on World Wide Web, Web browsers, search engines, online safety measures are given. Lastly, a step by step procedure for creating e-mail ID is given in the chapter.

Internet has been the most beneficial technology of the modern times which supports us not only in our daily lives, but also our personal and professional lives developments. The internet helps to attain this in several ways. Emails, blogging, chatting are the modern ways of communication. All the information you want regarding anything is now just a click away.



Internet shopping are becoming popular really fast. To make sure your search for the required information is fast and smooth, search engines are created, that can open up a diverse range of websites, loaded with information that you may need. The internet is therefore the largest encyclopedia for everyone, in all age categories. Movies, music, videos and games are all available for your entertainment. The top 5 most popular websites in the world are: Google, Facebook, YouTube, Yahoo, and Baidu (basically the Chinese version of Google).



To connect to internet, computer/mobile, communication channel, modem, browser and Internet Service Provider are needed. Computer is the most common device used to access the internet. A communication channel, such as a telephone line, a cable or a wireless signal (WiFi) is required to connect to internet. A modem, which is a hardware device that converts

computer information into a suitable form, is needed for sending over the communication channel. It allows us to communicate with other computers.

A software called browser helps to display the text and graphics available in a webpage on your computer. Google chrome, internet explorer, Mozilla Firefox are some of the popular browsers. An Internet Service Provider (ISP) such as BSNL, Idea, Airtel is required to provide connections to homes and offices.



World Wide Web

The fastest growing area of internet is World Wide Web (WWW). The web enables you to access information stored in computers connected to the internet. Web consists of millions of websites. Most of these websites are divided into pages called web pages. There is one main page or starting page called as Home page. You can go to any other page in the site from the Home page. The links to other pages are called hyperlinks. They are not limited to pages in the sites you are in. Some hyperlinks on a page may take you to page on another site on another computer. Thus hyperlinks can take you on a worldwide tour of connected pages in different computers containing related information. Moving from one site to another on WWW is called surfing the Net. HTTP protocol (hypertext transfer protocol) is one of the ways to transmit data in the web. It also utilizes special software called browsers to access websites and their graphics, sounds and animations. Google Chrome, Internet Explorer and Mozilla Firefox are popular browsers.



Searching for information

The internet provides easy access to new and varied information. Each site on the internet has a unique address. This unique address is known as URL (Uniform Resource Locator). A URL indicates the location of the website on the web. If you want to access the site, type in the URL on the Address bar of the web browser and press Enter. In a few seconds the Home Page of the site will appear on the screen. So the information about the link is provided to the browser by the URL. There are typically four main parts to a URL or web address. Let's look at the example below.

<http://www.cmfri.org.in/>

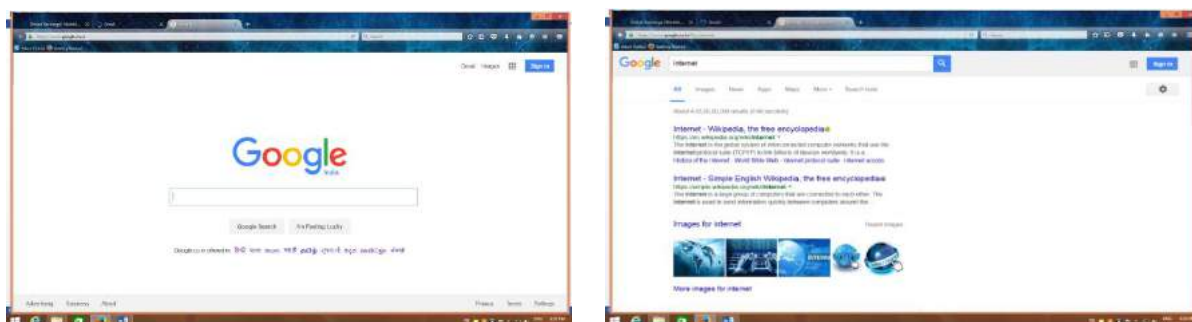
(a) The `http://` helps your web browser to locate the webpage or website and to display it for you to see. Most browsers will automatically add this prefix, so you don't have to worry about typing it every time.

(b) The `www` stands for World Wide Web. This means that the page you're looking for is somewhere on the World Wide Web. For some websites, it's not even necessary to type in the "www" part.

(c) The next section, which is "cmfri" in this example, is the name of the webpage or website. It is flanked by dots on either side which separate it from other sections of the web address.

(d) The `.org.in` here is the top level domain name. A domain name is an identification label that defines a realm of administrative autonomy, authority, or control in the Internet. `.org` means sites belonging to non-profit organisation, `.in` means the Internet country code for

India. Some common domains are, .com (means that you're looking at a commercial site, or a site that someone has paid to use) .edu (sites for educational institutions) and .gov (sites sponsored by state or central government).



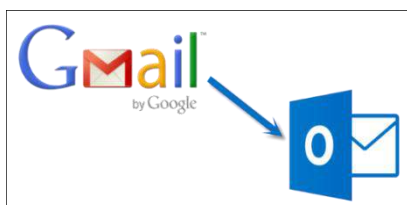
Sometimes you may not know the URL of any website that provides the information, then special programs called search engines can be used to find out the sites. A search engine searches for the keywords specified by the user. It is especially used to find particular site on the internet. Google is the most popular search engine in the world. 79% of internet users use Google as their search engine, followed by Bing (9%), Yahoo (8%), and Ask.com (1.5%). Google is pretty much simple search box. As you begin typing, Google will begin to autosuggest words or phrases which it thinks you might be searching for. Once you do a search, you'll be taken to a new page with results for your search keyword(s). For instance, if you do a search for internet, you will see the list of results for the search "internet." At the top of the page on the far right you will notice it says "Results 1-10 of about...." That means that results displayed on the page right now are just the first 10 of however many total results there were for your keyword.

Internet Safety

Worms, trojans, spammers, phishers and viruses are funny-sounding names, but these are part of the dark side of the internet and the consequences aren't very funny. These are programs designed to infect your computer without your knowledge and they can slow down your computer, spy on you, or possibly even destroy data and cause your computer to "crash" (or stop working). Internet fraud is also something to be concerned about. Phishing and other scams can cost you time, aggravation, money or even steal your identity. The fact is, the internet can be fun, entertaining, educational, and many other wonderful things, but anyone can be on the internet, and that includes malicious people and criminals as well as good people. In order to be safe online, it's important for you to be aware of the dangers. If you are using a computer, always be sure to run current, updated antivirus software to help protect yourself from the many different types of computer viruses and other malware. You can also help yourself stay protected from viruses by not opening any emails (especially email attachments) that seem strange or are from people you don't know. To protect yourself scam or theft, avoid giving out personal information on the internet, Think carefully before posting pictures or videos of yourself, never give out your passwords and don't befriend people you don't know. Internet safety is an on-going process that you should continue to educate yourself about.



Creating an E-Mail Account



Email, short for Electronic Mail, is a component of internet. It is a fast and economic way of sending messages to individuals and groups of people. Messages can include text, pictures or animations.



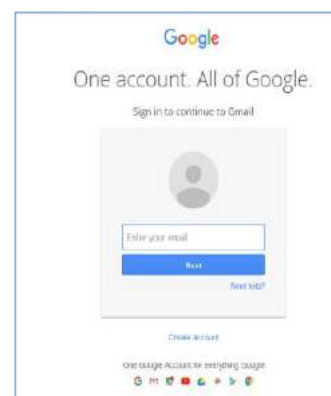
This section discusses on creation and accession of an email account, opening and reading of received mails and composing and sending mails. Several sites on the internet allow you to create an email account and send and receive email and attachments for free, for example gmail.com, hotmail.com, rediff.com, yahoo.com. This session focus on the services available through Gmail as it is free and is the most popular email service available today.

E-Mail Address

To send or receive an email, you must have an email address. This address is unique in nature and it has two important parts. The first part is the 'user name' and the other is the 'domain name'. These two are separated by a special symbol @. The domain name can be same for lots of people. For example cmfri@gmail.com and cmfri1@gmail.com are two addresses with the same domain name gmail.com. But the user names cmfri and cmfri1 are different and hence the addresses are different.

Setting up an email account

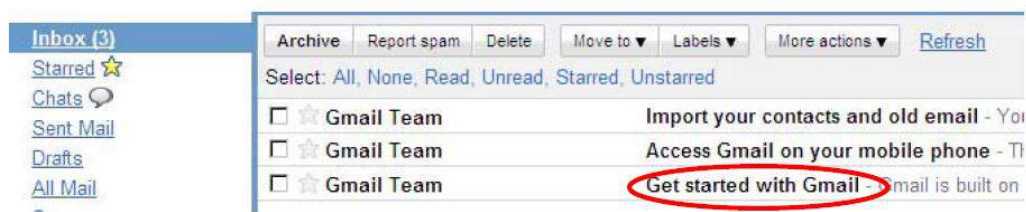
1. Connect to the Internet by double-clicking the Google chrome, Internet Explorer or Firefox desktop icon.
2. Go to the Gmail site by typing gmail.com into the address bar at the top of the screen, and press the Enter key on your keyboard.
3. You should see a screen that looks like this:
4. Click on the Create an Account link at the bottom of the box and following window will be displayed. Complete all starred information in the form, beginning with the Get Started section. Finally, you have to agree to the Terms of Service. Read through the text, and then click "I Agree." So now you have created an email account and your email address is your Google Login Name followed by "@gmail.com."



Checking Your Email

Once you have set up your email account, you can check your mail anywhere that you can access the Internet. For this follow the steps given below.

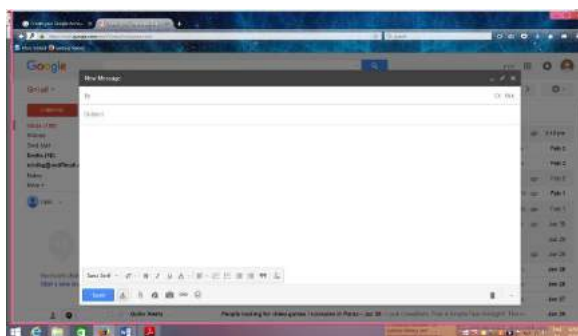
1. Connect to the Internet by double-clicking the Google chrome, Internet Explorer or Firefox icon.
2. Go to the Gmail site by typing gmail.com into the address bar at the top of the screen.
3. Type your Google Login Name and Password into the box on the right.
4. The next page will show you the number of new messages in your Inbox.



The inbox is where all of your incoming messages are stored. Click on the subject of the message to open and read it.

Composing and Sending Messages

To create a new message, click the Compose button on the top left side of the screen. Type the email address of the person(s) to whom you wish to send the email in 'To'. Once you have completed your message, send it by clicking on the Send button at the bottom of the window.



Gmail Help

For any help in connection with Gmail, Help link is given at the top right corner of the Gmail page.

Summary

- ✧ Internet is a worldwide system of interconnected computer networks.
- ✧ Computer/mobile, communication channel, modem, browser and Internet Service Provider are needed to connect to internet.
- ✧ A software called browser helps to display the text and graphics available in a webpage on your computer. Google chrome, internet explorer, Mozilla Firefox are some of the popular browsers.
- ✧ An Internet Service Provider (ISP) such as BSNL, Idea, and Airtel is required to provide connections to homes and offices.
- ✧ WWW enables to access information stored in computers connected to the internet. Web consists of millions of websites.
- ✧ Moving from one site to another on Web is called surfing the Net.
- ✧ Each site on the internet has a unique address. This unique address is known as URL.
- ✧ E-mail is an internet facility that helps to send messages to individuals and groups.

An Introduction to Visual Communication Tools

Abhilash .P.R

Technical Assistant, SEETTD, CMFRI

Email: abhilashcmfri@gmail.com

"Vision is the art of seeing the invisible"

-Jonathon Swift

Visual Communication is the communication through a visual aid and is described as the conveyance of ideas and information in forms that can be read or looked upon. Visual communication relies on vision, and is primarily presented or expressed with twodimensional images, it includes: signs, typography, drawing, graphic design, illustration, Industrial Design, Advertising, Animation colour and electronic resources.



Visual communication takes place through pictures, graphs and charts, as well as through signs, signals and symbols. It may be used either independently or as an adjunct to the other methods of communication.

Visual aids

Visual aids can play a large role in how the audience understands and takes in information that is presented and to bring in variety. There are many different types of visual aids like Objects, Models, Graphs, Maps, Tables, Drawing or Diagrams and Photographs. Photographs are good tools to make or emphasize a point or to explain a topic. Visual aids make presentation interesting by bringing in variety. Multimedia is used everywhere and in every field for every purpose. In the area of education also, the multimedia has a great importance. In schools students learn computers, at the advanced level this knowledge is in the form of professional courses like animation, designing etc. visual image can in many instances be understood by anyone. Some knowledge in these areas will help you to break up the routine when you are bored and stay creative to keep your mind active.

How to take a good photo

Photography begins when you 'see' a potential shot. Whether that's physically looking at a view in front of you or visualizing an image, this is the point when you should start asking yourself questions.

What has drawn you to this image? Why do you want to capture it? And what is it that you hope to achieve? Thinking the image through before you even reach for your camera will help you decide which lens and focal



length you need, the aperture and shutter speed to use and where you need to be to take the shot. It's all about imagining the picture you want and then working back to determine what you have to do to realize that shot.

What is the need of Photo editing software in Photography?

In Photography photo editing techniques are used to bring out the best in your photos. You can do cropping and straightening a photo, improving its lighting and colour, removing unwanted content, adding special effects, sharpening, and saving. We can make photos special by adding creative effects. Convert a color photo into a customized black and white. Experiment with color tints for an old-fashioned look.

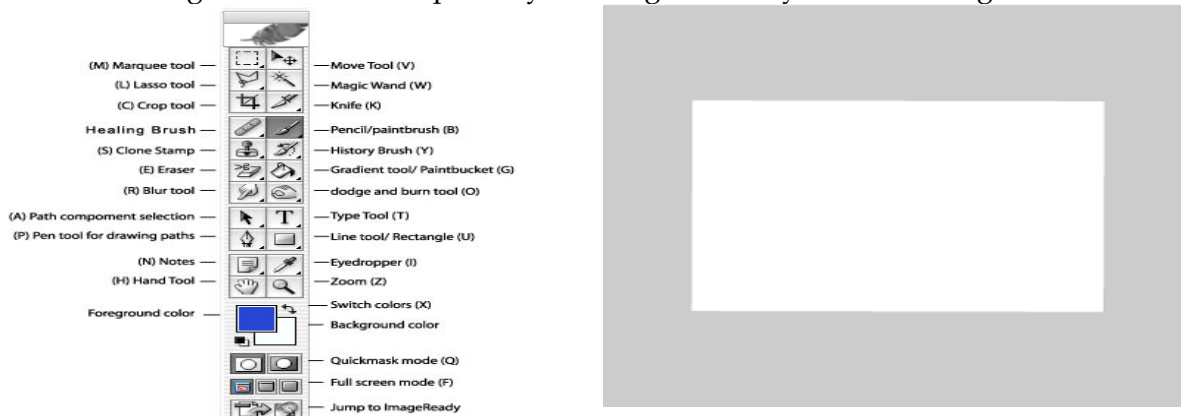
Adobe Photoshop is a raster graphics editor developed and published by Adobe Systems.

Photoshop was created in 1988 by Thomas and John Knoll. Since then, it has become the *de facto* industry standard in raster graphics editing software. Photoshop has vast support for graphic file formats but also uses its own **PSD** and **PSB** file formats which support all the aforementioned features.

Introducing the basics of graphics through Photoshop

Learning Photoshop is a good way to learn imaging concepts. Concepts you learn from working with Photoshop apply to other imaging tools as well (including Photoshop Elements, which has a very similar user interface and features)

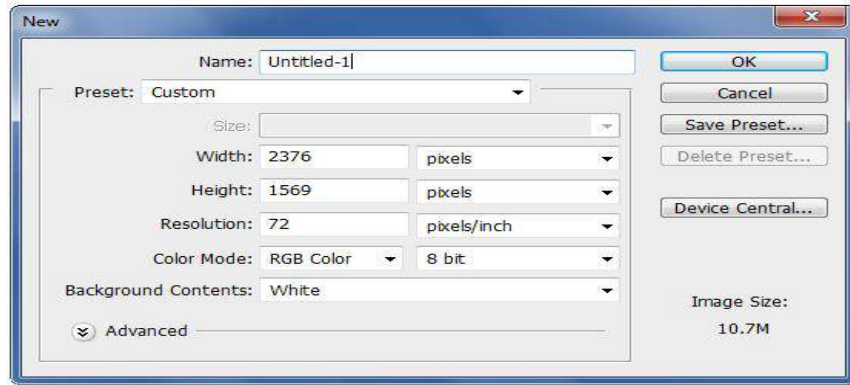
Photoshop is unlike other common software interfaces which emulate virtual typewriters or graphing paper. Photoshop creates an artist's virtual studio/darkroom. When you open the program you see a toolbox on the left with tools you will use to manipulate your images, and on the right, a white square which is your "canvas" or work area. The gray area surrounding the canvas is not part of your image, but only defines its edges.



Opening a file/Creating a new file

First, you can open the image from the Photoshop file menu. It will be opened in the format it was saved in, so in order to work with it in Photoshop. Another method for getting an image into Photoshop is to copy and paste it into a new file in the application. This is especially useful for saving and altering web graphics or screenshots. Once the image is copied to the clipboard, go to Photoshop and select new from the file menu. A new file dialog will appear asking you to name the file, choose the size, resolution, colour mode, and background.

The image size (in pixels) will automatically reflect the size of the image copied to the clipboard. Choose CMYK if this graphic is to be used in print, or RGB for the web. For background, choose transparent (this can always be changed later).



Using the paint brush tool

Select the tool by clicking on the item in your toolbar, as shown below. Next pick the brush's size, called the diameter at the top of the screen. Now use the mouse and paint something creative.



Using the text tool to add text

You can add some text to our image by clicking on our Text toolbar item here. After selecting the text tool you can click anywhere on your image and type the word style. Toolbars at the top of the screen have word editing tools like font, size and colour.



Using the move tool

After you finish typing in text, click on the move tool. You can see the move tool circled in the below shot of the toolbar. Use that arrow to click and move your image around.



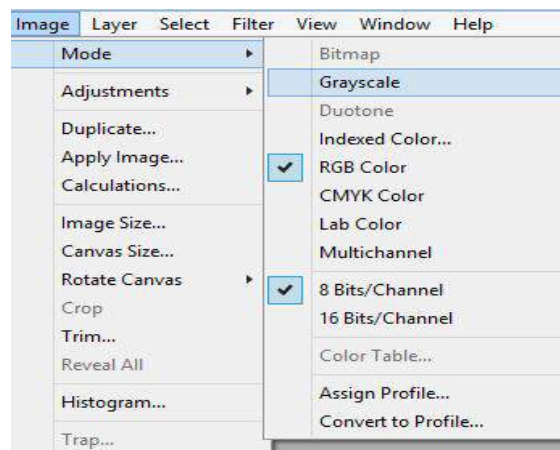
Notice that the image does not move, it just moves the text. That's because at the moment it's the text layer that is selected.

Image menu

Most basic Photoshop tasks involve the Images menu and the most commonly used items on the Images menu are,

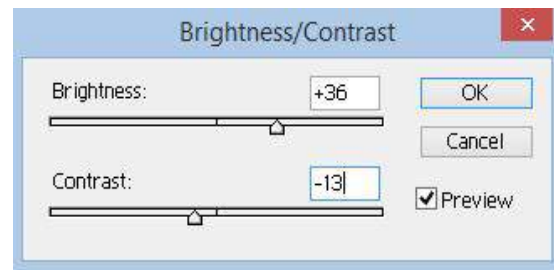
Image Mode

The first item on the image menu is Mode. This is what you use to change the color mode and appearance on the entire image. We discussed RGB, the web mode, and CMYK, the print mode earlier. We have some other choices here, including gray scale and duotone. Some modes' availability depends on the pre-existing color mode.



Adjusting Images

You can see that the adjust option on the images menu give you a lot of different tools for adjusting your image. The most basic types of adjustments you can make with Photoshop involve colors and brightness. The most simple is the contrast/brightness adjustment. When you select contrast/brightness, you are confronted with a dialog box with a slider for both brightness and contrast. Moving the sliders to the left makes the picture murkier or darker, and moving the sliders to the right brightens and increases the contrast between the dark and light colors in the image. You can play around with both sliders until you get a suitable mix; the change is previewed in the image. This tool is helpful for brightening pictures that were taken in low light. The other adjustments you can make with the options on the adjustments menu are a little more complex, and the best way to learn about them is just to experiment. Because Photoshop allows to preview the adjustments.



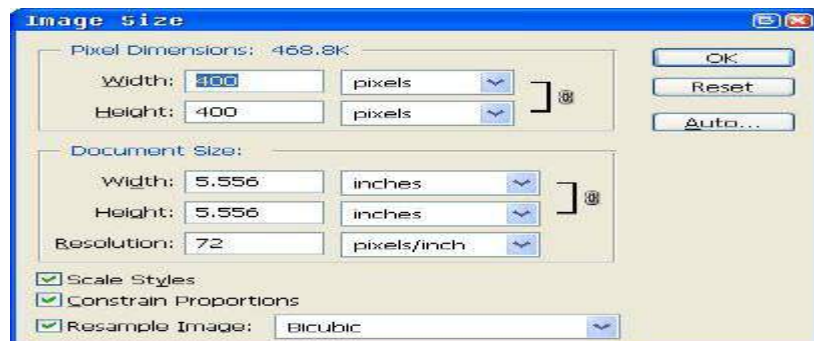
Flattening your image and some background on layers

Now if you go to above menu, press Layer > Flatten image. All of your layers become merged. No matter how many layers you had, they all become one layer, one image. Use the “arrow” move tool again. Now the whole image moves. Even after the layer is unlocked the image is still in this flattened state and you can’t edit the text or modify the image.

Resizing your image

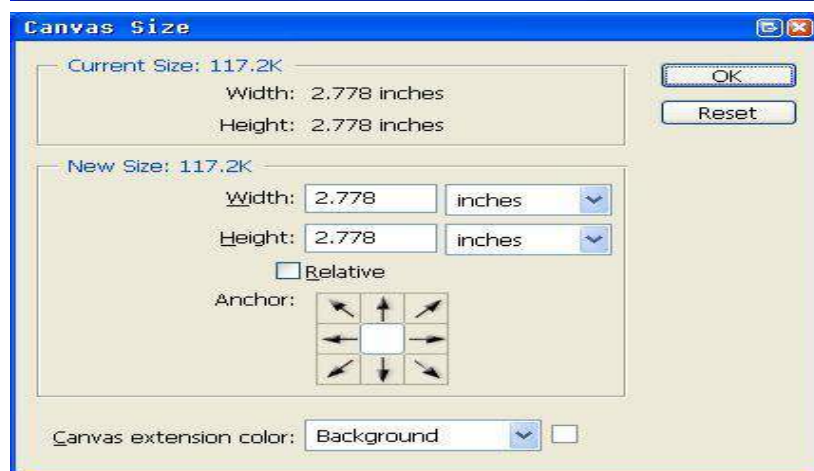
Go to Image > Size and change it.

Let’s take a look at this:



Resizing the canvas

You can do the same thing with the background canvas you are working on. You can enlarge or shrink your workspace. To do this you would go to Image > Canvas Size. Hit this and you will get a similar dialogue box to the image size box. You can see it below. It will not affect your image but if you make the canvas too small some of your image may be hidden. Play around with the size and make your canvas bigger.



Crop function

The Crop function in the image menu is pretty straight forward. Make a selection; got to Image and select crop, and then everything outside you selection disappears. The image size reflects the change.

Layer Management

Layers pane

The layers pane is one of the panes that its best keep visible at all times. If you don't see it when you open Photoshop, go to window>show layers and it will be restored.

The Layers Pane

A note on working with jpeg file copied from other applications: If you've pasted in a jpg image. You'll notice that there is only one layer. If you open a jpeg image this layer will be called "background" and will have a lock icon demonstrating that it is locked. In order to unlock it, double click on the layer name in the payer pane and change the name. The layer is now unlocked. Depending on how you plan to alter this image, it may be a good idea to leave this layer alone, and do your work on other layers.

Adding New Layers

The layers appear in the layers pane as they are organized in the document. To demonstrate this, we'll add a new layer and type a little on it. Go to Layer>and select new layer. Type a name for the layer in the dialog box that appears and hit enter. It should now appear in the layers pane (but since it is currently empty, there will be no sign of it in the image. Select the text tool from the tool bar and click & drag somewhere on the image (making sure the new layer is still highlighted in blue).

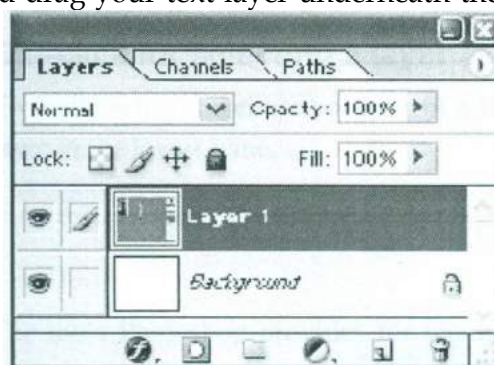
Selecting Layers

Select the Type tool and type a little. You can see that the type appears on top of the image now; we'll use these two layers to learn how to use the layers pane.

Arranging Layers

Also, you can manually arrange the layers. Click and drag your text layer underneath the original image layer. You'll see that the text no longer appears. That is because it is now located behind the opaque image layer. **Combining ("Merging") layers:**

Sometimes you'll want to combine the contents of two layers onto one layer. Select the layer you want to be on top of the new merged layer, make sure the other layer you'd like to merger is directly beneath it, and select Merge Down from the Layer menu. The two layers are now one. If you want to merge down an entire file of layers, select "Flatten



image" from the layers menu, then all layers will be squashed into one. When you merge or flatten layers that contain text layers, you will be asked whether you'd like to rasterize that text (that is, convert it to an image and lose the ability to edit it). (Copy any layers and hide them before you rasterize and merge. It saves you the work of completely recreating layers if you decide to change text.)

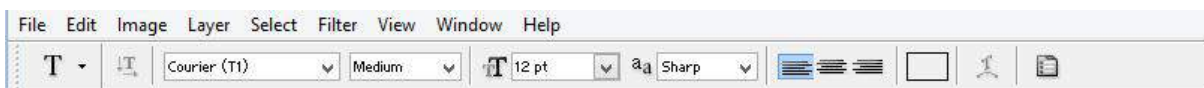
Ctrl-click for selecting a layer

To easily select the entire contents of a layer, press ctrl and click on the preview box for that layer in the layers pane.

Working With Text in Photoshop

The tools Photoshop provides for manipulating text are probably its most straight forward features. You just select the **Text tool**, click, and drag, and you are ready to type. Use the options bar to change the style of highlighted text.

Text styles in the options bar

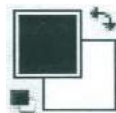


When you engage the type tool, what you type automatically **becomes its own layer** and is given what is typed as a layer name. This is a very helpful feature when dealing with multiple text layers. Double click the T to easily edit the text. If you want to merge a text layer with an image layer, the text layer must be rasterized, or converted to an image first. Once this is done, you can no longer edit the text. Unless you are using text in an illustration or altering letters, this may not even be necessary.

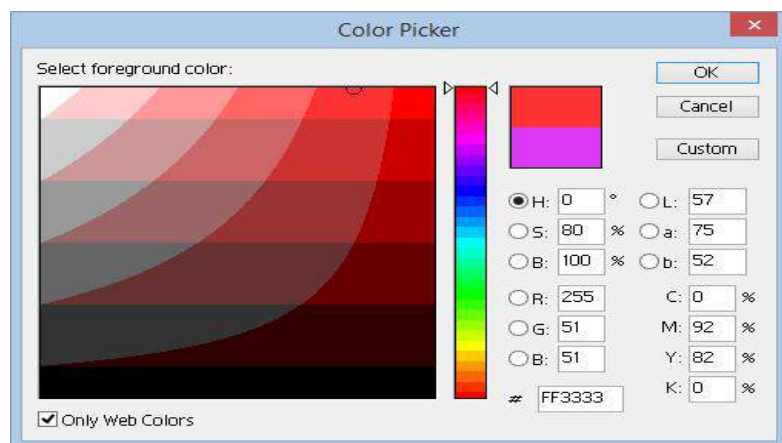
Colours and Graphics

The foreground color, which will be applied by tools like the paintbrush, is represented by the top square at in the middle of the toolbar.

Foreground Background colours



To change this colour, double click the square. This reveals the color picker, where you can pick a colour with several different methods including RGB values, hexadecimal codes, and by simply selection. If you are making an image for the web, it is best to check the "only web colors" box to ensure that no dithering (reductions in color quality) will take place. Once you have picked your color, click ok, and you are ready to go.



Stroke & Fill

The most basic ways to apply colors to an image are to use Fill and Stroke, both available on the edit menu. Make a selection, and choose fill from the edit menu. A dialog will appear

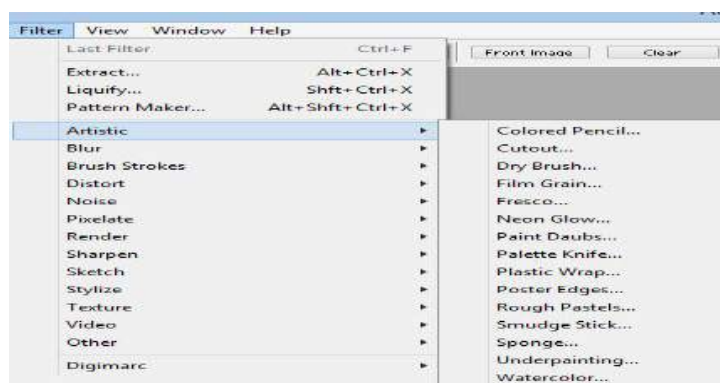
asking you to make some decisions about colors and transparency. Make your selections, and press ok to fill the selection with the chosen color. Stroke operates in much the same manner, though you are given the chance to determine the weight of the lines you create.

Save for Web

When you're working on a .psd, you're likely going to want to eventually to have your file saved as a gif or jpg. In the file menu, you can select "Save for Web," located under save, to do so. When you select it, a new window will open allowing you to make choices about how you want to save and optimize your image. You can select transparency options, matte colours, and file types to apply. This way, you don't need to flatten your .psd just to get a jpg or gif Image.

Playing with filters

To really get a feel for what Photoshop can do, PLAY WITH FILTERS! Just make a selection and try something from the filters menu. Because you have multiple levels of undo and step backward, you can try some really elaborate combinations of effects.



Short cut keys used in Adobe Photoshop

Selecting		Layer Shortcuts	
Draw Marquee from Center	Alt-Marquee	Create new layer	Ctrl-Shift-N
Add to a Selection	Shift	Delete Layer	Delete key (while in the Move tool)
Subtract from a Selection	Alt	View contents of layer mask	Alt-Click layer mask icon
Intersection with a Selection	Shift-Alt	Clone layer as you move it	Alt-Drag
Make Copy of Selection w/Move tool	Alt-Drag Selection	Find/Select layer containing object	Right-Click on the object w/Move tool
Make Copy of Selection when not in Move tool	Ctrl-Alt-Drag Selection	Change layer opacity	Number pad keys (w/Move tool selected)
Move Selection (in 1-pixel Increments)	Arrow Keys	Move layer below/above current layer	Ctrl-[or Ctrl-]
Restore Last Selection	Ctrl-Shift-D	Type Shortcuts	
Viewing		Select all text on layer	Double-Click on T thumbnail in

			Layers panel
Fit on Screen	Double-click on Hand tool or Ctrl-0	Increase/Decrease size of selected text by 2 pts	Ctrl-Shift->/<
100% View Level (Actual Pixels)	Double-Click on Zoom Tool or Ctrl-Alt-0	Increase/Decrease kerning/tracking	Alt-Right/Left Arrow
Zoom in	Ctrl-Space-Click or Ctrl-Plus(+)	Align text left/center/right	Ctrl-Shift-L/C/R
Zoom out	Alt-Space-Click or Ctrl-Minus(-)	Painting	
Hide all tools and panels	Tab	Fill selection with background color	Ctrl-Backspace
Hide all panels except Toolbox and Options bar	Shift-Tab	To get Move tool	While in any painting/editing tool-hold Ctrl
Rotate through full screen modes	F	Change paint opacity (with Airbrush OFF)	Number keys
Scroll image left or right in window	Ctrl-Shift-Page Up/Down	Change paint opacity (with Airbrush ON)	Shift-Number keys
Jump/Zoom to part of Image	Ctrl-drag in Navigator panel	Decrease/Increase Hardness of Brush	Shift-[or Shift-]

Tools			
V	Move	P	Pen tools
M	Marquee tools	T	Type tools
E	Eraser tools	D	Default colors
K	3D Tools	H	Hand
R	Rotate View	Z	Zoom
N	3D Camera Tools	L	Lasso tools
G	Gradient, Paint Bucket	X	Switch Foreground and Background colors
O	Dodge, Burn, Sponge	Q	Quick Mask Mode
W	Quick Selection, Magic Wand	A	Path Selection, Direct Selection
C	Crop and Slice Tools	J	Spot Healing Brush, Healing Brush, Patch, Red Eye
S	Clone Stamp, Pattern Stamp	Y	History Brush, Art History Brush
B	Brush, Pencil, Color Replacement, Mixer Brush	U	Rectangle, Rounded Rectangle, Ellipse, Polygon, Line, Custom Shape

Fostering design thinking through mentoring young women is particularly exciting, it helps them to be fresh and active in their mind.



**Fisheries Enterprises
And
Employment Opportunities**

Alternate Livelihood Options

Mathew A.K.

Project Coordinator, IRTC, Palakkad

Email:mathewirtctmc@gmail.com

കേരളത്തിലെ മുഖ്യധാരാവികസന പന്ഥാവിലെ നിന്ന് അകന്നുപോയ ജനവിഭാഗങ്ങളിലൊന്നായ മൽസ്യ തൊഴിലാളി കുടുംബങ്ങളിലെ സ്ത്രീകളെ ലക്ഷ്യമാക്കി പത്ത് വർഷം മുമ്പ് കേരളത്തിൽ, സുനാമി പുനരധി വാസ പ്രവർത്തനങ്ങളുടെ ഭാഗമായി ആരംഭിച്ചതും ഇപ്പോഴും തുടർന്നുവരുന്നതുമായ ജീവനോപാധി പദ്ധതിയാണ് തീരമൈത്രി. ഫിഷറീസ് വകുപ്പ് സാഫിലൂടെ നടപ്പിലാക്കുന്ന ഈ പദ്ധതിയുടെ നിർവ്വഹണത്തിലൂടെ ഒൻപത് തീരദേശ ജില്ലകളിലെ നാലായിരത്തോളം വരുന്ന മൽസ്യതൊഴിലാളി കുടുംബങ്ങളിൽ സൃഷ്ടിക്കാനായിട്ടുള്ള ചെറിയ ചില മാറ്റങ്ങളെ തീരനൈപുണ്യ പദ്ധതിയിലെ ഗുണഭോക്താക്കളായ യുവതീയുവാക്കൾക്ക് പരിചയപ്പെടുത്തുക, ജീവനോപാധി പദ്ധതികളുടെ പ്രാധാന്യവും സാധ്യതകളും പരിശോധിക്കുക, തീരനൈപുണ്യയിലെ പഠിതാക്കൾക്ക് തീരമൈത്രിയിലൂടെ ജീവനോപാധി കണ്ടെത്തുക സാധ്യമാണോ തുടങ്ങിയ കാര്യങ്ങളാണ് രണ്ട് ഭാഗങ്ങളിലായി നാമിവിടെ ചർച്ച ചെയ്യുന്നത്.

ഭാഗം 1

ജീവനോപാധി പ്രവർത്തനമായി സൂക്ഷ്മസംരംഭങ്ങൾ തെരഞ്ഞെടുക്കുവാൻ മൽസ്യതൊഴിലാളി കുടുംബങ്ങളിലെ സ്ത്രീകളെ പ്രേരിപ്പിക്കുകയും അതിനാവശ്യമായ എല്ലാവിധ സഹായങ്ങളും നൽകുകയും ചെയ്തു കൊണ്ട് മുന്നേറുന്ന തീരമൈത്രി പദ്ധതിയുടെ നടത്തിപ്പിലെ ചില സവിശേഷതകൾ താഴെ കൊടുക്കുന്നു.

1. കേരളത്തിലെ മുഖ്യധാരാ വികസനത്തിൽ നിന്ന് പാർശ്വവൽക്കരിക്കപ്പെട്ട ജനവിഭാഗങ്ങളിലൊന്നായ മൽസ്യതൊഴിലാളി കുടുംബങ്ങളിലെ സ്ത്രീകളെ ഗുണഭോക്താക്കളായി കണ്ടുകൊണ്ടാണ് ഈ പദ്ധതി ആരംഭിച്ചതും ഇന്നും തുടരുന്നതും. പദ്ധതിയ്ക്കനുവദിച്ച പണത്തിന്റെ വിനിയോഗം പൂർത്തിയാകുന്നതോടെ പദ്ധതി നിർവ്വഹണം പൂർത്തിയായി എന്ന് വിലയിരുത്തുന്ന പരമ്പരാഗത കാഴ്ചപ്പാടിൽ നിന്നും വ്യത്യസ്തമായി പദ്ധതിയുടെ ഭാഗമായി ആരംഭിച്ച സൂക്ഷ്മ സംരംഭങ്ങൾക്ക് കഴിഞ്ഞ ഒൻപതു വർഷമായി തുടർച്ചയുള്ള പിന്തുണാ സംവിധാനം നൽകിക്കൊണ്ടിരിക്കുന്നു.
2. ഓരോരുത്തർക്കുമായി ഗുണം കിട്ടുന്ന വ്യക്തിഗത ഗുണഭോക്താക്കൾക്കു പകരം നാല് വനിതകൾ ചേർന്ന ആക്ടിവിറ്റി ഗ്രൂപ്പുകൾക്കാണ് ധനസഹായം നൽകിയത്. സംരംഭങ്ങൾക്കായി 80% തുക ഗ്രാന്റായും 15% ബാങ്ക് വായ്പയായും 5% ഗുണഭോക്തൃവിഹിതമായും വിനിയോഗിക്കുന്നു. അനുയോജ്യമായ സംരംഭങ്ങൾ തെരഞ്ഞെടുക്കുവാനുള്ള അവകാശം ഗ്രൂപ്പിംഗങ്ങൾക്ക് നൽകിയിരുന്നു.
3. ഓരോ ആക്ടിവിറ്റി ഗ്രൂപ്പും നിർവ്വഹണ ഏജൻസിയുടെ സഹായത്തോടെ തയ്യാറാക്കുന്ന പ്രോജക്ടിന്റെ അടിസ്ഥാനത്തിൽ സംരംഭത്തിനുള്ള പണം ഗഡുക്കളായി ഗ്രൂപ്പിന്റെ ബാങ്ക് അക്കൗണ്ടിലേക്ക് നൽകുന്ന രീതി തുടക്കം മുതൽ അവലംബിച്ചുവരുന്നു. ഒരു തരത്തിലുമുള്ള ആക്ഷേപങ്ങൾക്കും ഇട നൽകാതെ തൊണ്ണൂറു കോടി രൂപയാണ് ഈ പദ്ധതിയിലൂടെ ഗുണഭോക്താക്കളുടെ കൈകളിൽ സരംഭങ്ങളുടെ നടത്തിപ്പിനായി എത്തിച്ചത്.
4. സൂക്ഷ്മ സംരംഭങ്ങളെ ജീവനോപാധി കണ്ടെത്തുന്നതിനുള്ള ഉപാധിയാക്കി മാറ്റുവാനുള്ള ശ്രമവും മൽസ്യതൊഴിലാളി കുടുംബങ്ങളിലെ സ്ത്രീകളെ പുതിയ തരം തൊഴിൽ സംരംഭങ്ങളുമായി ബന്ധപ്പെടുത്തിക്കൊണ്ട് മൽസ്യതൊഴിലാളി സമൂഹത്തിന്റെ വളർച്ചയ്ക്ക് അവസരമുണ്ടാക്കിക്കൊണ്ടിരിക്കുന്നു.
5. ഇതര ഏജൻസികൾ നടത്തുന്ന സമാന പദ്ധതികളിൽ നിന്നും വ്യത്യസ്തമായി ഓരോ ബിസിനസ്സ് വിഭാഗത്തിലും പ്രത്യേക വൈദഗ്ദ്ധ്യമുള്ളവരുടെ സേവനം കൺസൾട്ടന്സി അടിസ്ഥാനത്തിൽ പ്രയോജനപ്പെടുത്തുകയും ഗ്രൂപ്പുകളുടെ കൂടി പങ്കാളിത്തത്തോടെ അനുയോജ്യമായ ബിസിനസ്സ് മോഡലിനു രൂപം നൽകുകയും നിശ്ചിത കാലത്തേക്ക് കൺസൾട്ടന്റുമാരുടെ സേവനം ഗ്രൂപ്പുകൾക്ക് ഉറപ്പാക്കുകയും ചെയ്യുന്നു.
6. ഓരോ ബിസിനസ്സ് വിഭാഗങ്ങളിലും ഉൾപ്പെട്ട ആക്ടിവിറ്റി ഗ്രൂപ്പുകളുടെ ഫെഡറേഷനുകൾക്ക് രൂപം നൽകുകയും അവയെ സംസ്ഥാന തലത്തിൽ ഏകോപിപ്പിക്കുന്നതിനായി അപ്പക്സ് ഫെഡറേഷൻ പ്രവർത്തിപ്പിക്കുകയും ചെയ്യുന്നു. മൽസ്യ സംസ്കരണം, കയർ, തയ്യൽ-ഗാർമെന്റ്സ്, ഫുഡ് പ്രോസസ്സിംഗ്, സൂപ്പർ മാർക്കറ്റുകൾ എന്നീ വിഭാഗങ്ങൾ ഫെഡറേഷനുകളുമായി പ്രവർത്തിക്കുവാൻ തുടങ്ങിയിട്ടുണ്ട്. ഇതിനാവശ്യമായ അടിസ്ഥാന സൗകര്യങ്ങളായ വാഹനം, കെട്ടിടം, പ്രവർത്തന മൂലധനം എന്നിവ തീരമൈത്രി പദ്ധതിയുടെ ഭാഗമായി സാഫിൽ നിന്ന് നൽകുന്നുണ്ട്. ഫെഡറേഷനുകൾ സ്വന്തം നിലക്ക് ഇന്ത്യയുടെ വിവിധ ഭാഗങ്ങളിൽ നിന്ന് അസംസ്കൃത സാധനങ്ങളും വിപണനത്തിനായുള്ള ഉൽപന്നങ്ങളും സമാഹരിക്കുന്നതുൾപ്പടെയുള്ള പ്രവർത്തനങ്ങൾ അപ്പക്സ് ഫെഡറേഷന്റെ നേതൃത്വത്തിൽ ഏറ്റെടുത്തുകൊണ്ട് ബിസിനസ്സ് വിപുലപ്പെടുത്തുന്നതിനുള്ള ശ്രമങ്ങൾ നടത്തുകയും ചെയ്യുന്നു. ഇത്തരത്തിൽ സമാഹരിക്കുന്ന അസംസ്കൃത സാധനങ്ങൾ ഒൻപതു ജില്ലകളിലേയും ഗ്രൂപ്പുകളിൽ വാഹനങ്ങളിൽ എത്തിച്ചുനൽകുന്ന പ്രവർത്തനവും, ഉൽപന്നങ്ങൾ വിൽപന നടത്തുന്നതിനുള്ള ക്രമീകരണങ്ങളും ചെയ്തുകൊണ്ട് തീരമൈത്രി സംരംഭങ്ങൾക്ക് നേതൃത്വം നൽകുന്നതിനും സ്വയം പര്യാപ്തതയിലേക്ക് നയിക്കുന്നതിനും അപ്പക്സ് ഫെഡറേഷൻ ശ്രമിച്ചുകൊണ്ടിരിക്കുന്നു.

7. ഗുണഭോക്താക്കളെ തിരഞ്ഞെടുക്കുന്ന ഘട്ടം മുതൽ തദ്ദേശ സ്വയംഭരണ സ്ഥാപനങ്ങളുടെ പങ്കാളിത്തം ഉറപ്പാക്കുവാൻ പദ്ധതി നിർവ്വഹണ ഏജൻസികൾ ശ്രദ്ധിച്ചിരുന്നു എന്നത് എടുത്തു പറയേണ്ടുന്ന മറ്റൊരു പ്രത്യേകതയാണ്. ഒൻപതു തീരദേശ ജില്ലകളിലുമായി തദ്ദേശ സ്വയംഭരണ സ്ഥാപന മേധാവികളുടെ നേതൃത്വത്തിൽ 114 തീരമെത്രി മാനേജ്മെന്റ് കൗൺസിലുകൾ 2010 മുതൽ നിലവിൽ വരികയും തങ്ങളുടെ പ്രദേശത്തെ തീരമെത്രി ആക്ടിവിറ്റി ഗ്രൂപ്പുകളുടെ പ്രവർത്തനങ്ങൾക്കാവശ്യമായ നേതൃത്വപരമായ പങ്കു വഹിക്കുവാൻ തദ്ദേശഭരണസ്ഥാപനങ്ങൾക്ക് ഇതിലൂടെ അവസരം ലഭിക്കുകയും ചെയ്തു. ഗ്രൂപ്പുകൾക്കാവശ്യമായ പ്രവർത്തനമൂലധനം ലഭ്യമാക്കുന്നതിനായി 2011 ൽ ആരംഭിച്ച പ്രവർത്തനമൂലധനത്തിനായുള്ള റിവോൾവിംഗ് ഫണ്ട് പൂർണ്ണമായും തദ്ദേശ സ്വയംഭരണ സ്ഥാപനങ്ങളുടെ നേതൃത്വത്തിലുള്ള തീരമെത്രി മാനേജ്മെന്റ് കൗൺസിലുകളിലൂടെയാണ് വിതരണം ചെയ്യുന്നതും തിരിച്ചടയ്ക്കുന്നതും. 114 തീരമെത്രി മാനേജ്മെന്റ് കൗൺസിലുകളായി 2.5 കോടി രൂപ റിവോൾവിംഗ് ഫണ്ടായി ഇതിനകം നൽകി കഴിഞ്ഞു. തദ്ദേശ സ്വയംഭരണ സ്ഥാപനങ്ങളുടെ നേതൃത്വത്തിൽ തീരമെത്രി സംരംഭങ്ങളുടെ മേൽനോട്ടം ഉറപ്പാക്കുവാനുള്ള സംവിധാനമുണ്ടാക്കുകയും പ്രവർത്തനമൂലധനത്തിനായുള്ള റിവോൾവിംഗ് ഫണ്ട് കൈമാറുകയും ചെയ്തുകൊണ്ട് കേരളത്തിൽ നടന്ന അധികാര വികേന്ദ്രീകരണ ശ്രമങ്ങളോട് നീതി പുലർത്തുവാൻ ഒരു പരിധിവരെ ഈ പദ്ധതിക്കു കഴിഞ്ഞിട്ടുണ്ട്.

8. ഗുണഭോക്താക്കളുടെ തിരഞ്ഞെടുപ്പു ഘട്ടം മുതൽ തുടർച്ചയായ പരിശീലനങ്ങളും കൂടെ നിന്നുള്ള പിന്തുണയും നൽകിക്കൊണ്ട് ഗ്രൂപ്പുകളെ വളർച്ചയുടെ പാതയിലേക്ക് നയിക്കുവാൻ സഹായിക്കുന്നു എന്നത് ഈ പദ്ധതിയുടെ മറ്റൊരു സവിശേഷതയാണ്. സംരംഭ സ്വഭാവത്തിലുള്ള ജീവനോപാധി പദ്ധതികളുടെ തുടർച്ചയും വളർച്ചയും ഉറപ്പാക്കി ഗുണഭോക്താക്കൾക്ക് ജീവിക്കുന്നതിനുള്ള വരുമാനം ലഭ്യമാക്കുന്ന പദ്ധതിയായി തീരമെത്രി വളർന്നതിൽ പ്രത്യേകമായി ചിട്ടപ്പെടുത്തിയ പരിശീലനങ്ങൾക്കുള്ള പ്രാധാന്യം വളരെ വലുതായിരുന്നു.

9. പ്രത്യേക പരിശീലനം നൽകി നിയമിച്ച മിഷൻ കോർഡിനേറ്റർമാരുടെ സേവനം ഗുണഭോക്താക്കളുടെ തിരഞ്ഞെടുപ്പ് ബിസിനസ്സ് ആശയങ്ങൾ രൂപപ്പെടുത്തൽ, പ്രോജക്ട് റിപ്പോർട്ട് തയ്യാറാക്കൽ, ബാങ്ക് ലോൺ തരപ്പെടുത്തുന്നതിൽ സഹായിക്കൽ, ആവശ്യമായ ലൈസൻസുകൾ സമ്പാദിക്കൽ, സംരംഭം ആരംഭിക്കൽ, കൃത്യമായി പ്രവർത്തിക്കുന്നുവെന്നുറപ്പാക്കൽ, ഉല്പാദനം, പായ്ക്കിംഗ്, ലേബലിംഗ്, വിപണനം തുടങ്ങി എല്ലാ ഘട്ടത്തിലും ലഭ്യമാക്കിക്കൊണ്ട് ഇപ്പോഴും തുടരുന്നു.

10. ഉല്പാദനം, വിപണനം ഇവ പൂർണ്ണമായും ഗ്രൂപ്പുകളുടെ ചുമതലയിൽ തന്നെയാണ് നടത്തുന്നത്. ഏതാണ്ട് എല്ലാ ഗ്രൂപ്പുകളും അവരുടെ ഉല്പന്നങ്ങൾ വിപണനം നടത്തുന്നതിനുള്ള സംവിധാനങ്ങൾ സ്വന്തമായി ഒരുക്കിയിട്ടുണ്ട്. ഇത്രയും വർഷത്തെ പരിചയം കൊണ്ടു തന്നെ ധാരാളം സ്ഥിരം ഉപഭോക്താക്കൾ എല്ലാ ഗ്രൂപ്പുകൾക്കും ഉണ്ട്. ഓണം, വിഷു, റംസാൻ, പുതുവത്സരം എന്നിവയോടനുബന്ധിച്ച് 200 ൽ പരം പ്രത്യേക വിപണന മേളകൾ എല്ലാ വർഷവും തദ്ദേശ സ്വയംഭരണ സ്ഥാപന തലത്തിലുള്ള ടി എം സി കളുടെ നേതൃത്വത്തിൽ നടത്തുന്നുണ്ട്. ഓണക്കാലത്ത് കഴിഞ്ഞ മൂന്നു വർഷമായി 250 രൂപയുടെ വീതം തീരമെത്രി ഉല്പന്നങ്ങൾ അടങ്ങിയ 10,000 കിറ്റുകൾ വീതം വില്പന നടത്തിയിട്ടുണ്ട്. ഇതു കൂടാതെ ജില്ലാ ആസ്ഥാനങ്ങളിലും പ്രധാന ടൂറിസം കേന്ദ്രങ്ങളിലും, ഉൽസവ സ്ഥലങ്ങളിലും നടക്കുന്ന പ്രദർശന മേളകളിലും തീരമെത്രി സംരംഭകർ പങ്കെടുക്കുന്നുണ്ട്. പാക്കിംഗ്, ലേബലിംഗ്, സ്റ്റാൾ സജ്ജീകരിക്കൽ എന്നിവയെല്ലാം സാഫ് ഗ്രൂപ്പുകളെ സഹായിക്കുന്നുണ്ട്.

11. 2014 സെപ്തംബർ മുതൽ തീരമെത്രിയുടെ മൽസ്യ സംസ്കരണ യൂണിറ്റുകളുടെ ഫെഡറേഷന്റെ നേതൃത്വത്തിൽ എറണാകുളം നഗരത്തിലെ 100 സൂപ്പർമാർക്കറ്റുകളിലൂടെ പ്രതിമാസം ഒരു ലക്ഷം രൂപയുടെ ഉണക്ക മൽസ്യം ബ്രാൻഡ് ചെയ്ത് വില്പന നടത്തുന്നുണ്ട്. എറണാകുളം, ആലപ്പുഴ ജില്ലകളിലെ 7 മൽസ്യ സംസ്കരണ ഗ്രൂപ്പുകളിൽ നിന്നും ഫെഡറേഷൻ സമാഹരിച്ച് ഫെഡറേഷന്റെ നേതൃത്വത്തിൽ ഗുണനിലവാര പരിശോധന നടത്തി പായ്ക്ക് ചെയ്ത് വിതരണം നടത്തുന്ന രീതിയാണ് അവലംബിച്ചിട്ടുള്ളത്. ഗ്രൂപ്പുകൾക്ക് മാർക്കറ്റിൽ കിട്ടുന്നതിനേക്കാൾ മെട്ടപ്പെട്ട വില ഫെഡറേഷൻ വഴി ലഭിക്കുന്നതുണ്ട്. എല്ലാ ജില്ലകളിലേക്കും വ്യാപിപ്പിക്കാവുന്ന മോഡലാണിത്.

തീരമെത്രിയുടെ ഇപ്പോഴത്തെ സ്ഥിതി

2011 -ൽ സാഫിന്റു ചുമതലയിൽ തീരമെത്രി പദ്ധതിയിലേക്ക് കൈമാറിക്കിട്ടിയ 1360 ഗ്രൂപ്പുകളിൽ 1062 ഗ്രൂപ്പുകളും പ്രവർത്തനക്ഷമമായിരുന്നു. 2015 ഡിസംബറിലെ കണക്കുകളനുസരിച്ച് പ്രവർത്തിക്കുന്ന ഗ്രൂപ്പുകളുടെ എണ്ണം പലവിധ കാരണങ്ങളാൽ ആയിരത്തിൽ താഴെയായിട്ടുണ്ട്. എല്ലാമാസവും പ്രവർത്തന റിപ്പോർട്ടും കണക്കുകളും കൃത്യമായി തരുന്ന സംരംഭങ്ങളുടെ എണ്ണം 876 മാത്രമേയുള്ളൂ. തീരമെത്രി ഗ്രൂപ്പുകളിലെ 2013 ശരാശരി പ്രതിമാസ ബിസിനസ്സ് 2.49 കോടി രൂപയായിരുന്നു. 2014-15 ൽ 3.01 കോടി രൂപയായി വർദ്ധിച്ചു. 2015-16 ഇതുവരെയുള്ള കണക്കനുസരിച്ച് പ്രതിമാസം ശരാശരി 3.30 കോടി രൂപയുടെ ബിസിനസ്സ് നടന്നിട്ടുണ്ട്. ഒരു വർഷത്തെ കണക്കെടുത്താൽ 36-40 കോടി രൂപയുടെ ബിസിനസ്സ് തീരമെത്രി സംരംഭങ്ങളിൽ നടക്കുന്നുണ്ട്. ഇതിന്റെ നാലിലൊന്ന് തുക തീരദേശത്തുള്ള നാലായിരത്തോളം മൽസ്യതൊഴിലാളി കുടുംബങ്ങളിലെ സ്ത്രീകൾക്ക് തങ്ങളുടെ കുടുംബങ്ങളിലേക്ക് വേതനമായോ, ശമ്പളമായോ, ലാഭവിഹിതമായോ ലഭിക്കുന്ന സാഹചര്യം സൃഷ്ടിക്കുവാൻ കഴിഞ്ഞു എന്നതാണ് ഈ പദ്ധതിയുടെ പ്രധാന നേട്ടം. പ്രതിവർഷം 36-40 കോടി രൂപയുടെ ബിസിനസ്സ് നടത്തുകയും 9-10 കോടി രൂപയോളം രൂപ പ്രതിവർഷം വേതനമായി അംഗങ്ങൾക്ക് ലഭി

കുന്ന സാഹചര്യം തീരമെത്രീ സൃഷ്ടിച്ചിട്ടുണ്ട്. ഈ പദ്ധതിയുടെ ഭരണപരമായ ആവശ്യങ്ങൾക്ക് പ്രതി വർഷം സാഫ് ചെലവഴിക്കുന്നത് കേവലം ഒരു കോടിയിൽ താഴെ വരുന്ന തുക മാത്രമാണ് എന്നതും മറ്റൊരു പ്രത്യേകതയാണ്. ഈ പദ്ധതിക്കു മാത്രമായി ഫിഷറീസ് വകുപ്പിൽ ഒരുദ്യോഗസ്ഥനും ഇല്ല. മറ്റു ചുമതലകളുടെ കൂടെ തീരമെത്രീയുടെ കാര്യങ്ങൾ കൂടി ചെയ്യുന്നു. ആയതുകൊണ്ടു തന്നെ കേവലമായൊരു സർക്കാർ വകുപ്പു തല പരിപാടിയുടെ സ്വഭാവം തീരമെത്രീയിലില്ല എന്നതും എടുത്തു പറയേണ്ട പ്രത്യേകതയാണ്. ഗ്രാമ വികസന വകുപ്പ്, സന്നദ്ധ സംഘടനകൾ, കുടുംബശ്രീ എന്നിവയെല്ലാം മുഖേന നടപ്പിലാക്കിയിട്ടുള്ള സൂക്ഷ്മ സംരംഭങ്ങളുടെ അതിജീവന നിരക്കിനേക്കാൾ കൂടിയതോതിലുള്ള എണ്ണം സംരംഭങ്ങൾ തീരമെത്രീയൽ ഇത്രയും കാലം നിലനിൽക്കുന്നതിനും വളർച്ചയുടെ പാതയിലേക്കുയർത്തുന്നതിനും സഹായകമായതിൽ പദ്ധതി നിർവ്വഹണത്തിൽ സാഫ് അവലംബിച്ച രീതിശാസ്ത്രത്തിന് വലിയ പങ്കുണ്ട്.

ഭാഗം 2

തീരനെപുണ്യയിലൂടെ തീരമെത്രീയിലേക്ക്

മേൽ വിവരിച്ചതീരമെത്രീയുടെ അനുഭവങ്ങൾ തീരനെപുണ്യയിലെ കുറച്ചു പഠിതാക്കളെയെങ്കിലും സാധ്യമായിട്ടുണ്ടാകും. സൂക്ഷ്മ സംരംഭങ്ങളാണ് ബദൽ ജീവനോപാധിയായി തീരദേശത്തെ മൽസ്യതൊഴിലാളി കുടുംബങ്ങളിലെ വനിതകൾക്കു മുൻപിൽ സാഫ് തീരമെത്രീയിലൂടെ അവതരിപ്പിക്കുന്നത്. ഇത്തരത്തിലുള്ള ഒരു സംരംഭത്തിന്റെ ഭാഗമാകുവാൻ ആഗ്രഹിക്കുന്ന തീരനെപുണ്യയിലെ പഠിതാക്കൾക്ക് സഹായകമായ ഏതാനും കാര്യങ്ങൾ ചർച്ച ചെയ്യാം.

സാധാരണയായി സംരംഭങ്ങൾ ആരംഭിക്കണമെന്ന ആഗ്രഹവുമായി വരുന്നവരെ രണ്ട് വിഭാഗങ്ങളായി തരം തിരിക്കാറുണ്ട്.

1. അവസരം പ്രയോജനപ്പെടുത്തുക എന്ന ലക്ഷ്യത്തോടെ വരുന്ന സംരംഭകർ
 2. എന്തായാലും ഒരു സംരംഭം ആരംഭിച്ചേ മതിയാകൂ എന്ന നിലപാടിൽ വരുന്നവർ.
- ഇതിൽ അവസരം പ്രയോജനപ്പെടുത്തുക എന്ന ഉദ്ദേശത്തോടെ വരുന്നവർ സംരംഭത്തെക്കുറിച്ച് എല്ലാം മനസിലാക്കിയിരിക്കുകയും വരിക. എന്നാൽ രണ്ടാമത്തെ കൂട്ടർ സംരംഭത്തിന്റെ മുഴുവൻ കാര്യങ്ങളൊന്നും മനസിലാക്കിക്കൊണ്ടായിരിക്കണമെന്നില്ല സംരംഭത്തിലേക്ക് വരുന്നത്. തീരമെത്രീയിൽ ആകൃഷ്ടരായവർ ഇതിൽ ഏതു വിഭാഗത്തിൽ ഉൾപ്പെട്ടവരാണെന്ന് മനസിലാക്കേണ്ടിയിരിക്കുന്നു. താഴെ കൊടുക്കുന്ന കാരണങ്ങളാണ് ആളുകളെ സംരംഭകരാകുവാൻ പ്രേരിപ്പിക്കുന്നത്.
1. സാമ്പത്തിക പരാധീനതയിൽ നിന്നും മോചിതയാകണമെന്ന ആഗ്രഹം
 2. മറ്റുള്ളവരുടെ വിജയം കണ്ടിട്ട്- എനിക്കും അവരെപ്പോലെ വിജയിക്കണം എന്ന ആഗ്രഹത്തിൽ നിന്ന്.
 3. നിലവിലുള്ള ജോലിയിലുള്ള മടുപ്പ് / പുതിയതായി എന്തെങ്കിലും ചെയ്യണമെന്ന തോന്നൽ
 4. സ്വന്തം കഴിവും അറിവും പ്രയോജനപ്പെടുത്തി സംരംഭത്തിലൂടെ മുന്നേറ്റം മുണ്ടാക്കണമെന്ന ആഗ്രഹം.

ഇതിൽ ഏതു കാരണങ്ങളാൽ സംരംഭത്തിലേക്കു കടന്നുവരുന്നവരായാലും ജീവനോപാധി പദ്ധതികളെക്കുറിച്ചും, സംരംഭത്തെക്കുറിച്ചും നിലവിലുള്ള ഇവരുടെ ധാരണകൾ വിലയിരുത്തലിന് വിധേയമാക്കുകയും കാഴ്ചപ്പാടിൽ, സമീപനത്തിൽ ആവശ്യമായ മാറ്റങ്ങൾ വരുത്തുവാനുള്ള മാനസികമായ തയ്യാറെടുപ്പ് പ്രധാനമാണ്. ചിട്ടപ്പെടുത്തിയ പരിശീലനത്തിലൂടെ ഇത്തരക്കാരെ സംരംഭകരാക്കി വളർത്തിയെടുക്കുവാനുള്ള ധാരാളം അവസരങ്ങൾ ഇന്നുണ്ട്. തീരമെത്രീ പോലുള്ള പദ്ധതികളിലെ അപേക്ഷകരായി വരുന്ന സംരംഭകരെ അലട്ടുന്ന പ്രശ്നങ്ങൾ പൊതുവായി കാണുന്നവ ചുവടെ ചേർക്കുന്നു.

1. താഴ്ന്ന പ്രചോദനവും കുറഞ്ഞ ആൽമവിശ്വാസവും.
2. സംരംഭം/ ബിസിനസ്സ് തുടങ്ങുന്നതിനെക്കുറിച്ച് വേണ്ടത്ര അറിവില്ല
3. മാർക്കറ്റ് വിവരങ്ങളെക്കുറിച്ചറിയില്ല
4. മുതൽ മുടക്കാനുള്ള പരിമിതി, ബാങ്ക് ലോൺ സംബന്ധിച്ച നടപടികൾ അറിയില്ല.
5. സംരംഭം നടത്തിക്കൊണ്ട് പോകുവാനുള്ള കഴിവില്ലുള്ള സംശയം.
6. എവിടെ നിന്ന് തുടങ്ങണം, എങ്ങനെ തുടങ്ങണം എന്നതിലുള്ള അവ്യക്തത.

ഈ പ്രശ്നങ്ങളെല്ലാം തന്നെ ചിട്ടപ്പെടുത്തിയ പരിശീലനത്തിലൂടെ പരിഹരിക്കാവുന്നതാണ്. തീരമെത്രീയിൽ മൂന്നു ഘട്ടങ്ങളിലായി നടത്തുന്ന പരിശീലനത്തിലൂടെയാണ് സംരംഭകരെ സജ്ജമാക്കുന്നത്. കേവലമായ ഒരു പദ്ധതിയുടെ ഗുണഭോക്താവുക എന്ന ആഗ്രഹവുമായി വരുന്നവരെ ഒരു സംരംഭകയുടെ മാനസീകാവസ്ഥയിലേക്ക് പരിവർത്തനം ചെയ്തു കൊണ്ടും സംരംഭം ആരംഭിക്കുന്നതിനുള്ള എല്ലാ സഹായവും നൽകി കൊണ്ടുമാണ് സാഫ് തീരമെത്രീയിലൂടെ സംരംഭങ്ങൾ ആരംഭിക്കുവാനും അതിലൂടെ ജീവനോപാധി കണ്ടെത്തുവാനും ശ്രമിക്കുന്നത്.

ജീവനോപാധിയ്ക്കായി സംരംഭങ്ങൾ തെരഞ്ഞെടുക്കുവാൻ പ്രേരിപ്പിക്കുന്ന സാഫ് അഭിമുഖീകരിക്കേണ്ടി വരുന്ന കാര്യങ്ങൾ എന്തൊക്കെയാണെന്ന് പരിശോധിക്കാം.

1. യഥാർത്ഥ സംരംഭകരെ തിരിച്ചറിയുകയും തിരഞ്ഞെടുക്കുകയും ചെയ്യുക
 2. സംരംഭകയ്ക്കുണ്ടാകേണ്ട നൈപുണ്യങ്ങൾ വളർത്തിയെടുക്കുക
 3. അനുയോജ്യമായതും വിജയ സാധ്യതയുള്ളതുമായ ബിസിനസ്സ് അവസരങ്ങൾ കണ്ടെത്തുക.
 4. ബിസിനസ്സ് പ്ലാൻ തയ്യാറാക്കി നൽകുക.
 5. ബിസിനസ്സ് മാനേജ് ചെയ്യുവാനുള്ള കഴിവുകൾ വളർത്തിയെടുക്കുക.
 6. മൂലധനം കണ്ടെത്തുവാൻ സഹായിക്കുക, സബ്സ്ഡി നൽകുക.
 7. അഞ്ച് വർഷത്തേക്കെങ്കിലുമുള്ള തുടർച്ചയായ പിന്തുണ സംവിധാനം ഉറപ്പാക്കുകയും നൽകുകയും ചെയ്യുക.
- സംരംഭകരെ തിരിച്ചറിയലും തിരഞ്ഞെടുക്കലും.**

ഉപജീവനത്തിനായി സംരംഭം/ ബിസിനസ്സ് ആരംഭിക്കുക എന്ന ആശയവുമായി മുന്നോട്ടുവരുന്നവരിൽ സംരംഭകത്വം വളർത്തിയെടുക്കാമെന്ന് ശാസ്ത്രീയമായി തെളിയിക്കപ്പെട്ടിട്ടുണ്ട്. എന്നാൽ അത്തരം ആശയവുമായി വരുന്ന എല്ലാവർക്കും സംരംഭത്തിൽ/ ബിസിനസ്സിൽ ശോഭിക്കുവാൻ കഴിഞ്ഞുകൊള്ളണമെന്നില്ല. സംരംഭത്തിന്റെ/ ബിസിനസ്സിന്റെ നടത്തിപ്പിൽ വിജയിക്കണമെങ്കിൽ സംരംഭകന് ചില നൈപുണ്യങ്ങൾ കൂടിയേ കഴിയൂ. ഇതിനെ ബിസിനസ്സ് നൈപുണ്യങ്ങൾ എന്നു പറയുന്നു. സാഫ് സംഘടിപ്പിച്ചിരിക്കുന്ന ഈ പരിശീലന പരിപാടിയിൽ പങ്കെടുത്തിരിക്കുന്ന പഠിതാക്കളെ ബിസിനസ്സ് / സംരംഭം എന്നിവയോടുള്ള സമീപനത്തിന്റെ അടിസ്ഥാനത്തിൽ മൂന്ന് വിഭാഗങ്ങളായി തരം തിരിക്കാം

1. ബിസിനസ്സിൽ / സംരംഭത്തിൽ ഇറങ്ങാൻ തീരെ താല്പര്യം ഇല്ലാത്തവർ.
2. ഏതെങ്കിലും തരത്തിലുള്ള ബിസിനസ്സ് / സംരംഭം ആരംഭിക്കണമെന്ന് ആഗ്രഹിക്കുന്നവർ.
3. നിലവിൽ ഏതെങ്കിലും തരത്തിലുള്ള ബിസിനസ്സ് / സംരംഭം ഉള്ളവർ.

ഇതിൽ ഒന്നാമത്തെ കൂട്ടർ ഏതെങ്കിലും തരത്തിലുള്ള ജോലി ലഭിക്കണമെന്ന് ആഗ്രഹിക്കുന്നവരാണ്. സർക്കാർ ജോലിയാണ് ലക്ഷ്യം. അതില്ലെങ്കിൽ സ്വകാര്യമേഖലയായാലും കുഴപ്പമില്ല മാസ ശമ്പളം വേണം. ബിസിനസ്സിന്റെ നൂലാമാലകളും പൊല്ലാപ്പുകളുമൊന്നും താങ്ങാനുള്ള ശേഷിയും ഇവർക്കില്ല. രണ്ടാമത്തെ വിഭാഗമാകട്ടെ ബിസിനസ്സ് ഇഷ്ടപ്പെടുന്നവരാണ്. ആഗ്രഹവുമായി നടക്കുന്നവരാണ്, പക്ഷെ കയ്യിൽ മുതൽമുടക്കുവാൻ പണമില്ല, ബാങ്ക് ലോണെടുക്കാൻ ഈടു നൽകുവാൻ ആസ്മിതികളുമില്ല. ഒരു പാട് ആശയങ്ങൾ മനസ്സിലുണ്ടാകും. മൂന്നാമത്തെ വിഭാഗമാകട്ടെ നിലവിൽ എന്തെങ്കിലുമൊക്കെ ചെയ്യുന്നവരാണ്. ഇവർക്കൊക്കെ ബിസിനസ്സ് മെച്ചപ്പെടുത്തുവാനുള്ള സൗകര്യമാണ് വേണ്ടത്. തീരമെത്രീയിൽ ഒന്നും രണ്ടും വിഭാഗക്കാരെയാണ് സംരംഭം ആരംഭിക്കുന്നതിനായി കൂടുതലായും പരിഗണിക്കുന്നത്. ഇവരുടെ വ്യക്തിപരമായ പരിമിതികൾ അതിജീവിക്കുന്നതിനായി തീരമെത്രീയിൽ അവലംബിക്കുന്ന മാർഗ്ഗം മുന്നോ നാലോ വനിതകളെ ചേർത്ത് സംരംഭക ഗ്രൂപ്പുകൾ രൂപീകരിക്കുക എന്നതാണ്. അച്ചീവ്മെന്റ് മോട്ടിവേഷൻ ട്രെയിനിംഗിലൂടെ ഒന്നാമത്തെ വിഭാഗത്തിലുള്ളവരെ രണ്ടാം വിഭാഗത്തിലേക്ക് കൊണ്ടുവരുവാൻ കഴിയും. ശമ്പളം കിട്ടുന്ന ജോലി ലഭിക്കാതെ വരുമ്പോൾ പകരമായി ഇത്തരം സംരംഭങ്ങളെ കാണുന്ന പ്രവണതയും നമ്മുടെ നാട്ടിലുണ്ട്. എന്നാൽ ഇത് വ്യത്യസ്തമായൊരു മേഖലയാണെന്ന തിരിച്ചറിവാണ് ആദ്യം വേണ്ടത്. സംരംഭത്തെ / ബിസിനസ്സിനെ ഉപജീവനമാർഗ്ഗമാക്കുവാൻ തീരുമാനിക്കുക എന്നാൽ അനന്തമായ വളർച്ചാ സാധ്യത തുറന്നിടുന്നു എന്നാണർത്ഥം. തീരമെത്രീയിലൂടെയും കൂടുംബശ്രീയിലൂടെയും നൂറുകണക്കിന് വനിതകളാണ് സംരംഭകരായി മാറിയിട്ടുള്ളതും വളർച്ചയുടെ പടവുകൾ ചവിട്ടികയറിയിട്ടുള്ളതും. ഒരു സ്ത്രീ സംരംഭകയാവുക എന്നാൽ എല്ലാ അർത്ഥത്തിലും ശാക്തീകരിക്കപ്പെട്ടവൾ എന്നാണർത്ഥം.

സംരംഭം / ബിസിനസ്സ് ആണ് തിരഞ്ഞെടുക്കുന്നതെങ്കിൽ സ്വയം ചോദിക്കുക.

സംരംഭം / ബിസിനസ്സ് ഉപജീവന മാർഗ്ഗമായി തിരഞ്ഞെടുക്കുവാൻ തീരുമാനിച്ചുവെങ്കിൽ താഴെ കൊടുക്കുന്ന നാലു കാര്യങ്ങൾ സ്വയം ചോദിക്കുക.

1. എനിക്ക് അല്ലെങ്കിൽ ഞങ്ങൾക്ക് ഈ ഉല്പന്നം / സേവനം ഉല്പാദിപ്പിക്കുവാൻ /നൽകുവാൻ സാധിക്കുമോ.
2. എനിക്ക് അല്ലെങ്കിൽ ഞങ്ങൾക്ക് ഉല്പാദിപ്പിച്ച ഉല്പന്നം / സേവനം വിൽക്കുവാൻ സാധിക്കുമോ.
3. ഉല്പന്നം / സേവനം വിറ്റാൽ എനിക്ക് അല്ലെങ്കിൽ ഞങ്ങൾക്ക് ലാഭം കിട്ടുമോ.
4. ഈ സംരംഭം കുറച്ചുകാലം നടത്തിക്കൊണ്ട് പോകുവാൻ എനിക്ക്/ ഞങ്ങൾക്ക് സാധിക്കുമോ.

ഈ നാലു ചോദ്യത്തിന്റേയും ഉത്തരം അതെ എന്നാണെങ്കിൽ ധൈര്യമായി സംരംഭം / ബിസിനസ്സുമായി മുന്നോട്ടു പോകുക. വിജയസാധ്യതയുള്ള ഒരു സംരംഭം എങ്ങനെ തിരഞ്ഞെടുക്കാം എന്നത് ഏതൊരു സംരംഭകനെയും /സംരംഭകയേയും അലട്ടുന്ന പ്രശ്നമാണിത്. ഇതിന് ശരിയായ ഉത്തരം ലഭിച്ചിട്ടുള്ള സംരംഭകരെല്ലാം വിജയശ്രീ ലാളിതരാകേണ്ടവരാണ്. ഇതു സംബന്ധിച്ച് മാർക്കറ്റിംഗ് മാനേജ്മെന്റ് ഗുരു ഫിലിപ്പ് കോട്ലർ പറയുന്നത് “ ശ്രദ്ധിക്കപ്പെടുന്നതിനോ, കൈവശപ്പെടുത്തുന്നതിനോ, ഉപയോഗിക്കുന്നതിനോ, ഉപഭോഗത്തിനോ ആയി വിപണിയിൽ പ്രദാനം ചെയ്യുന്ന എന്തും ഉല്പന്നമാണ്. അത് ഭൗതിക വസ്തുക്കളോ, സേവനങ്ങളോ, വ്യക്തിത്വമോ, സ്ഥലമോ, സംഘടനയോ ആശയമോ ആകാം“

Marine Ornamental Fish Breeding: Technology Developed Under Captivity

K. Madhu* and Rema Madhu

Principal Scientist , Mari culture Division, CMFRI

Email*: kmadhu30@rediffmail.com

Introduction

Marine ornamental fishes plays an important role in the aquarium keeping worldwide due to their attractive colouration, aesthetic beauty which gives pleasure and soothing effect to the eyes and it also helps to relieve stress. The demand for marine ornamental fishes are increasing day by day as aquarium keeping is the second popular hobby after photography among people. Ornamental fish production for the aquarium industry is a multimillion dollar industry in the world. Although most fish kept in aquariums are from freshwater, the acquisitions of marine ornamental fish has greatly increased in recent years and are also popularized through children's movies by starring charismatic colorful fishes and other creatures. Recent advances in fish husbandry and aquarium gadgets and technology have further facilitated the hobby.

India is a repository of more than 200 varieties of marine ornamentals of which more than 50 are very bright and have export potential. Among these, the clown fishes or anemone fishes have always been the most popular and sought- after group of marine ornamentals due to their beautiful colour, small size, hardiness, longevity, proclivity to live in association with sea anemone, interesting display behaviour and adaptability to life in captivity.

Anemone fishes or Clown fishes

Clownfish were among the first reef fish species bred successfully in captivity and the breeding under captive condition was real successful. However large scale culturing of clownfish has not always been successful technically due to the less larval survival which usually go through one or many larval stages, start out at a very small size, and are extremely sensitive to external factors.

For the breeding of clown fishes under captive condition, few important steps are to be followed. These include selection of suitable broodstock, setting up the tank, broodstock feeding, maintenance of high water quality, provision of suitable environmental parameters, creating suitable condition for spawning and system for raising the larvae and juveniles.

Collection and transportation of brood stock

For the captive mass production of clown fishes, the basic requirement is to have a sufficient number of brood stocks or breeding pairs which can either be collected form the coral reef habitat or can be purchased from the pet shop depending upon the availability. Invariably the female was somewhat larger than the male. In nature, the clown fishes are showed monogamous pair formation, and these pairs are need to be collected for broodstock development and breeding programme. In case such mated pairs are not available, the fishes having different size groups can be collected and made to pair under captive condition through pair formation. In order to make breeding pairs form the juveniles groups, many social groups of clown fishes can be collected from the wild and transported to the laboratory in live condition. During transportation, the fishes and sea anemones should be kept in separate plastic transportation bags.

Pair formation

For the pair formation, five fishes of each sex of different size groups need to be stocked together along with single host sea anemone in a 500 L FRP tanks fitted with biological filter to reduce the aggression. The pair formation tanks need to maintain in the hatchery where an incident light intensity of 2500 to 3000 lux was available as the sea anemones require sunlight for its better survival under laboratory condition. The fishes and anemones should be fed two times per day with wet feeds such as meat of shrimp, mussel and clam at the rate of 15% of their body weight and live feeds like *Brachionus plicatilis*, artemia nauplii and adult artemia. Environmental parameters such as temperature 26 to 29° C, salinity 33 to 35 ppt, dissolved oxygen 4.6 to 6.2 ml/L and pH 8.1 to 8.4 are need to be maintained in all the rearing tanks.

Sex change and pairing

Generally all clown fish individuals start out as males and change into females when they reach larger sizes or under situation of loss of mate. The male and female form a monogamous pair bond that lasts until one member of the pair dies. If the female dies first, the largest male rapidly changes sex into a female and the second largest or dominant juvenile becomes an active male and that pairs up with the newly transformed female. By utilizing this adaptation, pairs of clown fishes can be developed under captive condition through creating social systems. After a period of 3 to 4 months rearing in the pair formation, in each tank one pair grew ahead of others and became the spawning pair. As the newly formed pairs will be very aggressive and spending time for fleeing the other subordinates rather than reproductive activity, it is very essential to stock each breeding pairs in separate broodstock tanks.

Tank set up for brood stock

A clownfish brood stock or spawning tank should be 250 to 500 L capacity with single healthy pair and host sea anemone. An ideal tank would be a 3ft x 2 ft x 2 ft with a layer of coral sand on the bottom, a few live rocks, a healthy anemone, bright lighting and good filtration, preferably an efficient protein skimmer to reduce the ammonia and organic materials from the fish. A trickle filter could be used with regular water changes to keep the nitrates low enough for the anemone to do well. Since the gonad development and spawning of clown fishes are influenced by moon phases, the broodstocks/ spawning tanks need to be kept in an apt place where the fish receive a regular day/night lighting cycle (moon phase). An anemone is generally not required to breed clownfish under captive condition. But generally the clown fish select a nest site adjacent to the sea anemone for deposition of eggs. More over an added benefit of having an anemone is that it may release compounds that help to protect the eggs or even chemically induce immunity that clownish have with the anemone. Hence provision of suitable host sea anemone in the broodstock tank will help the fish to feel as comfortable as in the wild and this will however certainly makes the task much easier in the long run.

Brood stock development and maintenance

The pairs formed through pair formation should then be transferred to separate glass aquaria for broodstock development. Depending upon the production capacity and seed

demand, several pairs can be maintained for commercial hatcheries. The broodstocks need to be fed with wet feeds such as meat of green mussel, shrimp, clam and fish egg mass, and can also be provided formulated feeds enriched with vitamins, minerals and algal powder at the rate of 10% of their body weight and supplied at an interval of every 3 hrs during day time. Apart from these, the broodstocks were also fed with enriched rotifer 800 to 1000 nos/ml and artemia nauplii (200-400 nos/ml) and adult artemia (3 to 5 nos/ml) every day. Provision of enriched live feeds which apparently improved egg quality and hatchability than the brooders fed with non enriched live feeds.

Bio encapsulation of rotifer

Three litres of enrichment medium has to be prepared using microalgae (*Chlorella salina*, *C. marina*, *Nannochloropsis oculata* 1x10⁶ cells/ ml) in five litre capacity circular transparent tubs for enrichment. To this, an emulsion prepared with homogenizing 5 gm of cod liver oil, 0.1% vitamin A, 0.2% vitamin D, 0.3% vitamin E and 0.1% vitamin K has to be added. The rotifers harvested from the mass culture tank has to be released to this enrichment medium at the rate of 800 to 1000 nos of rotifer per ml along with 50 mg/L of beakers yeast for 12 to 24 hr. The rotifers thus enriched were harvested, washed and used for feeding the fishes.

Enrichment of artemia

The artemia nauplii (instar II stage) were harvested through 100µ bolting silk cloth after completion of about 16 hours of hatching, and released 200-400 nos/ml to the 5 L plastic circular tub containing 4 L of mixed algal water : *N. oculata*, *P. lutheri*, *C. marina* and *C. salina* (10⁵ cells/ml), *I. galbana*, *D. inornata*, *C. pleoides* (10⁴ cells/ ml) for bioencapsulation and maintained optimum environmental parameters. To this, 8 gm of cod liver oil with fat soluble vitamin : 0.2% vitamin A, 0.1% vitamin D, 0.6% vitamin E and 0.3% vitamin K were added. The artemia were harvested and fed to the fish at 12 to 24 hours of enrichment.

Feeding with enriched live feeds

After enrichment, the rotifers and artemia were harvested, washed and released to 4 L of bio-filtered seawater containing mixed culture of micro algae : *N. oculata*, *P. lutheri*, *I. galbana*, *D. inornata*, *C. pleoides* and *C. marina* (10⁴ to 10⁶ million cells/ml) in 5 L capacity transparent tub with mild aeration. The enriched rotifer and artemia were given in split dose (10-11a.m. and 3.0 to 4.0 p.m. daily).

Water quality maintenance

The maintenance of high water quality is possibly the critical factor for the breeding of clown fishes or any marine fishes under controlled condition. As a measure for this, the sea water need to be filtered through a series of sand filters before being taken to the rearing tanks. The temperature in all the breeding tanks need to maintained between 26 to 30°C, and level of dissolved oxygen (4.8 to 6.3 ml/L), pH (8.0 to 8.4), salinity (32 to 35 ppt) and the water needs to be recirculated to ensure water movement and provided good water quality with the aid of a specially devised filter system during the period of rearing. Once in a week 25% of the water should be exchanged to avoid stress like a rapid increase in plasma cortisol concentration, depression of gonadal steroidogenesis, and subsequent development of gonadal atresia.

Substrate for egg deposition

The clownfish have attached eggs and are known to spawn on rough surfaced substrata near to the host sea anemone. Hence it is very essential to provided suitable substratum preferably tiles or earthen pots or shells of edible oyster or PVC pipes for the egg deposition which will also be helpful for the transfer of deposited egg without any mechanical injury to hatching tank.

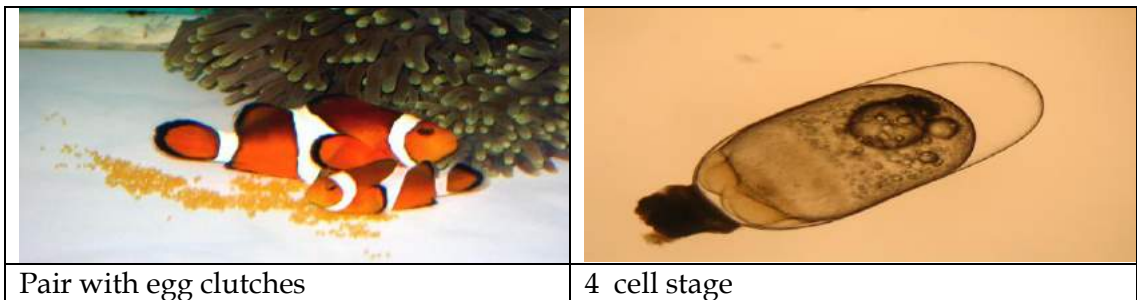
Breeding

After broodstock rearing, each pair will start breeding within a period of 4 to 6 months rearing under captive condition if the brood stocks are provided nutritious food and provided suitable rearing conditions. Few days prior to spawning, the male selected a suitable site near to sea anemone for laying the egg and cleared algae and debris with its mouth and on the day of spawning both the parents spent considerable time for the cleaning of site which indicated that spawning may occur within few hours. Under laboratory condition, the spawning can be obtained between 0500 hrs to 1530 hrs during day time and the spawning lasted for one hr to one and a half hour. Each female lays 300 to 1000 capsule shaped eggs at every 12 to 15 days interval depending on the species of clown fish, size of fish and previous experience. Generally the egg size of clown fishes ranges between 1.5 mm to 3.0 mm in length with a width of 0.8 to 1.84 mm and adhered to the provided substratum with stalk. An average of two spawning per lunar month per pair resulting in an estimated annual fecundity of 7200 to 24000 eggs/ breeding pair/ year can be obtained under laboratory condition.

Parental care and egg morphology

As parental care is inevitable for hatching out of the larvae, the parents should be allowed to remain in the parental tank itself till hatching. During incubation period, both the parents carefully look after the eggs during day time and it involved two basic activities *viz.* fanning by fluttering the pectoral fins and mouthing to remove the dead or weakened eggs and dust particles. The newly spawned eggs were white to bright orange in colour for initial two days and as the embryo develop; these were turned to black on 3rd to 6th day and later turned to silvery the colour of the larvae’s large eyes on 7th to 8th day of incubation. At this stage the glowing eyes of the developing larvae inside the egg capsule was clearly visible when viewed from a short distance. Male assumed nearly all responsibility of caring for the eggs and spent a higher percentage of time at the nest than the females, which increased gradually up to 70% of time as the day of hatching approached. When incubated at a water temperature range of 27 to 29° C, the hatchling emerged on 8th day of incubation and peak hatching took place shortly after sunset.

Captive breeding of *A. ocellaris*





Egg hatching and larval rearing

On the expected day of hatching, two hours before sunset, the eggs along with substratum were transferred from the parental tank to hatching tanks (100 L) and provided with complete darkness for accelerating the hatching. The larvae broke the egg capsule and the hatchling emerged tail first and the hatching occurred soon after sunset and the peak hatching took place between 1900 to 2030 hrs under darkness. The newly hatched larvae measured 3 to 4mm in length and each had a transparent body, large eyes, visible mouth, and a small yolk sac and remained at the bottom of the tank for a few seconds and soon after became free swimming. The larval period of clown fishes generally last for maximum of 20 days and then after most of the fry resembled juvenile adult fish and began to shift from partially pelagic to epibenthic and started eating minced shrimp, fish flesh, mussel meat, clam meat and formulated diets.

Larval feeding

The successful feeding strike is low at first feeding but rises rapidly during early development in clown fishes. At this stage provision of suitable size and nutritionally adequate enriched feed in high density is one of the important factor for their survival as the larvae will be able to accept small size organism due to the small mouth gape, and if they do not encounter and successfully capture food before depleting their energy reserves, the larvae may starve and it will eventually lead to mortality. More over many of the larvae had only little quantity of yolk material and it starts feeding within few hours after hatching. As the mouth gape of clown fish larvae is between 80- 123 μ , the larvae need to be fed with live feeds measuring less than 100 μ for its active feeding. All the rearing tanks need to be provided 24 hrs light up to 15 days of post hatch (DPH). During this time the larval tank must be kept very clean with the bottom siphoned off dead larvae, detritus and faeces twice a day. This is important because any decaying matter on the bottom will encourage potentially harmful bacterial growth and will lower the oxygen levels and deteriorate the water quality. Water changes will also need to be performed at a rate of at least 25% per day. Feeding schedule of larvae of clown fishes can be performed in two stages: Stage 1: covered the rotifer with algae feeding phase from Day 1st to 8th day. Stage 2: the newly hatched artemia and rotifer with algae feeding phase from 9th to 20th days. For the successful prey capture of larvae, 50-100 numbers ml⁻¹ supper small rotifer (*B. plicatilis*) having size 60 to 100 μ need to be provided after enrichment with vitamins and fatty acids. As the larvae attains successful prey capture within two days, the density of rotifer in the larval rearing tank need to be reduced to 30-50 nos. ml⁻¹ from 3rd to 8th day. From 9th day onwards the larvae were weaned onto newly hatched *Artemia* nauplii (5 - 10 nos/ml) along with rotifer (SS and S type) (20-30 nos/ml) whereas algal concentration should be same as the prey capture step till 20th day of post hatch. The clownfish have a larval period between 10 and 20 days. After 20 days of rearing the larvae develop the adult striped colouration and metamorphose to juveniles and shift from partially pelagic to epibenthic and look like miniature adults. From metamorphosis

onwards, the clownfish actively swim on the bottom of the tank and settle in the host sea anemone. Up to 20 days, the rearing can be carried out in the same tank and on completion of metamorphosis, the juveniles should be graded into several groups and stocked in separate tanks in which biological filtrations system need to be provided.

Copepod as a live feed

Survival can be significantly made higher when larvae were fed copepods. The higher omega-3 fatty acids found in copepods appear to be important for survival of larvae under more stressful conditions (Anon. 1984). But mass production of copepod is often collapsed due to several factors. Hence dependence on copepod for larval rearing is unreliable until and unless a copepod mass production technique is standardized.

Rearing conditions

The maintenance of high water quality is possibly the critical factor when larval rearing of clown fishes or any marine fishes is done under controlled condition. As a measure for this, the sea water needs to be filtered through a series of sand filter tanks before being taken to the larval rearing tank. However during larval rearing it was found that the period from 3rd to 8th day of post hatching (dph) was very critical may be due to the alteration or change in feeding (exogenous) whereas once the larvae completed 8 days after hatching, no further mortality was observed. During the larval rearing period, in all tanks, the environmental parameters were maintained to their optimum level with pH ranging from 8.0 to 8.4 water temperature 26 - 30° C, dissolved oxygen 5.5 - 7.8 (mg/L), salinity 33-35ppt, NH₄⁺ /NH₃ and NO₂ values at 0 mg per L and NO₃ levels below 0.2 mg /L. Daily the tanks were cleaned with cotton and magnetic tank cleaner to remove the dust and slimy coating forming inside the tank and one fourth water is replaced with same amount of filtered sea water along with enriched rotifer and artemia and micro algae.

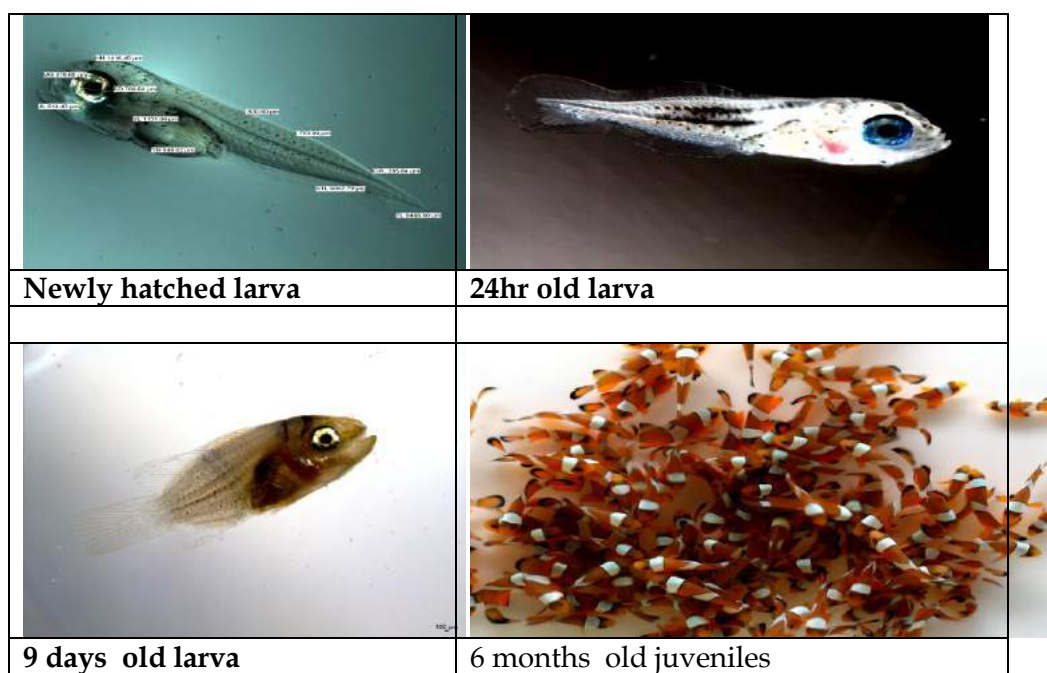
Light intensity

Head-butting syndrome was another the critical problem encountered during the larval rearing due to the immature development of the retina and subsequent hitting of larval head to the sides of the tank. In order to reduce this, two major measures have been taken that i) all the 4 sides of the tanks were covered with black cloth or painted black to avoid reflection of the light. ii). a low intensity light needs to be provided by hanging 2 nos. of 60 watt bulb or night lamp at a height of 15-20 cm from the surface of water level in rearing tank for 24 hours from 0 day to 20th day which enabled the larvae to detect and capture its feed and it also helped them to swim towards the surface at night rather than sinking to the bottom which otherwise show high over night mortality. The type of lighting is not critical and can be from any source of light, i.e. fluorescent or metal halide etc. The reason for having a light is that the larvae are visual predators and require light to hunt for their live food prey. In addition to these, all the larval tanks need to be covered with net cloth during the night time to prevent the entry of insects.

Precautions for larval feeding

In general, the mortality of larvae were reported due to over eating, intestinal blockage, ingestion of air bubbles or bacterial problems. Though Artemia is in regular use for larval rearing of marine fishes, there is one serious concern with introducing un hatched cysts along with the Artemia nauplii to the larval rearing tank and these cysts are often eaten by the larvae and will cause intestinal blockage. Hence care must be taken to separate all the empty cysts from the newly hatched artemia before being added to the larval tanks. It is also equally important to add newly cultured or hatched live food every day

because the nutritional value of the live food that remains in the tank will decrease very quickly. The nutritional quality of rotifer also depends upon the quality of feed offered. Hence every day, after water exchange from the larval rearing tanks, new rotifers and or Artemia must be added. The healthy larvae will appear to have a well rounded body and should be swimming in a close horizontal position. Unhealthy larvae will tend to either buzz around on the surface at a 45 degree angle. For the first two days there will be some losses of larvae, if the larvae have been transferred using the siphon method. From day three to eight the larvae will grow very fast. The densities of live food can be reduced as the larvae have become proficient at food capture.



Juvenile rearing

On 19-20 dph, the larvae became juvenile and shift from pelagic to epibenthic stages, and look like a miniature of adult fishes. The rate at which the young fish grow depends on the size of the rearing tank, stocking density, quality and quantity of food given and the water temperature. As the clownfish exhibit social hierarchy, dominant clownfish will grow faster and will suppress the growth of the fish below. This can largely overcome however by growing the fish up all together in a large tank with sufficient host anemones or culling the juveniles to several groups in different juvenile rearing tanks of size 250 to 1000 L capacity fitted with biological filters. At this stage, the stocking density need to be reduced to 90 -100 numbers of juveniles (size range between 8-10 mm) with single host sea anemone in glass or perspex tank at 100 L capacity for initial 1 to 2 months rearing. During juvenile stages, the fishes show different banding pattern and growth rate, and on attaining a size of 24 to 35 mm in total length (TL), the stocking density need to be reduced to 30 to 50 number with single sea anemone in 100 L tank with 80 L bio filtered sea water until marketing. In the case of each 500 L FRP tanks, 130 to150 juveniles can be reared with 1 to 3 sea anemones.

Juvenile feeding

In the juvenile rearing, a survivability 100% were obtained through feeding with different wet feeds: mussel meat, prawn muscle, fish eggs and minced flesh of trash fish at the rate 15 to 20 % of body weight. Apart from these, artemia nauplii 10-15 numbers/ ml and rotifer (*B.*

plicatilis) 50 - 55 nos./ml were given after enrichment with brown algae (10^4 cells/ml) and green algae (10^6 cells/ml) with cod liver and fat soluble Vitamin A, D, E, K, twice a day which helped to retain the colour of fishes and provided adult artemia (2 - 4 nos/ml). Through these feeding schedules, the larvae will attain 10 to 12 mm within 30 days of post hatch and the juveniles reaches 25 mm to 35 mm within 60 days and reaches marketable size within 6 months after post hatch. Once in a week, one third water need to be decanted and refilled with same quantity of filtered sea water in all juvenile rearing tanks. With these feed management procedures, 90-95% of larval survivability can be obtained under captive condition under each spawning.

Quarantine

Newly acquired fish or shrimp may carry disease and may infect valuable, healthy, brood stock. They are therefore kept separately, in a tank or system, for three to four weeks where they are closely observed and treated with medications for possible disease outbreaks.

Packing and Transportation

Fishes are starved for about 2-3 days before being exported. A small amount of fresh water is added to the packing water and chemicals may be added to tranquilize for longer journeys. Packing starts just prior to the transportation. Fishes are packed with oxygen and a little water either singly in double polythene bags to ensure that fish are not stranded without water. Polythene bags are packed in cardboard boxes for short journeys and for long journeys they are packed in Styrofoam boxes with some ice to keep the temperature down. Layers of paper may be inserted between plastic bags in the box to avoid catching sight of aggressive species. Packaging methods have improved considerably over the years mainly due to feed back from the customers and many exporters now guarantee almost 100% survivals for most destinations provided that good connecting flights are available. Regulating the standards of the holding facilities and of standards of packing is important to ensure minimum mortality of fish at holding facilities and in transport.

Conclusion

Considering the commercial importance of anemone fishes, it is very essential to develop the breeding techniques for mass scale production under captive condition. In order to produce its seeds, healthy brood stocks need to be reared for pair formation and breeding. As the clown fishes are protandrous and breed two times per month, provision of suitable feed and maintenance of environmental parameters are the important management practices for obtaining consistent breeding under captivity.

Value Added Fishery Products: Possibilities for Small Scale Entrepreneurs

Binsy P.K.

Scientist, CIFT

Email: binsipk@yahoo.com

Value addition is the most talked about word in food processing industry, particularly in export oriented fish processing industry because of the increased realization of valuable foreign exchange. Value can be added to fish and fishery products according to the requirements of different markets. These products range from live fish and shellfish to ready to serve convenience products. There is great demand for seafood/seafood based products in ready to eat “convenience” form marketing of value added products is completely different from the traditional seafood trade. Market surveys, packaging and advertising are a few of the very important areas, which ultimately determine the successful movement of a new product. Most of the market channels currently used is not suitable to trade value added products. Appearance, packaging and display are all important factors leading to successful marketing of any new value added product. The retail pack must be clean, crisp and clear and make the contents appear attractive to the consumer. The consumer must be given confidence to experiment with a new product launched in the market. Packaging requirements change with product form, target group, market area, species used and so on. The latest packaging must also keep abreast with the latest technology.

Chilled fish

Chilling is an effective way of reducing spoilage by cooling the fish as quickly as possible without freezing. Immediate chilling of fish ensures high quality products. Chilled fish is another important value added item of international trade. Chilled fish fetches more price than frozen fish. It is generally accepted that some tropical fish species can keep for longer periods in comparison to fish from temperate or colder waters. Up to 35% yield of high value products can be expected from fish processed within 5 days of storage in ice, after which a progressive decrease in the utility was observed with increase in storage days. Modern packaging techniques viz., vacuum packaging, modified atmospheric packaging and active packaging significantly enhances the shelf life of chilled fish products.

Frozen fish fillets

Freezing and storage of whole fish, gutted fish, fillets etc. are methods for long-term preservation of these species. Many varieties of fresh water fishes like rainbow trout, shell fishes, catla, rohu, tilapia fillets can be frozen for domestic market and export to developed countries in block frozen and IQF forms. Fish fillets can also be used for the production of ready to serve value added products such as fish in sauce and fish salads.

Specialty products

Stretched shrimp (Nobashi)

Increasing the length of peeled and deveined shrimp and minimizing its curling by making parallel cuttings at the bottom and applying pressure using simple mechanical devices is a new technique adopted by the seafood processing industry in recent years. Increasing the length by about 1-2 cms depending on the size of the shrimp is possible by this method. The

stretched shrimp will have better appearance compared to conventional PD shrimp and it also fetches higher unit price. The stretched shrimp because of its increased surface area will have more pickup of coating during battering and breading and also good appearance. Shrimp is washed in chilled water containing 5-ppm chlorine, beheaded, deveined, using bamboo stick and peeled keeping the last segment and tail intact. The tail is then trimmed and the shrimp is stretched using a metallic stretcher after making 2-3 parallel cuttings at the bottom side. Stretched shrimps are then packed in thermoformed trays under vacuum and frozen at -40°C.

Barbecue

Shrimp is washed in chilled water containing 5-ppm chlorine, beheaded, deveined, peeled and again washed in chilled water. Bamboo stick is then pierced into the meat from head portion to tail. It is then packed in thermoformed trays under vacuum and frozen at -40°C.

Sushi (Cooked butterfly shrimp)

Shrimp is washed in chilled water containing 5ppm chlorine, beheaded, deveined and again washed in chilled water. Bamboo stick is then pierced between the shell and the meat from head portion to tail and then cooked in 1% brine for two minutes at 100°C. The cooked shrimp is then cooled in chilled water, bamboo stick removed and then peeled completely, including the tail fans. The ventral side is then gently cut down lengthwise completely using a sharp scalpel. The cut surface is then gently opened up to form the butterfly shape, packed in thermoformed trays under vacuum and frozen at -40°C.

Skewered shrimp

The process is similar to that of barbecue, but piercing is carried out in such a way that 4-5 shrimps are arranged in a skewer in an inverted “U” shape. It is then packed in thermoformed trays under vacuum and frozen at -40°C.

Shrimp head-on (centre peeled)

Shrimp is washed in chilled water containing 5 ppm chlorine, peeled at the centre keeping the head and the last two segments intact, deveined, and the tail is trimmed. It is again washed in chilled water packed in thermoformed trays under vacuum and frozen at -40°C.

Shrimp head-on cooked (centre peeled)

Shrimp is washed in chilled water containing 5 ppm chlorine, deveined and then cooked in 1% brine for two minutes at 100°C. It is immediately cooled in chilled water and peeled keeping the head and the last two segments intact. The tail is trimmed and again washed in chilled water. It is then packed in thermoformed trays under vacuum and frozen at -40°C.

Battered and breaded products

The most prominent among the group of value added products is the battered and breaded products processed out of a variety of fish and shellfish. Battered and breaded items are included in the value added products because the process of coating with batter and bread crumbs increases the bulk of the product thereby reducing the cost element. The pick-up of coating on any product can be increased either by adjusting the viscosity of batter or by

repeating the process of battering and breading. As a convention 50% fish portion is expected in any coated product.

Coated products viz., fish fingers, squid rings, cuttlefish balls, fish balls and prawn burgers form one of the major fish and shellfish based items of trade by the ASEAN countries.

The production of battered and breaded fish products involves several stages. The method varies with the type of products and pickup desired. In most cases it involves seven steps. They are portioning/forming, pre-dusting, battering, breading, pre-frying, freezing and, packaging and cold storage.

The first commercially successful coated product is 'fish finger; or 'fish stick'. Later several other products particularly the coated fish fillet, fish portions, fish cakes, fish medallions, fish nuggets, breaded oysters and scallops, crab balls, fish balls, coated shrimp products, coated squid rings etc. became prominent in most of the developed countries with the advent of the fast food trade. The present day production of coated seafood items involve fully automated batter and breading lines which start from portioning and end with appropriate packaging of the product. A variety of battered and breaded products can be prepared from shrimp, squid, clams, fish fillets, minced meat from low cost fish etc. A brief profile of some important battered and breaded products is given below.

Fish finger or Fish portion

Fish fingers, or portions or sticks are regular sized portions cut from rectangular frozen blocks of fish flesh. They are normally coated with batter, and then crumbed before being flash fried and frozen. They may be packed in retail or catering - size packs. The typical British fish finger normally weighs about 1 oz. (28 g) of which up to about 50% of the total weight may be batter and crumbs. Food Advisory Committee of the UK government has recommended a minimum fish content of 55% for battered and 60% for the fingers coated with breadcrumbs.

Shrimp products

Battered and breaded shrimp can be prepared from wild as well as from farmed shrimp in different styles and forms. The most important among them are butterfly, round tail-on, peeled and deveined (PD), nobashi (stretched shrimp) etc. The products from farmed shrimp have indicated longer shelf life, 16-18 months compared to those from wild variety 12-14 months at -20 °C

Fish fillets

The brined fillets are battered and breaded. Fillets from freshwater fish are also used for the production of coated products. The only problem noticed in this case is the presence of fin bones; its complete removal is still a major hurdle.

Squid products

Squid rings and stuffed squid are the popular coated products processed out of squid. Cleaned squid tubes are cut in the form of rings of uniform size, cooked in boiling brine (3%) for 1-2 minutes followed by cooling, breading and battering. The coated rings are flash-fried, cooled, frozen and packed. Stuffed squid is generally processed out of small size animals. The cleaned tubes are filled with a stuffing mixture prepared using cooked squid tentacles, potato, fried onion, spices etc. It is then battered, breaded and flash-fried.

Clam and other related products

Meat shucked out from depurated live clams after boiling is blanched in boiling brine, cooled, battered, breaded, flash-fried and packed. Other bivalves such as oyster, mussels etc. can also be converted into coated products by the same method.

Fish cutlet

Cooked fish mince is mixed with cooked potato, fried onion, spices and other optional ingredients. This mass is then formed into the desired shape, each weighing approximately 30g. The formed cutlets are battered and breaded.

Fish balls

Fish balls are generally prepared from mince of low cost fish. Balls can be prepared by different ways. The simplest method is by mixing the fish mince with starch, salt and spices. This mix is then made into balls, cooked in boiling 1 % brine. The cooked balls are then battered and breaded.

Crab claw balls

Swimming legs of crab may be used for this purpose. Crab claws are severed from the body, washed in chilled portable water and the shell removed using a cracker. The leg meat is then removed and mixed with 2 % starch based binder. This is then stuffed on the exposed end of the claw. Alternatively the body meat mixed with the binder also can be used for stuffing. The stuffed claw is then frozen, battered and breaded and flash fried. The coated products are packed in thermoformed containers with built in cavities.

Ready to serve fish products in retortable pouch

Ready to serve fish products viz. curry products, in retortable pouches are a recent innovation in ready to serve fish products for local market. The most common retortable pouch consists of a 3 ply laminated material. Generally it is polyester/aluminium/cast polypropylene. These products have a shelf life of more than one year at room temperature. As there is increasing demand in National and International market for ready to serve products the retort pouch technology will have a good future. The technology for retort pouch processing of several varieties of ready to serve fish and fish products has been standardized at CIFT and this technology has been transferred successfully to entrepreneurs.

Extruded products

Fish based extruded products have got very good marketing potential. Formulation of appropriate types of products using fish mince, starches etc., attractive packaging for the products and market studies are needed for the popularization of such products. However, technological studies involving use of indigenously available starches like cassava starch, potato starch, cornstarch and the associated problems need thorough investigation. Such products can command very high market potential particularly among the urban elites. The technology can be employed for profitable utilization of bycatch and low value fish besides providing ample generation of employment opportunities.

Curing

The traditional methods of processing fish by salting, drying, smoking and pickling are collectively known as curing. Cured fish consumption is more in areas where the availability of fresh fish is comparatively limited, namely interior markets and hilly areas. This is also the cheapest method of preservation, since no expensive technology is used. In India roughly 20 % of the fish caught is preserved by curing. Considerable quantities of cured fish are also exported, mainly to Singapore, Sri Lanka and to the Middle East. Simple sun drying was the widely practiced traditional method of fish preservation. By this, preservation was achieved by lowering of water content in the fish, thereby retarding the

activity of bacteria and fungi. The heat was able to destroy the bacteria to a certain extent. Later on, a combination of salting and drying or salting, smoking and then drying were developed.

Methods of Drying

There are basically two methods of drying fish. The common one is by utilizing the atmospheric conditions like temperature, humidity and airflow. This is traditional sun drying. The other is dehydration or artificial drying, by using artificial means like mechanical driers for removal of moisture from the fish under controlled conditions.

Sun drying depends heavily on the natural weather conditions since the fish is dried by heat from the sun and the air current carries the water away. Here there is no control over the operations and many a time the losses cannot be substantiated. Hence it is necessary that the operations be controlled to get a product, which has an extended shelf life, but at the same time the texture, taste and flavour is maintained. It is here that artificial driers where processing parameters are controlled gain a lot of importance. Such processes are carried out in a controlled chamber or area. Such products have advantages over sun-dried products since they have better keeping quality and longer shelf life.

In mechanical driers, removal of water from the fish is achieved by an external input of thermal energy. This is an expensive method since there is need for fuel for heating and maintenance of the temperature. The drying chamber consists of a long tunnel in which the washed and cleaned fish is placed on trays or racks. A blast of hot air is passed over the material to be dried. After the required degree of drying the product is removed from drier and packed.

Salting

This is one of the oldest methods of preservation of fish. Salting is usually done as such or in combination with drying or as a pretreatment to smoking. During salting osmotic transfer of water out of the fish and salt into the fish takes place, which effect fish preservation. It is based on different factors like diffusion and biochemical changes in various constituents of the fish. Salting amounts to a process of salt penetration into the fish flesh. Penetration ends when the salt concentration of the fish equals that of the surrounding medium. Loss of water during salting limits bacterial growth and enzyme activity, thus preserving the fish. The high salt content prevents the growth of normal spoilage microflora in the fish; but halophiles, which can survive 12-15% of salt, will survive.

Preparation of some popular products

Pickled products

Fish pickle makes use of the non-fatty variety of low cost fish having good meat content. Major ingredients are: fish, garlic, green chilly, ginger, chilly powder, turmeric powder, gingerly oil/ ground nut, salt, vinegar and sugar. The method of preparation of pickle is simple, the preservative being oil, salt and vinegar. The traditional packing is in glass bottles. Modern packing materials suitable for packing fish pickles have also been identified. Pouches and stand packs made of 12 micron polyester laminated with 118 micron LD/HD co-extruded film can be used for packing pickles.

Ingredients	
Fish (dressed and cut into small pieces)	1 kg
Mustard (shell removed)-Optional	10 g

Green chilly	50 g
Garlic	200 g
Ginger	150 g
Chilli powder	50 g
Turmeric powder	2 g
Gingelly oil/ ground nut	200 g
Vinegar	400 ml
Salt	60 g
Sugar (optional)	10 g
Cardamom, clove & cinnamon (optional)	1.5 g

Process

Mix the dressed fish with salt at the rate of 3% by weight of fish and dry in the sun /dryer for 2 to 3 hours and then deep fry the fish in oil and keep apart. Then fry mustard, green chilli, ginger and garlic in oil. When frying is adequate add turmeric powder, followed by chilli powder under a low flame and immediately remove from the flame and mixed with fried fish and allowed to cool. Vinegar and salt were added and mixed thoroughly and adjust to a slightly salty taste. Finally sugar was added and mixed thoroughly. Stored the pickle in a clean container for at least 2 overnights for maturing and fill in glass bottles or acid resistant packets (12 μ polyester with 250 gauge LDHD polythene co-extruded film pouches)

Fish Soup Powder

Fish soup powder can be formulated from any type of fish having very low fat content. Soup powder prepared from different food materials like vegetables, meat, egg are in use in different parts of the world. These are dry products rich in dietary constituents like protein and minerals. The soup powder prepared out of miscellaneous fish is also a rich source of animal protein and other nutritional factors.

Ingredients used for the preparation of fish soup powder

Ingredients	Qty
Cooked fish meat	750 g
Salt	170 g
Fat	120 g
Onion	750 g
Coriander	12 g
Tapioca starch	250 g
Milk powder	100 g
Sugar/glucose	30 g
Pepper powder	15 g
Ascorbic acid	1.5 g
Carboxy methyl cellulose	3 g
Monosodium glutamate	5 g

Method of preparation

Minced fish can be conveniently used for the preparation of soup powder. If whole fish is using it has to be cooked first and the meat is separated from the bones and skin. Cooked pressed meat is the basic raw material for the preparation. Fry the onion till it becomes light brown. Grind the cooked fish, fried onion and other ingredients in a wet food grinder till it

becomes a fine paste. Spread the paste in aluminum trays lined with polyethylene sheet and dried in an electrical drier at 50°C to reduce the moisture content to 8%. Dried material is then pulverized in a mechanical pulveriser. Milk powder is added and packed in airtight containers or laminated polyethylene bags. It has a shelf life of about 8 months at ambient temperature.

Preparation of soup

One-teaspoon full (5 g) of powder is made into a paste with 10 ml cold water. This is added to 90 ml boiling water. Continue boiling for 2 minutes. The soup is ready for use.

Fish flakes or wafers

Fish wafers are partially deodorized thin flakes of cooked fish meat homogenized with starch and salt. On frying the wafers swell to two to three times of its initial size and become crisp and delicious. It is an ideal snack. Fish mince and starch are the base material for the preparation of wafers

Ingredients used for the preparation of fish flakes

Ingredients	Qty
Cooked fish meat	2 kg
Refined tapioca starch	2 kg
Corn starch	1 kg
Common salt	5%
Water	3.5 l

Process

The cooked fish meat is homogenized in a wet food grinder. Starch, salt and water are added and continued grinding till they become a fine paste. Small portions of the homogenized mass is poured on to flat aluminum trays and spread to a film of 1 to 2 mm thickness. The material is cooked in a steam chamber for 2 to 3 minutes to gelatinise the starch. After this the film become firm and it can be cut into desired shapes. The gelatinized flakes are dried in an electrical drier at 45-50°C or it can be sun dried. Fry in edible oil and serve hot

Fish paste

Fish paste is a high value convenience food popular in South East Asia prepared by mixing fish and salt and allowing it to ferment. This results in the formation of either a paste or a liquid, which is separated from the residue and is used as a flavoring agent. Fish paste can also be prepared without fermentation. Frozen fish paste is not relished because during storage, texture and spread ability are adversely affected.

Fish paste is prepared by finely grinding textures cooked fish meat, gelatinized, starch, sugar, milk powder, colouring matter and flavour (Table 5). It was packed in flexible pouches made of co-extruded polypropylene, heat processed in air steam pressure in an autoclave and stored at ambient temperature. The shelf life is 36 weeks. It become unacceptable due to changes in texture and spread ability. The proximate composition of fish paste is given in Table 6.

Recipe of fish paste

Ingredients	%
Fish mince	78
Fat	8
Starch	8

Sugar	2.25
Milk powder	2.50
Salt	1.25
Poly phosphate	0.50

Microbiological studies showed that the product is bacteriologically safe for human consumption. Studies showed that the fish paste is acceptable as bread spread or similar types of products. The large quantity of low value fish with low fat and white flesh available in India can be used for making good quality fish paste.

Fish Noodles

This is a product similar to ordinary noodles available in the market, but contains 21% protein. Surimi is used as the base for the production of fish noodles (Table 7). Cooked surimi is kneaded with salt and maida. The mix is passed through the extruder. Gelatinised noodles are dried under sun or in an electrical drier at 50°C to a moisture level of 8%. The dried noodle is packed in airtight containers or polythene bags. The product has very good rehydration property.

Ingredients used for the preparation of fish noodles

Ingredients	Qty
Cooked fish mince	800 g
Maida	1200 g
Salt	60 g
Water	1-2%

Just like the noodles available in the market only two minutes cooking is required for the preparation of fish noodles.

Fish Processing Machinery

Traditionally, fish processing and value addition has been a labour intensive activity. However, the implementation of HACCP concept in fish processing sector has led to the mechanization and automation of operations reducing the manual labour in operations. Moreover labour shortage in this sector has made the mechanization “a necessity” rather than an option. Many of the fish processing equipment are manufactured in China and European Union. Indigenous fish processing equipment are seldom available. The Central Institute of Fisheries Technology (ICAR), Cochin has recently designed and developed a commercial scale meat bone separator which was found to be efficient for the separation of mince from Indian Major Carps. A variety of fish dryers have been developed in the recent past for hygienic drying of fish. CIFT has developed different models of low cost dryers, solar dryers with backup systems suitable for inland regions for the production of quality dry fish. One notable achievement is the development of an eco-friendly hybrid solar dryer which combine solar energy and LPG. It has the cost advantages of solar dryer with the reliability of LPG backup system during unfavorable weather conditions. CIFT has designed and developed a fish decaling machine for removing the scales of fishes in batches. The operation of the machine can be extended for removal of scales from all types of marine as well as fresh water fishes. There needs to be more inputs in design and development of low cost machineries for economically efficient fish processing operations in the Country.

Cage Aquaculture- Fish for Future

Boby Ignatius

Principal Scientist, MBTD, CMFRI

Email: bobycmfri@gmailcom

Today cage culture is receiving more attention by both researchers and commercial producers. Factors such as increasing consumption of fish, some declining wild fish stocks, and a poor farm economy have produced a strong interest in fish production in cages. Many small or limited resource farmers are looking for alternatives to traditional agricultural crops. Aquaculture appears to be a rapidly expanding industry and one that may offer opportunities even on a small scale. Cage culture also offers the farmer a chance to utilize existing water resources which in most cases have only limited use for other purposes.

Key concepts

Right choice of site contributes significantly in the success of cage farm. Site selection is vitally important since it can greatly influence economic viability by determining capital outlay, by affecting running costs, rates of productions and mortality factors.

- Site selection is a key factor in any aquaculture operation, affecting both success and sustainability.
- Circular cages of different diameter ranging from 2 m to 15 m, designed for the culture of fishes such as mullet, cobia, pompano, sea bass, pearl spot, and crustacean like lobsters were experimented and demonstrated successfully in India by CMFRI.
- Stocking of right sized fish juveniles in adequate stocking density another factor determines the success of farming. The stocking density and size of stocked fishes varies with different species.
- Proper feeding the quality feeds, periodic monitoring and cleaning of cages contributes immensely to the success of cage farming.
- With proper management of cage erected at an ideal location can yield a production of 20-40kg/m³ with various species of fishes.

Cage aquaculture involves growing fishes in existing water resources while being enclosed in a net cage which allows free flow of water. It is an aquaculture production system made of a floating frame, net materials and mooring system (with rope, buoy, anchor *etc.*) with a round or square shape floating net to hold and culture large number of fishes and can be installed in reservoir, river, lake or sea. Economically speaking, cage culture is a low impact farming practice with high returns and least carbon emission activity. Farming fish in an existing water body removes one of the biggest constraints of fish farming on land- the need for a constant flow of clean, oxygenated water. Cage farms are positioned to utilize natural currents, which provide the fish with oxygen and other appropriate natural conditions while also removing waste.

In view of the high production attainable in cage culture system, it can play a significant role in increasing the overall fish production in India. Suitable locations in Indian's long coastline, vast brackish water areas available in coastal states and other underutilized water bodies can be better utilized by adopting cage culture. Since the investment is low and requires very little/no land area, this farming method is ideal for small scale fisher folks as an alternative income source. This can take up as a household/women activity since labour

involved is minimal and can be managed by a small family. The design of the cage and its accessories can be tailor-made in accordance to the individual farmer's requirements.

As with any production scheme cage culture of fish has advantages and disadvantages that should be considered carefully before cage production becomes the chosen method.

A potential fish farmer can produce fish in an existing pond without destroying its sport fishing; does not have to invest large amounts of capital for construction or equipment; and can, therefore, try fish culture without unreasonable risks.

Advantages Cage culture does have some distinct advantages which include:

- Many types of water resources can be used, including lakes, reservoirs, ponds, strip pits, streams and rivers which could otherwise not be harvested. (Specific state laws may restrict the use of "public waters" for fish production; check with your state fish and wildlife agency.)
- A relatively low initial investment is all that is required in an existing body of water.
- Harvesting is simplified.
- Observation and sampling of fish is simplified.
- Allows the use of the pond for sport fishing or the culture of other species.

Cage culture also has some distinct disadvantages.

These include:

- Feed must be nutritionally complete and kept fresh.
- Low Dissolved Oxygen Syndrome (LODOS) is an ever present problem and may require mechanical aeration.
- Fouling of net cage
- The incidence of disease can be high and diseases may spread rapidly.
- Vandalism or poaching is a potential problem.

Farming of fishes in cages

Site Selection

Different criteria must be addressed before site selection for cage culture The first is primarily concerned with the physicochemical conditions like temperature, salinity, oxygen, currents, pollution, algal blooms, water exchange *etc.* that determine whether a species can thrive in an environment. Other criteria that must be considered for site selection are weather conditions, shelter, depth, substrate *etc.* Finally legal aspects, access, proximity to hatcheries or fishing harbor, security, economic, social and market considerations *etc.* are to be taken care.

Cage Size

It is a fact that costs per unit volume decrease with increasing cage size, within the limits of the materials and construction methods used. CMFRI has developed open sea cages of 6 m dia and 15 m dia for grow out fish culture and 2 m dia HDPE cages for seed rearing. Ideal size for grow out cage is 6 m due to its easy maneuvering and reduced labour. For fingerling 2 m cages can be used.

Cage frames and nets

Different cage materials can be used for cage farms. Materials commonly used are High Density Poly Ethylene (HDPE), Galvanised iron (GI) pipes, PVC pipes *etc.* HDPE frames are expensive, but long lasting. Cost effective epoxy coated Galvanized Iron (GI) frames are recommended for Small groups and fishermen. GI frames have less life span compared to HDPE frames.

Nets of varying dimensions and materials were tested for cage culture in India. CMFRI has used braided and twisted HDPE nets for grow out purpose. It can last for two or more seasons. Nylon net can be used economically, but since it is light weight, to hold the shape intact more weight has to be loaded in the ballast pipe. Cost factor has to be taken care while using new netting materials like sapphire or dyneema materials for net cage. The depth of net ranging from 2 to 5 m is ideal. For open sea cage culture, predator net to prevent attack by predatory organisms is essential.

Potential species and criteria for selection of species for cage culture

The selection of species for cage culture should be based on a number of biological criteria like omnivore or carnivore, hardiness, fast growing, efficient food conversion ability, availability of eggs and juveniles, and disease resistance. Economic marketability and demand are also taken into consideration.

Stocking

Although stocking densities should be determined by species requirements and operational considerations, the influence of stocking densities on growth and production has been determined empirically. The stocking density depends also on the carrying capacity of the cages and the feeding habits of the cultured species. Optimal stocking density varies with species and size of fish.

Feeds and feed management

Fresh or frozen trash fish, moist pellet (MP) and floating dry pellets are the common feed for growing fish in cages. Feeding in cages is quite easy compared to that in ponds. The ration can be divided into equal portions and supplied at regular intervals. Feeding can be done either by broadcasting or using feeding trays. Feeds must be complete and provide all the necessary proteins, carbohydrates, fats, vitamins and minerals needed for growth and health. Feeds cannot be allowed to deteriorate during storage.

Harvest

Harvest of fish in cages is less labour intensive compared to that in ponds. Cages can be towed to a convenient place and harvest can be carried out. Also based on demand, partial or full harvest can be done. Marketing of fishes in live conditions as a value addition can also be done.

Cage management

Cage culture management must result in optimizing production at minimum cost. The management should be so efficient that the cultured fish should grow at the expected rate with respect to feeding rate and stocking density, minimize losses due to disease and predators, monitor environmental parameters and maintain efficiency of the technical facilities. Physical maintenance of cage structures is also of vital importance. The raft and net-cages must be routinely inspected. Necessary repairs and adjustments to anchor ropes and net-cages should be carried out without any delay. Monthly exchange of net should also be considered, as this ensures a good water exchange in the net, thereby washing away feces, uneaten food and to a certain extent reduce the impact of fouling.

Fouling of cage net

Fouling of cage nets and other structures has been observed at many instances of cage farming. Nets get covered with biofoulers. Fouling by molluscs, especially edible oyster sandbarnacles have to be checked before its growth advancement. Algal mats and other

periphytons can be removed by introduction of omnivorous grazers in cages. A fouled net will be heavier, thereby increasing drag, and this result in loss of nets and fish.

To avoid/ reduce fouling, net should be changed as and when required, which may vary from 2 to 4 weeks depending on the intensity of fouling. During oyster fouling, net exchange has to be done immediately after the seasonal spat fall. Herbivorous fish such as rabbit fish (*Siganusspp.*), pearl spots (*Etroplusspp.*) and scat (*Scatophagussp.*) can be used to control biofoulers, but their application on a large scale needs to be assessed.

Disease monitoring

Monitoring of fish stock health is essential and early indications can often be observed from changes in behavior, especially during feeding.

Summary

- Cage culture is the most efficient way of raising fish
- Cage can erected in various suitable water bodies in various sizes and shapes
- Stocking density of fishes in cage depends on the species cultured and growth rate of fishes
- A production of 20-40kg/m³ can achieved in normal conditions from cages
- Identification of ideal site for vital for cage farming
- Proper feeding with quality feeds in of paramount importance for a successful cage farming
- Regular monitoring of net cages and fishes ensures a good harvest from cages.

Mussel Culture

P.S Alloysious

Senior Technician, CMFRI

Email:psalloy@gmail.com

Mari culture of bivalve's greater importance in meeting the increasing protein demands of the human population. Bivalve groups such as oyster, mussel and clam are the most important cultivable organisms all over the world. Of these, *P. viridis* and *P.indica* forms the most dominant cultivable species. The Central Marine Fisheries Research Institute (CMFRI) has developed eco-friendly techniques for mussel culture. Recently, CMFRI has taken up efforts to popularize mussel culture in all coastal districts of Kerala.

Growth

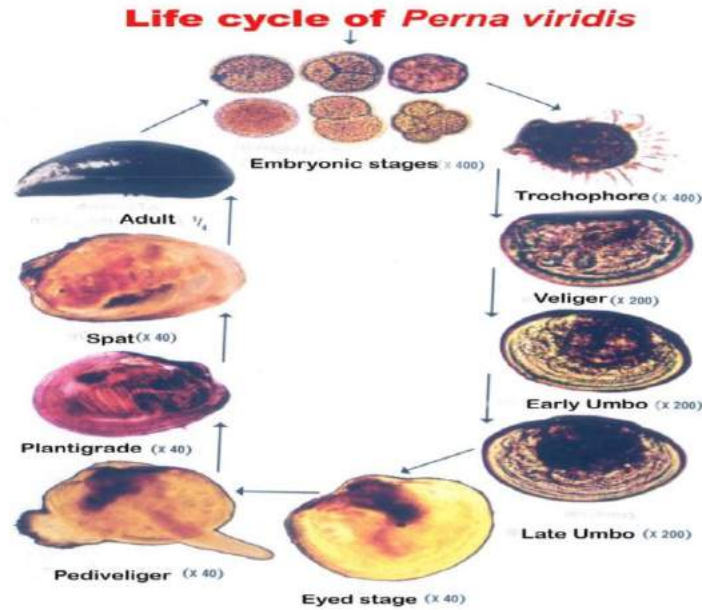
Green mussel shows a rapid growth rate by length of 8mm-13.5mm per month. Under average culture conditions, green mussel and brown mussel attain a length of 80-88mm with 36.5-40g weight and 65mm with 25-40g in 5 months respectively. The farmed mussels give a better meat yield compared to mussels from the natural bed. The average edible portion of the meat yield is 27.2%- 33.3% of the total weight. Growth by length and weight are probably the most important criteria for assessing the success of the culture system. The growth of mussel is influenced by a number of environmental factors such as water quality, food availability, settling density, water current and tidal exposure.

Reproduction

Mussels are known to be unisexual. The gonad of mature female can easily be distinguished by its bright orange-red color form that of the male, which is creamy yellow.

Stage	Male	Female
I (Immature)	Sperm non motile	Ova without any shape
II (Maturing)	Sperm non motile	Granulation in the ovary
III (Mature)	Sperm motile	Spherical ova
IV (Partially spent)	Motile sperm and tissues	Spherical ova and reputed ova
V (Spent)	Reputed tissues	Reputed tissues
(Indeterminate)	Differentiation impossible	

Mussels attain sexual maturity in two months (15-28mm). Spawning period is prolonged extending from January - September with peak spawning during June -September in Kerala. The four main stages in the reproductive cycle are spent/ resting, developing, ripe and spawning. Fertilization is external. After fertilization, it attains pediveliger within 15-35 days. Pediveliger attaches to the settlers with the help of byssus threads and metamorphose to spat. Spat settlement takes place from July to September and attains seeding size in September.



Egg 2. Egg with sperm 3. 3-9 early developmental stages 10. Trochophore
11. Veliger 12. Eyed/ umbo stage 13. Plantigrade 14. Spat 15. Adult.

Condition index

$$\text{*Condition index} = \frac{\text{(dry meat weight X 1000)}}{\text{Volume of shell cavity}}$$

$$\text{**Percentage edibility} = \frac{\text{Meat weight X 100}}{\text{Whole mussel weight}}$$

*Condition index is generally related to the reproductive cycle. Condition of mussel indicates degree of fatness of a mussel or the extent to which the meat fills the cavity. The ideal condition index of mussel is 70-140. This will be high during non-spawning period.

**Percentage edibility, the percentage edibility is high the mussels can be harvested. Percentage edibility varies from 20-45%.

Mussel seed availability / area suitable for farming in Kerala

Location-Ashtamudi lake , Thangaserry Bay, Azheekode, Maliyankara, Sathar Island, Chettuva, Ponnani, Kadalundi, Dharmadam, Valapattanam, Padanna, Neelaswaram etc.

Farming Techniques

Site selection

Open sea and estuarine areas free from strong wave action are suitable for farming. Clear seawater with rich plankton production (17-40µg chlorophyll/l,) is ideal for mussel culture. Moderate water current (0.17-0.25m/s at flood tide and 0.25-0.35m/s at ebb tide) will bring the required planktonic food and will carry away the excessive build-up of pseudofaeces and silt in the culture area. The water should have a salinity of 27-35 ppt. and temperature of 26°C - 32° C . Site should be free from domestic, industrial and sewage pollution.

Open sea farming

In open sea farming, the depth at the site should be above 5m without strong wave action, less turbulent and with high primary productivity. Long line and raft culture techniques are ideal for open sea farming. Mussels grown on long lines become smothered by naturally settling juvenile mussels and other fouling organisms. Effective utilization of easily available materials for fabrication of long line and raft can be done. Disadvantages of this farming are the poaching and unpredicted climate changes. Protected bays are ideal for mussel farming.

Estuarine farming

Compared to open sea, estuarine ecosystems with less turbulent and shallow depth (<4m) are suitable for mussel farming. Culture of mussels on horizontal ropes results in high productivity due to the effective utilization of the primary productivity. Rack culture is ideal for estuarine conditions. Fluctuation in salinity during monsoon season and pollution through domestic and industrial waste are the main constraints in estuarine mussel farming.

Methods of farming

Rack method

This method is suitable for estuaries and shallow bays. The racks are fabricated by placing bamboo/casuarina poles vertically and horizontally, tying and lashing with nylon/coir ropes. Bamboo or casuarina poles are driven into the bottom and spaced at a distance of 102m. These stakes are connected horizontally with poles. The horizontal poles should be above the level of water at high tide and seeded ropes are suspended from the same.

Raft method

This method is ideal for open sea conditions. Square or rectangular rafts are fabricated with sturdy bamboo or casuarina poles. Buoyancy for the raft is provided by tying 5 barrels of 200 liter capacity, one each at the four corners and one in the middle (metal oil barrel painted with anticorrosive paint or synthetic material). Ideal size of the raft is 5 X 5 m. The rafts are positioned at a suitable site in the sea using 50-100kg of iron, granite or concrete anchors. Three seeded ropes can be suspended from one meter area of the raft.

Long -line method

This method is considered ideal in unprotected open sea conditions. The main line is synthetic rope of 16-20mm diameter. The long-line, which is supported by 200 liter barrels tied to it and spaced at 5m. The long-lines and barrels are anchored in position at both ends using concrete blocks and nylon ropes. Seeded ropes are suspended in the long-line.

Horizontal Culture

This method is ideal in shallow areas with a minimum level of water column. Seeded ropes were suspended by tying upward by ropes to horizontal poles; but both ends will be stretched and tied in vertical poles erected in opposite sides in the farm structure. In the estuaries of Malabar, most of the farmers are following this method.

Bouchot culture

Bouchot (stake culture) method was done in the shallow waters of Ashtamudi Lake at Dalawapuram, Kollam with farmer's participation. Mussel seed (20-25mm) were collected from the estuary and seeded on casuarina poles, bamboo split of one meter length @1.5kg/pole, strip. Production of 12kg/pole, bamboo split was obtained within a period of 3 months.

Seed collection and seeding on rope

The site selected for collection of seed should be free from pollutants. Seeds collected from the submerged (sub tidal) areas will be healthier. After removing other organisms and weeds, the seeds were washed thoroughly in sea water. About 500-750g of seed is required for seeding on one meter length of rope. The ideal size of the seed is 15-25mm with 1-2g weight. The length of the rope is decided by considering the depth where the raft/rack is positioned. While suspending the seeded rope on rack it must be tied in such a way that the upper seeded portion of the rope should not get exposed during the low tide.

Nylon rope of 12-14mm or 15-20mm coir rope can be used for seeding. Old cotton net, cotton mosquito net or cheap cotton cloth are used for covering the seeds around the rope. Cotton netting of required width and length is placed on the floor and required quantity of seeds spread over the net from one end to the. The rope is kept above the net and is tightly stitched in such a way that the seeds spread uniformly around the rope. The cloth will disintegrate within 2-3 days. By this time seeds will secrete byssus thread and will get attached itself to the rope. To avoid slipping of the mussels, knots are made on seeded rope at the distance of 25cm. Placing split bamboo pegs in the rope (12-14mm) at regular intervals will also serve the purpose.

Growth-out-phase

The Seed, which get attached to ropes, show faster growth in the suspended column water. If the seed is not uniformly attached, crowded portion always show slipping. To avoid slipping, periodical examination of seeded rope and thinning of the same is essential. The ropes also should be suspended in such a way that it will not touch the bottom as well as the seeded portion is not exposed for longer period during low tide. Seeded mussel on the upper portion of the rope shows faster growth due to the abundance of phytoplankton. For better growth the seeded ropes should be spaced at a distance of 25 cm.

In open sea - farming, growth of mussel is very rapid. They attain 80-110 mm in 5-6 months with an average growth of 13.5mm/month and an average weight of 35-45g. This growth is observed in farms at various locations. In estuarine farming, mussels attain 75-90mm in 5 months with an average weight of 35-40g and an average production of 10 -12 kg/m rope.

Management:

-Constant vigil is required to see that the raft/rack is in position. Thinning may be done if necessary to avoid loss of mussel and to provide enough growing space. Periodic removal of fouling organisms like barnacles, tubicolous polychaetes and ascidians is to be done for improved growth.

Diseases and Poisoning

Mussels are said to be harmful when consumed during periods of re tide (in Malayalam it is called polavellam). This mainly occurs due to dinoflagellates bloom or bloom of diatoms, or cyanobacteria. They will produce potent toxins that can find their way through the food chain to humans, causing a variety of gastro-intestinal and neurological illnesses, such as: paralytic shellfish poisoning, diarrhetic shellfish poisoning, amnesic shellfish poisoning, neurotoxin shellfish poisoning. Another new toxin identified is yessotoxin, which affects the nervous system.

Calendar of mussel farming activities in Kerala

Activity	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
A vareness Programmes	✓	✓	✓									
Training (Phase-I)				✓	✓							
Site Selection		✓	✓									
Farm Construction					✓	✓						
Collection of seed and seeding				✓	✓	✓						
Farming Activities							✓	✓	✓	✓	✓	
Training programme and workshop PhaseII)										✓	✓	
Harvest												✓
Marketing												✓

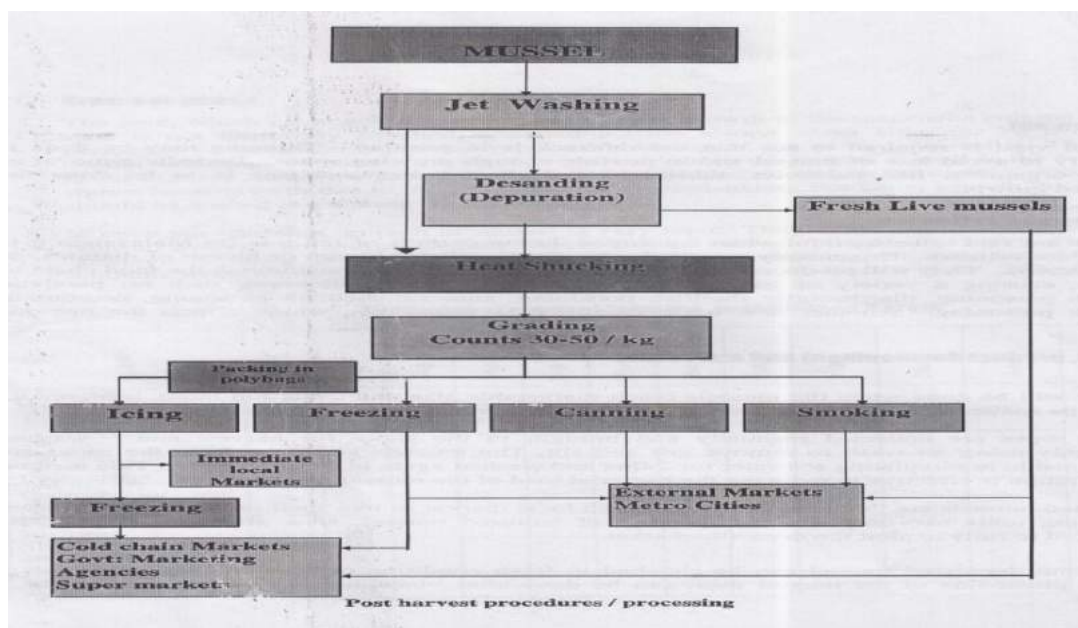
Harvest, product development and marketing

Harvest will be done when the mussels reach marketable size and condition index is high, i.e., before the spawning and onset of monsoon. Normally harvest season is from April to June.

Mussel rope is collected manually and brought to the shore for harvest and washed thoroughly using jet wash to remove grit and silt. The mussels separated from the ropes are maintained in re-circulating seawater for 24 hrs and washed again in fresh seawater. This method of depuration is effective in reducing the bacterial load of the mussel meat by 905.

Depurated mussels are then mainly sold through local market as live shell-on mussel. At present processing units use only a small quantity of cultured mussel. New strategies need to be developed to fully exploit the domestic market.

Meat from depurated mussel can be shucked in fresh condition or after boiling or steaming. Further processing of the mussel meat can be done after blanching in 5% salt solution for 5 minutes.



Products and export

A variety of products have been developed in India from mussel meat. These products have been developed by R& D activities of CIFT, Kochi. In the retail market, few mussel products are available. The latest product in line is the condiment incorporated ready-to-eat fried mussel meat in vacuum packs.

For further economic utilization, value added products of mussel like seafood cocktails are prepared and marketed by seafood export firms in India. The export of these items from India is showing an increasing trend.

Nutritional value of 100g heat blanched mussel meat.

Composition	quantity	Adult male (%) of daily requirement	Adult female (%) of daily requirement
Energy	172 Kcal	2.9	3.8
Protein	23.8 g	19	24
Oil (fat)	4.48 g	2.2	2.9
Omega 3 fatty acids	782 mg	*	*
Cholesterol	27 mg	-	-
Calcium (Ca)	56 mg	7	
Iodine (I)	0.065 mg	43	43
Iron (Fe)	7 mg	70	47
Phosphorous (P)	285 mg	29	29
Potassium (K)	270 mg	11	11
Selenium (Se)	0.038 mg	19	19
Sodium (Na)	410 mg	13	13
Zinc (Zn)	0.95 mg	6	6
Vitamin A (Retinol)	0.05 mg	5	5
Vitamin E (Tocopherol)	1.9 mg	19	19
Vitamin B1 (Thiamine)	0.009 mg	0.6	0.6
Vitamin B2 (Riboflavin)	0.28 mg	16	21
Vitamin B6 (Pyridoxine)	0.19 mg	9.5	12
Vitamin B12 (Cyanocobalamin)	0.009 mg	0.5	0.5
Niacin	1.4 mg	7	9.3
Pantothenate	<1 mg	< 20	20
Vitamin C (Ascorbic acid)	4.4 mg	7	7

Ratio Omega 3 to Omega 6 is 13:5

Source; United State Dept. of Agriculture Handbooks

“Composition of Foods Nos. 8.15,1987 & 8.13,1989.

Overseas markets

Mussels are exported to different countries in the frozen and dried condition. They are also airlifted in the iced condition to the Gulf countries where mussels are in great demand. There is an increasing demand for mussels in the global markets, especially in UAE, China, Mali, Singapore, Sri Lanka, Australia, Greece, Japan, Lebanon, Mexico, New Zealand, and Rep. Korea. The export of mussel products shows an increasing trend.

With globalization, seafood trade will be subjected to increasingly greater regulation, control, issue related to environmentally sustainable practices. Seafood safety would assume greater significance in the future. Eco- labeling and HACCP certification would be made mandatory for all seafood products. Contaminants frequently monitored include bacterial loads, heavy metals, antibiotics and pesticides, algal blooms for HAB (Harmful Algal Bloom) toxins.

Economics for a model mussel farm

Rack and rope culture in estuary Mussel farm 5m x 5m Seeded rope 100 nos.

1. Fixed cost (material cost)			
Item	Quantity	Rate	Amount
Bamboo poles (9= poles + 10 horizontal poles)	19 nos	350	6650
Nylon rope (3mm/4mm)	1kg	250	250
Nylon rope (12mm)	13kg	250	3250
PVC pipe (2.5 "/3")	1m	100	100
Total			6850
1. Recurring cost (Labour charge)			
Stitching charge	100	7	700
Canoe hire charges	5 days	300	1500
Labour charges (farm construction, seeding and harvesting)	8 days	850	6800
Mussel seed (20-25 mm)	150kg	50	7500
Cotton netting materials	25m	40	1000
Marketing (shell on) **	800 kg	25	20000
Miscellaneous			1000
Total			38500
3 Labour charges (Meat shucking)			
Depuration charge *	800kg	6/kg	4800
Shucking charge	200 kg	30	6000
Fuel charges			2000
Marketing	200 kg	40	8000
Total			20800
Total financial outlay			
Shell on (1+2+3 *) = 6850+38500+4800 = Rs.50,150			
Heat shucked meat (1+2**+3) = 6850+ 18500+20800= 46,150			

**Except the marketing charge

* Depuration charge only

Total yield			
Product	Total quantity	Rate	Amount
Shell on	800kg (8kg/rope)	Rs.100/kg	80,000
Heat shucked meat	200kg (25% meat)	Rs.400/kg	80,000

Net profit

Shell on = 80,000 -50,150 = 29,850

Shucked meat = 80,000 -46,150 = 33,850.

Edible Oyster Farming in India

Vidya .R

Scientist, MFD, CMFRI

Email: vidya.panicker@gmail.com

Introduction

The oysters are highly esteemed sea food and considered a delicacy in USA, Europe, Japan etc. In India there is a growing demand for oyster meat in some parts of the country. It is said that 'oyster' is scientifically the best known marine animal. It is one of the most widely cultivated species. As early as the first century BC the Romans were the first to develop simple methods of collecting oyster seeds and growing them for food. The Japanese developed 'Habitat culture technique.i.e. Culture in nets fixed to bamboo poles during the seventeenth century and at the turn of the 20th century they evolved off bottom culture, especially hanging methods. These methods yielded good results and were adopted by majority of oyster farmers of Japan as the environmental conditions of the coastal areas were highly favorable for practicing these methods. Until recently, oyster farming has been considered as a traditional practice followed only in the temperate countries. The awareness about the vast potentialities for development of oyster farming in tropics is recent. Serious efforts are now being directed in its development under tropical conditions.

Main areas / locations having rich oyster beds / suitable areas for farming in Kerala are: Ashtamudi and Vembanad lakes, Cochin backwaters, Munambam estuary & nearby areas of Sathar Island, Estuaries and the creeks of Dharmadam, Valapatnam, Nileswaram and Chandragiri,

Oysters & their Biology

The **shape of the oyster** is extremely variable depending on the environment in which it is grown.

- ✓ Smooth and elongated when grown individually on soft substrata.
- ✓ Corrugated and circular shell with lower valve deep when grown individually on hard substratum.
- ✓ Irregular shape when grown with other oysters.
- ✓ Circular / elongated with reduced cupped nature when grown fixed to a firm substratum

Reproduction

In the genus *Crassostrea* sexes are separate but occasionally hermaphrodites occur. During spawning, ripe eggs and sperms are discharged into the exterior where fertilization takes place. Temperature food availability and salinity are considered as important exogenous factors, in influencing the maturation of gonads. A single female measuring 80-90 mm spawns 10 to 15 million eggs at a time.

Condition Index

The condition index of the oysters denotes the quality of the meat and it is useful to determine the best period for harvest. It is also helpful to assess the suitability of a locality for culture. High condition indicates greater proportion of meat in the whole weight of the

oyster; those in prime condition are tasty when compared to the flaccid and watery meats of oysters in poor condition.

The soft body of the oyster undergoes changes, which are usually related to the reproductive cycle. During the maturation process the gonad increases in weight resulting in increase in the weight of soft body. Before the commencement of spawning the condition index reaches high value and with the release of gametes, the soft body of the oyster loses weight. The condition factor is studied based on weight, volume of both. The percentage of wet flesh weight in total weight gives the condition.

Condition Index = $\frac{\text{Weight of dry meat weight} \times 1000}{\text{Volume of shell cavity}}$

In *C. madrasensis* the condition is considered as high if it is above 140 and poor if it is below 70.

Seed Collection

Oyster seed are collected from estuaries by placing suitable collectors called cultch in the water column at appropriate period. During spawning seasons the spat collectors are suspended from racks.

How to prepare a cultch?

Cultch is the term used for spat / seed collector. For suspended method of oyster culture cultch made of oyster shells have been found to be ideal. Empty oyster shells are cleaned manually to remove the foulers and then washed to remove silt. A small hole is made on the shell and these are strung on 3mm dia nylon rope with a spacing of 15 to 20 cm between each shell (5 shells per meter rope). Such strings are called ren. The spaced rens can be used as such for grow out system. For seed collection purposes the shells are strung continuously without spacers (10 to 15 shells per meter) and after the attachment of seed they shells can be removed and restrung at the rate of 5 shells per meter which is the ideal density for grow out. If the oysters are to be grown by the tray method then empty shells or lime coated tiles can be placed in the trays for seed collection. Lime coated tiles gave encouraging results and on a single tile, as many as 120 larvae are known to settle.

When to place the cultch for seed collection?

One of the main factors that determine the success of the farming operation is the period when the clutches are placed for seed collection. If they are laid in advance of spatfall, they may be covered with silt or settlement of foulers, making them unsuitable for the oyster larvae to settle. The larval period in *C. madrasensis* is 15-20 days. The ideal time for laying the spat collectors in the water is about 7 -10 days after peak spawning (as determined by gonad examination and abundance of early larval stages in the plankton). Strong currents interfere with larval settlement and may result in poor spat collection.

Selection of farm site

For site selection several factors are to be considered

	<i>Parameter</i>	<i>Range</i>	<i>Methodology for determination of the parameter</i>
1.	Salinity (ppt)	10 to 38	By titration or refractometer
2.	Depth (m)	1.5 - 4	By sounding or manual
3.	Temperature ° C	23- 34	Using thermometer
4.	Dissolved oxygen mg/l	3 - 5	Winkler method or by using probe
5.	pH	6.5 - 8.5	pH meter or pH paper
6.	Turbulence due to wave (m)	< 0.5 to 1	By observation and local enquiry
7.	Water current m / second	1 - 5	Current meter or from literature
8.	Clarity (m)	0.5 -1.5	By Secchi disc
9.	Availability of seed	Within 100 m	By enquiry / observation
10.	Local market	Average to good	By enquiry / observation
11.	If free from various pollution like	Faecal	By enquiry / observation
Industrial			
Agriculture			
Sewage			
Retting			
	Oil		

Sheltered areas offering protection from strong wave action are preferred. From intertidal region to areas extending upto about 5 m depth can be considered for adopting suitable culture method. Similarly the culture technique is adopted depending upon the type of substratum. On-bottom culture method is substrate-specific while off-bottom method has little to do with the nature of substratum. Large-scale mortalities have been reported in salinities below 10 and above 40 ppt when the natural oyster populations of *C. madrasensis* were exposed for prolonged periods. The natural populations occur at a temperature range of 21 to 31 °C.

Farming methods

They are broadly grouped as bottom (on bottom) culture and off-bottom culture. Raft, rack, long-line and stake are used in the various off-bottom culture practices. The off-bottom culture methods are advantageous over the bottom culture in the following respects.

1. Relatively rapid growth and good meat yield.
2. Facilities three-dimensional utilization of the culture area.
3. The biological functions of the oyster such as filtration feeding etc. are carried out independent of the tidal flow,
4. Silting and predatory problems are negligible.

On bottom culture

The oysters are grown either in the intertidal or subtidal area directly on hard substratum. For intertidal culture a minimum of 16 hours submergence is suggested to ensure adequate food supply. Oyster seed attached to the collectors are planted on the bottom and allowed to grow for the market. The disadvantages of this method are increased exposure to benthic predation, siltation and low production. In U.S.A. the production is estimated at 5 t/ha/year and in France 7.5 t/ha/year. This method is yet to be experimented in India.

Rack and Ren Method

It is also called ren method. The racks are constructed in 1 to 2.5 m, depth there are several variations in the types of racks. The single beam rack consists of a beam placed and secured to the top of posts driven into the bottom. A series of single beams are placed in a row. The crossbeam rack is constructed by placing cross bar on top of single posts and two long beams are secured on the end of cross beams. In the farm, the shell strings are suspended from racks. The mortality (including those fallen) is about 45%.

Rack and Tray Method

The nursery-reared single spat (cultch-free) measuring about 25 mm are transferred to trays of size 40 x 40 x 10 cm at a density of 150 to 200 oysterlings/ tray. The tray is knitted with 2 mm synthetic twine of appropriate mesh and is suspended from rack. Once the oysters reach 50 mm length they are segregated and transferred to rectangular tray of size 90 x 60 x 15 cm these trays are placed on the racks. Each tray holds 150 to 200 oysters. The average growth rate of the oyster is 7 mm/month and at the end of 12 months the oysters attain an average length of 85 mm in Tuticorin. The production is estimated at 120 t/ha/year. Compared to the string method, this method gives production but the production cost is high.

Stake culture

A stake is driven into the substratum and on the top end one nail and on the sides two nails are fixed. The nail holds in position a shell with spat attached. The stakes are placed 60 cm apart. In this method, the nursery rearing of spat is carried on the same stake. For about two months the spat on the top end of the stake are covered by a piece of velon screen. Once the oysters attain 25-30 mm the velon screen is removed and in another 10 months they reach the marketable size. The growth rate of the oysters in this method is the same as that of the oysters raised by the string method. The production is estimated at 20 t/ha/year.

Farm Management

Periodic checking of the farms is essential. The main points to be checked are replacement of broken farm structure and re suspending loosened rens which touch the estuarine bottom. High mortality rates have been observed when the rens fall on the ground. To tide over these problems periodic checking is essential.

Predators and foulers are also a menace to oyster farmers. Crabs, fishes, starfishes, polychaetes and gastropods are the predators of oysters.

Barnacles are fouler that settles on the wooden structures, trays and oysters. It competes for food with the oysters. It also increases the weight of the ren causing damage to the farm structure.

Large scale mortalities of oysters due to the diseases caused by the fungus *Perkinsus marinus*, and the protozoan parasite *Minchinia nelsoni*, have been reported from temperate countries. Oysters in the natural bed at Tuticorin have been observed to be infected by *P. marinus*.

Harvest of oysters

The oysters are harvested when the condition is high. Along Kerala harvest is ideal during May in Vembanad and Chettuva estuary and during August – October in Ashtamudi Lake. Generally high condition index is obtained when the gonad is ripe prior to spawning. Harvesting is done manually.

Depuration

Oysters, like other filter-feeding bivalves, accumulate pathogenic organisms in their body. Members of the *Salmonella* group cause typhoid fever, while coliforms and vibrios cause gastroenteritis. By depuration the bacterial load is brought down to permissible levels, also faeces, sand particles and silt are removed from the alimentary canal of oysters.

The oysters are placed for 24 hours in cleaning tanks under a flow of filtered seawater. About 10-20% of the seawater is continuously replaced. At the end of 12 hours the water in the tank is drained and oysters are cleaned by a strong jet of water to remove the accumulated faeces. The tanks are again filled with filtered seawater and the flow is maintained for another 12 hours. Then the tanks are drained and flushed with a jet of filtered sea water. The oysters are held for about one hour in 3 ppm chlorinated seawater, and then washed once again in filtered seawater before marketing.

Transport and storage

Oysters kept under moist and cool conditions survive for several days. However it is desirable that they reach the consumer within three days of harvest. Studies indicate that oysters packed in wet gunny bags are safely transported for 25-30 hours without mortality and in good condition.

Shucking

The removal of the meat from the oyster is called shucking. A stainless steel knife is used for the purpose. To render shucking easy, oysters are subjected to a wide range of treatments such as exposure to weak hydrochloric acid, heat cold, vacuum, microwaves and lasers. Freezing the oysters, or immersing them in hot water are the two methods commonly followed. However in India steaming the oysters for 5 to 8 minutes has been found to be ideal to make the oysters open the valves.

Processing

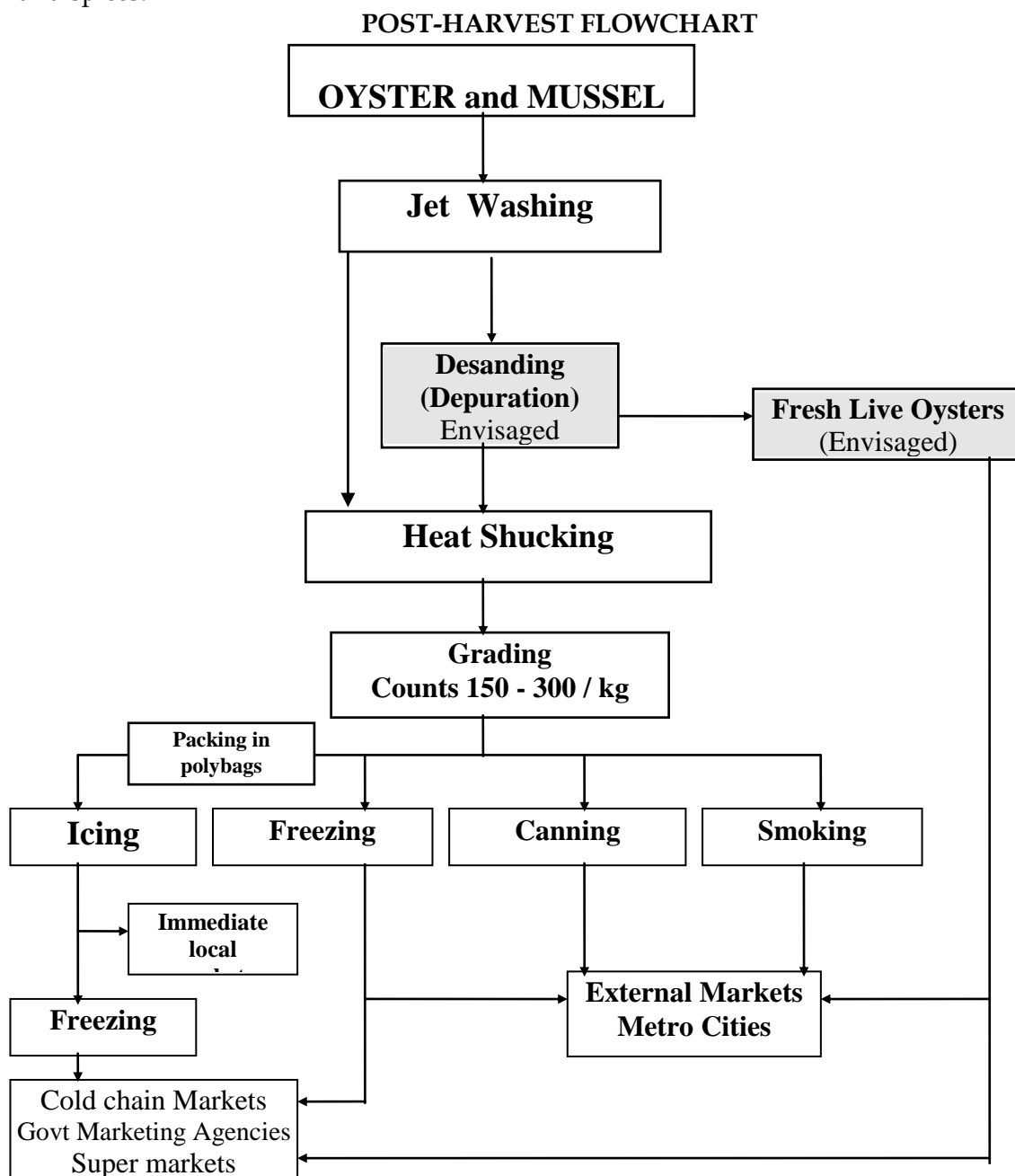
Oysters are eaten in fresh condition in the half shell in many countries. The oysters are processed in several ways.

Frozen oysters: After depuration whole oysters (shell-on) are frozen by spreading them in a single layer of trays in an air blast freezer with polypropylene film stretched over each tray. Frozen whole oysters packed in polythene bags remain in good condition for six months in cold storage at 25 °C. The liquid within the shell acts as a glaze to protect the meat from dehydration.

Canned oysters: Oyster meat is chilled, washed and blanched in 3% brine containing 0.1% citric acid for 4 to 5 minutes. The balanced meat is packed in cans, and hot 2% brine with 0.1% citric acid is added to the cans. The cans are seamed, sterilized at 115^o C for 25 minutes and immediately chilled and stored

Smoked oysters: The meat is washed, treated with 5% brine for 5 minutes, drained, dipped in edible oil, spread in a single layer on a nylon wire mesh, drained again and loaded into a smoking chamber. The meat is held in dense smoke and maintained at a temperature of 40 o C for 30 minutes and later at 70 o C for 90 minutes. The smoked oysters are filled in cans with hot refined oil. The cans are seamed, sterilized at 115°C for 25 minutes and immediately chilled and stored.

Oyster stew: Oyster which are too large or badly cut while shucking or those in low condition, are prepared as for canning but are chopped into small pieces and added to milk and spices.



Byproducts and utilization

The two shell valves constitute about 85% of the total weight of oyster and contain 52-55% calcium oxide. They are used in the manufacture of calcium carbide, lime, fertilizers and cement. They are useful spat collectors in oyster culture. The shells are broken to pieces and used as poultry grit.

Quality of Oyster Meat and Shell

Oyster meat is relished in most nations. The proximate composition of the oyster meat and the medicinal values attributed to it are given below.

- ❖ Oyster meat consists of 52% protein, 14% glycogen and 11 % fat
- ❖ Oyster powder contains wide range of minerals and vitamins and the amino acid taurine, which has complex medical properties.
- ❖ Oyster powder has shown good results in skin care, numerous heart ailments, blood pressure, liver problems, arthritis and rheumatism, diabetes, water retention, premenstrual tension etc.

Rack and ren method		Oyster farm		5x5 m
		Ren		
Fixed Cost				
1. Fixed cost (Material cost)				
Item		Quantity	Rate/unit	Amount
Bamboo poles (16 poles +14 horizontal poles)		30nos	320	9600
Rop (Farm construction) 3mm		2 kg	250	500
Rope (Ren making)3mm		6kg	250	1500
Total				11600
2.Recurring Cost				
Shell		1500 nos	50 paise	750
Ren making		300 nos	2	600
Farm construction		2 labours	850	1700
Installation of spat setters		1labour	850	850
Harvesting		4 labours	850	3400
Canoe hire charges		5 days	250	1250
Depuration charges		1500 kg	7	10500
Fuel charges **		1 cylinder	2000	2000

Backyard Chicken Farming: For Income, Health and Happiness

M. A. Pradeep* and S. R. Krupesha Sharma

Central Marine Fisheries Research Institute, Kochi 682018, Kerala, India

Email*:drpradeepma@gmail.com

Chicken

Chickens (*Gallus gallus domesticus*) are gregarious, omnivorous, ground-dwelling birds that in their natural surroundings search among the leaf litter for seeds, invertebrates, and other small animals. They seldom fly except as a result of perceived danger, preferring to run into the undergrowth if approached.

With a population of more than 19 billion in 2011, there are more chickens in the world than any other species of bird or domestic animal. They are one of the most common and widespread domestic animals and is the second most widely eaten type of meat globally. Chicken along with eggs, provides nutritionally beneficial food containing high-quality protein accompanied by a low proportion of fat.

Origin

The modern breeds of chicken (*Gallus gallus domesticus*) is supposed to be evolved in India from Red Jungle fowl (*G. gallus*), whose original habitat is South and Central India, the Himalayan Terrain, Assam, Burma, Ceylon, Sumatra and Java. Domestication of chicken is believed to have taken place between 7,000 and 10,000 years ago. Apart from *G. gallus* scientists have identified three closely related species that might have bred with the red junglefowl.



Chicken rearing in India and Kerala

Kerala was considered to be one of the major sources of poultry meat and egg and the state was exporting large quantities of egg, meat and fowls to other neighboring countries and states until 1970, all through backyard rearing with indigenous breeds of fowls. With the advent of commercial layer poultry farming in other states, this position is reversed. Now Kerala has to import at the rate of 4 lakh eggs a day for internal requirements from neighboring states like Tamil Nadu, Karnataka and Andhra Pradesh.

Chick eggs come second only to mother's milk in terms of nutritive value. As per the ICMR recommendations, the average per capita egg consumption should be 180 and meat 11Kg. The per capita consumption of eggs in Kerala is only 74 and meat 1.4Kg. Hence there is an urgent need of scaling up production. In Kerala even now 80% of egg production comes from backyard poultry. Fairly significant proportion of landless and marginal farmers makes out their living from poultry and other small ruminants. Besides subsidiary income generation, rural backyard poultry provides nutrition supplementation in the form of valuable animal protein and empowers women.

Backyard poultry Farming

Backyard poultry rearing requires hardly any infrastructure setup. Besides targeted egg production, it is a potent tool for upliftment of the poor. It has a very positive impact to improve the socio-economic factors of the socio economically backward people. Backyard poultry production can cater to the nutritional requirements of the family as well as cater to a niche market, thus providing a source of subsistence income.

Backyard poultry can be taken up by every household as a subsidiary occupation, as a source of additional income or to cater to the egg and meat requirements of the family by taking up colored bird units ranging from 10-20 birds per family in their backyards. Such units require very little hand feeding and can give a fairly handsome return with bare minimum night shelter.

Commercial Poultry Production in Kerala is not feasible owing to various reasons. For Kerala to be self-sufficient in poultry egg and meat, the only alternative is strengthening of Backyard Poultry Production, which was once Kerala's own method of bulk and quality egg production at bare minimum cost.

Chicken varieties suitable for Backyard Rearing

Native (Desi) Chicken

Native chicken have undergone natural selection and are best adapted for the local climatic conditions, they can survive on kitchen and agricultural wastes and survives well on scavenging and left over feed. They are hardy and resistant to many diseases. They survive well from predators. Native hens are good brooders and have good mothering ability. Native chickens are capable of self-propagation; they can set their own nest, lay eggs in nest, brood and take care of their young ones. But native chicken are low on productivity, so to increase productivity improved varieties of chicken need to be reared.

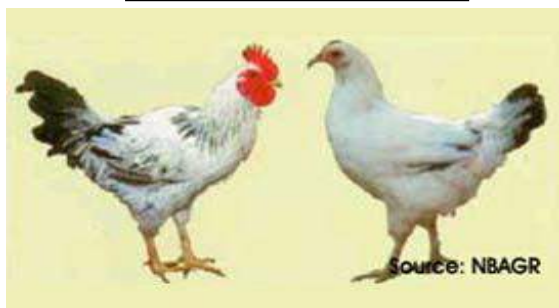
Indian Breeds of Chicken		
S. No.	Breed	Home Tract
1.	Ankaleshwar	Gujarat
2.	Aseel	Chhattisgarh, Orissa and Andhra Pradesh
3.	Busra	Gujarat and Maharashtra
4.	Chittagong	Meghalaya and Tripura
5.	Danki	Andhra Pradesh
6.	Daothigir	Assam
7.	Ghagus	Andhra Pradesh and Karnataka
8.	Harringhata Black	West Bengal
9.	Kadaknath	Madhya Pradesh
10.	Kalasthi	Andhra Pradesh
11.	Kashmir Favorolla	Jammu and Kashmir
12.	Miri	Assam
13.	Nicobari	Andaman & Nicobar
14.	Punjab Brown	Punjab and Haryana
15.	Tellichery	Kerala
16.	Mewari	Rajasthan



Aseel



Chittagong



Busra



Tellicherv

Improved Varieties

Vanaraja

Vanarajaisa dual-purpose variety for free range farming in rural and tribal areas. Males weigh about 1.2 to 1.5 kg at 10 wks. and females lay about 120-140 eggs in laying year. The bird is hardy and has better immune competence. Because of its multi coloured plumage and brown eggs, it is well accepted by the rural people across the country.



Gramapriya

Gramapriya is a layer type variety developed for free range farming in rural and tribal areas. The bird has the production potential of 230-240 eggs in a year and can lay 160-180 eggs in free-range conditions with minimum supplementary feeding. The males weigh around 1.2 to 1.5kg at 15 wks of age and suitable. The bird has coloured plumage and lays bigger (57-59g) and brown eggs. It is hardy and livability is high.



Giriraja

Giriraja breed of chicken suited for mixed and backyard farming developed by Karnataka Veterinary, Animal, and Fishery Sciences University in Bangalore, India. Females lay 130-150 eggs per year, with each egg weighing 52-55 grams. The eggs have a good hatchability (80-85 per cent), and enable farmers to raise their own stock. Their shells are brown in colour and thicker than that of other commercial eggs. The bird's exhibit better growth compared to local varieties, they can be raised as free-roaming birds and can be fed with locally available materials. Being good scavengers, they feed on a variety of insects and green



foliage. They can also be fed on farm and kitchen waste. The birds are resistant to many diseases, an exception being Ranikhet disease.

Swarnadhara

Swarnadhara is a hybrid chicken breed developed at department of Avian Production and Management (DVPM), Hebbal, Bangalore. It is a Hardy bird having high egg production potential along with better growth compared to other local varieties and are suited for mixed and backyard farming. The bird can be reared for its eggs and meat. Hens attain a body weight of about 3 kg and the cocks about 4 Kg by 23rd week. They lay about 180-190 eggs in a year. The eggs have good hatchability (80-85 per cent) and enable the farmers to raise their own stock. A day-old chick weighs about 35-40 gm. The eggshell is brown in colour and thicker than that of other commercial eggs and does not break easily. The birds are only layers and not brooders (that is, they only lay eggs and do not incubate them). The eggs have to be hatched by local brooder hens. For backyard rearing, a flock of five hens and one cock can be ideally grown. They can be raised as free roaming birds and can be fed with locally available materials, being good scavengers; they feed on a variety of insects and green foliage. They can also be fed on farm and kitchen wastes. The birds have a high longevity, they are sturdy and resistant to major infections except new castle disease.



Gramalakshmi and Gramasree

These two varieties have a high production potential along with better growth rate suited for mixed and backyard farming developed by College of Veterinary and Animal Sciences, Mannuthy. Gramalakshmi birds are white in colour with black speckles throughout the body while Gramasree birds are dark brown with a sprinkling of black, and grey on different parts of the body. The hens attain a body



weight of 1.4 kg in five months and start laying eggs after 160 days. The males attain a body weight of 1.5 kg in three months and are popular for their meat, which is low in fat content compared with present day broilers. Both the varieties lay about 200 eggs each year with each egg weighing about 50 gms. The eggshell is brown in colour and thicker than that of other commercial eggs and does not break easily. It can be stored for 8-10 days at room temperature. The



birds are hardy and require little care and can be reared in the open. They can be fed on farm and kitchen waste. In addition, they have to be provided with a special protein feed to meet their high production requirement. These varieties have lost their brooding character so native broody hens should be used to brood eggs laid by these birds.

Athulya

High producing heat tolerant Athulya strain (ILM-90) of layer chicken is developed for high egg production with desirable egg weight at college of veterinary and animal sciences, Mannuthy. Athulya is a white coloured bird that attains maturity at an early age of 123 days. It produces 280-290 eggs an year.



ORNAMENTAL POULTRY BREEDS

Apart from keeping for meat and eggs, chickens are also kept as ornamental pets. Some ornamental breeds of chicken even fetch more than 10,000 rupees per bird. Some popular ornamental chicken breeds are given below

Phoenix

The Phoenix is an ancient Japanese breed of chicken. Phoenix is a remarkably beautiful chicken breed with long tail and is kept primarily for its exhibition and aesthetic purposes. It lays medium sized white eggs, but not frequently enough to call it a utility trait.

Frizzle

The Frizzle is a breed of chicken with characteristic curled or frizzled plumage, they are the best birds to have as pets, are popular due to their sweet personality and fantastic mothering qualities. The Frizzles are fun to look at and their feathers are very soft.



Silkie

The Silkies are a breed of chicken named for its typically fluffy plumage, which is said to feel like silk. The breed has several other unusual qualities, such as dark blue flesh and bones, blue earlobes, and five toes on each foot (most chickens only have four). They come in several colors (red, gold, blue, black, white, and partridge). In addition to their distinctive physical characteristics, Silkies are well known for their calm, friendly temperament. Among the most docile of poultry, Silkies are considered an ideal pet. Hens are also exceptionally broody, and make good mothers. Though they are fair layers themselves, laying about three eggs a week, they are commonly used to hatch eggs from other breeds and bird species.



Golden Sebright and Silver Sebright

They are very small birds and have a sweet nature, they are excellent flyers. Their voice or cry is somewhat higher-pitched. They lay a small white egg.



Polish

The Polish (Also called the Poland) is a European breed of chicken known for its crest of feather sand v-shaped comb.



Kadaknath

Kadaknath is an Indian breed of chicken local to the Madhya Pradesh, where it is known as "Kali masi" ("fowl having black flesh") because the bird is black inside -out - skin, feathers, legsetc.TheKadaknath is popular mainly for its adaptability, and the good-tasting black meat, which is believed to infuse vigor. Its colour stems from the deposition of melanin pigment. Due to the meat's alleged medicinal properties, it is in high demand. The bird is high in iron and amino acids and low in fat. It tolerates extreme heat and cold climatic conditions and requires minimal management inputs. The breed is disease resistant and is valued for the quality and flavour of its black meat.



Housing and Management

In backyard Poultry rearing particular attention may be given to these important aspects namely,

- i. To give better ventilation in the night shelter.
- ii. Timely preventive vaccinations and deworming.
- iii. To provide some amount of balanced feed rather than leaving the birds entirely for scavenging.

Given below is a all-purpose premix developed at College of veterinary and animal sciences, Mannuthy exclusively for the use of backyard poultry. Fairly good egg production can be achieved by providing 50 per cent of daily requirement of feed in the form of balanced feed/commercial feed. Concentrate mixture for backyard poultry

Ingredients	Premix I (%)	Premix II (%)
Groundnut cake (expeller)	52	60
Gingelly oil cake	20	-
Unsalted dried fish	20	32
Broken rice/wheat/ dried tapioca	4	4
Mineral mixture for poultry	4	4
Total	100	100

(Source: Kerala Agricultural University)

Disease Management

In addition, strict sanitation, good litter management and adequate floor space will help to check the occurrence of diseases.

Vaccination programme for layer type chicken

Age	Disease	Vaccine	Route
1 day	Marek's	HVT vaccine	I/M
5-7 days	RD	Lasota/F	Occulonasal
10-14 days	IBD	IBD Live	Drinking water
24-28 days	IBD	IBD Live	Drinking water
8th week	RD	R2B/RDVK	S/C
16-18 week	RD	Killed/Live	S/C

(Source: Kerala Agricultural University)

De worming

Birds should be dewormed starting from 7th week and repeated at 3-week intervals so as to give a total of 4 deworming. Piperazine compounds, albendazole, mebendazole etc. can be used against round worms. Against tape worms, Niclosamide, Praziquintel, Albendazole can be used. While medicating through drinking water, it should be done by mixing the required quantity of medicine in the quantity of water that chicks normally consume in 4 hours time (say approximately 6 litres per one hundred, 6 week-old chicks, per day). Additional water should be given only when all the medicated water is consumed by the chicks.

Ectoparasites

On the slightest indication of ectoparasites, the birds should be dusted or dipped and houses fumigated. The following may be used for dusting and dipping, while dipping care should be taken to avoid head dipping. Dipping should be avoided on rainy days.

1. Tick tox - synthetic pyrethrin compound. Dose - as per manufacturer's instructions
2. Butox - Deltamethrin compound. Dose - as per manufacturer's instructions

In addition to these, general measures of sanitation such as keeping young stock away from adult stock, keeping the poultry houses and equipment's clean, prohibiting visitors into the poultry house, proper disposal of dead birds, prevention of entry of rodents and other birds into the pen and periodical culling will greatly help in checking diseases.

Fish Farming
Vikas P.A and Shinoj Subramanian
KVK, Njarakal
E-mail vikaspattath@gmail.com

ആമുഖം

നൂറ്റാണ്ടുകളായി മത്സ്യം ഭക്ഷണ വിഭവങ്ങളിൽ പ്രധാന ഇനമായി ലോകത്തിന്റെ പലഭാഗങ്ങളിലും ഉപയോഗിച്ച് വരുന്നു. മത്സ്യബന്ധനം, പുതിയ മത്സ്യബന്ധ രീതികളുടെ ഉത്ഭവത്തോടെ കഴിഞ്ഞ ഏതാനും വർഷങ്ങളായി ക്രമാധീതമായി വർദ്ധിച്ചതായി കാണാം. ഇതുമൂലം സ്വഭാവിക ആവാസ വ്യവസ്ഥയിൽ കാണപ്പെടുന്ന മൽസ്യവിഭവങ്ങളുടെ വൈവിധ്യവും ശരാശരി എണ്ണവും കുറഞ്ഞു. ഈ സാഹചര്യത്തിൽ വർദ്ധിച്ചുവരുന്ന മൽസ്യവിഭവങ്ങളുടെ ആവശ്യം നിറവേറ്റുന്നതിന് മത്സ്യ കൃഷി പ്രോത്സാഹിപ്പിക്കേ ത് അത്യന്താവശ്യമായി മാറികഴഞ്ഞിരിക്കുകയാണ്. ജലസ്രോതസ്സുകളുടെ സ്വഭാവത്തിന് അനുശ്രിതമായി മത്സ്യ കൃഷിയെ പ്രധാനമായും മൂന്നായി തരംതിരിക്കാവുന്നതാണ്. ശുദ്ധജലാശയങ്ങളിലെ മത്സ്യകൃഷി, ഓരുജലാശയങ്ങളിലെ മത്സ്യകൃഷി, സമുദ്രജലാശയങ്ങളിലെ മത്സ്യകൃഷി, വിവിധ രീതിയിലുള്ള മത്സ്യ കൃഷികളിൽ ശുദ്ധജല മത്സ്യകൃഷി, ഓരുജല ചെമ്മീൻ/മത്സ്യ കൃഷി എന്നിവ വ്യവസായിക അടിസ്ഥാനത്തിൽ നടത്തി വരുന്നു .

കേരളത്തിലെ ചെറിയതോതിലുള്ള മത്സ്യകൃഷിക്ക് വളരെയധികം പ്രചാരം ഏറികൊ ിരിക്കുകയാണ്. സുരക്ഷിതരീതിയിൽ ഉദ്പാദിപ്പിക്കുന്ന മത്സ്യങ്ങൾക്കുള്ള ആവശ്യക്കാർ ഏറിയതിനാൽ വിപണനം നടത്തിവരുമാനം ഉറപ്പാക്കാം എന്നുള്ളതിനാലാണ് കൂടുതൽ ആളുകൾ ഈരംഗത്തേക്ക് കടന്നുവന്നുകൊ ിരിക്കുന്നത്.

മത്സ്യകൃഷിമേഖലയിലെ സാധ്യതകൾ ഒരവലോകനം

1. കുളങ്ങളിലെ കരിമീൻ വിത്തുൽപാദനം

എട്രോപ്സസ് സുറേറ്റൻസിസ് എന്ന ശാസ്ത്രീയ നാമത്തിൽ അറിയപ്പെടുന്ന കരിമീൻ മത്സ്യങ്ങൾ വിവിധ ജലസ്രോതസ്സുകളിൽ ചെറിയതും വലിയതുമായ തോതിൽ കൃഷി ചെയ്തുവരുന്നു . ഇതിനായുള്ള കരിമീൻ മത്സ്യക്കുഞ്ഞുങ്ങളെ കായലുകളിൽ നിന്നോ തോടുകളിൽ നിന്നോ പിടിച്ചെടുത്താണ് കൂടുതലായും വിപണനം നടത്തിക്കൊ ിരിക്കുന്നത്. കൂടുതൽ കർഷകർ കരിമീൻ മത്സ്യ കൃഷി രംഗത്തേക്ക് കടന്നു വന്നതു മുതൽ കൃഷിനടത്തുവാൻ ആവശ്യമുള്ള ഗുണമേന്മയുള്ള കരിമീൻ കുഞ്ഞുങ്ങളെ കിട്ടാതായിരിക്കുകയാണ്. ആയതിനാൽ കരിമീൻ വിത്തുൽപാദനം നടത്തി വിപണനം നടത്തുന്ന ഒരു സംരംഭത്തിന് വളരെയധികം സാധ്യതകൾ ആണ് ഇന്ന് നിലവിലുള്ളത്.

2. ശുദ്ധജല / ഓരുജല മത്സ്യകൃഷി

സ്വഭാവിക കുളങ്ങൾ, പാറമടകൾ, മണൽ അല്ലെങ്കിൽ മണ്ണ് എടുത്ത് രൂപപ്പെട്ട വെള്ള കെട്ടുകൾ, തോടുകൾ എന്നിവയാണ് ശുദ്ധ ജലമത്സ്യകൃഷിക്ക് അഭികാമ്യമായ സ്ഥലങ്ങൾ. ഓർ ജലാശയങ്ങളോട് അനുബന്ധിച്ച് കിടക്കുന്ന കുളങ്ങൾ, കെട്ടുകൾ എന്നിവയാണ് ഓർ ജലകൃഷിക്ക് അനുയോജ്യമായ സ്ഥലങ്ങൾ. സ്വഭാവിക കുളങ്ങളിൽ മത്സ്യ കൃഷി തുടങ്ങുന്നതിനു മുതൽ മുടക്ക് തരതമ്യേനെ കുറവായിരിക്കും. മത്സ്യങ്ങൾക്ക് വളർച്ചാനിരക്ക് കൂടുതലായിരിക്കുമെങ്കിലും പിടിച്ചെടുക്കു

നതിന് പ്രത്യേക സംവിധാനം സജ്ജമാക്കണം എന്നുള്ളതും ശരാശരി അതിജീവനത്തോട് കുറവായിരിക്കും എന്നുള്ളതുമാണ് പ്രധാന പ്രശ്നങ്ങൾ.

3. കൃത്രിമ രീതിയിലുള്ള കുളങ്ങൾ നിർമ്മിച്ചുള്ള മത്സ്യം കൃഷി

മത്സ്യ കൃഷി നടത്തുന്നതിന് അനുയോജ്യമായ ജലസ്രോതസുകൾ സ്വന്തമായി ഇല്ലാത്തവർക്ക് കൃത്രിമ രീതിയിലുള്ള കുളങ്ങൾ നിർമ്മിച്ചുള്ള മത്സ്യ കൃഷി നടത്താവുന്നതാണ്. ഇത്തരത്തിൽ മത്സ്യകൃഷി നടത്തുന്നതിന് സാങ്കേതികപരിജ്ഞാനവും മുതൽമുടക്കും, സ്വാഭാവികരീതിയിൽ കൃഷി നടത്തുന്നതിനേക്കാൾ അധികമായിരിക്കും. സ്വന്തമായോ പാട്ടത്തിനെടുത്തതോ ആയ സ്ഥലവും ആവശ്യത്തിനുള്ള വെള്ളവും ലഭ്യമാണെങ്കിൽ ഇത്തരത്തിലുള്ള മത്സ്യകൃഷി ആരംഭിക്കാവുന്നതാണ്. വൈദ്യുതി ലഭ്യമായ സ്ഥലമാണെങ്കിൽ അധിസാന്ദ്രതാമത്സ്യകൃഷി രീതിയിലും കൃഷി നടത്താവുന്നതാണ്.

4. കൂട് മത്സ്യകൃഷി

തുറസ്സായ ജലാശയങ്ങൾ ആയ പുഴകൾ, ഡാമുകൾ, കായൽ, ആഴംകൂടിയ പാറമടകൾ, വലിയ കുളങ്ങൾ എന്നിവയിൽ നിയന്ത്രിത ചുറ്റുപാടിൽ മത്സ്യം വളർത്തുന്ന രീതിയാണ് കൂട് മത്സ്യകൃഷി. പാറമടകൾ, കായൽ, ചെമ്മീൻകെട്ടുകൾ, വലിയതോടുകൾ, ആഴം കൂടിയ കുളങ്ങൾ എന്നിവയിൽ കൂട് മത്സ്യകൃഷി വിപുലമായരീതിയിൽ പലകർഷകരും നടത്തിവരുന്നു .

ഗ്രോബാഗുകളിൽ കൃഷി നടത്തിസ്വന്തമായി ആവശ്യാനുസരണം പച്ചക്കറി ഉൽപാദിപ്പിക്കുന്നത് പോലെ രസകരമായ കൃഷി രീതിയാണ് കൂട് മത്സ്യ കൃഷി. ആവശ്യാനുസരണം പിടിച്ചെടുക്കാം എന്നതാണ് ഈ രീതിയുടെ വലിയ ആകർഷണം.

മത്സ്യകൃഷി മേഖലയിലെ നിവലിലെ സാഹചര്യം

ശുദ്ധജല മത്സ്യകൃഷിയും ഓരുജല ചെമ്മീൻ കൃഷിയുമാണ് ഇന്ന് വ്യവസായികാടിസ്ഥാനത്തിൽ കേരളത്തിൽ നടത്തിവരുന്നത്. കൂടുതലായും പുരുഷന്മാരാണ് വ്യവസായികാടിസ്ഥാനത്തിലുള്ള മത്സ്യകൃഷി രംഗത്ത് കൂടുതലായും പ്രവർത്തിച്ചുവരുന്നത്. എന്നാൽ കുടുംബശ്രീ, സ്വാശ്രയ സംഘങ്ങൾ വഴി സ്ത്രീകളും ഇന്ന് ഈ രംഗത്ത് ചുവടുറപ്പിച്ചുകൊ ിരിക്കുകയാണ്. സ്ത്രീകൾ കൂടുതലായും അലങ്കാര മത്സ്യകൃഷി, കല്ലുമ്മക്കായ കൃഷി, കടൽ മുരിങ്ങ കൃഷി എന്നിവയാണ് നടത്തിക്കൊ ിരിക്കുന്നത്.

കൃത്രിമ രീതിയുള്ള കുളങ്ങൾ നിർമ്മിച്ചുള്ള മത്സ്യം കൃഷിയും, കൂട് മത്സ്യകൃഷിയും സ്ത്രീകൾക്ക് എളുപ്പത്തിൽ നടപ്പിലാക്കാൻ സാധിക്കുന്ന സാഹചര്യം ഇന്ന് നിലനിൽക്കുന്നു . വിവരസാങ്കേതിക വിദ്യയുടെ വളർച്ചമൂലം മത്സ്യകൃഷി മേഖലയിലെ നൂതനസാങ്കേതിക വിദ്യകൾ എളുപ്പത്തിൽ മനസ്സിലാക്കാം എന്നുള്ളതും സാങ്കേതികവിദഗ്ദ്ധരുടെ ലഭ്യതയും, സർക്കാർ ഈ മേഖലയിൽ നൽകുന്ന പ്രോത്സാഹനങ്ങളും ഇന്ന് ഏതൊരാൾക്കും മത്സ്യകൃഷിവ്യവസായാടിസ്ഥാനത്തിൽ നടത്താം എന്ന സ്ഥിതി വിശേഷത്തിലേക്ക് കാര്യങ്ങളെ എത്തിച്ചിരിക്കുകയാണ്.

1. കുളങ്ങളിലെ കരിമീൻ വിത്തുൽപ്പാദനം

ഏകദേശം 40 സെന്റിനും 2 ഏക്കറിൽ താഴെയും വലിപ്പമുള്ള ഓരുജലകുളങ്ങൾ/കെട്ടുകൾ ആണ് കരിമീൻ വിത്തുൽപ്പാദനത്തിന് അനുയോജ്യമായ സ്ഥലങ്ങൾ. വിത്തുൽപ്പാദനം നടത്തുന്നതിന് മുൻപ് ശരിയായ രീതിയിൽ കുളങ്ങൾ ഒരുക്കേ താണ്. ആദ്യമായി കുളങ്ങളിലെ കള മത്സ്യങ്ങൾ

ളെയും സസ്യങ്ങളെയും പരിപൂർണ്ണമായി മാറ്റണം. കളമത്സ്യങ്ങൾ കരിമീനുകൾ ഇടുന്ന മുട്ടകളും വിരിഞ്ഞു വരുന്ന കുഞ്ഞുങ്ങളെയും ആക്രമിച്ച് ഭക്ഷണമാക്കുന്നതിനാൽ തളമത്സ്യങ്ങളെ കുഞ്ഞുങ്ങളെ സംരക്ഷിക്കുന്നതിന് കൂടുതൽ കരുതലുകൾ എടുക്കേ തായി വരും. കൂടാതെ കുഞ്ഞുങ്ങളുടെ അതിജീവ തോത് ഗുണമായി കുറയുകയും ചെയ്യും.

ശരിയായ രീതിയിൽ തയ്യാറാക്കിയ കുളങ്ങളിൽ വേണം തള മത്സ്യങ്ങളെ ഇറക്കി വിടേ ത്. ആൺ-പെൺ മത്സ്യങ്ങളെ തരംതിരിച്ച് മനസ്സിലാക്കുന്നത് എളുപ്പമല്ലാത്തതിനാൽ കൂട്ടമായി നടക്കുന്ന മത്സ്യങ്ങളെ തിരിയാതെ പിടിച്ചെടുത്താണ് കുളങ്ങളിൽ ഇറക്കുന്നത്. 12 മുതൽ 14 സെ.മീ. നീളവും 80 മുതൽ 160 ഗ്രാം വരെ വലപ്പവുമുള്ള മത്സ്യങ്ങളെ വേണം തള മത്സ്യമായി ഉപയോഗിക്കുവാൻ. പ്രജനന സമയമാണെങ്കിൽ ആൺ മത്സ്യങ്ങളുടെ ശരീരത്തിൽ കാണുന്ന വരകളും, വെള്ള പൊട്ടുകളും കൂടുതൽ തിളങ്ങുന്ന രീതിയിൽ ഉള്ളതായി കാണാം. ആരോഗ്യവും വേ ത്ര വലുപ്പവുമുള്ള പൊരുന് മത്സ്യങ്ങളെ 5 മുതൽ 10 എണ്ണം ഒരു സെന്റ് സ്ഥലത്ത് എന്ന ക്രമത്തിൽ വിത്തുൽപ്പാദനത്തിനായി ഉപയോഗിക്കാവുന്നതാണ്.



Pond preparation for Pearl spot seed production



Prepared brackish water pond for Pearl spot seed production

കരിമീനുകൾ മുട്ടയിട്ട് പ്രത്യുൽപാദനം നടത്തുന്നു എന്നതിനാൽ കുളങ്ങളിൽ മുട്ടകൾ ഒട്ടിച്ചുവയ്ക്കുന്നതിനുള്ള സൗകര്യം ഒരുക്കേ ത് അത്യാവശ്യമാണ്. തളമത്സ്യങ്ങളെ കുളങ്ങളിൽ ഇറക്കി വിട്ടു കഴിഞ്ഞ് 12 മണിക്കൂറിന് ശേഷം കൈ തീറ്റയോ തിരിതീറ്റയോ കൊടുത്ത് തുടങ്ങേ താണ്. ഇത്തരത്തിൽ ഒരു മാസത്തെ പരിപാലനത്തിനുള്ളിൽ തന്നെ ഇവ മുട്ടയിടുന്നതിന് ആരംഭിക്കും. വിരിഞ്ഞു വരുന്ന കുഞ്ഞുങ്ങളെ തള കരിമീനുകൾ മണലിൽ/ചെളിയിൽ ചെറിയ കുഴികൾ ഉ ാക്കി പരിപാലിക്കും. ഇവ സ്വന്തമായി തീറ്റയെടുത്ത് തുടങ്ങുന്നത് മൂന്ന് മുതൽ നാല് ദിവസങ്ങൾക്ക് ശേഷം മാത്രമാണ്. ഈ സമയത്ത് ഇവ ജന്തുപ്പവകളെയാണ് തീറ്റയായി കഴിക്കുന്നത്. ഇത്തരത്തിൽ ഒരു തള കരിമീൻ ഒരു തവണ 900 മുതൽ 1500 വരെ മുട്ടയിടും എന്നതാണ് കണക്കെങ്കിലും, കുളത്തിൽ ഒരു തള കരിമീനിൽ നിന്ന് 300 മുതൽ 400 കുഞ്ഞുങ്ങളെയാണ് ലഭിക്കുന്നത്. മൂന്നു മാസത്തെ പരിപാലനം കൊ ് ഇവ മത്സ്യങ്ങൾ വിരൽ വലുപ്പം പാകമാകുന്നതാണ്. വിരൽ വലുപ്പമെത്തിയ കുഞ്ഞുങ്ങളെ വീശ് വല ഉപയോഗിച്ചോ, ചെറിയ കൂട് വലകൾ ഉപയോഗിച്ചോ ആവശ്യത്തിന് പിടിച്ചെടുത്ത് വിപണനം നടത്താവുന്നതാണ്.



Bird protection net installed in Pearl spot seed production pond



Mud tiles installed in pond to facilitate Pearl spot egg production



Pearl spot brood fishes



Pearl spot eggs attached on substrate



Pearl spot seeds packed in oxygen filled polythene bags for transportation

2. ശുദ്ധജല/ഓരുജല മത്സ്യകൃഷി

സ്വാഭാവിക ജലാശയങ്ങളായ കുളങ്ങൾ ചെമ്മീൻകെട്ടുകൾ തുടങ്ങിയവയിൽ മത്സ്യകൃഷി തുടങ്ങുന്നതിനു മുമ്പ് കുളം ഒരുക്കേ ത് അത്യാവശ്യമാണ്. ഇതുമൂലം കുളത്തിലെ ഉപദ്രവകാരികളായ ജീവികൾ, മത്സ്യങ്ങൾ, പരാദ സസ്യങ്ങൾ എന്നിവ പരിപൂർണ്ണമായും ഒഴിവാക്കുന്നതാണ്.

ഇതിനായി മുഴുവനായും വറ്റിക്കാവുന്ന കുളങ്ങളിൽ വെള്ളം വറ്റിച്ച് കുറഞ്ഞത് മൂന്ന് ദിവസമെങ്കിലും ഉണങ്ങാൻ അനുവദിച്ചാൽ അനാവശ്യ ജന്തുജീവജാലങ്ങൾ നശിച്ച് കൃഷിയിടം പൂർണ്ണമായും വൃത്തിയാവുന്നതാണ്. ഇതാണ് ഏറ്റവും ഫലവത്തായതും, ആദായകരവുമായ മാർഗ്ഗം. എന്നാൽ പരിപൂർണ്ണമായും വെള്ളം പമ്പ് ചെയ്തോ, മറ്റ് രീതികൾ ഉപയോഗിച്ചോ വറ്റിക്കാൻ സാധിക്കാത്ത കുളങ്ങളിൽ ജൈവ/രാസ കളനാശിനികൾ ഉപയോഗിച്ച് കള മത്സ്യങ്ങളെ നശിപ്പിക്കാം. കുളത്തിലെ ജലത്തിന്റെ അളവ് പരമാവധി കുറച്ചതിന് ശേഷം, മായിരിക്കണം ജൈവ/രാസ കളനാശിനികൾ ഉപയോഗിക്കുവാൻ. വെള്ളം വറ്റിക്കാൻസാധിക്കാത്ത പാടമറകൾ ആഴം കുടിയ കുളങ്ങൾ എന്നിവയിൽ ഇത്തരത്തിലുള്ള ഒരുക്കൽ പ്രായോഗികമല്ലാത്തതിനാൽ മത്സ്യകൃഷിത്തുടങ്ങാൻ ഹാപ്പാനെറ്റുകളിൽ ഇട്ട് വളർത്തി വിരൽ വലുപ്പമാക്കിവേണം തുറന്നുവിട്ടുള്ള കൃഷി നടത്തുവാൻ.

Happa net installed in pond for nursery rearing of Mullet



Mullet farming brackish water pond and harvested fish



നെഴുസറി കുളങ്ങളിൽ വളർത്തി വലുതാക്കിയ വിരൽ വലുപ്പമുള്ള മത്സ്യകൃഷിത്തുടങ്ങിയതാണ് വലിയ കുളങ്ങളിൽ വളർത്തുന്നതിനായി ഇറക്കിവടേ ത്. ഒരേ വിഭാഗത്തിൽ പെടുന്ന മത്സ്യങ്ങളെ മാത്രമായോ വ്യത്യസ്ത വിഭാഗങ്ങളിൽപ്പെടുന്ന മത്സ്യങ്ങളെ ഒരുമിച്ചോ കൃഷി ചെയ്യുന്ന രീതിയിലാണ് ഇന്ന് മത്സ്യകൃഷി വ്യവസായിക അടിസ്ഥാനത്തിൽ ചെയ്തുകൊ ിരിക്കുന്നത്. ശുദ്ധജലാശയങ്ങളിൽ കട്ടല, രോഹു, മൂഗാൽ, തിലാപിയ, വാള എന്നീ മത്സ്യങ്ങളാണ് വളർത്തുന്നതിനു അഭികാമ്യം. ഓരുജലാശയമാണെങ്കിൽ തിരുത കരിമീൻ, പൂമീൻ എന്നീ മത്സ്യങ്ങളാണ് അഭികാമ്യം.

3. കൃത്രിമ രീതിയിലുള്ള കുളങ്ങളിൽ നിർമ്മിച്ചുള്ള മത്സ്യം കൃഷി

കൃത്രിമ രീതിയിലുള്ള കുളങ്ങൾ, ടാങ്കുകൾ, എന്നിവ നിർമ്മിച്ച് കൃഷി നടത്തുന്നതിന് ശരിയായ ആസൂത്രണവും സാങ്കേതിക പരിജ്ഞാനവും ആവശ്യമാണ് എന്നുള്ളതിനാൽ പരിശീലനം ലഭിച്ച ശേഷം മാത്രം തുടങ്ങുന്നതായിരിക്കും അഭികാമ്യം. സ്വാഭാവിക മത്സ്യകൃഷി നടത്തുന്നതിനേക്കാൾ മുതൽമുടക്കും അധികം വരുന്ന ഒരു കൃഷിരീതികൂടിയാണ് ഇത്.

കൃഷി ആരംഭിക്കുമ്പോൾ ശ്രദ്ധിക്കേണ്ട പ്രധാന കാര്യങ്ങൾ

ജലശോതസ്സ്

ചുരുങ്ങിയത് 8 മാസമെങ്കിലും എല്ലാ സമയത്തും വെള്ളം ലഭ്യമാകുന്ന സ്ഥലമാണ് കൃഷിക്കായി തിരഞ്ഞെടുത്തിരിക്കുന്നത് എന്ന് ഉറപ്പുവരുത്തണം. കുഴൽകിണർ കിണർ, കനാൽ എന്നീ ജലശോതസ്സുകളിൽ നിന്നും എടുക്കുന്ന വെള്ളമാണ് എങ്കിൽ വെള്ളത്തിന്റെ പുളിരസം അഥവാ പിഎച്ച് മൂല്യം പരിശോധിക്കണം. പിഎച്ച് മൂല്യം 6.5 നും 8നും ഇടയിലാണെങ്കിൽ അത് മത്സ്യകൃഷിക്ക് അനുയോജ്യമാണ് എന്ന് അനുമാനിക്കാം കൂടിവെള്ളത്തിനായി പൊതു ടാപ്പുകളിൽ വരുന്ന വെള്ളം ഒഴിവാക്കുന്നതാണ് നല്ലത്. ചിലപ്പോൾ ഇതിൽ ക്ലോറിന്റെ അംശം ഉറപ്പാക്കുന്നതിനുള്ള സാധ്യതയുണ്ട്.

കുളത്തിന്റെ നിർമ്മാണം

കൃത്രിമ കുളങ്ങൾ അല്ലെങ്കിൽ കോൺക്രീറ്റ് ടാങ്കുകൾ ആണ് മത്സ്യകൃഷിക്കായി സാധാരണ ഉപയോഗിക്കുന്നത്. കോൺക്രീറ്റ് ടാങ്കുകൾ കൈകാര്യം ചെയ്യുന്നതിന് എളുപ്പമാണെങ്കിൽ കൂടി നിർമ്മാണ ചെലവ് അധികമാകുന്നതിനാൽ മണ്ണിൽ കുഴിയെടുത്ത് ടാർപോളിൻ അഥവാ സിൽപോളിൻഷീറ്റുകൾ എന്നറിയപ്പെടുന്ന പോളിഥീൻ ലൈനർ ഷീറ്റുകൾ ഉപയോഗിച്ച് നിർമ്മിക്കുന്ന കുളങ്ങൾ ആണ് ചെറിയ തോതിലുള്ള മത്സ്യകൃഷി സംരംഭത്തിന് അഭികാമ്യം. കുളത്തിന്റെ ആകൃതി ലഭ്യമായ സ്ഥലത്തിന് ആനുപാധികമായി വേണം നിശ്ചയിക്കേണ്ടത്. സമചതുരാകൃതിയിലും, വൃത്താകൃതിയിലും, ദീർഘചതുരാകൃതിയിലും കുളങ്ങൾ നിർമ്മിക്കാവുന്നതാണ്.



Artificial pond constructed for fish farming

ചതുരാകൃതിയിൽ നിർമ്മിക്കുന്ന കുളങ്ങളിൽ മത്സ്യങ്ങളെ നിരീക്ഷിക്കുന്നതിനും, തീറ്റ നൽകുന്നതിനും വിളവെടുക്കുന്നതിനും എളുപ്പമായതിനാൽ ചതുരാകൃതിയിൽ നിർമ്മിക്കാൻ സാധിക്കുന്ന സ്ഥലത്ത് ഇത്തരത്തിൽ നിർമ്മിക്കണം.

കുളത്തിൽ അഞ്ചടി വെള്ളം വരത്തക്ക രീതിയിൽ വേണം ആഴം നിശ്ചയിക്കേണ്ടത് അമിതമായ ആഴം വർദ്ധിപ്പിക്കുന്നതുകൊണ്ട് ഇത്തരത്തിലുള്ള മത്സ്യകൃഷിയിൽ കൂടുതൽ മത്സ്യങ്ങളെ ഇടാൻ

സാധിക്കില്ല എന്ന് മാത്രമല്ല കുളത്തിന്റെ പരിപാലനവും വിളവെടുപ്പും മറ്റും കൂടുതൽ പ്രായസകരമാകുന്നതുമാണ്. ജെസിബി ഉപയോഗിച്ച് കുളം നിർമ്മിക്കുന്നതായാണെങ്കിൽ കുളം താത്തിയതിനു ശേഷം കുളത്തിന്റെ അടിത്തട്ട് ശരിക്കും നിരപ്പാക്കണം കൂടാതെ അടിതട്ടിൽ ഉള്ള കല്ലുകളും മറ്റ് സാധനങ്ങളും ഉൾക്കിട് മാറ്റണം. 200 ജിഎസ്എം എങ്കിലും കട്ടിയുള്ള ഷീറ്റുകൾ വേണം അടിയിൽ വിരിക്കുന്നതിനായി ഉപയോഗിക്കുവാൻ.



Air pumps for providing aeration to the ponds

സൂര്യപ്രകാശം നേരിട്ട് അടിക്കുവാൻ സാധ്യതയുള്ള സ്ഥലമാണെങ്കിൽ വിപണിയിൽ ലഭ്യമായ അഗ്രോഷെയ്ഡ് നെറ്റ് കുളത്തിന്റെ മുകളിൽ വിരിക്കണം. ഇങ്ങനെ ചെയ്തില്ലെങ്കിൽ കുളത്തിൽ അമിതമായി പ്ലവങ്ങൾ വളരുന്നതിന് സാധ്യതയുണ്ട്. മത്സ്യങ്ങളുടെയെ വളർച്ചയ്ക്ക് വേണ്ടത്ര ഓക്സിജൻ ആവശ്യമായതിനാൽ കുളത്തിൽ വായുകടത്തി വിടുന്നതിനുള്ള എയറേറ്റർവെക്കണം. കുളത്തിലെ വളത്തിന്റെ അളവിന് അനുപാധികമായി വേണം ഇതിന്റെ വാട്ട്സ് നിശ്ചയിക്കേണ്ടത്. കുളത്തിൽ വെള്ളം നിറച്ച് എയറേറ്റർ വെച്ചതിനുശേഷം മാത്രമാണ് മത്സ്യകുഞ്ഞുങ്ങളെ വളർത്താനായി ഇറക്കേണ്ടത്.

ജെനിറ്റിക്കലി ഇംപ്രൂവ്ഡ് ഫാർമെട് തിലാപിയ അഥവാ ഗിഫ്റ്റ് തിലാപിയ മത്സ്യങ്ങൾ ആണ് ഇത്തരത്തിൽ കൃഷി ചെയ്യുന്നതിന് അഭികാമ്യം. ഗിഫ്റ്റ് തിലാപിയ എന്നറിയപ്പെടുന്ന തിലാപിയ മത്സ്യങ്ങൾ പ്രത്യേക രീതിയിൽ തിരഞ്ഞെടുത്ത് പ്രജനനം നടത്തിയാണ് ഉൽപാദിപ്പിച്ചെടുത്തത്. ഇത്തരത്തിലുള്ള ഗിഫ്റ്റ് തിലാപിയ മത്സ്യങ്ങളെ കൃഷി ചെയ്യുന്നതിന് കേന്ദ്ര സർക്കാർ നിയമാവലികളും നിർദ്ദേശങ്ങളും തയ്യാറാക്കിയിട്ടുണ്ട്.

ഗിഫ്റ്റ് തിലാപിയ മത്സ്യങ്ങൾ പൊതു ജലാശയങ്ങളിൽ എത്തിയാൽ സാധാരണയുള്ള നാടൻ തിലാപിയ മത്സ്യങ്ങളുമായി പ്രത്യുൽപാദനം നടത്തുന്നതിനുള്ള സാധ്യത കൂടുതലാണ്. ആയതിനാൽ ഈ മത്സ്യങ്ങൾ സ്വാഭാവിക ജലാശയങ്ങളിലേക്ക് പോകുന്നത് തടയുന്നതിനുള്ള നടപടികൾ ഉറപ്പാക്കുന്നതിനാണ് ലൈസൻസ് നിർബന്ധമാക്കിയിരിക്കുന്നത്. ലൈസൻസ് ലഭിക്കുന്നതിന് സംസ്ഥാന ഗവൺമെന്റിന്റെ കഴിഞ്ഞുള്ള മത്സ്യവകുപ്പിന്റെ ജില്ലാ ഓഫീസിൽ അപേക്ഷ സമർപ്പിക്കണം. 100 രൂപയുടെ മുദ്ര പത്രത്തിൽ തയ്യാറാക്കിയ അപേക്ഷ കരം അടച്ച രസീതും തിരിച്ചറിയൽ രേഖകളും സഹിതം വേണം സമർപ്പിക്കുവാൻ 50 സെന്റിൽ അധികം വലുപ്പമുള്ള പാറമടകൾ, തനതായ ജലസ്രോതസുകളുമായി നേരിട്ട് ബന്ധപ്പെട്ടുകിടക്കാത്ത കുളങ്ങൾ, കൃത്രിമമായ രീതിയിൽ നിർമ്മിക്കുന്ന കുളങ്ങൾ (1 സെന്റ്) എന്നിവയിൽ കൃഷി നടത്തുന്നതിനാണ് ലൈസൻസ് ലഭിക്കുക. ലൈസൻസ് ലഭിച്ചുകഴിഞ്ഞാൽ ആന്ധ്രാപ്രദേശിലെ വിജയവാഡക്ക് അടുത്തുള്ള മാനിക്കൊ വില്ലേജിലുള്ള രാജീവ് ഗാന്ധി സെന്റർ ഫോർ അക്വാക്കൾച്ചർ എന്ന ഹാച്ചറിയിൽ മുൻകൂട്ടി ബുക്ക് ചെയ്താൽ ഗിഫ്റ്റ് മത്സ്യങ്ങളുടെ കുഞ്ഞുങ്ങളെ ലഭിക്കും.



GIFT DIFFERENT STAGES OF GROWTH



കുഞ്ഞുങ്ങൾക്ക് തിരി രൂപത്തിലുള്ള പൊന്തികിടക്കുന്ന തീറ്റ നൽകുകയാണ് അഭികാമ്യം. കുഞ്ഞുങ്ങളുടെ വലുപ്പമനുസരിച്ച് തീറ്റയുടെ തിരി വലുപ്പവും വർദ്ധിപ്പിക്കണം. കുഞ്ഞുങ്ങൾക്ക് ദിവസത്തിൽ 3 നേരം എന്ന ക്രമത്തിൽ വേണം തീറ്റ നൽകുവാൻ.

Various types of fish feeds available in market

4. കൂട് മത്സ്യകൃഷി

വലിയ കുളങ്ങൾ, പാറമടകൾ, ഡാമുകൾ എന്നിവയാണ് കൂട് മത്സ്യകൃഷിക്ക് അനുയോജ്യമായ കെട്ടികിടക്കുന്ന ജലാശയങ്ങൾ. ഒഴുകുന്ന ജലാശയങ്ങളിൽ സ്ഥാപിക്കുന്ന കടുകളുടെ നിർമ്മാണ രീതികളിൽ നിന്നും തികച്ചും വ്യത്യസ്തമായ രീതിയിൽ ആണ് കെട്ടികിടക്കുന്ന ജലാശയങ്ങളിൽ നിക്ഷേപിക്കാൻ ഉതകുന്ന കൂടുകൾ നിർമ്മിക്കുന്നത്. ഈ കൂടുകളുടെ നിർമ്മാണ ചിലവ് താരതമ്യേന കുറവായിരിക്കും. ജലാശയങ്ങളുടെ അമിതമായ ആഴം വിളവെടുപ്പ് തടസ്സമാകുമ്പോഴോ, മഴ സമയത്ത് നിറഞ്ഞ് കവിഞ്ഞ് ഒഴുകുന്നതിന് സാധ്യതയുള്ളപ്പോഴാണ് കെട്ടികിടക്കുന്ന ജലാശയങ്ങളിൽ കൂടുമത്സ്യകൃഷി അനിയോജ്യമാവുന്നത്. കെട്ടുകളിലെ കൂടു മത്സ്യകൃഷിക്കാവശ്യമായ കൂടുകൾ നിർമ്മിക്കുന്നത് താഴെ പറയുന്ന വസ്തുക്കൾ/സാധനങ്ങൾ ആണ് പ്രധാനമായും ആവശ്യമായിട്ടുള്ളത്.



1. മത്സ്യങ്ങളെ നിക്ഷേപിക്കുന്നതിനുള്ള വലകൾ.
2. വലകൾ പൊന്തികിടക്കുന്നതിനുള്ള പി. വി.സി. ഫ്രെയിം.
3. വലകൾ ജലത്തിൽ നിന്ന് ശരിയായ രീതിയിൽ നിൽക്കുന്നതിനുള്ള പി.വി.സി. മണൽ സിങ്കറുകൾ.
4. മത്സ്യ കൂടിന്റെ മുടി വലകൾ. അഞ്ചുമീറ്റർ ക്യൂബ് മുതൽ ആറ് മീറ്റർ ക്യൂബ് വരെ വ്യാസമുള്ള സമചതുരാകൃതിയിലുള്ള ഒരു കൂടിനു 7000 രൂപ രൂപയോളമാണ് ചെലവ് വരുന്നത്.

കുടുകൾക്ക് പുറത്ത് സംരക്ഷിത കവചമായിസ്ഥാപിക്കുന്ന പുറംവല ആവശ്യമുള്ളവർ ഇതിനുവരുന്ന വല പ്രത്യേകം തയ്യാറാക്കണം. തുറസ്സായ ജലശോതസ്സുകളിൽ കൃഷി നടത്തുവാൻ ആണ് ഇത്തരത്തിലുള്ളസംരക്ഷിത കവചം ആവശ്യമായി വരിക.



Rectangular cage construction

ശുദ്ധജലാശയങ്ങളിൽ കൂട് മത്സ്യകൃഷി നടത്തുവാൻ തിലാപിയ, വാള, കരിമീൻ എന്നീ മത്സ്യങ്ങളാണ് ഏറ്റവും അനുയോജ്യം. എന്നാൽ ഓർ ജലാശയങ്ങളിൽ കൂട് മത്സ്യകൃഷി നടത്തുവാൻ കാളാഞ്ചി, കരിമീൻ, തിരുത എന്നിവയാണ് അനുയോജ്യം. വിരൽ വലുപ്പമെത്തിയ കുഞ്ഞുങ്ങളെയാണ് കുടുകളിൽ വളർത്തുന്നതിനായി ഉപയോഗിക്കേ ത്. കെട്ടികിടക്കുന്ന ജലാശയങ്ങളിൽ കൂട് മത്സ്യകൃഷി നടത്തുമ്പോൾ 200 മത്സ്യകുഞ്ഞുങ്ങളെ വരെയാണ് ഒരു കുട്ടിൽ വളർത്തുവാൻ സാധിക്കുന്നത്. ഒഴുക്കുള്ള ജലാശയമാണെങ്കിൽ 350 മത്സ്യങ്ങളെ വളരെ വളർത്താവുന്നതാണ്. മത്സ്യ കൃഷിയിൽ തീറ്റ വളരെ പ്രാധാന്യമർഹിക്കുന്ന വിഷയമാണ്. കൃഷിക്കായി ജലാശയങ്ങളിൽ പ്രകൃതിയിൽ കാണുന്നതിനേക്കാൾ കൂടുതൽ മത്സ്യങ്ങളെ വളർത്തുമ്പോൾ അവയ്ക്കാവശ്യമായ ഭക്ഷണം ലഭ്യമല്ലാതാവുന്നു. ഈ സന്ദർഭത്തിൽ അവയ്ക്ക് തീറ്റ നൽകിയാൽ മാത്രമേ അവയുടെ ഉൽപാദനക്ഷമത പൂർണ്ണമായി നമുക്ക് ഉപയോഗപ്പെടുത്തുവാൻ കഴിയുകയുള്ളൂ. വിരൽ വലുപ്പമുള്ള കരിമീൻ, തിരുത, കാളാഞ്ചി മത്സ്യങ്ങൾ 9 മാസത്തെ പരിപാലനം കൊ ിയമാകുമ്പോൾ 130, 330, 800 ഗ്രാം വരെയാണ് വളരുന്നത്. എന്നാൽ തിലാപിയാ മത്സ്യങ്ങൾ 7 മാസത്തിനുള്ളിൽതന്നെ 350 ഗ്രാം വരെ വലുപ്പം വക്കുന്നതായിരിക്കും. തിലാപിയ കരിമീൻ തുടങ്ങിയ പരസ്പരം ഉപദ്രവിക്കാത്ത മത്സ്യങ്ങൾ കൃഷി ചെയ്യുമ്പോൾ നിശ്ചിത ഇടവേളകളിൽ കുഞ്ഞുങ്ങളെ നിക്ഷേപിക്കുകയാണെങ്കിൽ സ്ഥിരമായി ആവശ്യാനുസരണം വിപണനം നടത്തുവാൻ കഴിയുന്ന രീതിയിലേക്ക് കൃഷിയെ മാറ്റാവുന്നതാണ്.



Pearl spot Harvest size

Pearl spot fishes harvesting from cages

പ്രയോഗിക പരിശീലനം

- പരിശീലന പരിപാടിയിൽ പങ്കെടുക്കുന്നവർ 4 ഗ്രൂപ്പുകൾ ആയി തിരിയുക.
- മുകളിൽ സൂചിപ്പിച്ച 4 സംരംഭങ്ങളിൽ ഒന്ന് ഒരു ഗ്രൂപ്പ് തുടങ്ങുന്നതായി സങ്കല്പിച്ച് ഒരു ബിസിനസ് പ്ലാൻ ഉണ്ടാക്കുക.
- 4 ഗ്രൂപ്പും 30 മീനിറ്റ് സമയമെടുത്ത് ചർച്ച ചെയ്ത് ഇതിനുവേണ്ടി വിവരങ്ങൾ തയ്യാറാക്കുക (കൃഷിയിടത്തിന്റെ വിവരം, മൂലധനം, വിപണനം എന്നിവ ഉൾപ്പെടുത്തുക)
- ഗ്രൂപ്പ് ലീഡർ ബിസിനസ് പ്ലാൻ പ്രവർത്തനങ്ങൾ അവതരിപ്പിക്കുക. ശരിയോ തെറ്റോ എന്ന് പറയുക.

1. കരിമീൻ മത്സ്യങ്ങൾ പ്രസവിച്ചാണ് കുഞ്ഞുങ്ങളെ ഉത്പാദിപ്പിക്കുന്നത്.
2. കരിമീൻ ഓരുജലത്തിൽ മാത്രമേ വളരുകയുള്ളൂ.
3. തിലാപിയ മത്സ്യങ്ങൾതന്നെയാണ് ഗിഫ്റ്റ് എന്ന് അറിയപ്പെടുന്നത്.
4. തരൂത മത്സ്യങ്ങളുടെ കുഞ്ഞുങ്ങളെ കടലിൽ നിന്നാണ് പിടിച്ചെടുക്കുന്നത്.
5. കൂട് മത്സ്യകൃഷി ചെയ്യാൻ കഴിയുന്നതാണ് അഭികാമ്യം.

ഉത്തരം രേഖപ്പെടുത്തുക.

- 1.
- 2.
- 3.
- 4.
- 5.

Reference

- FAO & World Bank. 2015. Aquaculture zoning, site selection and area management under the ecosystem approach to aquaculture. Policy brief. Rome, Italy. (<http://www.fao.org/documents/card/en/cc777b3q-6afc-4475-bfc2-a516471b0d/>).
- FAO. 2010. Aquaculture development. 4 Ecosystem approach to aquaculture. FAO Technical Guidelines for responsible fisheries. No. 5, Suppl. 4. Rome, FAOP. 53 p. (<http://www.fao.org/docrep/013/i1750e/i1750e00.htm>).

- P.A. Vikas & Shinoj Subramannaian. 2013. Pokkalipadathum Kuttile Matsyakraishi. (Cage fish farming in Pokkali fields) Karshakasree, September 2013. PP 74-75.
- P. A. Vikas & Shinoj Subramannian (2015). Jaiva Hormone AminoPlus. Karshakasree February 2015.
- P. A. Vikas & Shinoj Subramannian 2013. Thirutha Valarthumund Shastram. (Scientific Mullet farming), Kerala Karshakan, November 2013. Book 59. Issue 4. PP 34-35.
- P. A. Vikas. 2012. Book Chapter “Paramadakilile Koodumaltyakraishi” in “Karimeen Oru Kaipusthakam”./ Published by Kerala State Fisheries Department funded by ATMA pp 36-41.
- P. A. Vikas. 2012. Karimeenkrishi, Kerala karshakan, June 2012, pp 64-65.
- P. A. Vikas 2013. Koodukal meenu veedukal, Karshakasree, February 2013. Book 19. Issue 2, pp 74-75.

Aquaponics

Ann Mary Jephi

Coordinator of Theeranaipunya, Ernakulam District

Email*: seettd@gmail.com

Introduction

An **aquaponics** system is a food production process which combines traditional aquaculture with hydroponics. The animals and plants in an **aquaponics** system have a symbiotic relationship. Effluents from aquatic animals are used by plants as food. In the process, the plants purify water for the aquatic animals.

The fish component of an aquaponics system is very similar to a standard recirculating aquaculture system. It comprises a fish rearing compartment (tanks), a solids removal filtering component and a biological filtering component. The bio filtering compartment is critical to aquaponics system design, because this contains the most important biological entity of the system: Bacteria. Whilst fish and plants provide the potential revenue or food sources grown in aquaponics, the bacteria are the work horses of the system. They allow harmful fish metabolite products to be converted to harmless waste nutrients that may be used by the plants. It is this bacterial conversion that is especially critical for aquaponics systems, as many fish species are relatively sensitive to these metabolic toxins. A good and efficient bio filter is an essential ingredient to successfully run aquaponics systems containing many fish species.

History

The first aquaponics research in Canada was a small system added onto existing aquaculture research at a research station in Lethbridge, Alberta. Canada saw a rise in aquaponics setups throughout the '90s, predominantly as commercial installations raising high-value crops such as trout and lettuce. A setup based on the deep water system developed at the University of Virgin Islands was built in a greenhouse at Brooks, Alberta where Dr. Nick Savidov and colleagues researched aquaponics from a background of plant science. The team made findings on rapid root growth in aquaponics systems and on closing the solid-waste loop, and found that owing to certain advantages in the system over traditional aquaculture, the system can run well at a low pH level, which is favored by plants but not fish.

Importance of Aquaponics

- miserly water use - the water is used very efficiently to grow two crops - fish & plants
- zero environmental impact - no nutrient-rich waste-water discharge, the fish food is used to its maximum potential (to grow fish & plants)
- two crops from the one input - the fish feed entering the system supports the growth of both fish and plants

- small footprint/high density - because of their compact nature, facilities may be located very close to the end users

Parts of an aquaponics system

A commercial aquaponics system includes electric pump moves nutrient-rich water from the fish tank through a solids filter to remove particles the plants above cannot absorb. The water then provides nutrients for the plants and is cleansed before returning to the fish tank.

Aquaponics consists of two main parts, with the aquaculture part for raising aquatic animals and the hydroponics part for growing plants. Aquatic effluents, resulting from uneaten feed or raising animals like fish, accumulate in water due to the closed-system recirculation of most aquaculture systems. The effluent-rich water becomes toxic to the aquatic animal in high concentrations but this contains nutrients essential for plant growth. Although consisting primarily of these two parts, aquaponics systems are usually grouped into several components or subsystems responsible for the effective removal of solid wastes, for adding bases to neutralize acids, or for maintaining water oxygenation. Typical components include:

- *Rearing tank*: the tanks for raising and feeding the fish;
- *Settling basin*: a unit for catching uneaten food and detached biofilms, and for settling out fine particulates;
- *Bio filter*: a place where the nitrification bacteria can grow and convert ammonia into nitrates, which are usable by the plants;^[14]
- *Hydroponics subsystem*: the portion of the system where plants are grown by absorbing excess nutrients from the water;
- *Sump*: the lowest point in the system where the water flows to and from which it is pumped back to the rearing tanks.

Hydroponic Subsystem

Plants are grown as in hydroponics systems, with their roots immersed in the nutrient-rich effluent water. This enables them to filter out the ammonia that is toxic to the aquatic animals, or its metabolites. After the water has passed through the hydroponic subsystem, it is cleaned and oxygenated, and can return to the aquaculture vessels. This cycle is continuous. Common aquaponics applications of hydroponic systems include:

- *Deep-water raft aquaponics*: Styrofoam rafts floating in a relatively deep aquaculture basin in troughs.
- *Recirculating aquaponics*: solid media such as gravel or clay beads, held in a container that is flooded with water from the aquaculture. This type of aquaponics is also known as *closed-loop aquaponics*.
- *Reciprocating aquaponics*: solid media in a container that is alternately flooded and drained utilizing different types of siphon drains. This type of aquaponics is also known as *flood-and-drain aquaponics* or *ebb-and-flow aquaponics*.
- Other systems use towers that are trickle-fed from the top, nutrient film technique channels, horizontal PVC pipes with holes for the pots, plastic barrels cut in half with gravel or rafts in them. Each approach has its own benefits.

Since plants at different growth stages require different amounts of minerals and nutrients, plant harvesting is staggered with seedlings growing at the same time as mature plants. This ensures stable nutrient content in the water because of continuous symbiotic cleansing of toxins from the water.

Benefits of aquaponics

1) Saves Space

Plant roots are constantly submerged in water which is rich in nutrients thus there is no overcrowding.

2) No Weeding

Don't need to do any weeding. Aquaponics systems don't encourage the growth of weeds because there is no soil thus you get more enjoyment and freedom growing plants

3) No Soil Pests

Aquaponics systems offer a way of growing plants without fearing soil pest or pesticide toxins

4) No Watering

You don't need to water your plants. This is a huge benefit because many crops fail because of poor watering techniques. Aquaponics uses 90% less water than traditional farming.

5) Offers a Source of Income

We can increase your food production significantly because you can plant more vegetables using very little space. Therefore, you're able to sell surplus production and earn extra income.

6) Plants Grow Faster

The fact that plants have access to nutrients 24 hours makes them grow faster. For instance, vegetables such as lettuce, which takes approximately 2 months to mature when planted normally in soil have been proven to mature in approximately one month when grown under aquaponics systems

7) Weather

We can grow any time of year, any weather, any place, even in droughty area with little water.

8) Get a Well-Rounded Diet:

Aquaponics allows you to enjoy a balanced diet because you get protein from the fish and you get delicious fruits and vegetables from the plants.

9) Drought Proof:

Aquaponics works during droughts or in places with poor soil quality. Once you add water to an aquaponics system it is continually recirculated and reused so very little needs to be replenished. This means no more worries when the dry season comes along.

10) No Waste Produced:

No waste – hydroponics wastes solution, aquaculture wastes water and fish solids, with aquaponics all “wastes” are used in the system.

11) Vegetables are bigger and healthier:

Aquaponics systems look remarkably prosperous with big, vibrant and healthy fruit and vegetables. There is no indication that the same could not be produced in a well-managed soil garden



Annexures

List of Participants

Ambily M.J Mannumkuzhiyil (H) Vadakkera P.O N.paravur pin:683522 Phone No:9656930804	Nishala K.P Thonikootathil (H) Vadakkumpuramp.o Vadakkumpuram Phone No:9633379097
AmrithaDinakaran Aynikad (H) Panambukad Vallarpadom P.O Phone No:8281222482	Rency A.P Anjuthaikal (H) Malipuram P.O Pin:682511 Phone No:9744254842
Anjali M.I Moorkkanad (H) Maliankara Moothakunnam P.O Phone No:9562047935	Ruby Titus Vatheriparambil Malipuram P.O Pin:682511 Phone No:9061590225
AnjuShibu Thundippurath (H) Kuzhuppilly Ayyampilly P.O Pin:682501 Phone No:9539613190	Sajmi P. J Padinjarepurakkal Elamkunnappuzha Chappa Beach Pin:682511 Phone No:9037155316
Anna Sherin P.S Pulithara (H) Ponnarimangalam Mulavukad P.O Phone No:9746469715 Email:annasherin@gmail.com	ShaniSanil Vayalil (H) Kuzhuppilly Ayyampilly P.O Pin:682501 Phone No:9946458622
Archana T.V ThottangalParambil (H) Puthuvype P.O Pin:682508 Phone No:7907249829	ShaniVinod Ponath (H) Aniyal Beach Edavanakkad Phone No:8547849503
AshkeyDharmaraj Edanilath (H) Vallarpadom P.O Cochin,Pin:682504 Phone No:8089232510 Email:ashkey.ash@gmail.com	ShemyJibin MarakkaParambil (H) Edavanakkadue P.O Aniyal Beach Phone No:9847607741

<p>Carrin Fernandez Pathissery (H) Puthuvyppu P.O Phone No:9809272723</p>	<p>Soumya M.S Madathingal (H) Nayarambalam P.O Kodungashery,Pin:682509 Phone No:9048401180</p>
<p>Febina P.F Kalluvettil (H) Mulavukad P.O Pin:682504 Phone No:8589916632</p>	<p>Sreeja F.S Thundithara Malipuram Ernakulam Pin:682511 Phone No:956218322</p>
<p>Geethu P.D Puliyannarparambil (H) Edavanakad P.O Ernakulam Pin:682502 Phone No:9048118183</p>	<p>Sruthy M.B Mannumkuzhiyil (H) Pattanam Vadakkekara P.O N.Paravur Pin:683522 Phone No:9526263906</p>
<p>Mary Jinsa Kurisuparambil Perumalpady Elankunnapuzha Pin:682503 Phone No:8089727841</p>	<p>Swathy C.S Cheerassery (H) Malipuram P.O Pin:682511 Phone No:7025746386</p>
<p>Nandhini P.S PaliyamParambil (H) Puthuvyppu P.O Pin:682508 Phone No:8589851751</p>	<p>Syama P.S Pulluttukaran (H) Cherai P.O Pin:683514 Phone No:9745402280</p>
<p>Neena K.J Kanappilly (H) South Puthuvyppu Ernakulam Pin:682508 Phone No:9633295240</p>	<p>Thushara V.P Valarkodil (H) Panambukad Vallarpadom P.O Phone No:9142032373</p>
<p>Neethu K.M Kalangara (H) Maliankara Phone No:9947220639</p>	<p>Vani Viswanath Anjuthaikkal (H) Edavanakad P.O Ernakulam Pin:682502 Phone No:9544156185</p>



List of Faculties	
<p>Abhilash P.R. (Mr.) Senior Technician(Exhibition Assistant) SEETTD, CMFRI Email:abhilashcmfri@gmail.com Mobile: 9946445403</p>	<p>Pradeep M.A. (Dr.) Scientist, MBTD CMFRI, Kochi Email:drpradeepma@gmail.com Mobile:8547118155</p>
<p>Ajith Thomas (Dr.) Associate Professor – Marketing, Saintgits Institute of Management, Kottayam Email:ajitht@duq.edu Mobile: 9446354373</p>	<p>Rahul G. Kumar (Mr.) Young Professional PMFGR ,NBFGR, Email: cichlidiot@gmail.com Mobile: 9020274737</p>
<p>Alloysious.P.S. (Mr.) Senior Technician, MFD ,CMFRI Email:psalloy@gmail.com Mobile:9961224269</p>	<p>RajoolShanis (Dr.) Technical Assistant PMFGR , NBFGR Email: rshanis@gmail.com Mobile: 8301067538</p>
<p>Ann Mary Jephy (Ms.) Coordinator, Theeranaipunya Training programme II Email:annrony27@gmail.com Mobile:8086303612</p>	<p>Rakhy Shyam (Dr.) Medical Officer NHM Homoeopath Dispensary , Aluva Email: rakhyshyam@gmail.com Mobile:9633141473</p>
<p>Ashalatha (Dr.) Principal Scientist Social Science Division Central Institute of Fisheries Technology CIFT Junction, Willingdon Island Matsyapuri P.O., Cochin-682 029,</p>	<p>Ramachandran.C (Dr.) Principal Scientist, SEETTD CMFRI Kochi Email: ramachandrancnairgmail.com Mobile: 9446129341</p>
<p>Aswathy N. (Dr.) Senior Scientist, SEETTD, CMFRI Kochi Email: aswathy.icar@gmail.com Mobile:9496449609</p>	<p>RameezRahman (Mr.) Senior Research Fellow SEETTD, CMFRI Email: rameezrahmanm@gmail.com Mobile:9656254515</p>
<p>Athira N.R. (Ms.) Senior Research Fellow SEETTD, CMFRI, Kochi Email:aathira31@gmail.com Mobile: 9446493492</p>	<p>Reeja Fernandez (Ms.) Senior Research Fellow, SEETTD, CMFRI Email:reejafernandez@gmail.com Mobile: 9544239929</p>

<p>Bindu Antony (Ms.) ICDS Supervisor, Email: binduantony@gmail.com Mobile: 9495049682</p>	<p>Rekha G. Nair (Dr.) Senior Scientist, Demersal Fisheries Division, CMFRI Email: rekhacmfri@gmail.com Mobile: 9446415736</p>
<p>Bineesh.K.K (Dr.) Scientist, PMFGR, NBFGR, Cochin Email: kkbineesh@gmail.com Mobile: 9037611957</p>	<p>Remya R. (Ms.) Research Associate SEETTD, CMFRI Email: remyarraj@gmail.com Mobile: 9400820533</p>
<p>Binsy .P.K (Ms.) Scientist Central Institute of Fisheries Technology E-mail: bindujaganath@gmail.com Mobile: 9446110651</p>	<p>Reshma.V.G. (Dr.) Senior Scientist, MBTD , CMFRI, Kochi Email: reshjanardhan@gmail.com Mobile: 8113983452</p>
<p>BinuKaliyadan (Mr.) Master Trainer, I Corporate Solutions Email: binukaliyadan@yahoo.com Mobile: 9744485210</p>	<p>Roshan G.S. (Mr.) Manager (Training) State Bank Learning Centre Email: rosh.gs@sbi.co.in Mobile: 9447711774</p>
<p>Boby Ignatius (Dr.) Principal Scientist MBTD, CMFRI Email: bobycmfri@gmail.com Mobile: 9446739731</p>	<p>Safeena .P.K Senior Research Fellow GULLS Project, SEETT Division, CMFRI Email: safeenapk@gmail.com Mobile:</p>
<p>Charles George (Mr.) Secretary Trade union Centre of India (TUCI) Email: charlestuci@gmail.com Mobile: 9447168852</p>	<p>Salini.K.P (Ms.) Technical Officer SEETTD, CMFRI Email: salinicmfri@gmail.com Mobile: 9446089588</p>
<p>Deepa P.N. (Ms.) Upper Division Clerk CMFRI, Cochin Email: deepapmanoj@gmail.com Mobile: 9946984000</p>	<p>SandhyaSukumaran (Dr.) Senior Scientist Marine Biotechnology Division, CMFRI, Kochi Email: sandhyasukumaran@yahoo.com Mobile: 9495614119</p>
<p>Dhanya G. (Ms.) Technician SEETTD, CMFRI Email: gdhanya06@gmail.com Mobile: 8593988238</p>	<p>Sathianandhan T.V (Dr.) Principal Scientist Head, FRAD, CMFRI, Kochi Email: Mobile:</p>

<p>Divya P.R. (Dr.) Senior Scientist, PMFGR , NBFGR, Cochin Email:divyanbfgr@gmail.com Mobile: 9496428404</p>	<p>Sathiavathy C.R. (Ms.) Executive Director, Society for Assistance to Fisherwomen Email: sathyamthanal@yahoo.co.in Mobile: 9447135866</p>
<p>Grinson George (Dr.) Senior Scientist, FRAD,CMFRI, Cochin Email:grinsongeorge@gmail.com Mobile: 8547857036</p>	<p>Shinoj P. (Dr.) Scientist, SEETTD, CMFRI Kochi Email:pshinoj@gmail.com Mobile: 9495609723</p>
<p>Harshakumar.P.S (Mr.) Consultant SAF East Kadunagloor Email: harshakumarok@gmail.com Mobile:9846023446</p>	<p>Shoji Joy Edison (Dr.) Subject Matter Specialist (Horticulture), KrishiVigyan Kendra, CMFRI Email:shojijoy@gmail.com Mobile:9746469404</p>
<p>Jeena N.S (Dr.) Scientist CMFRI, Kochi Email: jeenans@rediffmail.com Mobile:</p>	<p>Shyam S. Salim (Dr.) Principal Scientist, SEETTD, CMFRI Email: shyam.icar@gmail.com Mobile: 9746885361</p>
<p>Kripa.V (Dr.) Principal Scientist, FEMD, CMFRI Email:vasantkripa@gmail.com Mobile: 945317931</p>	<p>Sivaprasad.P.S (Mr.) Technical Assistant, Society for Assistance to Fisherwomen Email:siva.fish75@gmail.com Mobile:8891624331</p>
<p>Livi Wilson (Dr.) Scientist Demersal Fisheries Division, CMFRI Email:liviwilson@gmail.com Mobile:</p>	<p>Smitha K. (Ms.) PA to SFAO, CMFRI, Kochi Email: jgdksm@yahoo.co.in Mobile:9447016260</p>
<p>Madhu. K (Dr.) Principal Scientist Mariculture Division, CMFRI E-mail: kmadhu30@rediffmail.com Mobile: 9895567454</p>	<p>SmithaKuriakose (Adv.) M/s Chandrasekharan and Chandrasekharamenon, Advocates, Cochin Email: smithasinjo@yahoo.co.uk Mobile:9591813705</p>

<p>Maja Jose (Dr.) Assistant Director of Fisheries Training, Kadungalloor Email: maja_jose@yahoo.co.in Mobile: 9745442656</p>	<p>Soloman K. (Mr.) Technical Assistant, SEETTD, CMFRI Email: solomankcmfri@gmail.com Mobile: 9048101263</p>
<p>Manjeesh R. (Mr.) Senior Technician (Computer Application), CMFRI, Cochin Email: manjeeshr@gmail.com Mob: 9496428442</p>	<p>Somykuriakose (Dr.) Principal Scientist FRAD, CMFRI Email: somycmfri@gmail.com Mobile: 9446375363</p>
<p>Manjusha U. (Ms.) Coordinator, MOEF, Kannur Email: log2manju@gmail.com Mobile: 8281732926</p>	<p>Sreelu .N.S (Dr.) Joint Director of Fisheries Kadungalloor Email: sreeluns@yahoo.co.in Mobile:</p>
<p>Manu V.K. (Mr.) Senior Technical Assistant (Programme Assistant - Computer), CMFRI Email: manu@cmfri.org.in Mob: 9847745267</p>	<p>Sumithra T.G (Dr.) Scientist, CMFRI, Kochi Email: sumithravet@gmail.com Mob:</p>
<p>Mary Metilda (Dr.) Retd. Principal, Maharajas College Email: metildamary@yahoo.com Mobile: 9388605198</p>	<p>Sunil P.V. (Mr.) Technician, SEETTD, CMFRI, Cochin Email: sunilcmfri@gmail.com Mobile: 9995008943</p>
<p>Mathew A.K. (Mr.) Project Coordinator, IRTC, Palakkad Email: mathewirtctmc@gmail.com Mobile: 9495111768</p>	<p>Thankam Teresa Paul (Ms.) Scientist, CIFRI, Cochin Email: thankamtheresa@gmail.com Mobile: 7025149107</p>
<p>Mini K.G. (Dr.) Senior Scientist FRAD, CMFRI Email: mini.anish02@gmail.com Mob: 9446067548</p>	<p>Uma, E.K (Ms.) Assistant Chief Technical Officer (Hindi Translator) CMFRI, Cochin Email: umaek@rediffmail.com Mobile: 9447666518</p>
<p>Mini Sekharan (Dr.) Assistant Professor, School of Industrial Fisheries, CUSAT Email: minisekharan@yahoo.com Mobile: 9895070310</p>	<p>Vandana (Ms.) Technical Assistant (Hindi Translator) CMFRI, Cochin Email: vandana.ekpzha@gmail.com Mob: 9539136642</p>

<p>NikithaGopal (Dr.) Principal Scientist Central Institute of Fisheries Technology CIFT Junction, Willingdon Island Matsyapuri P.O., Cochin-682029 Kerala</p>	<p>Vidya R. (Ms.) Scientist, MFD, CMFRI Email: vidya.panicker@gmail.com Mobile: 9961993450</p>
<p>Miriam Paul Sreeram (Dr.) Scientist CMFRI, Kochi Email:miriampaul@yahoo.com Mobile:</p>	<p>Vikas P.A. (Dr.) Senior Technical Officer (SMS-Fisheries), CMFRI, Cochin E-mail: vikaspattath@gmail.com Mobile: 9447993980</p>
<p>Pearly Antony (Ms.) Assistant Professor, St. Teresa's College, Ernakulum Email: pearlyantony@gmail.com Mobile:9847908330</p>	<p>Vipinkumar V.P. (Dr.) Principal Scientist, SEETTD CMFRI Email: vipincmfri@gmail.com Mobile:9048540766</p>

	Capacity Building Training Programme Skill Enhancement and Capacity Building of Fisher Youth 5th November 2016 - 7th Jan 2017 AT CMFRI COCHIN	
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Self-Appraisal and Need Assessment

1.	Name (IN BLOCK LETTERS)	
2.	Address :	
3.	Age	
4.	Mobile no:	
5.	Email address	

Personal Details:

Sl.No	Name	Relation	Age	Education	Income	Remarks
1.						
2.						
3.						
4.						

Educational Qualifications:

Sl. No	Name of the educational institution	Degree	Year	University	Mark
1.					
2.					
3.					
4.					

Training experience

Sl. No	Name of the institution	Area	Year	Experience gained	Experience used	Remarks
1.						

2.						
3.						
4.						

Work experience

Sl. No	Name of the Organization	Degree	Period of work		Responsibilities	Current status
			From	To		
1.						
2.						
3.						
4.						

SELF-APPRAISAL

What is your aim and ambition in life?

Who is the person who has influenced the most in your life and How?

Do you make self-evaluation for developing yourself ? Yes / No. If Yes , How

What do you feel as the greatest achievement in your life?

The most cherished moment in your life?

How creative you are in doing things ? Cite one example which comes to your mind

Which aspect has given you the greatest satisfaction in life?

Family / Education / Finance / Friends / Spirituality / Others _____

What aspect has given you the least satisfaction in life?

Family / Education / Finance / Friends / Spirituality / Others _____

What were the most important challenges you faced in your life? Cite one incident which could be shared

Were you able to solve and if Yes , How could you face / solve the same?

How do you plan to overcome your difficulties- personal / social?

What are the goal you believe exists which still has to be achieved?

What are your goals for this year?

How do you plan to go further in fulfilling the goals?

Do you feel secure with your family / friends?

List out your major Strength / Weakness

Strength: _____

Weakness: _____

Do you agree that women need to work? If Yes Why?

Do you feel gender equality is possible in all area and is it necessary?

Do you feel that women are having enough security in the present society? If not point out the reasons for it?

Are you happy with the present level of women empowerment? Yes / No

If No, your suggestions for improving women empowerment

List the most important qualities in you?

Are you willing to go for job?

What do you consider to be your work related strengths and weaknesses?

Strength: _____

Weakness: _____

Who is the biggest support for you opting for job?

Do you have written clear and well defined goals for your future job activities? State Yes or No, If Yes...

What is the biggest hindrance in your life?

With whom do share your feelings and How often

Who will be the first person you will depend on when you are in a critical situation?

What all factors influence you while taking a decision (personal / professional)?

How confident are you to tackle a situation?

Do you try to maintain good relationship and connect with people whom you have met during your professional / personal life? Always / Sometimes / Never

Need Assessment

Which sector are you interested as a part of building your career?

- | | | |
|-----------------|-----------------|------------------------|
| a. Fisheries | b. Business | c. Garments & Textiles |
| d. Supermarkets | e. Housekeeping | f. Agriculture |

- g. Catering
- h. Social Work
- i. Politics
- j. Self-Employment
- k. Research
- l. Others (specify).....

Please indicate your current job level

- a. Teacher
- b. Office staff
- c. Self employed
- d. Trainee / Student
- e. Entrepreneur
- f. Supervisor
- g. Home maker
- h. Others (specify).....

What all factors influence you while selecting your job

- a. Salary
- b. Designation
- c. Location
- d. Boss
- e. Reputed Firms
- f. Working Hours
- g. Others (specify).....

Which type of training do you prefer most

- a. Classroom
- b. Video
- c. Internet
- d. Practical Sessions
- e. Group Discussion

What type of employment do you prefer - Full time / Part time /

What type of work culture do you think is more effective - Individual / Team work

What are the factors that you need to develop in improving your job

Factors that are limiting your work

- a. Family
- b. Physical disabilities
- c. Location
- d. Colleagues
- e. Nature of work
- f. Boss & Co-worker relation

Have you ever faced any issues previously in your job

Do you have previous work experience? Yes / No

Reason for quitting your previous job

Were you comfortable while working with your Superiors / peers

Do you have a teambuilding spirit , if Yes cite a good experience

Do you enjoy working as a team , If yes cite a memorable accomplishment

If you are given a duty by your superior, how will you accomplish it?

Individually / Seek Support / Share it with others / Pass on to others

Do you think future training and professional development is needed for your career

How often do you feel that training should be imparted to you during your career development for the future?

What do you feel is that prevent you from meeting or achieving your targets?

Would you like to provide any other details here

What is the most preferred area/ institution where you would like to have your job placement training for a month (in order of preference)

1.

2.

3.

(Tourism / Co-operatives / Administration / Hospitality / Research / Textiles / Sales & Marketing / Customer care / Any Others _____)



Training Programme Evaluation
Theeranaipunya II- Skill Enhancement and Capacity
Building of fisher Youth



(5 November 2016 - 7 January 2017)

Name of the trainee						
Trainee Code	TEKM-02-					
Email address				Mob.No:		
Score:	Pre			Post		

Kindly ✓ Mark Whichever Found Relevant (T- True ,F - False, U-Unaware)

Sl. No	STATEMENT	TEKM -02- POST TRAINING			TEKM- 02- PRE TRAINING		
		T	F	U	T	F	U
		SELF-APPRAISAL & NEED ASSESSMENT					
1.	Physiological need is the basic need of humans						
UNDERSTANDING AND IMPROVING SELF							
2.	Heredity and the environment does not shape our personalities						
3.	SWOT analysis is a planning method used to evaluate the strength, weakness, opportunities and threat						
4.	Self-esteem does not allow people to face life with more confidence						
5.	"To find yourself first learn about yourself."						
6.	Personality development is the ability of individuals to recognize their own and other people's emotion.						
7.	High self-esteem means bad opinion about you.						
8.	Emotional intelligence (EQ) is a better predictor of success than intelligence quotient (IQ).						
ATTITUDE							

9.	Negative thinking is a mental attitude in which you expect good and favorable results.							
MOTIVATION								
10.	PQ is otherwise known as Passive Quotient							
11.	Sphere of 3Ds in the context of motivation (Discipline, Dedication, Determination)							
SKILL DEVELOPMENT								
12.	Creative thinking help think and argue independently.							
13.	Empathy is the ability to understand the emotional makeup of other people.							
PERSONAL HYGIENE								
14.	Normal blood oxygen levels in humans are considered 95-100 percent.							
15.	After meals you should not lie down on your back							
16.	Common cold is caused by virus							
17.	Exercising regularly will help to reduce fat content in our body							
18.	Oncology is the study of cancer cells							
19.	Tulsi is not good for respiratory diseases							
20.	A normal human possesses roughly 5litre of blood							
21.	You should not blink your eyes often when working with computer							
22.	Long sight is otherwise known as myopia							
23.	Adults need to <i>drink at least 1.5 litres of water a day.</i>							
24.	Using high heeled sandals is not good for health							
LEADERSHIP								
25.	Sexual Harassment of Women at Work Place Act, 2013, enacted to ensure safe working spaces for women.							
26.	Asking or giving dowry is not punished by imprisonment as well as fine.							
27.	For a doctor instructional responsibility is to teach							
28.	International women's day celebrated on April 8 th							
29.	Failure is the achievement of something desired, planned or attempted.							
30.	Responsibility may be defined as an individual's obligation to carry out assigned duties.							
31.	Stress is not a reason for worry							

32.	Prathibhapatil was the first woman prime minister of India						
33.	Interpersonal conflict refers to conflict between two or more nations.						
34.	Women are increasingly represented in the work force, but still they face challenges balancing work and home life.						
35.	Leadership is the ability of an individual or organization to "lead" or guide other individuals, teams, or entire organizations.						

COMMUNICATION							
36.	Global warming causes decrease in temperature						
37.	The social process by which people interact with each other in small groups can be called group dynamism						
38.	The deadliest Tsunami recorded in Kerala took place on 26 Dec 2006						
39.	Leadership, communication and systems are the three most important ingredients to make a great business.						
40.	The social process by which people interact with each other in small groups can be called group dynamism.						
41.	Smaller groups are advantageous than larger groups in group dynamics						
42.	Videoconferencing is not a communication system.						
43.	Public speaking is the formal, face-to-face talking of a single person to a group of listeners.						
44.	Hearing, understanding and judging are not the basic steps in listening process.						
45.	Crossing your arms, avoiding eye contact, or tapping your feet are signs to effective communication.						
46.	Communication is the act of transferring information from one place to another, through vocal, written, visual or non-verbal						
47.	Creativity do not turn new and imaginative ideas into reality.						
COMMUNICATIVE LANGUAGES							
48.	Communicative English helps in grammatical perfection rather than communicating the meaning of the message.						
49.	Language does not communicate ideas from one person to another.						
50.	Hindi is one of the official languages of the Union of India.						
51.	Did Malayalam get Sreshta bhashapadavi?						
CAREER GUIDANCE							

52.	Career guidance does not aims to assist the employees informed about career decisions						
53.	Career is the position held by an individual throughout his work life						
54.	Performance appraisal is a method by which the job performance of an employee is documented and evaluated.						
55.	Smart work does not save time.						
56.	The more contacts you have in the marketplace, the more likely it is you will find the job you want.						
CUSTOMER CARE							
57.	CRM stands for Coastal Regulation Management						
58.	Customer feedback does not help to fix problems and identify successes in a business						
59.	SAF helps in economic empowerment of Fisher men						
60.	Two ways of understanding customer needs are interviews and surveys.						
61.	SAF assist the fisher women technically/financially to start new micro enterprises.						
62.	Monetary management is the process of budgeting, saving, investing and spending the cash usage of an individual or group.						
INTERPERSONAL RELATIONSHIP							
63.	Criticism does not give the opportunity to learn and improve from other people's suggestions.						
64.	Facilitation is any activity that makes tasks for others difficult.						
65.	Interpersonal skills (soft skills) are used every day and in every area of our lives.						
66.	Being friendly does not influence people.						
67.	Interpersonal skills are also referred to as: soft skills, communication skills or life skills.						
TIME MANAGEMENT							
68.	Time management is the amount of time you spend on which activities						
69.	Time and tide waits for none						
70.	Listing duties doesn't save time.						
FISHERIES ENTERPRISES AND EMPOWERMENT OPPORTUNITIES							
71.	Mussels are called Kallumakkaya in malayalam						
72.	Sathar Island is in Ernakulam district						

73.	Clown fish is an ornamental fish							
74.	CMFRI-central marine fisheries regulation institute							
75.	SAF was formed in the year 2005							
76.	Oil sardine/Mathi is the state fish of Kerala							
77.	Nirbhaya (fearless) is an initiative of the Kerala government, to guarantee security for women and children							
78.	Kudumbashree is a male-oriented, community-based, poverty reduction project of the Government of Kerala.							
79.	Kadalmuringa is called oyster.							
80.	Mussel farming is not practiced in Ernakulam district							
81.	Meat chickens, commonly called broilers.							
82.	Poultry farming is the raising of domesticated animals for the purpose of farming meat							
83.	Prime Minister's RozgarYojana (PMRY) is the scheme is designed to create and provide self-employment opportunities to educated unemployed youth.							
84.	ICDS stands for Institute for Child Development Services							
85.	Fish farming involves raising fish commercially in tanks or enclosures, usually for food.							
COMPUTER TRAINING								
86.	Mean and average are different							
87.	Range is not the minimum and maximum values in a sample							
88.	Median is the middle value of a group of measurement.							
89.	Ms Word helps in slide-based presentation.							
90.	JPEG used in image file formats.							
91.	Ctrl+A is used to select all contents of the page							
92.	Word /excel/PowerPoint comes together in Ms Office							
93.	Google is not a search engine							
94.	MS excel helps in calculations in computer							
95.	Powerpoint has rows and columns to organize data manipulations.							
96.	WWW is World Wide Web							
97.	Ctrl+ C is used to paste the copied contents of the page							
98.	HTML is Hypertext Markup Language							
99.	Ctrl+V is used to copy contents of the page							
100.	Monitor is the heart of the computer							



CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

(Indian Council of Agricultural Research)

&

Government of Kerala- Department of Fisheries

SOCIETY FOR ASSISTANCE TO FISHERWOMEN (SAF)

Theeranaipunya II- Skill enhancement and Capacity
Development of fisher youth

PARTICIPANTS EVALUATION PROFORMA

1.	Name (IN BLOCK LETTERS)	
2.	Age and Date of birth	
3.	Mobile No:	
4.	Email address	
5.	Address	

General impression: Please tick (✓) in the appropriate column you consider best

	Impression	Very well satisfied	Partially satisfied	Partially dissatisfied	Dissatisfied	Very much dissatisfied
1.	How satisfied are you with the general arrangement of the training programme?					
2.	How satisfied are you with the extent of laboratory facilities which were available for the training programme?					
3.	How helpful is your participation in decision making and planning of such a programme in future?					
4.	How satisfied are you with the behaviour and style of your teachers?					

Given below are some of the important areas-----please tick (✓) one that interests you most (in a score from 1 to 5) - 5- Most interested

Area	Interest	Area	Interest
Discover and Empower yourself		Career planning	
Self-Image, Self Defence and Self Esteem		Stress Management	
Personality Development		Success strategies	
Motivation		Work Life Balance	
Creativity and Creative thinking		Women rights and empowerment	
Public speaking and Listening		Communication	

Given below are the major areas of talks and practical covered in Theeranaipunya Training Program

Please rate the theory and practical sessions as, (Poor -1, Average -2, Good - 3, Very good- 4, and Excellent -5)

Sl.no	Lecture	Faculty
1.	Skill enhancement and Capacity Development of fisher youth	Dr. Shyam S Salim
2.	Training Programme ex ante assessment	Dr. Shyam S Salim
3.	Key note	Ms. Sathiavathy,C.R
4.	Knowing yourself	Dr. Shyam S Salim
5.	Self-appraisal & Need assessment	Dr. Shyam S Salim
6.	Discover yourself	Mr. Binu Kaliyadan
7.	Empower yourself	Mr. Binu Kaliyadan
8.	Need for empowerment	Mr. Binu Kaliyadan
9.	Motivation	Mr. Binu Kaliyadan
10.	Alternate livelihood option	(SAF - Mr. Mathew A.K)
11.	Goal setting	Dr. RajoolShanis
12.	Building Self : Confidence and Competence	Dr. Shoji Joy Edison
13.	Self Esteem	Ms. Maja Jose
14.	Attitude and attainment	Dr. Vipinkumar V P
15.	Values for a successful career and life	Dr. Aswathy.N
16.	Decision making	Ms. Dhanya G
17.	Art of positive thinking	Ms. Livi Wilson

18.	Know your Aptitude	Dr. Vipinkumar V P
19.	Effective ways of motivation	Mr. Binu Kaliyadan
20.	Effective communication means and methods	Dr. Vipin Kumar V P
21.	Problem Solving	Ms. Deepa P N
22.	Sphere of 3Ds(Discipline, Dedication, Determination)	Dr. Grinson George
23.	Critical thinking	Manjusha U
24.	Leadership -Qualities ,Skills	Dr. V Kripa
25.	Successful career and its attributes	Dr. Sandhya Sukumaran
26.	Empathy	Dr.Shyam.S.Salim
27.	Cultivating Burning desires	Dr. Ashalatha
28.	Good manners	Reshma K.J
29.	Success Strategies	Ms. Pearly Antony
30.	Stress management	Dr. Ajith Thomas
31.	Customer Relationship	Dr.Ajith Thomas
32.	Listening skills/ Public Speaking	Dr. C Ramachandran
33.	Analyzing customer needs and customer satisfaction	Mr. Rameez Rahman
34.	Fisher community welfare	Charles George
35.	Work Life Balance	Dr.Shyam.S.Salim
36.	Woman rights and empowerment	Ms. SmithaSinjo
37.	Performance appraisal	Dr. Mini Sekharan
38.	SWOT- of fisherwomen	Dr. Shinoj.P
39.	How to overcome barriers	Ms. Reeja Fernandez
40.	Anger, Management and conflict resolution	Ms. Reeja Fernandez
41.	Government plans and programmes for women	Dr. Sreelu. N.S
42.	Personal Hygiene	Dr. Rakhy Shyam
43.	Health and habits	Ms. Smitha K
44.	Indigenous knowledge	Ms. K.P.Salini
45.	Creativity	Dr. Sumithra .T.G
46.	Group dynamics	MsThankam Teresa Paul
47.	EQ (Emotional Quotient)	Dr. Shyam S Salim
48.	Creative thinking	Dr. Divya.P.R
49.	Communicative English	Rahul G Kumar
50.	Official language-Hindi - Verbal	Ms. Uma E.K

50.	Official language-Hindi - No Verbal	Ms. Uma E.K
51.	Passion Quotient	Dr. Shyam S Salim
52.	Communicative English	Dr. Miriam Paul
53.	Instructional and Non instructional Responsibilities	Ms. Pearly Antony
54.	Talent development Strategies	Dr. K. K. Bineesh
55.	How to influence people	Dr. Sandhya Sukumaran
56.	Interpersonal skills	Dr.Shyam.S.Salim
57.	How to handle Criticism	Mr. Sunil P V
58.	Stop worrying and start living	Ms. Remya. R
59.	Microenterprises: Marketing skills and strategies	Mr. P.S.Sivaprasad
60.	Monetary management	Mr. P S Harshakumar
61.	Time Management, Resource and priorities	Dr. Mary Metilda
62.	Personal Time Management Skills	MsAthira N R
63.	Facilitation	Dr. Jeena N.S
64.	Time bounded planning towards success	Mr. Soloman K
65.	Personality Development	Dr.NikithaGopalan
66.	Career planning	Dr.Grinson George
67.	Aquaponics	Ann Mary Jephy
68.	Self-Image ,Self Defense	Rekha. G. Nair
69.	Financing women businesses	Mr.Roshan
70.	Levels of motivation	MsBindu Antony
71.	Ornamental fish culture	Dr K. Madhu
72.	Value added fish products	Dr. Bincy.P.K
73.	Cage aquaculture	DrBoby Ignatius
74.	Mussel farming	MrP.S.Alloysious
75.	Oyster farming	MsVidhya.R
76.	Backyard Poultry farming	Dr Pradeep M A
77.	Fish farming	Dr.Vikas.P.A
78.	Integrated fish farming	Ann Mary Jephy
79.	Basic Statistics and Computational Skills	Dr.T.V.Sathianandan
80.	Computational skills	Safeena P.K
81.	Evolving fisherwoman livelihoods to businesses	Dr. Shyam. S. Salim
82.	Introduction to Computers	Dr.Mini.K.G
83.	Word /excel/PowerPoint	DrSomyKuriakose

84.	Practical session	Mr Manu V.K
85.	Internet and creating Email address	Dr.Mini.K.G
86.	Imparting Audio visual skills	Mr Abhilash.PR
87.	Practical session- Photoshop	Mr Abhilash.PR
88.	Practical session	Mr.Manjeesh .R
89.	Time bound planning towards success	Mr. Solomn .K
90.	Communication skills- Interactive presentations-I	Dr. Shyam. S. Salim
91.	Communication skills- Interactive presentations-II	Dr. Shyam. S. Salim
92.	Communication skills- Interactive presentations-III	Dr. Shyam. S. Salim
93.	Communication skills- Interactive presentations-IV	Dr. Shyam. S. Salim
94.	Experiential training	Dr. Shyam. S. Salim
95.	Experiential training and placements	Dr. Shyam. S. Salim
96.	Training Programme- ex post evaluation	Dr. Shyam. S. Salim
97.	Wrap up session and feedback	Dr. Shyam. S. Salim

The classes are evaluated based on content, presentation, practical and overall.

Could you satisfy yourself with the amount of participation in most of the discussions towards the end of lectures? (Tick the reasons)

Yes always	
Yes, but not only sometime	
No. if no, then please indicate the reasons:	
Lack of time	
There was nothing important to discuss	
Questions were embarrassing to speakers	
Any other (Please specify)	

Please spell out most important purpose of attending this Theeranaipunya Training Program

(i)	
(ii)	

How was the daily programme? Tick the appropriate one:

Very tight	Tight	Light	Very light	Comfortable

If you think that some more topics and/or techniques should have covered in the Theeranaipunya Training Program, then please list the topics and techniques that could be added

(i)	
(ii)	
(iii)	

Were you satisfied with the duration of the Theeranaipunya Training Program? -

Yes / No If No then how many days could be ideal. _____

What is your overall opinion about the Theeranaipunya Training Program?(In a score of 1-10) and cite reasons for the score and suggestions to improve

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Thank you all .Have a great career and life ahead.....

समुद्रीअनुसंधान जलजीवशाला
MARINE RESEARCH AQUARIUM



Theeranaipunya II - Trainees



ICAR-Central Marine Fisheries Research Institute

Post Box No: 1603, Ernakulam North P.O.
Kochi – 682018, Kerala, India
www.cmfri.org.in