DEVELOPING GENERIC SKILLS AMONG UTM STUDENTS THROUGH TEACHING & LEARNING

Mohd Salleh Abu
CENTRE FOR TEACHING & LEARNING (CTL)

Creative Teaching, Effective Learning

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Our Approach:

01 Creating Awareness and Acceptance of GS at Institutional Level
02 Equipping Staff With the Essential Knowledge and Skills Required to Develop GS
03 The Framework for GS Development
04 Developing GS Through T&L
05 Integrating GS Into T&L
DEVELOPING GS AMONG UTM STUDENTS THROUGH T&L

Creating Awareness and Acceptance of GS at Institutional Level

GS Across The Globe
GS: What?
GS: Why?
Graduate Attributes
UTM Graduate Attributes
GS ACROSS THE GLOBE

- U.K.  Core skills, key skills, common skills, transferable skills
- N.Z.  Essential skills
- Australia  Key competencies, employability skills, g.s.
- Canada  Employability skills
- U.S.  Basic skills, workplace know-how
- S’pore  Critical enabling skills
- France  Transferable skills
- Switz.  Trans-disciplinary goals

GS: WHAT?

Generic skills are the general, over-reaching skills, qualities, knowledge, abilities and traits that a person should possess to succeed in one’s studies and career.
In brief, generic skills are:

- Skills that can be applied across a variety of subject domains
- Skills that apply across a variety of jobs and life contexts
- Non-technical skills that highly associated with employability

(some disturbing Facts and Figures)

- 70K graduates are without job.... (as of August 2003)
- A big number of graduates are currently employed in ‘non-graduate job’
- One in three graduates in Singapore encounters serious difficulty to find ‘graduate-job’ (as in Aug 2003)
- ......
Jobless graduates lack critical skills

By Annie Freeda Cruz

KUALA LUMPUR, Tues. — The government is concerned about the increasing number of unemployed graduates, many of whom lack communication skills, are unable to use computers and lack team spirit.

Human Resources Minister Datuk Dr Fong Chan Onn said feedback from employers indicated that most of these graduates were from public universities.

"I have informed the cabinet that employers prefer to employ graduates from private institutions of higher learning and those who return from overseas because of their qualifications and their better computer skills and work competency. "

"According to the employers, public university graduates find it hard to communicate in English, have no proper computer skills and are unable to interact with other races and carry out tasks as a team. They also prefer to work within the stipulated working hours and do not go the extra mile to close deals after office hours or stay back to do extra work."

Speaking to reporters after launching the Graduate Training Scheme (GTS) II at Crown Princess Hotel here, Fong said the feedback he received from employers was submitted to the cabinet on several occasions and to the Education Ministry.

"It’s important that universities take into consideration employers’ demands so that graduates are well qualified and competent when seeking employment in the private sector."

Some 30,000 graduates register with the Manpower Department annually for jobs.

In view of the many unemployed graduates, Fong said, the government had allocated RM109 million under the stimulus package to provide specialized courses for some 15,000 unemployed graduates to enable them to be more competitive.

The graduates will be taught Microsoft Certified Systems Engineering, Cisco Certified Network Professional, Linux Systems Administration, Business Accounting and Marketing, apart from Information and Communications Technology (ICT) and English.

Graduates who had not been employed since 1999 are qualified to apply.

(Reasons given by employers for not hiring young graduates)

- Low grades and low levels of academic accomplishments
- Poor attitudes, lack of self-confidence
- Lack of goals, poorly motivated
- Lack of enthusiasm, lack of drive, little evidence of leadership potential
- Lack of preparation for the interview
- Excessive interest in security and benefits, unrealistic salary demands and expectations
- Inadequate preparation for type of work, inappropriate background
- Lack of extracurricular activities

source: AC Nelson
Australia’s education sectors have been facilitating generic skills development for several years, but in isolation. However, a collaborative cross-sectoral approach is being developed in Australia, to be appraised in 2004. Those generic skills most closely linked with employability are the focus of this approach (NCVER 2003).

There are numerous surveys available which list the skills employers are looking for. Thankfully most of these lists are very similar......the transferable skills (University of Manchester & UMIST Careers Service 2002)
Some Extracts....

The steadily increasing complexity at the workplace and the accelerated pace of technological change require workers to acquire both rapidly advancing technological know-how and the generic skills. This current phenomenon demands education and training institutions to produce graduates with the right subject discipline required by the industry as well as those with the right attitude, acumen and interpersonal skills to deal with a work environment.

To stay competitive companies do not have the luxury of lead-time to hire fresh graduates and train them over a period of time.

(Vice-President of FMM - June 2002)

View of a senior representative of Petronas:

“We expect an employee to be able to work when she comes in. That’s the reason why when we recruit candidates, we expect them to be able to perform the task as soon as they are on the job. I would say, ‘These are the points I would like you to include in your report’ and that’s about it. ...she will have to have her own ideas... do some research and call up...companies concerned.... I won’t have time to hold the person by the hand.... The person will have to be very independent. That’s why initiative is very important – initiative and achievement motivation.

Sources: Editorial Board, ESP Malaysia. 1993. A glimpse into the significative world of Petronas. ESP Malaysia, 1/1:77-86.
**Reasons For Employing More Foreign Graduates**

(Attitude of Foreign Graduates)

- “Foreign graduates are more open-minded and more importantly, they are risk-takers. Even during big meetings we can see that those who dare to share their views are more of foreign graduates.”

(Property/Local/Malay)

(Extracted from a report on ‘Employability of Malaysian Graduates’ presented to the Majlis Tindakan Ekonomi Malaysia, 8 April 2003)

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**Engineering Graduate!!**

If you are a final year mechanical, electrical, telecommunications or computer engineering student apply for the “Engineering Graduate Careers Program”.

Impress us with your:

* Well developed communication and team skills
* Aptitude for developing positive business partnerships
* Ability to ‘look outside the square’
* Aptitude for independent problem solving
* Strong interpersonal and organising skills
* Enthusiastic and proactive approach

You will need to demonstrate a strong academic record and be in your final year of study for an engineering degree.
Appointments

Software Engineers/Programmers and Customer Support Engineers

- Degree holder in Computer science or related field
- With good technical and trouble-shooting skills
- Team player with strong analytical and communication skills
- Experience in providing technical support service to customer and project implementation team
- Experience in problem resolution and providing advisory services from a preventive maintenance perspectives
- Fresh graduates are encouraged to apply

Interested candidates are invited to email or post their comprehensive resume stating expected salary with recent passport size photograph to:

SPRITWEST SDN BHD
22-G, Jalan Pandan 3/16, Pandan Jaya, 55100 KL
Tel: 603-92974799 Fax: 603-92903851
Email: jobs@spireast.com.my

Send Subject: Application

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http://www.jz-media.com
Skills required by employers:

- creativity and flair
- enthusiasm
- capacity for critical and independent thinking
- flexibility and adaptability
- personal presentation and grooming
- problem solving skills
- oral business communication skills


TOP TEN SKILLS OR QUALITIES BUSINESS ADMINISTRATION GRADUATES SHOULD POSSESS: THE VIEWS OF MALAYSIAN MANAGERS

- Technical skills
- Creativity and resourcefulness
- Interpersonal skills
- Business communication skill
- Analytical skills
- Goal oriented
- Team player
- Flexibility and resourcefulness
- Decision-making skills
- Leadership skills

## Employers Rating of Skills/Qualities - 2002

1. Communication (verbal & written) 4.69  
2. Honesty/Integrity 4.59  
3. Teamwork skills 4.54  
4. Interpersonal skills 4.50  
5. Strong work ethics 4.46  
6. Motivation & initiative 4.42  
7. Flexibility/adaptability 4.41  
8. Analytical skills 4.36  
9. Computer skills 4.21  
10. Organisational skills 4.05  
11. Detail oriented 4.00  
12. Leadership skills 3.97  
13. Self confidence 3.95  
14. Friendly/outgoing personality 3.85  
15. Well mannered/polite 3.82  
16. Tactfulness 3.75  
17. GPA (3.0 or better) 3.68  
18. Creativity 3.59  
19. Sense of humour 3.25  
20. Entrepreneurial skills/risk taker 3.23  

*source: (survey conducted somewhere in US)*

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### Graduate Attributes

Graduate attributes are the institutionally nurtured personal qualities that reflect one’s mastery of generic skills in life.
MONASH CORE GRADUATE ATTRIBUTES

- Written and oral communication
- Capacity for inquiry and research
- Critical thought and analysis
- Problem solving
- Teamwork
- Numeracy
- Effective use of information technology

UTM GRADUATE ATTRIBUTES

In line with UTM’s vision and mission statements, the University is committed to graduating competent, creative and versatile professionals who are guided by high moral and ethical values in the service of God and mankind. This will require graduates with sound disciplinary and professional knowledge, high self-esteem and effective skills in communication, teamworking, problem solving and lifelong learning.

The University has therefore identified a range of attributes and generic skills which will enable our graduates to function effectively in a wide range of social and professional contexts. The development of these attributes will be embedded within the contexts of the students’ discipline or professional field.
UTM GRADUATE ATTRIBUTES

- Communication Skills
- Teamworking
- Problem Solving
- Adaptability
- Lifelong Learning
- Self-Esteem
- Ethics & Integrity

COMMUNICATION SKILLS

Communication skills incorporate the ability to communicate effectively in Bahasa Melayu and English across a range of contexts and audiences.

CS1 Ability to present information and express ideas clearly, effectively and confidently through written and oral modes

CS2 Ability to actively listen and respond to the ideas of other people

CS3 Ability to negotiate and reach agreement

CS4 Ability to make clear and confident presentation appropriate to audience

CS5 Ability to use technology in presentation
**TEAMWORKING**

Teamworking incorporates the ability to work with other people with different backgrounds to achieve a common goal.

- **TW1** Ability to establish good rapport, interact with others and work effectively with them to meet common objectives
- **TW2** Ability to comprehend and assume the interchangeable role of leaders and followers
- **TW3** Ability to recognise and respect the attitudes, actions and beliefs of others
- **TW4** Ability to contribute to the planning and coordination of the group’s endeavour
- **TW5** Commitment to collective decision

**PROBLEM SOLVING**

Problem solving incorporates the ability to think critically, logically, creatively and analytically.

- **PS1** Ability to define and analyse problems in complex, overlapping, ill-defined domains and make well-supported judgment
- **PS2** Ability to visualise and conceptualise
- **PS3** Ability to look for alternative ideas and solutions
- **PS4** Ability to ‘think outside the box’
Adaptability incorporates the ability to respond readily to changing situations and priorities.

- AD1 Ability to recognise potential for improvement
- AD2 Ability to apply known solutions to new situations
- AD3 Ability to initiate and implement change
- AD4 Ability to work and remain effective under pressure
- AD5 Ability to comprehend and adapt to the culture of a new community and work environment
- AD6 Ability to be resilient and persistent, and stay focused on the task

Lifelong learning incorporates the ability to continue learning independently in the acquisition of new knowledge and skills.

- LL1 Ability to seek relevant information from a variety of sources
- LL2 Openness to new ideas and capacity for self-directed or autonomous learning
- LL3 Passion for learning
**SELF ESTEEM**

Self-esteem incorporates the following traits:

SE1 Positive thinking
SE2 Commitment to uphold dignity and honour
SE3 Self-confidence
SE4 Assertive qualities
SE5 Emotional and spiritual balance

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**ETHICS AND INTEGRITY**

Ethics incorporates the ability to apply high ethical standards in professional practice and social interactions.

ET1 Act ethically, with integrity and social responsibility
ET2 Understand the economic, environmental and socio-cultural impacts of professional practice
ET3 Analyse and make decisions to solve problems involving ethical issues
Our Approach:

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DEVELOPING GS AMONG UTM STUDENTS THROUGH T&L

02 Equipping Staff With the Essential Knowledge and Skills Required to Develop GS

- Understanding + Awareness + Acceptance
- Short Courses (part of TCHE)
- Online Materials
- Encouragement
- (Back-up Policy)
03 The Framework for GS Development

THE FRAMEWORK FOR DEVELOPING HIGHLY EMPLOYABLE GRADUATES

- GS via T&L (Diffusion)
- GS via T&L (Infusion)
- GS via Campus Life
- GS via ELSP

HQ Academic Program
Developing GS Through T&L

1. Specific subjects created to develop GS
   “stand-alone development”

2. Infusion of GS into existing subjects
   “curriculum integrated approach”
03 Integrating GS Into T&L

INTEGRATING GS INTO T&L

- The Three Main Stages in the T&L Process:
  1. Planning
  2. Implementation
  3. Assessment
INCORPORATING GS: THE PLANNING STAGE

1. Planning at curriculum level
2. Planning at subject level

MASTERING THE ESSENTIALS: SOME EXAMPLES OF TYPICAL EXERCISES FOR ACADEMIC STAFF

- Digesting GS List From a Program Specification
- Setting Learning Outcomes (GS)
- Implementing the Plan
- Assessment of GS
- Getting Feedback From Students
Sample of a Program Spec
MASTERING THE ESSENTIALS: SOME EXAMPLES OF TYPICAL EXERCISES FOR ACADEMIC STAFF

Exercise 1*

A. Imagine you are an employer. Identify the GS attributes, in addition to technical competencies, that you would look for in a person who has just graduated from a particular university.

B. You are now to act as a curriculum developer. Carefully study the vision, mission, philosophy, emphasis and niche of your own IPT. Review the attributes identified in (A) and build the desirable Graduate Attributes.

* you may skip this if your institution has already identified the desirable Graduate Attributes

MASTERING THE ESSENTIALS: SOME EXAMPLES OF TYPICAL EXERCISES FOR ACADEMIC STAFF

Exercise 2*

Choose an academic program related to your area of specialization and examine all the desirable GS identified by your IPT.

A. Identify the desirable learning outcomes for the program (technical plus GS)

B. Build a matrix showing the mapping of the subjects and the desirable GS.

* you may skip this if your institution has already established program spec for each of the academic program offered.
Exercise 3*

Study the seven UTM Graduate Attributes and their corresponding GS. With specific reference to a subject of your choice, write learning outcomes for one of the attributes or some of the GS in the attribute.

- Group 1: Communication Skills (CS)
- Group 2: Teamworking (TW)
- Group 3: Problem Solving (PS)
- Group 4: Adaptability (AD)
- Group 5: Lifelong Learning (LL)
- Group 6: Self-Esteem (SE)
- Group 7: Ethics and Integrity (ET)

* This exercise may be adjusted according to the institutional Graduate Attributes
MASTERCING THE ESSENTIALS: SOME EXAMPLES OF TYPICAL EXERCISES FOR ACADEMIC STAFF

Implementing the Plan

IMPLEMENTATION STAGE: T&L ACTIVITIES TO DEVELOP GS

01 Activities before class
02 Activities during class
03 Activities after class
### Example:

<table>
<thead>
<tr>
<th>T&amp;L Activities</th>
<th>Generic Skills Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before Lecture:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Lecturer assigns (orally or on the internet) task for a forthcoming lecture, e.g. “In Week X, we’ll discuss the different types of... in.... Read up on the... Types of... and be prepared to discuss.... Name one book/source that you have referred to”.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Capacity for knowledge acquisition – library search, reading skills, note taking, etc.</td>
</tr>
<tr>
<td></td>
<td>• Positive personality traits – initiative and responsibility</td>
</tr>
</tbody>
</table>

### Example:

<table>
<thead>
<tr>
<th>T&amp;L Activities</th>
<th>Generic Skills Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>During Lecture:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Brief presentation by some selected students</td>
<td></td>
</tr>
<tr>
<td>2. Input (lecture)</td>
<td>• Oral communication</td>
</tr>
<tr>
<td>3. Discussion</td>
<td></td>
</tr>
<tr>
<td>4. Input (lecture)</td>
<td>• Oral communication</td>
</tr>
<tr>
<td>5. .....</td>
<td></td>
</tr>
</tbody>
</table>
### Example

<table>
<thead>
<tr>
<th>T&amp;L Activities</th>
<th>Generic Skills Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Lecture:</td>
<td></td>
</tr>
<tr>
<td>1. Group assignment (project work) requiring library search, site visits,</td>
<td>● Team work</td>
</tr>
<tr>
<td>interviews with practitioners, report writing and oral presentation</td>
<td>● Time management</td>
</tr>
<tr>
<td></td>
<td>● Capacity for knowledge acquisition</td>
</tr>
<tr>
<td></td>
<td>● Independent learning</td>
</tr>
<tr>
<td></td>
<td>● Oral and written communication</td>
</tr>
</tbody>
</table>

### Exercise 4

1. Work in a group. Take turn to share with each other some of the T&L activities you used to develop GS among your students. Select one T&L activities to be shared with other groups.
2. Plan a lesson or a series of lessons in which you could integrate the development of GS within your teaching of subject matter:
   - Identify the GS to be developed
   - Plan activities to address them in your teaching
   - You may find the following table useful:

<table>
<thead>
<tr>
<th>GS Addressed</th>
<th>T&amp;L Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Lecture:</td>
</tr>
<tr>
<td></td>
<td>During Lecture:</td>
</tr>
<tr>
<td></td>
<td>After Lecture:</td>
</tr>
</tbody>
</table>

   Assessment of GS
Learning How to Pose Questions:

- Use open-ended questions
- Question before name; not name before question
- Ensure sufficient ‘wait time’
- Do not hijack speaking opportunities

Two basic elements in an assessment exercise:

- Question/Assignment Brief
- Assessment Criteria/Marking Scheme
AN ASSESSMENT GUIDE TO ASSESS GS: EXAMPLE OF RATING SCALE WITH DESCRIPTORS (HOLISTIC)

<table>
<thead>
<tr>
<th>Grades (Marks)</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (or marks)</td>
<td>Student possesses excellent working relationship with group members. He/She contributes very actively to the success of the group. He/She is highly responsible and displays excellent leadership qualities.</td>
</tr>
<tr>
<td>B (or marks)</td>
<td>Student possesses good working relationship with group members. He/She contributes actively to the success of the group. He/She is responsible and displays good leadership qualities.</td>
</tr>
<tr>
<td>C (or marks)</td>
<td>Student ….</td>
</tr>
</tbody>
</table>

Exercise 5*

1. Prepare a set of criterion reference that is practically useful to be used in assessing at least two UTM Graduate Attributes

2. Plan how you going to execute the assessment of GS in your teaching
   (you are advised to work in group)

Guide:
Step 1: Identify at least two attributes/GS you wish to assess.
Step 2: List the criteria for the attributes/GS.
Step 3: Decide on the type of assessment guide you wish to design. You may adopt/adapt one of the formats given in H4A – H54F or Eg. 1 – Eg. 4 or create your own. Remember that your assessment should be reliable, valid, fair and practical.
Getting Feedback From Students

GS DEVELOPMENT IN ACTION: USE OF REFLECTIVE NOTES/LEARNING PORTFOLIO/LEARNING LOGS

What students write in their reflective notes:

Lifelong Learning

Through the project work, I have established self study skills. I learned how to manage my time by balancing between times for leisure, assignment and revising. The project works help me to realize the importance of library and knowledge in using online references.
Exercise 6:

1. Ask your students to express their feelings, satisfaction/dissatisfaction, etc. about the GS they have learnt during your T&L session (in verbal, written or digital form).

2. Go through their reflection. What can you learn from them?

GS DEVELOPMENT IN ACTION: USE OF REFLECTIVE NOTES/LEARNING PORTFOLIO/LEARNING LOGS

Go to Clips