



INFORMAL LEARNING: AN INNOVATION TOWARDS SUSTAINABLE DEVELOPMENT IN EDUCATION

Antima Sharma^{1*}, Dr. Rinku Raghuvanshi²

^{1*}Research Scholar, Management, Bhartiya Skill Development University, Jaipur, India, ²Associate Professor, Management, Bhartiya Skill Development University, Jaipur, India.
Email: ^{1*}anteemash@gmail.com, ²rinku.raghuvanshi@ruj-bsdu.in

Article History: Received on 30th March 2019, Revised on 30th June 2019, Published on 09th September 2019

Abstract

Purpose of the study: The main purpose of this study is to identify how informal learning is an innovation in the education system for sustainable development of country and throw light on the role of informal learning in education for sustainable development and to identify the different ways of informal learning in education system.

Methodology: This study is based on secondary data. The data has been collected from different journals, books, magazines, websites and different studies related to informal learning, education and sustainable development. The collected data has been extracted, reviewed, and concluded to identify how informal learning is an innovation towards sustainable development in education. The informal ways of learning in education can be the tool for sustainable development of a nation by providing better learning opportunities to the next generation students.

Main Findings: Informal learning is a developing and innovative tool in education. Some of the informal ways of learning are self-learning approach, practical and interactive sessions on social issues, web-based learning, and informal conversation among students through creating informal spaces.

Applications of this study: This study can be helpful is to provide a new innovative way of learning in the education of students for next generation. These ways of informal learning can be used by schools/colleges/institutes for learning of students.

Novelty/Originality of this study: In this study informal ways among students learning has been described and their outcomes which can be used by schools/colleges/institutes as an innovative learning tool for better understanding of students. Not much work has been done in this area in India and informal learning is totally a new concept among students and in academics.

Keywords: Education, Sustainable Development, Informal Learning, Students.

INTRODUCTION

The sustainable development for any country is to achieve a better and more sustainable future. Major challenges faces globally are poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. In the last few years, India is trying to cope up with crucial issues like economic growth, natural calamities, poverty, and unemployment for making India a sustainable country. Unemployment is the biggest issue for the country because most of the population of country is youth and seeking for job. Unemployment may be the cause for less economic growth and unsustainability of any nation. Indian youth is educated even though not able to find suitable job for themselves because their education is not according to the demand of market. Education for sustainable development of student helps in to acquire the knowledge, skills, attitudes, and values necessary to shape a sustainable future. UNESCO (International collaboration of nation for development) also believes that society can transform through reorienting education through developing knowledge skills, values, and behaviour of individuals towards sustainable development.

Now a day's education is not only about mere passing information by the instructor or gaining that knowledge by students but in real sense it is major way of improving one's overall development. Education shapes the future of students which further help in to develop the nation. Society has developed certain institutions and educating the young generation in subjects like arts, business, science, and technology, etc. which is a formal way. Educated youth are provided with certificates, awards and degree after examination and test conducted. Education system follows formal education from primary schooling till university level. Through formal education a student's can develop basic knowledge, academic, and learning skills. But seeing the present scenario, technological advancement, competition, and demand of industry, formal learning in education is not enough to meet the skills, technicality, team spirit and human values expected by industries. Nowadays to compete, stand in society and for lifelong learning student cannot depend on traditional learning which is formal.

Therefore, this study will focus on how informal learning is an innovation in the education system for sustainable development of country and different ways of informal learning used by institutes/colleges/schools for student's learning.

LITERATURE REVIEW

Boud David. 2000. The assessment given in higher education not provides effective learning until if it is not extended for sustainable assessment. The sustainable assessment has both positive and negative impact on everybody. The study

confirmed that assessment influences our learning, our identity and it helps in to develop the society which we all are part. The study suggested that assessment should meet the need of both individual and course both.

Pozgaj, Z. 2008. The main purpose of the paper is to exhibit the basic features of lifelong learning in education and informal learning is explained one of the forms of lifelong learning. The study says that informal learning through which an individual can acquire knowledge and skills through only one's own pleasure. The study emphasis on that the mentor plays an important role, who can be anyone instructor, moderator, colleagues, coaches, experts, and colleagues. The relationship between mentor and student can be achieved through interaction, informal talks, and session, which is an informal way. The study analyzed that the way in which informal learning is acquired plays an important role in education for lifelong.

Ebner, M, et al., 2010. The researchers studied the use of a microblogging platform for process learning in higher education. The study found that university of Applied Science of Upper Austria uses this tool for learning of students in their courses. After analyses it is found that microblogging can be the good source of communication and informal learning that can support informal learning which is different from traditional formal classroom learning.

Kassens-Noor, E. 2012. The purpose of the study is to explore the teaching practices of twitter as an active, informal and outside of class learning tool. The study showed the advantages and disadvantages of twitter as a learning tool. The advantage says that twitter facilitates the sharing of ideas beyond the classroom which student can access at any time. The disadvantage says that twitter is limit by the character limits which constrains the critical thinking and sharing. By seeing the growth in usage of social network, twitter may become an innovative tool for higher education student's learning. If twitter will be used wisely, it becomes a powerful source of learning which is beyond classroom learning.

Barnett, K., 2012. The study addressed the two research questions, what students learn from internships, and how this knowledge helps in their future. The study conducted on 59 interns and analyzed on the basis of exit interview or survey. The outcome of study says that Students also learn the importance of communication and teamwork along with how to build relationships from internship. And an internship role in a student's education is that it narrowing the work expectation-reality gap.

Marques M.A, et al., 2013. The study's main purpose was to examine the tool developed by the European commission "TRAILER", it keeps tracks of learner's informal learning, within number of European higher education school. The study concluded that this tool help to put insight on student's learning and also help in to develop their skills further **Redecker, C., & Punie, Y. 2013.** This study's main aim was to foresight the "future of learning" through involving consultants, policymakers and teachers, to investigate how European citizen learn in 2020-2030. The study found that three things will be important like personalization, collaboration, and formalization (informal learning). And in study experts emphasized on informally acquired skills in early schooling.

Rogers-Chapman, M. F., & Darling-Hammond, L. 2013. The study is to show students who are engaged in experiences connect school learning to the real world, and such experiences increase the chances of the students that they are ready for both colleges and career ready. The researchers studied the one California work-based learning program for seven years, and they found that students participated in work-based learning program entered the college twice rate in comparison to non-participating students. The study also observed that work-based learning is an effective tool for preparing student for college and career.

Augustyniak, S 2013. The researcher examines the formal and informal strategies followed by students and impact on their skill enhancement. The participants were chosen from Australian School and age group between 12-16 years. The participants are said to use different informal methods and techniques like iPods, instruments, and software. The data has been collected through questionnaire, mid files, and interviews. After analyzing of data study concluded that with the use of informal methods and technology skills can be improvised of students.

Denson Cameron et al. 2015. The study specified that informal learning environment helps into student engagement and development of students. The study supports the argument that informal learning framework help student to understand practicability of subject. The study also identifies one of the ways of creating informal ways is engineering summer camp.

Kumar Amit and Bhatt R. K, 2015. The main purpose of this study was to know about informal learning and Informal learning spacing in IIT, Delhi, through circulated questionnaire among 180 students of university. Study found that 67.5 % students opinioned they use informal spaces for academic purpose and library play important role in this. The researcher concluded that informal learning spaces are an important concept in academics.

Deka, R. J., & Batra, B. 2016. This paper's main aim was to identify the impact of Make in India on employability of Indian workforce and further skill development of Indian workforce to make them eligible for industry fit. It is found that in actual industries require 22 million industry trained workers, only 4.3 million workers are matching this criterion. It is also found that there is a vast skill gap in India. And after reviewing various research papers it is concluded that more initiatives should be take to improve the skill gap between the available skills and desired skills.

Laurie, R., et.al., 2016. The study was conducted in 18 Countries to find out the contribution of for sustainable development in quality education. The data has been collected through interviews to solicit education leaders and practitioners. The result revealed that education for sustainable development plays important in many ways to quality education in primary and secondary schools. Teaching can be developed through included sustainable content in curriculum to promote learning of skills and necessary values required in sustainable societies. The education for sustainable development is also required for the professional development of teachers also.

Sharma, L., & Nagendra, A. 2016. The main aim of paper was to analyze the current skill gap in India and where there is vast scope of supply of workforce. The study concluded that India is the youngest workforce country in the world, and it can be the largest workforce provider to the world. There is a huge scope of generating skilled workforce in the country and utilize the demographic dividend. Skill development is very important element for development of individual and country both. It is found that public-private partnership plays an important role in enhancement of skills of country.

Shoshania Anat & Eldor Liat, 2016. The study confirmed that there is direct relationship between advance learning of student and learning opportunity provided to teachers. Study also suggested that institution and environment of institute, school and colleges provide learning opportunities to students only need to convert it into learning process. The researchers also concluded that there is direct relationship between learning of teachers and their job satisfaction.

Smita.S & Sachin B Rathod, 2016. The main aim was to find the effectiveness of a popular social networking site as an informal tool in academics. At end of study an exam was conducted and student's feedback was obtained. This study showed that social networking site is an effective tool for medical students. Social media shows promise as innovative informal learning tool. Daily addition of newer data and updates cannot be taught in classroom, which can be easily posted on social sites and keeps students updated. Thus, social networks prove to be a useful platform for student learning.

Lu Peng et al., 2017. The focus of the study on the role of the rapid development of network technology on students learning and it is a way for college students to learn a variety of subject knowledge. This study concluded that study with the help of networking model help students more than formal education and gives them more exposure to social leaning also.

Prasad Jagdish & Purohit D.G.M, 2017. The study was tried to find out about the effect of Make in India on employability & skill development of the labour force. This paper also focussed on the skill gap in India and initiatives taken by the government. It is found that to implement successfully make in India project it is important to develop the skills of workers through various projects, education, and vocational courses. The Indian government implemented many plans to make Indian youth employable like formal education, technical and vocational training to fill the gap between skills required by industry and skill that employees have. And also, emphasis on to provide vocational and skill training in high school only. The government also recognized that the Indian workforce, stakeholders and Industry leader cannot work in isolation. They all need to work to bridge the gap.

Summary of Literature Review

After reviewing the paper on the informal learning in the education system and its role in student's learning for sustainable development, it is found that studies have focussed on the ways of informal learning through which students can learn in better way. Some studies have linked the ways of informal learning of students which is provided to them by their schools/colleges/institutes with better career opportunities to the students. Some of studies are done on comparison of formal and informal learning in students learning and their skill enhancement. The study has been conducted in different-different countries like Australia, California, and Canada. But very few studies focus on the role of informal learning in student's learning for sustainable development of a nation particularly with the reference of India

METHODOLOGY

The study is based on secondary data and it is an analytical type in nature. The study has reviewed and analyzed after collection of the data from different journals, books, magazines, websites and different studies related to informal learning, education and sustainable development. The collected data has been reviewed, analysed and concluded.

DISCUSSION / ANALYSIS

With changes in the technology, environment, society and for sustainable development of students there is a need for advanced learning or lifelong learning. Students of next-generation mean those who are ready for industry may be doctor, engineers, politician, lawyer, accountant, and educator, etc. Students of next-generation must-have skills, knowledge, attitude, and values which can meet the expectation of the industries which is major challenge faced by universities and colleges. With the formal education and informal learning is also making its place in student's learning to provide them better understanding, exposure, employability skills and sustainable future. "Informal education is a process, by which people learn more as they live on". Informal learning and education that takes place in our daily life. "Informal education is the wise, respectful, and spontaneous process of cultivating learning. It works through conservation, and the exploration and enlargement of experience" (infed.org). Learning other than formal learning which is not planned, structured and

organized. Informal learning was first described in the adult learning context by Marsick and Watkins (1990) who defined it as learning that is not formal or not in a highly structured, classroom environment. Informal learning is more about:

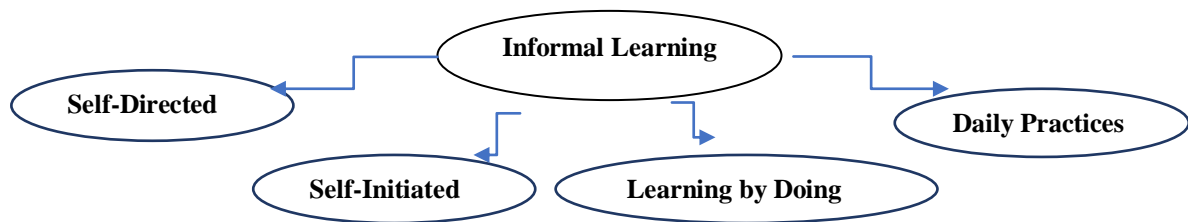


Fig 1: Informal Learning Attributes.

“I’ve often described the capacity and extent of informal learning to be a significant part of the new digital divide” (Bernard Bull, 2016). To cope with the technical advancement, new age world, competition, future challenges and for own development student should make use of their unstructured time to get direct their own learning. Informal conversations with the co-learners make them learn about networking which is required for social knowledge. Some of Institution and colleges providing opportunities for free conversation of students with peers or faculty members so their understanding can develop in better to take decisions.

Table 1: After reviewing the paper some of the ways come out of Informal learning which is used by many institutes and colleges for the student’s learning.

Ways of Informal Learning	Outcomes of Informal Learning
Conversation with co-learners/Teachers	To get a better understanding of subject from others point of view.
Small Assignments, Workshops, and seminars	To develop self-learning, decision making, and critical thinking to present thing from their point of view. Boud David, 2000
Informal Learning spaces	Knowledge can be explored with the help of free discussions with the other students and experts. Kumar. A &Bhatt R.K, 2015
Games	Games either physical mental indoor and outdoor develop student’s team spirit, competitiveness and become more social.
Volunteering	Giving opportunities to students to take participate in events to work as a volunteer makes them independent, disciplined and responsible for their task.
Internship	Learning by doing is the major learning technique to develop the skills of the students. It also narrows the gap between expected and reality. ^[5]
E-Learning	Giving time and spaces them to do a thing and learn through internet, online applications, and presentation help them to get skilled toward advance technology. Sorte, S. R., & Rathod, S. B. 2016.
Hands-on Practice	Colleges and universities try to give practical knowledge at the time of their learning, so give them the opportunity to work on machines and learn skills.
Simulation	Creating real-time process, problems, and system help students to develop their thinking, situation handling, and less error practice.
Summer Camps	Some colleges and institutes follow summer camps practices, so the students get practicability of subjects. Denson Cameron et al. 2015

Small quizzes, observations, practical classes, and case studies are some of other ways of informal learning to students. Informal ways of learning initiate towards self-learning, self-motivation, and create habit of daily practice in students.

Education for Sustainable development

Education for sustainable development means which create the power to take responsible decision for them and society. “Education for Sustainable Development allows every human being to acquire the knowledge, skills, attitudes, and values necessary to shape a sustainable future” (Bernard Bull, 2016). With approaches of interactive session, action-oriented and experimental session, student’s independent activity, creating informal learning spaces, daily practices and self-learning make student more compatible, competent, skilled, professional and future-ready. Informal ways of learning help students to think above the set syllabus and examinations which help them to understand practicality, need of

society, team spirit, intelligence and skills for their livelihood. These informal learning of students help themselves, society and nation to grow in following ways like:

The decrease in the unemployment rate: We always say that unemployment is the major problem of the country, but in real employments is there but industries are not able to get skilled candidate. With present pattern of teaching and learning students are not getting skills as per the need of the societies to fulfill this gap many universities, colleges and institutes started providing learning through some of informal ways which are more as per the need of learners rather than from evaluation point of view. Secmol school, India of Sonam Wangchuk is one of example of informal learning in schools, Many Skill universities like BSDU, India and IIT's follows some of the methods of informal learning to make students employable and industry-ready. Skilled students are able to find out job as per their caliber which helps them to develop economically and socially.

Industrial Growth: In India many industries not able to sustain for a longer time only reason that they are not equipped with the skilled workforce which is the only resource to utilize other resources at optimized level.([Deka, R. J., & Batra, B. 2016](#)).When industry gets workforce as per their requirement, industry growth can possible in India which further develop into the growth of a nation for sustainable. Through Informal education a student can be developed from learner to a professional or industry-ready.

Research and Development: Informal ways of learning focus on research and development through self-learning approach of students by giving them assignments, e-learning, and volunteering so that they can create something innovative and productive which can fulfill the needs of the society. In this way country can also get recognition globally that brings rewards and awards to our country.

Responsible Citizen: Informal learning of education not only makes them employable but also prepares them as a responsible citizen, who utilize countries recourses carefully, ethically and optimized them at fullest. Informal learning in education imparted overall development of a student it helps in to develop their physical, mental, emotional, moral, human values and religiousness which helm them in to grow and society together.

CONCLUSION

After reviewing the studies on informal learning practices as an innovative tool in education for sustainable development. In today's scenario where the world is shrinking there is need for sustainable development of individual to achieve sustainable informal learning practices as innovative tool. Formal education through which youth is preparing themselves for their future and social development is an important source of imparting knowledge, "without formal education it is not possible to transmit all the resources and achievements of a complex society". Some of the informal ways of learning are self-learning approach, practical and interactive sessions on social issues, web-based learning, and informal conversation among students through creating informal spaces. In Indian education system informal learning of students started like in IIT Delhi informal learning spaces are provided to students for informal conversation with peers, faculty, and outsiders also. The study has also confirmed that informal learning opportunity provided to teachers also help in to empower student's better understanding and future.

For making the education system sustainable, it is high time to revise the old curriculum, syllabus and teaching pattern from formal to informal. The present system is followed by the exams, grades, and degree of a student, without focusing on their knowledge development, and career development of theirs. There is need for greater understanding of how to transit from formal to informal ways of learning. Some of the innovative ways which can bring lifelong learning to students slowly and slowly through following ways like more interactive sessions, open spaces for learning, open-book exams, revised curriculum and teaching methods as per industry need and more industrial exposure to students can be added to present curriculum on education system. Research and evaluation needed to redesign the education pattern to provide sustainable development to India by right composition of formal and informal education.

Limitation and Study Forward

The researcher has used secondary data due to time constraints. The study has focused only on the ways of informal learning exist in the education system and their outcomes in the form of learning of students. The study is in general on the basis of reviewed paper it is not sector-wise, area-wise, state-wise and streamwise. Further study can be done on the basis quantitative data, and data can be collected from primary source. Future study can be done on the impact of the ways of informal learning on the skill development of students. The study can also be done in this area on specific area, sector and according to the streamwise. The future researcher can also do study on role of informal learning in education system for sustainable development in the Indian context.

REFERENCES

1. Boud, D. (2000).Sustainable assessment: rethinking assessment for the learning society. *Studies in continuing education*, 22(2), 151-167. <https://doi.org/10.1080/713695728>
2. Pozgaj, Z. (2008). Informal learning in lifelong education. *International Journal of Emerging Technologies in Learning (IJET)*, 3, 50-53.

3. Ebner, M., Lienhardt, C., Rohs, M., & Meyer, I. (2010). Microblogs in Higher Education—A chance to facilitate informal and process-oriented learning. *Computers & Education*, 55(1), 92-100. <https://doi.org/10.1016/j.compedu.2009.12.006>
4. Kassens-Noor, E. (2012). Twitter as a teaching practice to enhance active and informal learning in higher education: The case of sustainable tweets. *Active Learning in Higher Education*, 13(1), 9-21. <https://doi.org/10.1177/1469787411429190>
5. Barnett, K. (2012). Student interns' socially constructed work realities: Narrowing the work expectation-reality gap. *Business Communication Quarterly*, 75(3), 271-290. <https://doi.org/10.1177/1080569912441360>
6. Marques, M. A., Viegas, M. C., Alves, G. R., Zangrando, V., Galanis, N., Brouns, F., ... & García-Peñalvo, F. J. (2013). Managing informal learning in higher education contexts: the learners' perspective.
7. Redecker, C., & Punie, Y. (2013). The future of learning 2025: developing a vision for change. *Future Learning*, 1, 3-17. <https://doi.org/10.7564/13-FULE12>
8. Rogers-Chapman, M. F., & Darling-Hammond, L. (2013). Preparing 21st century citizens: The role of work-based learning in linked learning. *Stanford Center for Opportunity Policy in Education*.
9. Augustyniak, S. (2014). The impact of formal and informal learning on students' improvisational processes. *International Journal of Music Education*, 32(2), 147-158. <https://doi.org/10.1177/0255761413502440>
10. Denson, C., Lammi, M., White, T. F., & Bottomley, L. (2015). Value of informal learning environments for students engaged in engineering design. *Journal of Technology Studies*, 41(1), 40-46. <https://doi.org/10.21061/jots.v41i1.a.5>
11. Kumar, A., & Bhatt, R. K. (2015). A study of using informal learning spaces at Indian Institute of Technology, Delhi. *Library Philosophy and Practice*, 1.
12. Deka, R. J., & Batra, B. (2016). The scope of skill development, employability of Indian workforce in context of make in India: A study. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(4), 275-282.
13. Laurie, R., Nonoyama-Tarumi, Y., Mckeown, R., & Hopkins, C. (2016). Contributions of education for sustainable development (ESD) to quality education: A synthesis of research. *Journal of Education for Sustainable development*, 10(2), 226-242. <https://doi.org/10.1177/0973408216661442>
14. Sharma, L., & Nagendra, A. (2016). Skill Development in India: Challenges and Opportunities. *Indian Journal of Science and Technology*, 9(48), 1-8. <https://doi.org/10.17485/ijst/2016/v9i48/107324>
15. Shoshani, A., & Eldor, L. (2016). The informal learning of teachers: Learning climate, job satisfaction and teachers' and students' motivation and well-being. *International Journal of Educational Research*, 79, 52-63. <https://doi.org/10.1016/j.ijer.2016.06.007>
16. Sorte, S. R., & Rathod, S. B. (2016). Medical Education/Original Article Social Networking Sites As Informal.
17. Lu, P., Cong, X., Bi, F., & Zhou, D. (2017, March). The research on informal learning model of college students based on SNS and case study. In *Journal of Physics: Conference Series* (Vol. 820, No. 1, p. 012025). IOP Publishing. <https://doi.org/10.1088/1742-6596/820/1/012025>
18. Prasad Jagdish & Purohit D.G.M, (2017). A Study: Skill Development, Employability and Entrepreneurship Through Make in India. *Journal of Engineering Research and Application*, 7,12,18-28.
19. <http://infed.org/mobi/what-is-informal-education>.
20. Bernard Bull, "Why Informal Learning is an Important Part of Future Success", Etale, 2016.
21. UNESCO,2014,<https://www.plymouth.ac.uk/your-university/sustainability/sustainability-education/esd>
22. ICRIER,2016,<https://economictimes.indiatimes.com/news/politics-and-nation/india-unlikely-to-develop-through-unskilled-labour-icrier/articleshow/50872075.cms?from=mdr>