



TEACHING TOMORROW'S INNOVATORS TODAY WITH 21st CENTURY SKILLS

Dr. S. Jeyaparvathi¹, Mrs. D. Shunmuga Selva Siva Sankari² and Mrs. R. Thanga Selvam³

¹Assistant Professor of History , Annammal College of Education for Women , Thoothukudi.

² Assistant Professor of Mathematics , Annammal College of Education for Women , Thoothukudi.

³ Assistant Professor of Biological Science , Annammal College of Education for Women , Thoothukudi.

ABSTRACT :

In 2018 The World Economic Forum published the Future of Jobs Report that reports on the skills in greatest demand and need. In this report, the top three growing skills for 2022 were:

1. Analytical Thinking and Innovation
2. Active Learning and Learning Strategies
3. Creativity, Originality, and Initiative

Among them teaching and innovation skills are increasingly more and being recognized as the skills that separate students who are prepared for increasingly complex life and work environments in the 21st century, and those who are not. A focus on creativity, critical thinking, communication and collaboration is essential to prepare students for the future.

Innovation can be broadly thought of as new ideas, new ways of looking at things, new methods or products that have value. Innovation contains the idea of output, of actually producing or doing something differently, making something happen or implementing something new. Innovation almost always involves hard work; persistence and perseverance are necessary as many good ideas never get followed through and developed.

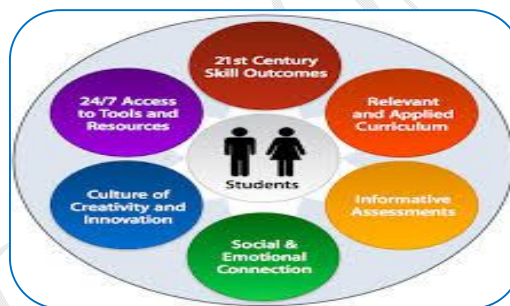
KEYWORDS : teaching and innovation skills , increasingly complex life, persistence and perseverance.

INTRODUCTION

Innovation skills are the types of skills that allow individuals to become innovative in what they do. These are habitually a combination of cognitive skills that is the ability to think creatively and critically, behavioral skill are the skills that is the ability to solve problems and to manage risk, functional skills are like writing, reading and numeracy and technical skills i.e. research techniques and project management

INNOVATION

Generally Innovation skills refer to the ability of exploiting new ideas for the purpose of gaining social or economic value. Innovation skills are usually a combination of one's ability to think creatively, problem-solving ability, as well as functional and technical abilities. Innovation skills are basically one's ability to apply a blend of knowledge, skills and attributes in a specific context. A student with innovation skills is usually distinguished due to his visionary thinking in the face of challenges, and his ability to shape his/her or someone else's ideas with assurance and in a self-acting way.



IMPORTANCE OF INNOVATION SKILLS

A vibrant marketplace nowadays has caused innovation to be acknowledged as the mandatory mantra for businesses to become increasingly competitive and supply the best and the latest solutions to the problems of industry. Like that the following are some of the profit of innovation skills for students; one of the most valued assets of an educational organization:

- **Improve efficiency.** Innovation skills enhance the ability of the students to recognize any potential for improvement not only in their own field but in that of others as well. They are able to utilize the limited resources available to them in an optimal manner.
- **Induce out-of-the-box ideas.** Innovation skills have the power to break monotony and resultantly adding sense of achievement as well as sense of fulfillment to the students. Such efforts to make learn more interesting usually become the reason behind having new and out-of-the-box ideas on one's table.

ELEMENTS OF TEACHING FOR INNOVATORS WITH 21ST CENTURY SKILLS

The following are the 21st century skills for the innovators:

- Global Awareness
- **Financial, Economic, Business & Entrepreneurial Literacy**
- Civic Literacy
- Health Literacy
- Environmental Literacy

Global Awareness bringing the outside world into the classroom

Our students must be prepared to participate in today's global society.

Global awareness is about working to understand a region's geography, history, economy, religions, resources, and languages in order to gain insight into varying perspectives and ways of being and thinking around the world. Our students are part of something bigger than themselves, and an understanding of this could ignite the curiosity to become culturally sensitive, responsible and productive global citizens.

To understand and address global issues we use the 21st century skills. Learning from and working collaboratively with individuals representing varied cultures, religions and lifestyles in a spirit of mutual respect and open dialogue in personal, work and community contexts. Having the skill to utilize non-English languages as a tool for understanding other nations and cultures.

Financial, Economic, Business & Entrepreneurial Literacy

According to the 21st century skills, educational institution must not only focus on mastery of core subjects, but also promote understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into core subjects. One of these themes is **Financial, Economic, Business & Entrepreneurial Literacy**, which involves knowing how to make appropriate personal economic choices, understanding the role of the economy in society and using entrepreneurial skills to enhance workplace productivity and career options

Financial, Economic, Business & Entrepreneurial Literacy at the educational institution provides students with foundations in both economics education and financial literacy. Economics education is the study of how markets work and how individuals make choices to manage resources, and financial literacy is the ability to use knowledge and skills to manage monetary resources effectively. The keystone principles used by Collegiate touch on choices, economic systems, trade and economic resources.

Financial, Economic, Business & Entrepreneurial Literacy programs at Collegiate cultivate an entrepreneurial mindset through building skills in human-centered design, problem solving, and marketing from an early age, allowing students to tackle social challenges or innovate new business ideas.

Civic Literacy

Civic literacy covers civics but also addresses the individual's social and political participation. Political science is the study of power and authority through the assessment of political processes, governmental institutions, and human behavior in a civil society. In this perspective the study of civics is understood to include the form and function of government. Understanding of the basic principles and practices of democracy and how they are applied in our republican form of government is called civic literacy

For the construction of democratic societies, civic literacy plays a key role. Well-educated teachers are able to generate democratic cultures in the classroom. They have the skills and understanding needed to construct frameworks in which children are motivated to take an active part in democratic activities in schools and consequently in the wider society.

The UNESCO Media and Information Literacy Curriculum encompasses how teacher educators, librarians and student teachers can create teaching and learning activities which allow civic literacy to develop through media and information literacy (MIL) competences which are learnt, individually and collaboratively, as part of a lifelong learning process. Media- and information-literate teachers are empowered to interact with new generations of learners. The victory of these processes depends to a large extent on how teachers themselves were educated and trained.

As a citizen of a country, we are the part of a democracy. So first understand the local and global implications of civic decisions and exercising the rights and obligations of citizenship at local, state, national and global levels.

Health Literacy

Health literacy is the capacity of the students to obtain, process, and understand basic health information and services needed to make appropriate health decisions. (Rotman & Gordon- El- Bihbety, 2008)

Health literacy is important because it affects people's ability to:

- Navigate the healthcare system, including locating providers and services and filling out forms
- Share personal and health information with providers
- Engage in self-care and chronic disease management
- Adopt health-promoting behaviors, such as exercising and eating a healthy diet
- Act on health-related news and announcements

There are Five Main Goals of a Skills-Based Approach to Teaching Health (Benes & Alperin)

1. The first being facilitating learning experiences through which students engage with the content.
2. Using a lesson format that supports knowledge and skill acquisition.
3. Providing engaging, relevant experiences for students.
4. Fostering participation and active learning.
5. Providing opportunities for self-reflection, internalization, and personalization of the content (information and skills).

A quality health curriculum should be aligned with the skills of the National Health Education Standards (and our state standards) and focus on students developing competency (or proficiency) in them so students are able to engage in health enhancing behaviors, avoid risky behaviors, and be healthy, productive people. If we want students to develop the necessary skills to be health literate (or in the case of PE, physically literate) beyond high school, then we will need to teach them how and give them time to practice in order to develop skill proficiency.

For example, the teacher can teach students how to set an effective health goal and have them practice the action steps necessary to attain it. Health literacy is a life-long drive and not a destination. The students continue to make decisions every day that impact our health in a healthier or less healthy way. Giving the students tools through engaging experiences to assist them navigate their own health literacy journey is critical in whether or not they succeed in their years after school.

When teaching our students the HOW and WHY to health literacy, make sure to celebrate the small wins...because small wins lead to momentum and momentum leads to change...which ultimately makes our profession stronger than it was the day before.

The decisions we make on how we take care of ourselves, impact every aspect of our lives. To improve health for self, family and/or community the understanding of preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction are needed.

Environmental Literacy

In short, an environmentally literate student has a basic understanding of environmental issues and principles, and is able to leverage that knowledge to deal with the myriad social and environmental issues of today's globalized world.

To enhance the environmental literacy the teacher may follow the techniques:

- Assess the student's knowledge, behavioural attitudes and actions towards environmental problems, issues, conservation and protection of biodiversity especially air and water, besides solid waste management and investigate the changes in student's knowledge, attitude, behaviour and skills
- The teacher may analyze the level of environmental literacy presented in science and social science text books in Tamil Nadu and to compare it with national missions of environmental literacy prescribed by National Council of Educational Research and Training.

CONCLUSION

Together, we can realize the power and promise of 21st century learning for every student. From the above discussion we can facilitate students to develop discipline, dedication, decorum and determination. We can conserve & transmit indigenous values, culture and skills along with shared values and respect & protect cultural diversity. With 21st century skills the teacher may inculcate Constitutional Values & Citizenship Skills and realize self in interconnected & interdependent global society and develop global perspective by acting locally. By which we can shape the tomorrow's innovators today with 21st-century skills.

REFERENCE

1. Colacino, T. M. (2013). Learning 21st century skills in a multicultural setting (3598188, University of Southern California). Pro Quest Dissertations and Theses, p.92.
2. Galagali, P. (2008). Adolescent Life Skill Education Program the Bangalore Experience. Book of Abstracts, Sri Perumbudur: Rajeev Gandhi National Institute of Youth Development, p. 61.
3. Missett, T. C. (2012). The development of critical and creative thinking skills for 21st century learning. (3525032, University of Virginia). ProQuest Dissertations and Theses, p.173.
4. Sardone, N.B. & Scherer, R.D. (2010). Teacher Candidate Responses to Digital Games: 21st Century Skills Development, Journal of Research on Technology in Education, 42, 409-425. Retrieved from: <http://www.iste.org>.
5. Mitchell, John, 2003, Emerging futures: Innovation in Teaching and Learning in VET, Australian National Training Authority, Melbourne.
6. <http://www.eric.ed.gov/...tart> Count=1&ERICExtSearch kw&- page Label = RecordDetails&objectId=0900019b8046d4f3&accno=ED519336&nfls=false.