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Andragogy in Futuristic Perspective

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TRANSFORMATIVE PATHWAYS IN HIGHER EDUCATION: ANDRAGOGY IN FUTURISTIC PERSPECTIVE

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FROM THE EDITORS' DESK

St. Ignatius College of Education is a pioneer autonomous institution of teacher Education for women in the Southern part of Tamil Nadu. As an initiative to kindle self development and to achieve nurture social commitment, the institution organized an International Conference on TRANSFORMATIVE PATHWAYS IN HIGHER EDUCATION ANDRAGOGY IN FUTURISTIC PERSPECTIVE, under the able leadership of Rev. St. A Gemma. Secretary and Rev. Dr. L. Vasanthi Medona, Principal of the College.

Andragogy is the facilitation learning for adults, who are self-directed learners. It is a emerging technology for adult learning Adults needs to know the rationale for learning. It is a learning strategy developed for educating adults. Technology has become a part of our daily lives. In the coming decades, all the learners have to know the rise of new value of system and technology. Digital giants are ambitiously changing the young minds. To become a successful educator this conference was very much fruitful.

Our purpose is met with the support of the resource persons, Prof. Dr. Vinnaras Nithyanantham General Education Department College of Education and Languages Lebanese French University Kurdistan, Iraq, Inaugural address was proposed by Rev Dr S. Mariadoss SJ Principal St.Xavier's College (Autonomous) Palayamkottai. Valedictory address was delivered by Dr.S.M.Abdul Kader Principal Sadakathullah Appa College (Autonomous) Tirunelveli We gratefully their wholehearted honorary service to the institution.We sincerely thank Rev. Br. R. Anbarasan, SHJ Manager, Fathima Printing Press, Palayamkottai for the financial support he has rendered in the conduct of the International conference. We record our sincere gratitude to Dr.Pavani Gonnuri Associate Professor of English ,Department of English , Kebri Debar University, Ethiopia for extending her service as the chairperson for online presentation We are thankful to Sr. Landrada Centre for Research for their collaboration.

We appreciate all the participants and readers and hope that they would develop their knowledge in Andragogy and to fortify the community as a whole.

Rev.Dr.Sr.L..Vasanthi Medona
Dr. E. C. Punitha
Editors

TRANSFORMATIVE PATHWAYS IN HIGHER EDUCATION: ANDRAGOGY IN FUTURISTIC PERSPECTIVE

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TECHNOLOGY AND HOLISTIC LEARNING: CURRENT PERSPECTIVES**Ms.C.DEEPA* Dr.E.C.PUNITHA****

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ABSTRACT

The rapid development of technology in today's world has created a need for adults to continuously learn and stay current. New technological software and tools support the holistic learning and will make a large impact in the future of education and adult learning. As online education grows, professors must learn how to move their courses from the classroom to online. Andragogy is essential for designing effective learning experiences and training for adults in learning new technology. Adult learners are becoming more common in institutions of higher education. These learners often bring with them experiences and expectations that can significantly affect their educational needs, progress and activity in the classroom.

In higher educational settings, the current teaching methodologies, approaches tend to be less effective in meeting the needs of adult learners. Additionally, faculty must change their perceptions about the presence and utilization of instructional technologies in meeting student needs, especially those of adults. Instructors must consider how technology can influence the development and application of andragogy in the classroom to assist adult learners. This growth in technology is changing the nature of higher education. Educators are feeling more and more pressure to provide educational content and teaching methods that keep pace with ongoing scientific and technical progress. The purpose of this article is to review some current perspectives about technology and holistic learning. It begins by describing approaches for integrating technology into adult learning and then considers how technology can be used to support and expand adult learning.

Keywords: Adult learners; andragogy; technology integration; higher education, holistic learning

INTRODUCTION:

Throughout the 20th century, changes in technology have had social and economic ramifications. Although each successive wave of technological innovation has created changes to which adults have had to adjust, "what perhaps differentiates earlier technological changes from today's is the current emphasis on educational applications" (Merriam and

Brockett 1997, p. 113). The principles of adult learning theory can be used in the design of technology- based instruction to make it more effective. Malcolm Knowles' theory of andragogy allows teacher/facilitators to structure lessons which are part of a relevant learning environment for adults' students. The most pervasive of the technologies with educational applications are the Internet and World Wide Web, but other technologies can also be used to facilitate adult learning. In considering the role of technology in adult learning, adult educators are faced with a number of challenges, including how to respond to technology and how to exploit it without diminishing the learning experience (Field 1997). The purpose of this article is to review some current perspectives about technology and holistic learning. It begins by describing approaches for integrating technology into adult learning and then considers how technology can be used to support and expand adult learning. A few cases of its applications will also be discussed and critical analysis will be offered on how accepting the principles and precepts of andragogy can affect the future of education and industries moving forward. Additionally, faculty must change their perceptions about the presence and utilization of instructional technologies in meeting student needs, especially those of adults. Instructors must consider how technology can influence the development and application of andragogy in the classroom to assist adult learners. Andragogy and higher education. As institutions that focus on dealing with students

ANDRAGOGY AND HIGHER EDUCATION.

As institutions that focus on dealing with students after secondary education, colleges and universities are uniquely situated to consider the impact and importance of andragogy on adult learning communities. Halx (2010) builds on this perception by demonstrating that relying solely on traditional pedagogical practices will prevent college students from advancing into more mature and advanced thinking processes; andragogy should be used much more frequently. Yannuzzi (2009) also noted that the need for self-analysis, self-criticism, and openness to the ideas of others can require significant re-evaluation of teaching methods, objectives, and the expectations faculty can have of their students. The growth of online education offers specific opportunities for implementing andragogy in higher education. Cercone (2008) examines how online learning can facilitate aspects of learning that cater to the common learning preferences of adult learners, such as self-direction, need for applicability and relevance, and the opportunity to develop community among learners. This need for community is also of particular interest for incoming students, as noted by Feiertag and Berge (2008)

ANDRAGOGY AND TECHNOLOGY.

The rapid development of technology in today's world has created a need for adults to continuously learn and stay current. New technological software and tools support the constructivist learning theory and will make a large impact in the future of online education and adult learning. As online education grows, professors must learn how to move their courses from the classroom to online. Andragogy is essential for designing effective learning experiences and training for adults in learning new technology. The learning process for adults known as andragogy has distinct characteristics that make it different from pedagogy, pre-adult education. The adult student is different from a child in school and andragogy addresses these differences that assist educators with utilizing the teaching methods that will be most effective in adult education. Malcolm Knowles defines Andragogy or adult education as —the art and science of helping maturing human beings learn (Knowles, 1975, p.85). Educators must be comfortable with using different types of technology and how to best utilize them in a learning environment. Educational institutions will need to develop educational programs for faculty, administrators, and students to learn how to use these new technological tools in the learning process most effectively (Burton & Bessette, 2013). Pedagogy provides an instructor with complete control over a child's educational experience where the transfer of knowledge is focused upon. Andragogy is a self-directed way of learning. Andragogy will need to guide this training, and is based on five assumptions: (a) self-directedness, (b) need to know, (c) use of experience in learning, (d) readiness to learn, (e) orientation to learning, and (f) internal motivation (Knowles, 1984.)

BASIC ANDRAGOGICAL PRINCIPLES

Kenyon and Hase (2001), citing Merriam and colleagues (2007) and Forrest and Peterson (2006), outlined the six main assumptions in Knowle's adult learning theory. They are:

- *Self-concept.* Adult learners have a self-concept. This means that they are autonomous, independent, and self-directed.
- *Learning from Experience.* Experience as a rich resource of learning. Adults learn from their previous experiences. Thus, it is a good repository for learning.
- *Readiness to Learn.* Adults tend to gravitate towards learning matters that matter to them. Their readiness to learn things is highly correlated with their relative uses.
- *Immediate Applications.* The orientation of adult learning is for immediate applications rather than future uses. The learning orientation of adults tends to slant towards being task-oriented, life-focused, and problem-centric.

- *Internally Motivated.* Adults are more motivated by internal personal factors rather than external coaxes and pressures.
- *Need to Know.* Adult learners have the need to know the value of what they are learning and know the why's behind the need to learn them.

And, these are consistent with the observation of Rogers (1951, cited in Kenyon & Hase, 2001) that learning is natural just like breathing in the way that it is an internal process totally controlled by the learner. In this view, it is by fiat that the learner is the real center of education. Hence, it is prescribed that educators accept and operate within this premise. Thus, educators should not really —teach.‖ Instead, they should facilitate learning.

SUPPORTING AND EXTENDING ADULT LEARNING THROUGH TECHNOLOGY

Like any other instructional tool, technology can serve to perpetuate poor educational practice or it can become a means for transforming learning. In formal learning settings, leadership for using technology effectively rests with the instructor. However, "[technologies] are not neutral tools. Their use will reflect whatever values the educator holds--consciously or subconsciously--about her/his relationship with learners, and their use will invariably bring advantages and disadvantages" (Burge and Roberts 1993, p. 35). Technology can enhance adult learning because it has the potential to increase flexibility, provide access to expertise, facilitate discussion among learners who cannot meet face to face, reduce feelings of isolation often experienced by nontraditional learners, increase learner autonomy, and support and promote constructivist and collaborative learning (Burge 1994; Cahoon 1998; Eastmond 1998; Field 1997). However, because "technology in and of itself does not promote learning" (Burge and Roberts 1993, p. 35), its use does not obviate the educator's responsibility for structuring the learning to ensure these benefits result. Part of using technology effectively is understanding what adults want in the learning environment when technology is employed.

Suggestions for structuring environments include the following (adapted from Burge and Carter 1997, pp. 5-6): --Create a place where learners can collect important ideas, express themselves, and feel some security that they are going in the right direction.

--Provide fast and productive access to help when it is needed.

--Because adults generally have two basic intrinsic motivating drives of autonomy and affiliation, provide a learning environment that promotes both independent and interdependent activities with cognitive as well as psychosocial support

.Because adults value economy of effort (i.e., they don't want to waste time), ensure that the learning tools are intuitive and essential for the immediate task.

The Convergence of Technology with Andragogy

THE CONVERGENCE OF TECHNOLOGY WITH ANDRAGOGY

The Convergence of Technology with Andragogy Neiderhauser and Lindstrom (2006) assert that in many cases, it is no longer relevant to ask if technology is being used, but rather how it is being used. Several authors have also highlighted a general reluctance by educators to use technologies in new and innovative ways that improve holistic learning (Gandolfo, 1998; Papo, 2001; Redmond, 2011). The most common practice by educators is simply to substitute new technology for traditional elements of a lecture (Gandolfo, 1998; Redmond, 2011). Papo points out that even in an online distance learning setting, a traditional lesson format is often followed. A relatively small but increasing number of educators are experiencing a paradigm shift, however, as face-to-face and distance education formats converge, allowing for a new look at andragogically driven approaches to learning employing new technologies (Papo, 2001)

CONCLUSION

Adult educators may once have been able to ignore the educational applications of technology, but that is no longer the case. The tools that can support and advance the goals of adult learning are a part of everyday life and are used by millions of adults on a daily basis. Unless adult educators become proactive in developing opportunities that will provide advantages for adult learners, they may end up watching the exploitation of technologies from the sidelines (Field 1997). Their primary role should be to ensure that the focus is on the learning and not the technology. "The spotlight should first fall on the conditions, dynamics and outcomes of learner activity, in ways that promote learner self-esteem and their competence as proactive learners". Technological gaps between generations must be narrowed as educational institutions face the challenge of keeping faculty and staff current with the latest technology that students expect and demand.

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VIRTUAL ANDRAGOGY: A NEW PARADIGM FOR SERVING ADULT ONLINE LEARNERS

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Abstract

Andragogy is an adult learning theory that can be applied to various learning environments, and is particularly valuable when utilized in online courses. The andragogical approach has changed the teaching philosophy of educators around the world. To seize the current adult educational needs, the pedagogical approach has become less effective in teaching adult learners. The strategies adopted, teaching aids and the choice of suitable teaching material also is discussed in order to achieve a successful outcome in the learning process. The goal of the educator is not only to transfer knowledge but also to urge the learner to search for knowledge himself. Educators teaching adult learners need to know the concepts of the adult learning theory and be able to incorporate them into their teaching style. This paper highlights the virtual andragogy in adult learning, obstacles faced by the learners, model of virtual androgogy and Androgogy approach in classroom.

Key words: Andragogy, Pedagogical approach, Teaching style

Introduction

Virtual Andragogy offers an innovative, grounded theory for andragogically appropriate, constructivist-focused educational experiences that seek to serve adult students through authentic, transformational learning (Greene,K & Larsen,L.2018). Virtual Andragogy synthesizes and aligns the key tenets of Bloom's (Revised) Taxonomy, Andragogy, Transformational Learning, Constructivism, and Communities of Practice into a single conceptual framework that guides the instructional design and facilitation of online learning for adult students. The framework supports both instructional designer and instructor, and by extension- the student- by providing a singular paradigm that illustrates the desired

experience for the learner while providing individual engagement that is crucial for affective, behavioral, and cognitive growth and transformational learning. —Andragogik [andragogy] represents the learning process as one in which theory and practice become one - a process according to which theoretical knowledge and practical affairs become resolved in creative experience (Lindeman, E. 1926). Proper teaching requires that educators know their students and what they are capable of accomplishing. Not all the time should or could educators address the principles of andragogy in a learning environment. When learners engage with the material and with each other under the guidance and tutelage of a competent online or traditional educator, students go beyond memorizing information to regurgitate on a test. Learning becomes more comprehensive because of the interaction and communication that exist among course members. Especially in an online environment, interactive peer dialogue is vital to the success of the course and to overall student satisfaction (Bakar, 2013). The exponential increase of and the changes in the adult students' population have greatly swayed a sizeable number of education practitioners towards andragogy (Ekoto, C.E., & Gaikwad, P. 2015). Andragogy focuses on the adult and is based on six assumptions (Knowles et al., 2005): —the need to know why they need to learn something, the learners' self-concept, prior experiences, readiness to learn, orientation to learning, and motivation. These assumptions apply to adult learners because they provide —a sound foundation for planning adult learning experiences (Knowles et al., 2005). Instructors who understand and are willing to apply the assumptions outlined in andragogy will have a better chance of meeting the needs of an adult learner, particularly if teaching in an online environment (Cochran, 2015). Thus, Andragogical teaching is not just meant to be teaching, its meant to be an awakening. Educators are expected to be most effective and efficient in enabling young minds to understand, learn and use information shared responsibly to better oneself, solve problems, create innovations, build and nourish social change.

Virtual Andragogy in Adult Learning

Adult online learning is one of the fastest growing segments of the educational world, yet, to date, the existing literature about how best to design and facilitate such learning for those outside of the traditional educational settings has been mostly smallscale and piecemeal (Simonson, M., Schlosser, C., & Orellana, A. 2011). Virtual Andragogy synthesizes and aligns the key tenets of Bloom's (Revised) Taxonomy, Andragogy, Transformational Learning, Constructivism, and Communities of Practice into a single conceptual framework that guides

the instructional design and facilitation of online learning for adult students. The framework supports both instructional designer and instructor, and by extension- the student- by providing a singular paradigm that illustrates the desired experience for the learner while providing individual engagement that is crucial for affective, behavioral, and cognitive growth and transformational learning (Greene, K., & Larsen, L. 2018).

Learning obstacles in adult education

The matter concerning the adults' learning difficulties was arisen recently on an international level and it is mainly about the so called flexible policies in the job market, which increase the demands for specialization, retraining and vocational training. Thereby, while the completion of the educational process was formally considered to be the end of the problem and therefore learning difficulties were only a child's issue, the mass influx of adults in educational processes the last years bring forward the adults' difficulties (Giannoukos, G., Besas, G., Galiropoulos, C., & Hioctour, V. 2015). The internal and external obstacles of a group of unemployed people who participate in a lifelong learning program. The learning difficulties an adult often faces are about life situations (situational) during the time period when the learning process takes place. Also, they are also institutional barriers that include the practices and processes that discourage the working adult from participating in educational activities as well as dispositional barriers which are related to the person's attitude and perceptions towards himself as a student.

The Model of Virtual Andragogy

Virtual Andragogy illustrates the spiralling nature of the learner's progression, affectively, behaviourally, and cognitively, from novice to fully engaged, masterful practitioner. This growth in knowledge, skill, understanding, and application is fuelled by the juxtaposition of the individual components of Bloom's Revised Taxonomy with the correlating precepts of andragogy. Rather than conceptualizing these complimentary constructs as separate spokes in a wheel, these linked concepts all work together, continuously moving in a non-hierarchical fashion. Every element must be engaged or the full potential of the learning experience will not be realized (Greene, K., & Larsen, L. 2018). Thus Andragogy is an approach in participatory learning based on the premise that adult students are propelled to learn on real life situation based as they can bring they own

experiences and knowledge into the classroom and they can immediately practice to their lives and careers(Joshi,2017).

Readiness to learn and understanding.

Readiness to learn is the why that spurs the motivation for the adult to return to formal learning. This correlates to the Bloom's conceptualization of understanding and its related verbs(Greene, K.,& Larsen, L.2018).Within a CoP, understanding is created when the individual engages in the process of crafting meaning through interactions with concepts, artifacts, other people in the community, as well as with one's own thoughts and reflections throughout such active and reflective experiences.

Need to know and remembering.

Need to know is the self-aware element of the adult learner, the part of him or her that must feel the learning is useful and valuable. This aligns with Bloom's Revised Taxonomy's grouping of remembering verbs in that objectivist, factual knowledge, while considered a lower order thinking skill, is still relevant to one's engagement with the authentic language and tools or artifacts employed within a CoP.

Experience and applying.

In andragogy, the adult is one who has accumulated a reservoir of experience that becomes a resource for learning. This accumulation is to be positively acknowledged and harnessed to enhance the experience for the student. The Bloom's Revised Taxonomy verbs that connect with applying (e.g., changing, constructing, demonstrating, manipulating, relating, using) offer curriculum designers and instructors opportunities for adult learners to actively explore the behavioral component of the study through a comparative lens.

Orientation to learning and analyzing.

The andragogical principal of orientation to learning highlights the adult learner's developmental ability to delay the need for an immediate sense of gratification, such as that which comes with focusing on quick memorization rather than acquiring deeper understanding. This requires an authentic level of maturity to wilfully and mindfully enter into a state of cognitive dissonance for purposefully exploring, examining, and deconstructing to create understanding and meaning through experiences rather than having

another simply tell you what should be memorized(Greene, K.,& Larsen, L.2018).. This ability to purposefully modify one's orientation to learning from subject-centeredness to problem centeredness aligns with Bloom's Revised Taxonomy's category of analysing and its related verbs (e.g., diagramming, deconstructing, differentiating, discriminating, and separating). The educational value in the actions described in this verb group demand the maturity of the problem-focused orientation to the learning to ensure the individual is affectively, behaviourally, and cognitively engaged in the process of creating meaning.

Self-concept and evaluating.

Andragogy identifies how as an individual matures, one's self concept develops from dependency (i.e., needing approval and support for opinions and decisions) to self-directedness. A self-directed individual, especially one who is an authentic member of a CoP, will still solicit advice or information from others, but ultimately is able to make one's own decisions and live with the consequences(Greene, K.,& Larsen, L.2018).. The correlating Bloom's Revised Taxonomy verbs for evaluating (i.e., comparing, contrasting, defending, discriminating, interpreting, justifying) demand the ability of the learner to understand nuances of desired qualities within actions or outcomes enough to appropriately identify those levels in multiple forms.

Motivation to learn and creating.

As an individual matures, his or her motivation to learn develops from an extrinsic to intrinsic focus; this correlates directly with the concept of movement within a CoP from peripheral participant to fully engaged member. The rewards for the effort it takes to make such progress must have authentic affective value for the individual or the behavioral and the cognitive focus will dissipate over time(Greene, K.,& Larsen, L.2018).. This aligns directly with the Bloom's Revised Taxonomy verbs associated with creating (e.g., compiling, composing, devising, designing, generating, modifying, revising, summarizing) in that the focus and energy necessary to craft something new and meaningful cannot be maintained for a great length of time. Nor can it be transferred beyond the confines of any learning environment if the individual has not made the affective connections to find value in both the final artifact being created and the process necessary to make it.

Andragogy approach in classroom

Andragogy is applicable in multiple contexts. The andragogical approach has changed the teaching philosophy of educators around the world. In the present educational scenario, the pedagogical approach has become less effective in teaching adult learners.

- The Adults need to be involved actively in the learning process to construct their own knowledge through participatory learning.
- The teaching fraternity should be exposed to gain mastery in many new and emerging technologies and they should incorporate adult learning theories into current structure of learning
- It is very essential for the instructors to accept the changes within the educational sector, be adaptive in order to cope with the ever-changing cultural and technological environment; and be innovative, and must maintain an effective instructional environment within an evidence-based teaching approach(Joshi,S.2017).
- The educational institutions must organise various training programmes and workshops for their staff members for enabling them to integrate technology into classroom instruction which can result in increased retention and comprehension of presented course material resulting in higher performance of participatory learning.
- The policy making bodies can make the approach more effective by inducing the teaching fraternity to adapt andragogical environment.

Thus, the transformative power of technology in learning is so phenomenal. Educators need to constantly respond to a shifting educational context – with the introduction of new technologies, practices, and open resources(Joshi,S.2017).

Conclusion

The andragogical approach has changed the teaching philosophy of educators around the world. To seize the current adult educational needs, the pedagogical approach has become less effective in teaching adult learners. Educators teaching adult learners need to know the concepts of the adult learning theory and be able to incorporate them into their teaching style. Educators as well as the educational systems world-wide should provide all learners, both

children and adults, with the opportunities to be actively engaged in participatory learning to enhance young minds in diagnosing their own learning needs & their experiences. It is understood that the traditional teacher-centered teaching style has been well mirrored in educational systems world-wide. Proper teaching requires that educators know their students and what they are capable of accomplishing. Not all the time should or could educators address the principles of andragogy in a learning environment. When learners engage with the material and with each other under the guidance and tutelage of a competent online or traditional educator, students go beyond memorizing information to regurgitate on a test. Learning becomes more comprehensive because of the interaction and communication that exist among course members. Especially in an online environment, interactive peer dialogue is vital to the success of the course and to overall student satisfaction.

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ACHIEVING EMPLOYABILITY SKILLS OF B.Sc., CHEMISTRY STUDENTS IN PHARMACEUTICAL INDUSTRY THROUGH LABORATORY SKILLS AND PRACTICAL WORK

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ABSTRACT

Globalization, digitalization, and the permanent alteration of information have led to important changes in the world of work. This demands a realignment of essential laboratory skills to access job positions in the coming years. To face up to the Pharmaceutical industry process and Synthesis of Organic reaction intermediates, B.Sc., Chemistry practical curriculum is one of the ambits that has come to a tipping point. This adds urgency to the need to bring laboratory and practical skills in line with the new demands of the job market in the Pharmaceutical industry and the challenges posed in the 21st century. The purpose of this paper is to discuss laboratory work and hands-on training that will enhance the employability of B.Sc., chemistry students. The research investigated the design of the methods of their assessment and in particular the extent to which they would fulfill the expected laboratory skills. The results of the study indicated that students would be required to solve real industry-based problems.

Keywords: Employability skills, pharmaceutical industry, job market, practical work

INTRODUCTION

Throughout time, three industrial revolutions have occurred that were known throughout- the world. These were characterized, respectively, by mechanization, the discovery of electricity, and the invention of information technology. These discoveries have not immobilized industry; instead, a fourth revolution has activated current society. Since the emergence of these processes, the industry has been directly influenced by the growth of commercial activities that are connected at a global level. The impact of the pharmaceutical industry and globalization on the job market has revolutionized the binomial perspective of space and time, as such quick and simultaneous changes have never been previously observed.

SIGNIFICANCE OF THE STUDY

It is a general observation that students and teachers have to spend large amounts of time in the chemistry laboratory performing experiments. Demonstration of the experiment is important for understanding the principles of Science. However, performing experiments

with one's hand is far more important because it involves learning by doing. It is necessary to emphasize that for systematic and scientific training of young minds, genuine laboratory practice is a must.

Practical work plays an important role in the teaching and learning of science. Apart from helping students to gain insight into scientific knowledge, it also helps them to acquire several scientific skills, namely cognitive and manipulative, not to mention the motivational factors it creates in the students. The attainment of these goals however depends on the way practical work is organized and performed in colleges.

The laboratory should be adequate with equipment, chemicals, apparatus, and other facilities like a gas plant, distilled water, frame cupboard, etc., to experiment. The practical knowledge of students develops a positive attitude and results in better academic achievement.

This era is characterized by cognitive and technological progress, which led to the transfer of education from the old strategies in education to modern strategies based on theoretical teaching related to work and teaching students how to learn subjectively. In most cases, we focus on developing the laboratory skills of the learner from how to use tools and devices and deal with laboratory materials, forgetting the laboratory academic skills that we must develop for them such as recording observations, using scientific thinking skills, time management skills and others, which lead to the achievement of the goals of science and access to effective education.

OBJECTIVES

1. To find out the significant difference if any, in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Gender.
2. To find out the significant difference if any, in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Institutional type.
3. To find out the significant difference if any, in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Pattern of Chemistry Lab.

HYPOTHESES

1. There is no significant difference in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Gender.
2. There is no significant difference in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Institutional type.
3. There is no significant difference in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Pattern of Chemistry Lab.

METHODOLOGY

A survey method was adopted for this study

TOOL USED

A five-point scale namely the "Chemistry Practical Scale" (CPS) developed by the investigators containing 25 statements was used to identify the attitude towards practical classes among undergraduate students. The tool was given to four experts in the field of Chemistry and was Practical for face validity. Based on the suggestions given by the experts, items were reframed apposite to the level of undergraduate students. Five-point scale – Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree – was employed. The tryout was established using 100 respondents. The respondents were undergraduate students from six colleges.

DATA ANALYSIS

ATTITUDE OF ACHIEVING EMPLOYABILITY SKILLS OF B.SC., CHEMISTRY STUDENTS THROUGH LABORATORY SKILLS AND PRACTICAL WORK CONCERNING GENDER

Table 1: Attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work for Gender

Category	Number	Mean	Standard Deviation	CR Value	Remarks
Male	50	71.314	2.694	2.06	S
Female	50	71.000	1.912		

(At a 5% level of significance the table value of $t_{(1)}^2$ is 1.96)

Table 2: Attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work for Institutional Type

Category	Number	Mean	Standard Deviation	CR Value	Remarks
Aided	48	71.091	1.927	1.111	NS
Unaided	52	71.147	1.672		

(At a 5% level of significance the table value of $t_{\alpha/2}$ is 1.96)

Table 3: Attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work concerning Pattern of Chemistry Lab

Category	Number	Mean	Standard Deviation	CR Value	Remarks
Organic Chemistry Lab	380	70.807	1.8977	1.086	NS
Inorganic and Physical Chemistry Lab	220	71.605	1.6364		

(At a 5% level of significance the table value of $t_{\alpha/2}$ is 1.96)

FINDINGS AND INTERPRETATIONS

11.43%, 80.00%, and 8.57% of male undergraduate students have a low, moderate, and high level of attitude toward achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively. 23.08%, 64.62%, and 12.30% of a female undergraduate students have low, moderate, and high levels of attitude toward achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively

18.18%, 68.18%, and 13.64% of aided undergraduate students have a low, moderate, and high level of attitude toward achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively. 20.59%, 73.53%, and 5.88% of unaided undergraduate students have a low, moderate, and high level of attitude toward achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively.

7.89%, 81.58%, and 10.53% of Pattern of Chemistry lab as Organic Chemistry of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively. 25.81%, 62.90%, and 11.29% of Pattern of Chemistry lab as Inorganic and Physical chemistry of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively.

INTERPRETATIONS

The present study found that there is a significant difference between the mean scores of male and female undergraduate students. While comparing the mean scores of male and female undergraduate students, male students have better mean values than female students. This may be due to their gender. Since females have some anxiety to handle the chemicals,

apparatus, and standing 6 hours during this practice time. The present study found that there is no significant difference between the mean scores of undergraduate students for all other background variables.

RECOMMENDATIONS

- For Chemistry practicals to result in a significant positive impact on students' ability to learn both the desired laboratory and practical skills and also the underlying theory, it is recommended that students be allowed to engage in deep learning. Deep learning provides opportunities in identifying the main objectives of the work and in planning and executing it, identifying the conceptual and practical difficulties encountered, recording and discussing the results and observations, and suggesting practical alterations and improvements.
- It is also recommended that there should be further scrutiny of the curriculum and learning standards for chemistry practicals in secondary school chemistry and an in-depth study of teacher competence in the teaching of practical chemistry is suggested.
- Generally, the students feel that there is no freedom in the laboratory. Such a controlled condition will not favor a positive attitude.
- Hence the individual freedom of the students in doing experiments laboratory must be provided for developing a positive attitude towards chemistry practicals.
- Most of the students feel that the time allocated for the chemistry practical is insufficient for them to complete it.
- Generally during the regular college days, either qualitative analysis or quantitative analysis is provided to the students for practice.

CONCLUSION

An attempt was made to analyze some factors related to the attitudes toward males or females, he/she has a moderate attitude towards chemistry practical, the causes could be basically due to the difficulty of the methods, the low awareness of the importance of chemistry in our daily life, lack of exposure and field trips, unattractive and low equipped laboratories. These findings, hopefully, will provide some useful information on how to bridge between students' attitudes toward chemistry and the material, by paying attention to a college education that addressed non-formal learning. The present findings also provide insightful information to the college chemistry teachers and science curriculum planners to

revise their teaching and learning methods, so that students' attitudes towards learning and engagement in chemistry activities increase.

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AWARENESS OF THE AVAILABILITY AND UTILIZATION OF COMMUNITY RESOURCES IN TEACHING CHEMISTRY AT THE SECONDARY SCHOOL LEVEL

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ABSTRACT

The main objective of the study was to find out whether there is any significant relationship between awareness of the availability of community resources of secondary-level chemistry teachers and their utilization of community resources in teaching chemistry. The investigator has adopted the survey method. The population of the present study includes all the high and higher secondary school chemistry handling teachers of the Thoothukudi district. Four tools developed by the investigators were used to study the variables. Percentage analysis, t-test, and correlation analysis were used for the analysis of data. The major findings were that the secondary-level chemistry teachers have a moderate level of awareness of the availability of community resources, there is a significant difference between Tamil and English medium school secondary-level chemistry teachers in their utilization of health resources, there is a significant relationship between awareness on the availability of community resources of the secondary level chemistry teachers and their utilization of human resources.

Introduction

Science is an accumulated and systematized learning in general usage restricted to natural phenomena. The progress of science is marked by not only an accumulation of fact but also the emergence of the scientific method and the scientific attitude. Chemistry is an important branch of science. Chemistry is, useful in understanding the changes taking place in the constituents of the environment and the resulting advantages. The study of chemistry in modern times has been greatly facilitated because of the effective interlinking of numerous facts and principles established from it.

The rationale of the study

The Kothari commission (1964-1966) states, — If science is poorly taught and badly learned, it is little more than burdening the mind with dead information and it could degenerate even into new superstitions". The latest slogan in education in all the progressive countries is "let us study the community, use the community, serve the community and involve the community in the educational process". Community resources and experiences

can enrich science instruction. Indeed, many feel that there is an unacceptable gap now between the chemistry that is taught to many students and the chemistry that is being pursued, whether it is academic, industrial, or environmental. Imagination and creativity in using community resources can help students connect school chemistry with applications in the community, as well as help students better learn basic concepts.

Statement of the Problem

Awareness of Availability and Utilization of Community Resources in teaching Chemistry at the Secondary School level.

Objectives

- 1) To find out the level of awareness on the availability of community resources of the secondary level chemistry teachers.
- 2) To find out, whether there is any significant difference between Tamil and English medium school secondary-level chemistry teachers in their Utilization of community resources.
- 3) To find out, whether there is any significant relationship between awareness of the availability of community resources of the secondary level chemistry teachers and their utilization of community resources.

Hypothesis

- 1) The level of awareness of the availability of community resources for secondary-level chemistry teachers is moderate.
- 2) There is no significant difference between Tamil and English medium school secondary-level chemistry teachers in their Utilization of community resources.
- 3) There is no significant relationship between awareness of the availability of community resources for secondary-level chemistry teachers and their utilization of community resources.

Methodology of the study

The investigator has adopted the survey method for the present study. The population of the study consists of all secondary school chemistry teachers in the Thoothukudi district. The sample consists of 200 secondary-level chemistry teachers. A multistage random sampling technique was used. A checklist and a questionnaire were used to find the awareness of the availability and utilization of community resources respectively. The investigators constructed and validated the tools. Percentage analysis, t-test, and Pearson correlation coefficient were used for the present study.

Analysis of the data

TABLE 1-Level of awareness on the availability of community resources the secondary level chemistry teachers

Community Resources and its Dimensions	Low		Moderate		High	
	No.	%	No.	%	No.	%
Health Resources	50	25	107	53.5	43	21.5
Industrial/Chemical resources	31	15.5	138	69.0	31	15.5
Energy Resources	49	24.5	119	59.5	32	16.0
Human Resources	37	18.5	135	67.5	28	14.0
Environmental Resources	37	18.5	136	68.0	27	13.5
Community Resources	34	17.0	147	73.5	19	9.5

It is inferred from the above table that secondary-level chemistry teachers have a moderate level of awareness of the availability of health resources, industrial/chemical resources, energy resources, human resources, environmental resources, and community resources respectively.

TABLE 2-Difference between Tamil and English medium school secondary level chemistry teachers in utilization of community resources and its dimensions

Community Resources and its Dimensions	Medium of Instruction	Mean	SD	N	Calculated 't' value	Table Value at 5% level	Remark
Health Resources	Tamil	11.07	2.74	132	2.35	1.96	S
	English	11.96	2.42	68			
Energy Resources	Tamil	14.44	3.42	132	0.80	1.96	NS
	English	14.84	3.28	68			
Chemical Resources	Tamil	28.39	6.09	132	1.60	1.96	NS
	English	29.76	5.60	68			
Environmental Resources	Tamil	11.61	2.82	132	1.62	1.96	NS
	English	12.25	2.57	68			
Human Resources	Tamil	15.09	3.53	132	1.16	1.96	NS
	English	15.69	3.43	68			
Scientific Attitude	Tamil	10.39	2.49	132	0.20	1.96	NS
	English	10.32	2.32	68			
Community Resources	Tamil	90.98	15.69	132	1.71	1.96	NS
	English	94.82	14.73	68			

Since the calculated t value is greater than the table value at a 5% level of significance, there is a significant difference between Tamil and English medium school secondary-level chemistry teachers in their utilization of health resources. Hence, the null hypothesis is rejected. But, there is no significant difference between Tamil and English

medium secondary-level chemistry teachers in their utilization of chemical resources, energy resources, human resources, environmental resources, scientific resources, and community resources. Hence, the null hypothesis is accepted.

TABLE 3- Relationship between awareness of the availability of community resources of the secondary level chemistry teachers and their utilization of community resources in teaching chemistry

Utilization of Community Resources	N	The calculated value of 'r'	Table value of „r“	Remarks at 5% level
Health Resources	200	0.127	0.138	NS
Energy Resources		0.109		NS
Chemical Resources		0.061		NS
Human Resources		0.170		S
Environmental Resources		0.115		NS
Scientific Attitude		0.065		NS
Community resources		0.136		NS

It is inferred from the above table that there is a significant relationship between awareness of the availability of community resources the secondary level chemistry teachers and their utilization of human resources. But there is no significant relationship between awareness of the availability of community resources the secondary level chemistry teachers and their utilization of health resources, energy resources, chemical resources, environmental resources, scientific attitudes, and community resources in teaching chemistry.

FINDINGS OF THE STUDY

- 1) The level of awareness of the availability of community resources for secondary-level chemistry teachers is moderate.
- 2) There is a significant difference between Tamil and English medium school secondary-level chemistry teachers in their utilization of health resources. But, there is no significant difference between Tamil and English secondary-level chemistry teachers in their utilization of chemical resources, energy resources, human resources, environmental resources, scientific resources, and community resources.
- 3) There is a significant relationship between awareness of the availability of community resources the secondary level chemistry teachers and their utilization of human resources. But there is no significant relationship between awareness of the availability of community resources the secondary level chemistry teachers and their

utilization of health resources, energy resources, chemical resources, environmental resources, scientific attitudes, and community resources in teaching chemistry.

CONCLUSION

From this study, it is clearly understood that teachers should use community resources regularly in the classroom. So, chemistry teachers should develop their knowledge and adopt techniques of the utilization of community resources to enhance the student's achievement.

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AN ANALYSIS ON EMBRACING DIGITALIZATION: STUDENT ONLINE BEHAVIOUR AND ACADEMIC PERFORMANCE

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ABSTRACT

After the pandemic, there is a wide transformation in the way people work, live, learn and relate to each other on a global level. Education which is a process of transferring knowledge, values, and skills from one person to another in India is at a transition stage. With the development of digital technology, Institutions of higher education have increasingly embraced Digital Learning. Digital Learning involves the use of technology, digital content, and instructional methods. Besides, using digital tools like interactive whiteboards and tablets in a classroom also involves students conducting Internet research or watching online videos. E-learning can be understood as both a methodology for learner-centered and collaborative instruction using computers. This paper focuses on the field of education to show how the traditional class with the implementation of online learning behavior among students improves academic performance. To achieve these goals, this paper explains how a traditional grading system was adopted for the evaluation of the student's performance and an online environment was implemented for the students to share posts, evaluate the answers and classify productions with the emojis-based reactions that affect the academic performance. The discussion and conclusion synthesize significant insights into the impact of Digital Learning and how it's going to influence the foreseeable future.

Keywords: Digital transformation, Online Learning, Education, Students' Performance.

I. Introduction

Education is the process of facilitating learning, or the acquisition of knowledge, skills, and values. Formal education is a key practice for facilitating learning. Nowadays, technology has a prominent role to play in education. A successful educational learning system is the integration of the learner, the learning environment, and the body of knowledge. Learners themselves are the true creators of learning since they must acquire the requisite knowledge and skills. The traditional learning environment includes classrooms, the library, and study rooms. In General, internet-based learning is considered an option in western countries. In developing countries like India, digital learning became an essential element for maintaining activity in the education sector. A learning system based on formalized teaching

but with the help of electronic resources is known as E-learning. Unlike the traditional chalk and board method of teaching, eLearning makes learning simpler, easier, and more effective. The e-learning system helps students and teachers which enables them to continue the learning process at all available times through digital resources. The method of instruction is different from traditional learning in that students and teachers are not obliged to be present in the same classroom at all times. This paradigm shift could generate changes in students' perception of this way of teaching and their perception might be different from the one found in studies previously. This technological transformation of education involves profound changes in teaching methodologies, essential competencies, and assessment methods, as most HEIs recognize [1]. Digital education requires appropriate infrastructure and technological platforms (e.g., whiteboard, Moodle, Microsoft teams), instant messaging tools (WhatsApp, Telegram); video-conferencing tools (Zoom, Skype, Google Hangouts, Google Meet); and educational apps (Google Classroom); Other technologies were also generally useful (Cisco WebEx, GoToMeeting, Microsoft Teams, Loom, OBS) combined with email and telephone conversations to maintain one to one personalization with students. It also needs solid servers that can sustain the virtual workload and methodological training of faculty and students for online delivery using all the technical and educational resources available. At a global level, a wide variety of online communication platforms and solutions are available to help digitalize the entire teaching-learning process [2]. It is easy for autonomous institutions to adapt to the transition but, it would always be difficult for public institutions.

Thus, through this paper, we tried to capture the existence of such changes and to say about collaborative learning with student participation. Previous research shows that E-learning offers a lot of benefits for the learning community. This type of online learning involves student-centeredness and it is more flexible [3]. E-Learning is the best method that improves the interaction with students by providing asynchronous and synchronous tools such as e-mail, forums, chats, and videoconferences [4,5]. Internet-based technologies facilitate the sharing of material to a large number of users; E-learning platforms offer many advantages to learners such as control over the content, and control over the time spent learning, and thus the process can be adapted according to the learner's needs and objectives of learning [6]. The e-learning obstacles can be overcome with the help of teachers and students who should adopt the new strategies.

II. Methodology

The dataset is taken from Kaggle which offers over 50,000 public datasets for data analysis. This E-learning dataset was compiled after 4 months of an Algorithm Introductory Class at a Brazilian University. A traditional grading system was adopted for evaluation of the student's performance, and, at the same time, an online environment let students share posts, and answers and classify productions with emojis-based reactions.

The Class was project-based and the evaluation of the skills followed the so-called "21st Century Skills", on a scale from 0 to 10 for each Skill:

- Critical Thinking and Problem-Solving Skills - named SK1;
- Creativity and Innovation Skills - named SK2;
- Constant and Self-Learning Skills - named SK3;
- Collaboration and Self-Direction Skills - named SK4;
- Social and Cultural Responsibility - named SK5.

In the online learning environment, the students could post and classify colleagues' postings with some reactions. Each student was allowed to classify up to 10 reactions per day. They are allowed to give reaction types in posts created by other colleagues. The reactions say, how the student feels about the post by another student. The following are the 7 reactions that can be given to a post.

- Confusing post
- Amazing post
- Bad post
- Creative post
- Collaborative post
- Nice Code post
- Helpful post

The dataset contains, one unique student per row, the number of reactions of each type received by the student by another student as well as his gradings in each skill evaluated by the faculty. The dataset comprises 15 attributes. 6 attributes are specific to the contribution of the students as reactions to the post by other students. 3 other attributes are related to collaborative learning and participative learning. 5 other attributes are related to the different skills of the students. In the dataset, the last column of the dataset brings if the student was approved or not in the class. The final result was a simple average between the 5 skills. Our

interest is to discuss the use of social online features inside real classroom projects and its contributions to the student class grading and active behavior.

Based on available data, the research is focused on two main questions.

Q1: What is the link between the reactions and the skill levels shown by the student?

Q2: Is there some sort of interesting findings?

III. Result and Discussion

The students' online activity corresponds to the number of posts created, amount of reactions marked as helpful received by the student, amount of reactions said as nice code, amount of reactions marked as collaborative, amount of reactions said as bad, amount of reactions marked as confused, amount of reactions marked as creative, reactions that are marked as amazing and approved are taken into consideration for the study. The final Grade of the students on various skills like creativity, critical thinking, self-learning, collaboration, and social skills was recorded and used for analysis. The analysis is carried out to find out the link between reactions and skill levels of the students and whether there exist any interesting links. First, the dataset is preprocessed and scaling is done over the data for analysis. **Correlation** is used to summarize the strength and direction of the linear association between two quantitative variables. It is denoted by r and values between -1 and $+1$. A positive value for r indicates a positive association, and a negative value for r indicates a negative association. The experiment is carried out using spyder IDE with python programming.

Table 3.1 Correlation between Online Reactions and Student Approval

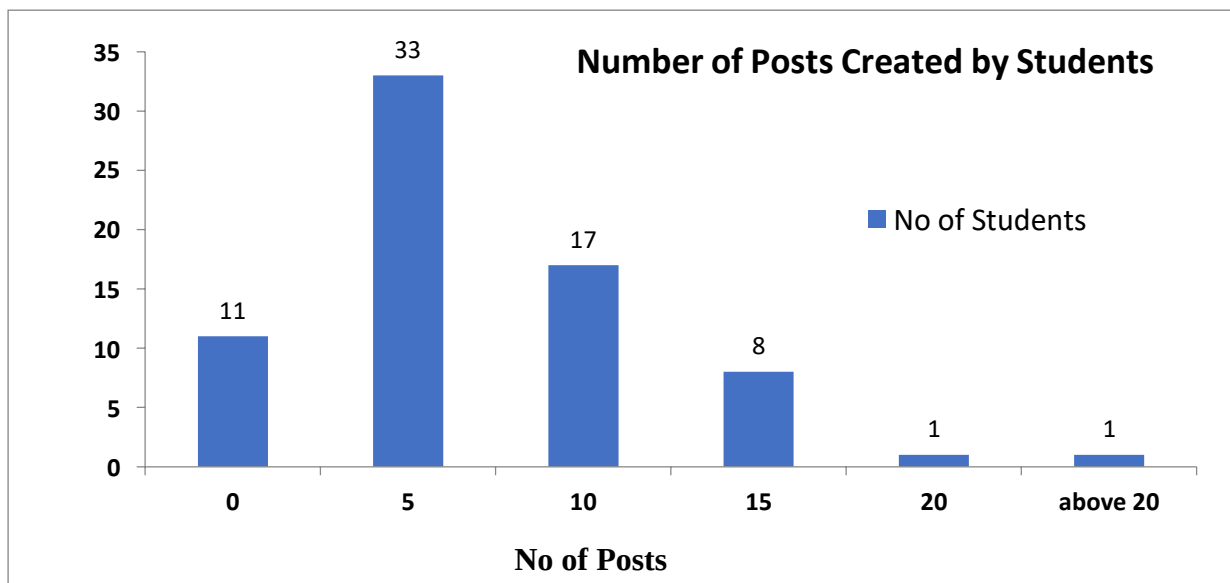
Post Type	Total Post	Helpful Post	Nice Code Post	Collaborative Post	Confused Post	Creative Post	Bad Post	Amazing Post
Correlation	0.5012	0.4310	0.4866	0.6378	0.1361	0.7572	0.1280	0.7176

The table shows that the students who post positive reactions for material that are creative and amazing posts are likely to get approval. It also shows that 84% of the students actively participate in the creation of new posts. This shows that most of the students post good material and are active. It is also interesting to note that the students who have not created any posts, even though they do some collaborative actions are not approved in the class.

Table 3.2 Correlation between skillset and various reactions of the students

Post Type	Total Post	Helpful Post	Nice Code Post	Collaborative Post	Confused Post	Creative Post	Bad Post	Amazing Post
Skill - I	0.5323	0.4338	0.3960	0.5426	0.1601	0.5484	0.1892	0.5390
Skill - II	0.5728	0.4547	0.4434	0.5708	0.2282	0.5717	0.1747	0.5586
Skill - III	0.5212	0.3927	0.4149	0.5166	0.1693	0.5140	0.0874	0.5947
Skill - IV	0.5004	0.3667	0.3678	0.4953	0.1305	0.4895	0.0169	0.5214
Skill - V	0.4506	0.3118	0.3479	0.4982	0.1346	0.4607	0.1182	0.4724

The students who have reacted to the collaborative post, creative posts, and amazing posts possess critical thinking, creativity, innovation, constant, self-learning, and problem-solving skills, and have some social and cultural responsibility. Students create various numbers of posts and the below Fig. 3.1 shows the variation of the student creation. It clearly states the interest of the students in online activity and they have started using the technology along with the traditional method of learning.

**Fig. 3.1 - Number of Posts created by the Students****Conclusion:**

Taking into account the aspects mentioned above it is believed that the transition to exclusive E-learning has begun slowly in developing countries. The interesting fact found out is that it is not highly affecting the educational process. The student's perception of the use of traditional learning along with the online environment has taken a new dimension. Students who exhibit strong levels of creativity, critical thinking, and collaboration perform well in

traditional learning and are very engaged in creating and participating in electronic content. It is considered important, relevant, and necessary to analyze whether students have adapted to E-learning, apart from using online tools and whether they are satisfied rather than dissatisfied with this exclusive online experience. This can be done as future research.

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INFLUENCE OF SOCIAL MEDIA ON FAMILY DYNAMICS: A STUDY AMONG THE PROSPECTIVE TEACHERS

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ABSTRACT

This study was designed to measure the influence of social media on family dynamics of prospective teachers. Quantitative survey technique is used to gather sample data to determine the influence of utilization of social media on family dynamics of prospective teachers. The survey was conducted via questionnaires. The data were obtained from 16 colleges of education from Tirunelveli and Thoothukudi Districts. The researcher used random sampling, and the sample size was 940. Social Media Assessment Scale (SMAS) was constructed by the investigator for assessing the usage of social media of prospective teachers. This inventory consisted of three dimensions viz. academic usage, psychological usage and social usage. The reliability of coefficient was found to be 0.74. To study the family dynamics of the prospective teachers "Family Dynamics Assessment Scale (FDAS)" has been used. The results of reliability test showed that questionnaire for social media assessment scale and family dynamics assessment scale had Cronbach alpha of 0.74, and 0.802 respectively. The data were analyzed using parametric test of regression analysis method to test the hypothesis. Statistical results from the study indicate that there is significant positive influence of usage of social media and its dimensions on family dynamics of prospective teachers.

Keywords: *Social Media, Family dynamics, family relationship, Prospective teachers*

INTRODUCTION

Societies never reach a long-term equilibrium because they are always changing. We constantly alter the way our surroundings look, giving the appearance that we are always moving our perceptions. Family life is the same as this. Even if many people find peace and quiet in their families, these changes happen faster than they ever imagined (Mortelmans and Dimitri. et., al., 2016). The family is an autonomous system that manages itself in accordance with norms developed through time via a process of trial and error (Watchtel and Watchel Paul, 1986). Most of the families only experience mild to moderate stress during the changes. Families will be more agitated by the need for change and more likely to have symptoms the

more inflexible the patterns of interaction. Family functioning can be strained by a variety of changes, not just predictable developmental ones. Boundaries, alignment, and authority are the three aspects of family structure that matter the most. Social media dominated communication in the Twenty First Century with dozens of mobile and desktop programmes that made life simple for everyone. Every person in the house has a phone, a laptop, and other technology to use social media platforms, but none of them, for real, are aware of how social media is affecting family dynamics. The utilization of social media characterizes modern lifestyles and relationships, including family interactions. It is breaking down family communication. It can rob families of attention, communication, and a feeling of safety within the family unit. On the other hand, social media is also helpful for families of divorce or separation through more immediate voice or face contact.

Due to the social media usage, the face to face interaction among the family members gradually decreased. So the social media behavior can profoundly damage real-life family relationships, especially the relationship between a parent and a child. But, the excessive usage of social media ruined that health family relationship which leads to the change in the family dynamics. Parents tend to be interested in fixing norms related to prohibition of excessive usage of social media. But the prospective teachers who are at stage of young adulthood tried to violate that norms. Due to those problems, the family communication may be spoiled gradually which leads to the excessive usage of social media appears to continue to be an active catalyst in family dynamics. So there is a need to study the precise nature of the influence of social media on family dynamics of prospective teachers.

Review of Related Studies

The findings of the study (Romera, Eva M. et.,al. (2021)) found that there is need to foster a climate of trust and communication in the family environment to reduce involvement in risky online behaviour, in which children feel understood and supported by their parents, which in turn encourages open communication about Internet use. Mahmoud and Shafik (2020) concluded that the family members use social media for long hours daily were often had effect on family relationships. Raza, Syed Ali. et.,al. (2020) found that the outcomes indicate that the need for maintaining interpersonal interconnectivity, entertainment value and social enhancement value derives the students' participation in social networking sites through which they encounter social benefit and social overload. The presence of social benefit enhances life satisfaction while social overload results in decreasing life satisfaction of students.

Michel and Martin (2020) found that family engagement and child participation seem to be higher in families interested in living more sustainably when these families are part of a social network. Hussain, Tanveer. (2020) found that people living in a single-family group use more social media than people living together. Findings also say people are using social media to escape family problems. There is a small disparity between the people who live in both family systems on whether or not social media eliminates the original family.

Fortuna (2019) found that the perceptions emerge as a mediator in the relationship between the collective family efficacy and the openness of communications, suggesting that it is not only the actual impact of social media on family systems that matters but also parents' perceptions about it and how much they feel able to manage their and their children's social media use without damaging their family relationships.

Aljehani, Hanan (2019) revealed a positive impact of social media on citizenship and communication values, a moderately negative impact on time respect, and a poor impact on others' privacy respect and on family communication. The present study varies from the reviewed studies in several ways. First of all, there was no study undertaken so far with the relationship between the variables social media and family dynamics. The present study is unique and differs from the rest of the studies in terms of population and sample. Therefore, the present study is the need of the hour to find out its impact on the family structure of the prospective teachers. Hence, the investigator has chosen the title as influence of social media on family dynamics of prospective teachers.

Objectives of the Study

- To find out whether there is any significant influence of usage of social media and its dimensions on family dynamics of prospective teachers.

Hypothesis of the Study

- There is no significant influence of usage of social media and its dimensions on family dynamics of prospective teachers.

Methodology

Quantitative survey technique was used to gather sample data to determine the influence of utilization of social media on family dynamics. The survey was conducted via questionnaires. The data were obtained from 16 colleges of education of Tirunelveli and Thoothukudi districts. The researcher used random sampling, and the sample size was 940. Social Media Assessment Scale (SMAS) constructed by the investigator for assessing the usage of social media of prospective teachers. This inventory consisted of three dimensions

viz. academic, psychological and social usage. The reliability coefficient was found to be 0.74. To study the family dynamics of the prospective teachers "Family Dynamics Assessment Scale (FDAS)" was used. The results of reliability test showed that questionnaire for social media assessment scale and family dynamics assessment scale had Cronbach alpha of 0.74, and 0.802 respectively. The data were analyzed using parametric test of regression analysis method to test the hypothesis.

Analysis of Data

H₀: There is no significant influence of usage of social media and its dimensions on family dynamics of prospective teachers.

Table – 4.67
Influence of usage of social media and its dimensions on family dynamics of prospective teachers

Predictors	B	SE	β	t	Sig.	R	R ²	F	Sig.
Constant	27.036	1.179		22.939	.000	0.571	0.326	150.93	0.000**
Psychological Usage	.332	.133	.124	2.501	.013				
Social Usage	.142	.093	.088	1.525	.128				
Total usage of social media	.275	.056	.391	4.889	.000				

** Significant at 1% level

Findings of the Study

- There is significant influence of usage of social media and its dimensions on family dynamics of prospective teachers.
- Among all the predictors, the total usage of social media strongly influences the family dynamics of prospective teachers.

Results and Discussions

The result of the multiple regression (R) shows that there is significant positive correlation between the dependent variable – family dynamics and usage of social media. Hence the respective hypotheses were rejected. Positive B values indicate significant relationship between family dynamics and usage of social media except the dimension of usage of social media namely, 'social usage'. All the predictors have significant t-values, those predictors have a strong influence on family dynamics. The β value for total usage of social media is greater than that for psychological usage, which implies that its impact is more. The high F-value indicates significant relationship between predictors and dependent variable. Results indicate that 39% of total usage of social media depends on the family dynamics of prospective teachers and the remaining 61% is due to variables other than the usage of social media.

Conclusion

The study was conducted to examine the influence of social media on prospective teachers' family dynamics. Statistical results from the study indicate that there is significant influence of usage of social media and its dimensions on family dynamics of prospective teachers. And also the simple linear regression analysis specifically showed that total usage of social media significantly predicted family dynamics of prospective teachers. It was made very obvious that using social media by prospective teachers may give their families the chance to bond even more and stay in touch whenever there was a break due to distance, which would result in the development of relationships that were moderate. However, face-to-face interactions amongst family members help to forge close bonds. This study made recommendations for how to maintain a good balance between family relationships and social media usage among those involved in teacher education.

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APPLICATIONS OF ANDRAGOGY IN TEACHING AND LEARNING OF MATHEMATICS

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ABSTRACT

Andragogy provides education to age group of learners above 18 years. Andragogy educates the learners to their own pace, and their own experiences. Gauss stated as Mathematics is the queen of sciences and arithmetic is queen of all mathematics. Bacon said —Mathematics is the gateway and key to success. Mathematics is one of the life centered subjects of all pedagogies. It gives a wonderful message to us, —Each and every problems have a solution. Teaching of mathematics is to teach the mathematics, how to understand the mathematical concepts, contents to the adult learners. Learning of mathematics is, to learn the mathematical content through teaching of the same. In this paper, the researchers mingled the concept application of andragogy and teaching & learning of mathematics and narrate how the andragogy helps to understand the concept of mathematics.

Key words: Andragogy, Mathematics, Teaching of Mathematics, Learning of Mathematics.

INTRODUCTION

Malcolm Shepherd Knowles (1913 – 1997) was an American educator well known for the use of the term Andragogy as synonymous to adult education. Malcolm Shepherd Knowles was called as **Father of Andragogy**. According to Malcolm Knowles, andragogy is the art and science of adult learning, thus andragogy refers to any form of adult learning. (Kearsley, 2010).

The term andragogy can be used equivalent to the term pedagogy. Andragogy in Greek means man-leading in comparison to pedagogy, which in Greek means child-leading. However, it should be noted that the term pedagogy has been used since the Ancient Greek times, while Alexander Kapp, a German educator, first used the term andragogy in 1833.

ANDRAGOGY

All of the educational theories have been primarily pedagogical in nature. **Knowles** brought the idea of andragogy into the learning community in the 1970s when he proposed there is a difference in the way adults learn. Knowles (1970) developed five assumptions that underlie his theory of andragogy:

- Adults are self-directed learners.

-
- Adults bring a great deal of experience into the classroom.
 - Adults who seek education are ready to learn.
 - Adults are internally motivated.
 - Adults want problem-based learning.

Knowles did not view andragogy as a true epistemology. Instead he viewed it as a concept rather than a theory. He based his work on that of constructivists, in particular **Carl Rogers**. He also based it on the hierarchy of needs developed by **Abraham Maslow**. As learners continue to mature, they become more self-directed (Blondy, 2007). Knowles (1980) outlined a seven-step process for faculty to promote andragogy:

- Develop cooperative learning environment.
- Involve learner in the setting of goals.
- Diagnose learner needs and interests.
- Help learner formulate objectives based on his/her interests and needs.
- Design sequential learning experiences to meet these objectives.
- Meet objectives with materials and resources.
- Evaluate the quality of learning and impact on future learning.

KNOWLES' 5 ASSUMPTIONS OF ADULT LEARNERS

In 1980, Knowles made 4 assumptions about the characteristics of adult learners (andragogy) that are different from the assumptions about child learners (pedagogy). In 1984, Knowles added the 5th assumption.

1. Self-Concept

As a person matures his/her self concept moves from one of being a dependent personality toward one of being a self-directed human being.

2. Adult Learner Experience

As a person matures he/she accumulates a growing reservoir of experience that becomes an increasing resource for learning.

3. Readiness to Learn

As a person matures his/her readiness to learn becomes oriented increasingly to the developmental tasks of his/her social roles.

4. Orientation to Learning

As a person matures his/her time perspective changes from one of postponed application of knowledge to immediacy of application. As a result his/her

orientation toward learning shifts from one of subject- centeredness to one of problem centeredness.

5. Motivation to Learn

As a person matures the motivation to learn is internal (**Knowles** 1984:12).

KNOWLES' 4 PRINCIPLES OF ANDRAGOGY

In 1984, **Knowles** suggested **4 principles** that are applied to adult learning:

1. Adults need to be involved in the planning and evaluation of their instruction.
2. Experience (including mistakes) provides the basis for the learning activities.
3. Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life.
4. Adult learning is problem-centered rather than content-oriented. (Kearsley, 2010)

SIX MAIN CONCEPTS OF ANDRAGOGY

Knowles's theory has six assumptions that relate to how adult learners learn:

A. Motivation - Adult learners react better to internal versus external motivators when they learn.

An adult usually goes to school to earn a degree or finish a diploma to get a better job, self-improvement, or development. Adults are not obligated to go to school as children are, so they need internal motivation.

B. Need to know - Adult learners need to understand why they are learning something.

Adult learners need to know how the learning will be conducted, how the learning will occur, and the importance of what they are learning.

C. Foundation - Adult learners' past experience provides the reason for any pursuit of learning.

Adults have more life experiences to reflect on to seek new learning experiences that will enhance their lives.

D. Self-concept - Adult learners want to control any decisions regarding their education.

They want to participate in the planning and evaluation of their learning.

E. Readiness - The majority of Adult learners only want to learn about content related to their current work and/or personal lives.

F. Orientation - Adult learners shift from learning being content-centered to more problem-centered.

Adults take classes to learn a new skill that will help them solve problems they are currently facing. For example, an adult will take a course in Excel to help them learn how to use it in their current position.

TECHNIQUES FOR TEACHING ADULT LEARNERS

As educators, teaching adults may be more challenging than teaching children. We tend to view children as sponges that absorb all the knowledge they are learning. In comparison, adults have control over what they want to learn, how they want to learn, and when they want to learn it.

Using Knowles's theory of six assumptions of Andragogy, we can facilitate learning by making it more collaborative, autonomous, and self-directed. For example, make sure to:

- State all learning outcomes and make sure that create activities that align with those outcomes
- Use course feedback to make sure that course content continually meets our adult learners' needs.
- Give feedback on all learning activities to praise their work or so that our adult learners know precisely how they can improve.
- Encourage collaboration and discussion so that they can understand how the course content relates to their own life experience.

TEACHING OF MATHEMATICS

Gauss stated as Mathematics is the queen of sciences and arithmetic is queen of all mathematics. **Bacon** said —Mathematics is the gateway and key to success.

Mathematics teaching is the act of imparting mathematical knowledge, methods, calculations, computational techniques etc by someone (teacher) to another. It may be formal in an educational setting or informal.

Mathematics teaching is the process of impacting mathematical knowledge that involves problems solving, numeracy skills, rational thinking, and logical reasoning and so on to the learners under the guidance of the teacher.

LEARNING OF MATHEMATICS

Mathematics learning can be broadly defined as the acquisition of new knowledge, skills and that are related to quantity, space and structure. The ability to learn mathematics is possessed by humans and to some extent also by some animals and machines. As far as humans are concerned, its acquisition is considered to be the result of the complex interplay of various elements: innate, though plastic, neurobiological structures, as well as perceptual and

action schemes that allow basic quantitative and spatial activities. Preschool and out of school activities and experiences related to number, space, and patterns and intentional, explicit and systematic mathematics learning in school.

APPLICATIONS OF ANDRAGOGY IN TEACHING AND LEARNING OF MATHEMATICS

Mathematics is one of the life-centered subjects in all pedagogies. Mathematics helps in our day to day routine life situations. Mathematics gives a moral support of everyone's daily life. Timings, calendars, preparation of cooking etc are the fundamental applications of mathematics in our life. Merchants use many mathematical concepts like profit, loss, discount etc. Mason use surface area of rectangle, surface area of square for fixing tiles or granite tiles and so on. When white-washing or painting, people support of the mathematical content volume.

Mathematics gives more experience to learn every problem of the adult learners. If the learners or mathematicians do the sums and get the correct answers, they will get more enthusiasm, interest to do more sums in that chapters and they are very happy and proud to be —I can do it internally. If they do the sums and get the incorrect answers then they will get experience and do it correctly, and they feel —do it correctly.

Mathematics provides a sufficient knowledge to the adult learners why the mathematician learns a concern area and they know why it is important in their life. For example, Linear algebra is used in the field of medicine.

Mathematics provides a basic required knowledge for the adult learners in their day to day life. In starting stage of learning new content, the adult learners write all steps, formulae, substitutions and so on. After they are well-known the contents, they will write most required steps only. The adult learners one who have interested in mathematics, he/she only learn mathematics in higher studies. Learners self evaluated themselves related capabilities of their mathematics learning. It is one of the self directed pedagogy of all pedagogies.

Mathematics helps to increase soft skills of the adult learners like creative thinking, time management, positivity, motivation, critical thinking, team work, leadership, problem solving skills and so on.

CONCLUSION

Learning outcomes in adult education often tend to abstract the lived experiences of adults. We need to teach adults how to use mathematics to answer back to power at work.

We should make the adult learns, able to recognize the mathematical structures in Novel contexts and transform the mathematics they already know, creating a potentially innovative and workable solution in that particular context.

By stressing the importance of Technological innovations and rapid changes taking place. Globally, we can make Andragogy in Teaching Mathematics more effective and successful.

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TECHNOLOGY AND ADULT LEARNING: CURRENT PERSPECTIVES

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ABSTRACT

Technology and Innovation in Adult Learning introduces educators and students to the intersection of adult learning and the growing technological revolution. Written by an internationally recognized expert in the field, this book explores the theory, research, and practice driving innovation in both adult learning and learning technology, and illuminates a powerful approach to recognize and leverage these opportunities. Building on current trends and research in technology and its use, each chapter illustrates the need, opportunities, and examples of current and future technologies that scaffold adult learning, and provides comprehensive coverage of both current and emerging challenges. Many adult learning faculty, practitioners, and students realize that technology presents a growing and ever-present set of issues, yet few feel confident in identifying the opportunities that arise with each step forward. This book clarifies the interplay between adult learning and learning technology, and characterizes the cyclic exchange of information and opportunities that link these fields now and in the future. Understand the critical issues currently affecting adult learning Learn how technology is presenting both opportunities and challenges for the teaching and learning of adults in different contexts Examine recent research on learning technology for adult learners Discover how technological innovation can be applied now and how it will continue to shape the future of learning Adult learning is on the rise, and there is no mistaking technology's role; whether they're learning with or about technology, today's adult learners come with unique sets of needs and skills that demand specialized approaches. Traditional pedagogical techniques don't transfer directly, and learning technology requires its own unique approach to development and use. Technology and Innovation in Adult Learning equips practitioners to further adult learning and shape the future of the field, while providing a rich perspective for classroom inquiry and research.

The centre is above all a community of learners. Teachers and participants interact and are interdependent. They contribute equally to the life of the center and the local community. The adult education digitalization studies can make important contributes throughout the 21st century, changes in technology have had social and economic ramifications. Although each successive wave of technological innovation has created

changes to which adults have had to adjust, ‖what perhaps differentiates earlier technological changes from today's is the current emphasis on educational applications‗. In considering the role of technology in adult learning, adult educators are faced with a number of challenges, including how to respond to technology and how to exploit it without diminishing the learning experience. The purpose of this Digest is to review some current perspectives about technology and adult learning. It begins by describing approaches for integrating technology into adult learning and then considers how technology can be used to support and expand learning.

Introduction:

Adult learning is witnessing increasing participation among non-traditional learners (Allen & Seaman, 2017) learning by distance education (DE) mode in higher education institutions (HEIs). King (2017) opines that 'adult learning has become essential in the digital age, yet it seems to be one of the best kept secret' (p. 15). Thus, a lot of motivation and encouragement from tutors, management of the learning centres and management of HEIs to adult learners can aid them learn. The thinking today is that self-directed learning is an important skill to be successful in the 21st century (King, 2017), and must be encouraged among adult learners. The results provide insight for practitioners to support the diverse needs of first-generation college students. In Ghana, adult education is not receiving the fullest attention it deserves, yet it serves as a key to success in conquering relentless wave of change being experienced today (King, 2017).

There are different approaches of how an adult learn that have been discuss by educators. One of these approaches is andragogy, introduced by Alexander Kapp and developed later by Malcolm Knowles. According to Knowles andragogy is a learning approach that is developed on the specific need of adults, because they are self directed individuals who expect to take responsibility for decisions. The adult learner needs to know why they need to learn a specific subject and they will learn it if the topic has an immediate value.

Adult Learning in the Digital Age:

Perspectives on Online Technologies and Outcomes provides a comprehensive framework of trends and issues related to adult learning for the facilitation of authentic learning in the age of digital technology. This significant reference source offers researchers, academicians, and practitioners a valuable compendium of expert ideas, practical

experiences, field challenges, and potential opportunities concerning the advancement of new technological and pedagogical techniques used in adult schooling.

The many academic areas covered in this publication include, but are not limited to:

- Adult online learning
- Blogs to promote learning online
- Collaborative Learning
- Empowering adult learners through blog
- Facebook community and learning
- Integrating blogs in teacher education
- Realities of virtual learning
- Social Networking
- Teaching technology to digital immigrants
- Teaching to learning styles
- Virtual university

Perspective-Taking

Collaborating with classmates in critical online reflection allows students a safe space to consider and explore perspectives other than their own. Exposure to diverse perspectives often creates a tension in the student's belief system, resulting in culture shock. That tension offers a critical and healthy critique of existing beliefs. Through this process, students may vicariously experience other worldviews, even if in disagreement (Thein et al., 2007). Beyond that, students may more comfortably —try on alternative perspectives, perhaps even reconsidering their own. In online asynchronous discussions, students allow others a glimpse of their personal perspectives and, in turn, are exposed to worldviews of classmates. Time before posting and before responding provides opportunity to consider and reconsider—to reflect on—exchanges. Students may engage in a deeper understanding of not only the subject matter but also diverse perspectives that color its interpretation.

Integration Deep Learning:

Erikson (1994/1959) was right: The desire to integrate different aspects of our lives is strong and increases as we age. We build knowledge by integrating new experiences into existing ones (Schlichting & Preston, 2015). —This memory integration process is suggested to happen through reactivation of old information while learning new information and can help build a consistent knowledge network . . .

that in turn serves future learning (van Kesteren et al., 2018). The thoughtful nature of online exchanges, where one's words are reviewed again and again, frequently leads to a new network across formerly disparate concepts. Students learn from themselves by reviewing their early work in the light of later entries. Self-reflection encourages Mezirow's (1998) changes to sense of self (psychological), to beliefs (convictional), and even possibly to life choices (behavioral). Students sometimes surprise themselves with their new outlooks: That realization is itself recognition of their greater openness to diversity.

Perspective-Taking As students cognitively integrate new information with past knowledge, they also empathically integrate diverse perspectives into their own understanding. In online learning environments, students view complex thoughts of their classmates. In authentic discussion environments, students openly express their individual perspectives—in a way that leads to new understandings and co-constructed forms of knowledge (Hadjioannou, 2007, cited in McDougall, 2015, p. 95). In discussions, students co-construct their understanding of the course content with each other, gaining a deeper understanding www.scholink.org/ojs/index.php/jecs Journal of Education and Culture Studies Vol. 4, No. 4, 2020 135 Published by SCHOLINK INC. of both the subject and the perspectives of others (McDougall, 2015). While integrating new ideas with prior knowledge, students naturally integrate diverse perspectives with their own prior understanding of the world.

Communication - Deep Learning :

Online courses offer opportunities in our current world to experience advantages that journaling and letter-writing afforded to reflective souls in earlier ages—but with responses potentially as fast as instant messages. Students engage more deeply with exchanges of insights offered through visuals, videos, voice, and even Power Points. These media plus the discipline of the academic framework potentially bring clear statements of world issues and articulated possibilities for their solutions to our fingertips. These vehicles for learning deepen class discussion with work more polished than what a student can yet produce, while honing their online research skills (Conrad & Johnson, 2004).

Perspective-Taking Online learning environments enable further revision of one's thoughts after exposure to the written observations of classmates. Through a cyclical process of (1) detailed observation, (2) exposure to other views, (3) reflection and reexamination, and (4) revised observation, students revise their contributions, resulting in evolution of

knowledge. Weigel (2002) observes online learning opportunities for —weaving student contributions into coherent observations or conclusions. The weaving process not only helps students integrate course material and see the big picture but also emphasizes their important role as knowledge creators (p. 107).

Responsibility - Deep Learning : —Students must themselves become responsible for their own learning (Tinto, 1987, p. 181). In online environments, learners typically post to all discussions and assignments. They are —called on for all aspects of the class. Learners may create their own discussion topics, model their own assignments, and even negotiate to revise the direction or level of expectations, but once these commitments are made, their responses to shared expectations are visible to all. This is useful for both responsible learners who assure themselves that they have met expectations, and also for learning-to-be-responsible learners who get natural feedback on ways to improve, moving all students toward intrinsic motivation and self-directed learning. Furthermore, students are co-responsible for the learning of others, as online environments encourage students to co-construct knowledge (McDougall, 2015). They must generate constructive ideas in online discussions, as well as augment the contributions of others (Beth et al., 2015). The very www.scholink.org/ojs/index.php/jecs Journal of Education and Culture Studies Vol. 4, No. 4, 2020 136 Published by SCHOLINK INC. experience of being responsible for one's learning encourages an interaction with subject matter on a deeper level. Co-responsibility is also encouraged through virtual online teams (Palloff & Pratt, 2005). Virtual teams facilitate peer-review, providing critique, reflections, and possible extensions of ideas, enabling students to hone their ideas in small work groups before presenting them to the class. Perspective-Taking In fulfilling their roles in online learning environments, students exchange multiple perspectives, interacting authentically with the subject matter, their teacher, and classmates. The ideas of others must be acknowledged and analyzed. Even initial acts of exchange may create an inner tension that leads students to critically reflect on their own beliefs (Thein et al., 2007). Through these types of interactions, —students experience changes that are often subtle that increase their understandings of how their beliefs and values are formed and why other people think differently

Learning Technologies in Adult Education:

Learning Technologies in Adult Education any tool “**designed to extend a learner’s capacity for effective action and that requires skill and certain strategies to use efficiently**” is a learning technology. A well – structured face - to - face group discussion, a

pencil, and print materials fit this definition as do newer tools such as web-based conferencing (ibid). One of the greatest myths surrounding learning technologies is related to what they are. Because of the term technology, It is frequently believed that learning technologies are instructional devices that make use of computers, the internet, or some other type of electronic technology such as video and television. Newer learning technologies are changing the shape of the landscape in adult education.

Adult Education and Adult Learning Analysis:

These learning experiences are therefore integrated into the curriculum of Adult Education. This gives the Adult Learning greater liberty in directing their learning and its outcomes. In some cases learning practices are even adjusted with the discovery of new research.

Applying Adult Learning Approach through a Character Analysis:

The film :Malcolm X, produced by Worth, written and directed by Lee portrays the life of civil right's leader Maldolm X as he makes his transformational journey from street hustling, jail, and imprisonment to later emerging as a leader for social change. While in prison, X becomes heavily involved in the Islamic movement and later meets Elijah Mohammed who is instrumental in his rapid climb to become Islam's national spokesperson. His journey comes full-circle when after some oppositions, he disassociate himself from the Nation Islam and embarks upon a pilgrimage to Mecca. While in Mecca X experiences another transformation that resonates throughout his life until his death in 1965. By means of the events in this film, I will analyze the character Maclom X in view of Mezirow's transformational learning approach, and that of Bandura's social learning approach to illustrate how theoretical perspectives can be used to explain character learning and development. Mizirow, who is the developer of the transformative learning approach, asserted that the innate nature of humans is to necessitate comprehension and significance of the experiences encountered in life, Mezirow further contended that the transformative learning approach affords the learner the possibility to understand.

Integrating Technology into adult Learning:

Ginsburg presents a helpful way to think about integrating technology into adult learning by proposing four basic approaches: technology as curriculum, delivery mechanism, complement to instruction, and instructional tool. Each approach is summarized here, including its benefits and limitations.

Supporting and Extending Adult Learning through Technology:

Like any other instructional tool, technology can serve to perpetuate poor educational practice or it can become a means for transforming learning. In formal learning settings, leadership for using technology effectively rests with the instructor. However, —technologies are not neutral tools. Their use will reflect whatever values the educator holds—consciously or subconsciously—about his relationship with learner, and their use will invariably bring advantages and disadvantages. Technology can enhance adult learning because it has the potential to increase flexibility, provide access to expertise, and facilitate discussion among learners who cannot meet face to face, reduce feelings of isolation often experienced by nontraditional learners, increase learner autonomy, and support and promote constructivist and collaborative learning.

Conclusion:

Adult education may once have been able to ignore the educational applications of technology, but that is no longer the case. The tools that can support and advance the goals of adult learning are a part of everyday life and are used by millions of adults on a daily basis. Unless adult educators become proactive in developing opportunities that will provide advantages for adult learners, they may end up watching the exploitation of technologies from the sidelines. Their primary role should be to ensure that the focus is on the learning and not the technology. —The spotlight should first fall on the conditions, dynamics and outcomes of learner activity, in ways that promote learner self-esteem and their competence as proactive learners. Adult educators may once have been able to ignore the educational applications of technology, but that is no longer the case. The tools that can support and advance the goals of adult learning are a part of everyday life and are used by millions of adults on a daily basis. Unless adult educators become proactive in developing opportunities that will provide advantages for adult learners, they may end up watching the exploitation of technologies from the sidelines (Field 1997). Their primary role should be to ensure that the focus is on the learning and not the technology.

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ACHIEVING EMPLOYABILITY SKILLS OF B.Sc., CHEMISTRY STUDENTS IN PHARMACEUTICAL INDUSTRY THROUGH LABORATORY SKILLS AND PRACTICAL WORK

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ABSTRACT

Globalization, digitalization and the permanent alteration of information have led to the important changes in the world of work. This demands a realignment of essential laboratory skills in order to access job positions in the coming years. In order to face up to the Pharmaceutical industry process and Synthesis of Organic reaction intermediates, B.Sc., Chemistry practical curriculum is one of the ambits that has most come to a tipping point. This adds urgency to the need to bring laboratory and practical skills in line with the new demands of the job market in Pharmaceutical industry and the challenges posed in the 21st century. The purpose of this paper is to discuss laboratory work and hands on training that will enhance the employability of B.Sc., chemistry students. The research investigated the design of the methods of their assessment and in particular the extent to which they would fulfill the expected laboratory skills. The results of the study indicated that students would be required to solve real industry based problems.

Keywords: Employability skills, pharmaceutical industry, job market, practical work

INTRODUCTION

Throughout time, three industrial revolutions have occurred that were known throughout the world. These were characterized, respectively, by mechanization, the discovery of electricity, and the invention of information technology. These discoveries have not immobilized industry; instead, a fourth revolution has activated current society. Since the emergence of these processes, industry has been directly influenced by the growth of commercial activities that are connected at a global level. The impact of pharmaceutical industry and globalization on the job market has revolutionized the binomial perspective of space and time, as such quick and simultaneous changes have never been previously observed.

SIGNIFICANCE OF THE STUDY

It is a general observation that the students and teachers have to spend large amount of time in chemistry laboratory performing experiments. Demonstration of experiment is important for understanding the principles of Science. However, performing experiments by one's own hand is far more important because it involves learning by doing. It is necessary to emphasize that for a systematic and scientific training of young minds, a genuine laboratory practice is a must.

Practical work plays an important role in the teaching and learning of science. Apart from helping students to gain insight into scientific knowledge, it also helps them to acquire a number of scientific skills, namely cognitive and manipulative, not to mention the motivational factors it creates in the students. The attainment of these goals however depends on the way practical work is organised and performed in colleges.

The laboratory should be adequate with equipments, chemicals, apparatus and other facilities like gas plant, distilled water, frame cupboard etc., in order to do the experiment. The practical knowledge of students develops a positive attitude and results in better academic achievement.

This era is characterized by cognitive and technological progress, which led to the transfer of education from the old strategies in education to modern strategies based on theoretical teaching related to work and teaching students how to learn subjectively. In most cases, we focus on developing the laboratory skills of the learner from how to use tools and devices and deal with laboratory materials, forgetting the laboratory academic skills that we must develop for them such as recording observations, using scientific thinking skills, time management skills and others, which lead to the achievement of the goals of science and access to effective education.

OBJECTIVES

1. To find out significance difference if any, in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Gender.
2. To find out significance difference if any, in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Institutional type.

3. To find out significance difference if any, in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Pattern of Chemistry Lab.

HYPOTHESES

4. There is no significant difference in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Gender.
5. There is no significant difference in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Institutional type.
6. There is no significant difference in the attitude between achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Pattern of Chemistry Lab.

METHODOLOGY

Survey method was adopted for this study

TOOL USED

A five point scale namely –Chemistry Practical Scale (CPS) developed by the investigators containing 25 statements was used to identify the attitude towards practical classes among under graduate students. The tool was given to four experts in the field of Chemistry and Practical for face validity. Based on the suggestions given by the experts, items were reframed apposite to the level of under graduate students. Five point scale – Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree – was employed. The try out was established using 100 respondents. The respondents were under graduate students from six colleges.

DATA ANALYSIS

ATTITUDE OF ACHIEVING EMPLOYABILITY SKILLS OF B.SC., CHEMISTRY STUDENTS THROUGH LABORATORY SKILLS AND PRACTICAL WORK WITH RESPECT TO GENDER

Table 1: Attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Gender

Category	Number	Mean	Standard Deviation	CR Value	Remarks
Male	50	71.314	2.694	2.06	S
Female	50	71.000	1.912		

(At 5% level of significance the table value of $t_{(100)}$ is 1.96)

Table 2: Attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Institutional Type

Category	Number	Mean	Standard Deviation	CR Value	Remarks
Aided	48	71.091	1.927	1.111	NS
Unaided	52	71.147	1.672		

(At 5% level of significance the table value of t_{df} is 1.96)

Table 3: Attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work with respect to Pattern of Chemistry Lab

Category	Number	Mean	Standard Deviation	CR Value	Remarks
Organic Chemistry Lab	380	70.807	1.8977	1.086	NS
Inorganic and Physical Chemistry Lab	220	71.605	1.6364		

(At 5% level of significance the table value of t_{df} is 1.96)

FINDINGS AND INTERPRETATIONS

11.43%, 80.00% and 8.57% of male under graduate students have low, moderate and high level of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively. 23.08%, 64.62% and 12.30% of female under graduate students have low, moderate and high level of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively

18.18%, 68.18% and 13.64% of aided under graduate students have low, moderate and high level of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively. 20.59%, 73.53% and 5.88% of unaided under graduate students have low, moderate and high level of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively.

7.89%, 81.58% and 10.53% of Pattern of Chemistry lab as Organic Chemistry of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively. 25.81%, 62.90% and 11.29% of Pattern of Chemistry lab as Inorganic and Physical chemistry of attitude of achieving employability skills of B.Sc., chemistry students through laboratory skills and practical work respectively.

INTERPRETATIONS

The present study found that there is significant difference between the mean scores of male and female under graduate students. While comparing the mean scores of male and female under graduate students, male students have better mean value than female students.

This may be due to their gender. Since females have some anxiety to handle the chemicals, apparatus and standing 6 hours during this practical time. The present study found that there is no significant difference between the mean scores of under graduate students with respect to all other background variables.

RECOMMENDATIONS

- For Chemistry practicals to result in a significant positive impact on a students' ability to learn both the desired laboratory and practical skills and also the underlying theory, it is recommended that students be given an opportunity to engage in deep learning. Deep learning provides opportunities in identifying the main objectives of the work and in planning and executing it, of identifying the conceptual and practical difficulties encountered, recording and discussing the results and observations and of suggesting practical alterations and improvements.
- It is also recommended that there should be further scrutiny of the curriculum and learning standards for chemistry practicals in secondary school chemistry and an in-depth study of teacher competence in the teaching of practical chemistry is suggested.
- Generally the students feel that there is no freedom in the laboratory. Such a controlled condition will not favour a positive attitude.
- Hence the individual freedom of the students in doing experiments laboratory must be provided for developing a positive attitude towards chemistry practical.
- Most of the students feel that the time allocated for the chemistry practical is insufficient for them to complete it.
- Generally during the regular college days either qualitative analysis or quantitative analysis is provided to the students for practice.

CONCLUSION

An attempt was made to analyze some factors related to the attitudes toward male or female, he/she has a moderate attitude towards chemistry practical, the causes could be basically due to the difficulty of the methods, the low awareness of the importance of chemistry in our daily life, lack of exposure and fieldtrips, unattractive and low equipped laboratories. These findings, hopefully, will provide some useful information on how to bridge between students' attitude toward chemistry and the material, by paying attention to college education that addressed the non-formal learning. The present findings also provide insight information to the college chemistry teachers and science curriculum planners to

revise their teaching and learning methods, so that students' attitude towards learning and engagement in chemistry activities increase.

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INTERACTIVE MULTIMEDIA PACKAGE FOR CHILDREN WITH AUTISM

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ABSTRACT

Autism spectrum disorder is a lifelong developmental disorder in children that made them have difficulties in communication, socialization and increased risk of behavioural problems. Children with autism have different learning characteristics. Each has a preferred style of learning and specific needs when receiving information. Meeting these needs in a classroom setting can be challenging to the teachers, as majority of them are not equipped to give students on various points across the autism spectrum the unique attention they required. Hence, the need for technology as an educational tool to aid teachers and enhance learning among students in the autism spectrum. The study on using modern multimedia package to enhance learning of students with autism spectrum disorders. The concepts, ‘multimedia’ and ‘modern multimedia’ were reviewed. This article highlights the types, general characteristics and learning characteristics of students with autism spectrum disorder and through the utilization of multimedia package the children with autism can enhance their learning and their behavioural problems.

KEYWORDS: Autism Spectrum Disorder, Behavioural problem, Application, Syndrome

INTRODUCTION

Along with traditional media, audio, video, and animation can also be used to represent multimedia (i.e., text, graphics, drawings, images). A good common definition of multimedia is the field concerned with the computer-controlled integration of text, graphics, drawings, still and moving images (video), animation, audio, and any other media where each type of information can be represented, kept, transmitted, and processed digitally, according to Cardiff School of Computer Science & Informatics. A multimedia application is an application that uses a variety of groups of media sources, such as text, graphics, images, sound/audio, etc.

Autism is a developmental syndrome that, in general, is defined by abnormalities in three areas: behavioural, communication, and social. Leo Kanner, an American psychiatrist, was the first to diagnose autism in 1943. Autism is thought to be caused by a brain disease that

manifests throughout childhood, particularly in the first two and a half years. Despite the fact that they appear to be regular people, autistic children experience the world quite differently due to their impairment. People with autism display varying degrees of comprehension, interaction, and reaction to things or the outside world, which greatly obstructs their ability to learn in the following areas:

♣ Communication ♣ Social participation ♣ The repertoire of activities, interests, and imaginative growth ♣ Developmental rate and sequences ♣ Sensory processing ♣ Cognition

The multimedia learning package can be utilised as a motivating tool, a tactic to promote their independence, or a tactic to engage them in conversation. Additionally, it can increase memory, encourage involvement in activities, and draw and keep their attention.

GENERAL CHARACTERISTICS OF CHILDREN WITH AUTISM

Communication and language development challenges:

Children with autism display a range of difficulties. Some people's spoken language or speech development is completely absent. Others might have significant language development delays. Despite learning a language, some people find it challenging to use it in social and communicative contexts. The majority repeat words from other people without meaning to do so, or have echolalia

Social relationship and interaction issues:

Children with autism may not be interested in or have trouble engaging with their peers and others, making it difficult for them to form friendships. Most children might prefer to be by themselves, avoid eye contact, and refrain from pointing or making other hand motions.

Display of ritualistic or repeated behaviours:

Children with autism spectrum disorders may have poor motor manners, flapping hands, strange body gestures, and bizarre postures such as toe walking. They might be adamant about sticking to the sameness and routines, preoccupied with a small, constrained range of interests, fond of spinning things, quick to display anger or aggressiveness, and unwilling to draw attention to things of interest.

Medical and mental health issue:

Problems with physical and mental health include sleep issues, phobias and anxieties, gastrointestinal problems, and attention deficit and hyperactivity disorder (ADHD). This could result in mental health problems for them.

TYPES OF AUTISM SPECTRUM DISORDER (ASD)

There are three major types of autism:

Autism Spectrum Disorder (ASD)/Classic Autism:

Children with ASD typically exhibit unique behaviour and interests, as well as substantial language, communication, and social difficulties. This category of kids primarily includes cognitively challenged kids.

Asperger syndrome:

Children with autism who also have Asperger syndrome do not have linguistic or intellectual disabilities, but they may exhibit odd behaviours and interests as well as face social difficulties.

Not Otherwise Specified or Pervasive Development Disorder (PDD-NOS):

Students with PDD-NOS partially or completely meet the criteria for autistic disorder or asperger's syndrome, which is also known as atypical autism. They typically exhibit fewer and milder symptoms, which may simply result in communication and social difficulties.

MULTIMEDIA FOR ASD CHILDREN

There is evidence that using multimedia can help autistic kids improve their learning abilities and get over behavioural issues that may make it difficult for them to participate in daily activities (Dana, R.2013; Nur, Maria, Shahbodin, Ahmad, 2018). Assistive multimedia refers to media that may be used to help or support people with special needs. According to Waddell (2015), assistive multimedia is any product, system, or piece of equipment that may be utilised to maintain, boost, or improve a person's functional capacities if they have specific requirements. There are two primary categories of assistive multimedia for students with ASD, according to Csillag (2017): educational multimedia for children with autism and multimedia packages used to improve their communication issues. Children with autism are taught in classrooms using a multimedia package to aid in the development of necessary abilities.

According to Virnes, Karna, and Vellonen's (2015) study, games, assistive technologies, interfaces, portable devices, robotics, gadgets, and movies were the most frequently utilised multimedia in the classroom. Tablets, computers, interactive whiteboards, digital cameras, communication technology labs, and video cameras are a few examples. Worldwide, modern apps are also accessible. Today, there are over a million apps accessible worldwide, and roughly 20,000 of them are utilised for educational purposes (Lofland, 2019).

(Simmons, 2014). Numerous of them were developed expressly with kids with autism spectrum condition in mind.

EDUCATIONAL MULTIMEDIA TOOLS

- Tools for delivering instruction and presenting information
- A friendly robot to feel comfortable in the classroom
- Apps to increase verbal skills.

Internet: A digital environment where concept and space exploration is enhanced since it produces more results faster.

Interactive whiteboards: Whiteboards with interactive features can be used to include students while presenting material visually, or through slideshows, games, or other interactive activities.

Smart phones and tablets: Use texting, podcasts, notepads, and voice recordings to convey material to students using smart phones and tablets.

Text-to-Speech software: Text-to-Speech programmes can help students overcome the limitations of traditional text books. Online dictionaries, word predictors, spell checks, and word wizard thesaurus are a few examples of digital editing tools that may assist students evaluate whether they are using the right homophones in their work. Tools for voice recognition: to aid with writing.

USES OF MULTIMEDIA FOR ASD

Children with ASD must have strong reading, comprehension, listening, and math skills to succeed in school (Omar & Bidin, 2015). The ability to read and comprehend are especially important for retaining new knowledge. However, these academic abilities can present significant difficulties for children with ASD, have a detrimental influence on their academic success in school, and reduce the quality of their lives. However, research has shown that using multimedia tools to teach academic and practical skills empowers adolescents with ASD (Vanegas, 2019). Additionally, using multimedia resources can assist ASD students get better at communicating, writing, reading, and math as well as executive functioning, emotional regulation, and social skills (Pandya et al., 2016; Wadley & Schutt, 2013). Multimedia resources also integrate several forms of communication (e.g., text, graphics, and sound).

CONCLUSION

It is impossible to overstate the value of using contemporary technology as a teaching tool to improve learning for kids with ASD. The learning obstacles faced by autistic pupils are somewhat different from those faced by non-autistic students. They have learning characteristics that are also distinct from those of pupils who are not autistic because of their peculiar speech, communication, and behavioural problems. Numerous autistic kids have also been helped by technology to acquire crucial abilities that are essential to their survival and day-to-day activities.

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THE EFFECTIVENESS OF KINESTHETIC LEARNING STYLES FOR ANDRAGOGY

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ABSTRACTS

Education is a continuous process that aims at preparing a person to play his/her role as an enlightened member of society; it means an all-round development of a person. The purpose of this paper is to increase faculty awareness and to analyze the effectiveness of kinesthetic learning styles on adult education teaching. One of the most important uses of learning styles is that it makes it easy for teachers to incorporate them into their teaching. There are various styles of learning. Three of the most popular way students take information are visual, auditory, and kinesthetic. Adult learners use all of their senses to take the information, they seem to have preferences in how they learn best. To help adults to learn, teachers need to teach as many of these preferences as possible. Kinesthetic teaching is a beneficial way for adults to learn and retain new information but is not commonly used by instructors. This paper is to compile and discuss a list of kinesthetic strategies to help instructors facilitate learners' ability to engage and focus on the learning material during presentations.

Keywords: Kinesthetic, Learning Styles, Andragogy, Visual, Auditory, Adult Learner, Kinesthetic Teaching

Introduction

Teaching adults isn't like teaching children. Traditionally, children are viewed as empty vessels into which teachers can pour knowledge. Parents and teachers try to control the information that goes into the classroom to determine the quality of learning that comes out. Trainers cannot control adults this way. Adults have a great deal of accumulated experience that can enrich their education. Adults can compare and contrast new knowledge against past learning. Our life experiences can add to that, thus creating a substantial reservoir of information (Helen . W Post.,2010). For most adults it is difficult to stay focused on one thing for a long duration of time, therefore it would be beneficial for presenters to find alternative ways to teach. Kinesthetic teaching is teaching through movement-based activities whether they be small or large (Cheney & Rowan., 2017).

Andragogy

The term "andragogy" was coined by researchers of adult learning to contrast their beliefs about learning with the model of teaching children. While many theories exist as to how adults learn best, they all have their roots in the concept of andragogy. Originally introduced by education researcher Malcolm Knowles in 1980, andragogy is the art and science of teaching adults. Using pedagogy, or the art and science of teaching children, as his launching point, Knowles created a system for adult education (Zemke., 1984). The andragogical system contains several characteristics of adult learners. These learning characteristics include:

- An internal drive to learn
- The willingness, or even preference, to engage in self-directed learning
- The ability to draw upon previous experiences to help contextualize new knowledge
- The desire to learn due to a transfer to a new job
- The ability to use new knowledge to solve a real-world problem (Sally S. Russell., 2006).

Kinesthetic Learning Style

Kinesthetic learners prefer to engage in hands-on learning. This means that they prefer to learn a concept by performing it, even if that means a trial-and-error approach. Kinesthetic learners may also find it difficult to remain engaged during long lectures, either online or in person. The kinesthetic learners in the organization have a simulated, life-like environment in which to practice so they can hone their skills without solely relying on in-person experience (Jordan Baker.,2022).

Characteristics of Adult Learners

Learners differ in many ways, from gender to culture to previous education. It's important to be aware of these factors when teaching. However, adult learners do share similar traits which impact their learning:

1. Less flexible thinking
2. Self-direction
3. Practical and outcome-focused
4. Use personal experiences
5. Readiness to learn
6. Slower learning but more knowledgeable

1. Less flexible thinking: Adults are more reluctant to change because their thinking has become more rigid due to life experiences. It's necessary to explain the importance of specific changes and how the changes, will help them, the team, the company, etc. In addition, linking new ideas to their existing beliefs and ideas is a good way to get them onboard and optimize learning.

2. Self-direction: Adults prefer to have control over their learning because they hold themselves accountable for their lives and their decision-making - they take responsibility for their achievements or failures at learning. Therefore, self-directed learning is preferred because adults can control the content of their learning and how they learn.

3. Practical and outcome-focused: Adults prefer information that can be practically applied and information that improves their performances because they are goal-orientated. It's important to create a learning environment that consists of practical and hands-on content, rather than just theory.

4. Use personal experiences: Adults learn better when they can link previous experiences with new ones and adults trust new concepts more when they have been based on previous knowledge attained.

5. Readiness to learn: Adults want to learn things they need to know to do their job or deal with situations better. Adults want to learn what they can apply and use immediately in their current day-to-day activities and are less focused on training for the future. The less the training focused on now, the harder it will be to engage adult learners.

6. Slower learning but more knowledgeable: Aging does slow down the learning process for adults. However, their depth of experience and knowledge increases over time, varying considerably with the type of job they do and their extracurricular work (Gini Beqiri., 2021).

Kinesthetic Learning Strategies for Adults

Kinesthetic learning is important for adult learning. It can improve memory, attention, and general cognitive function. As an instructor begins to develop a class or presentation, it would be beneficial for their adult learners to present the information kinesthetically (Cheney & Rowan, 2017).

These learners process information effectively when a hands-on approach is implemented, when they're using their bodies, and when they are doing something. They put their learning into practice. Some of the practices they can adopt are

- Use physical exercises and provide hands-on experiences.
- Exercises, where they are standing and walking, are very effective.

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- Include activities where they use pen and paper to map out their thoughts and problem-solve because writing is a physical exercise.
 - Find a venue that provides these learners with large spaces so they can write and draw.
 - Encourage them to draw diagrams, graphs, and maps.
 - Get them to interact with physical objects or solve puzzles.
 - Role-playing.
 - Provide real-life examples, such as case studies.
 - Suggest reviewing their notes whilst they engage in physical activity.
 - Ask them to teach other class members some of the lesson content.
 - Permit frequent breaks in teaching sessions to allow learners to move around the room.
 - Encourage the learner to write down their notes.
 - Encourage the learner to stand or move while reciting information or learning new material.
 - Incorporate multimedia resources (computer, video camera, overhead transparencies, photography camera, etc.) into programs (teacher presentations and student presentations).
 - Provide lots of tactile-kinesthetic activities in the class.
 - Have product samples available for practice.
 - Encourage return demonstration of procedures (Austin.,2022)

Using a combination of tasks and activities that incorporate these learning styles will optimize learning. Adult learners prefer the kinesthetic learning style because learning takes place in a surrounding that is beautiful, exciting, comfortable, and stimulating maximizing their potential (Nigeria Joseph., 2018). Kinesthetic learners want to sense the position and movement of the skill or task. These learners generally do not like lecture or discussion classes, but prefer those that allow them to —do something. The phrase this group of people will often use is –I feel like you... The adults do well learning a physical skill when there are materials available for hands-on practice (Lieb & Stephen., 1991).

Conclusion

As the above discussion, adult learners may feel uncomfortable if the setting is too formal. Hence try to create a supportive environment and build their confidence by giving them tasks that suit their skills. It helps to form classes with adults that have similar life

experiences and to create environments in which they are encouraged to discuss and share. They benefit from having a peer community in which they can interact and ask questions to. There is a need for change in adult learning. The current way of teaching makes it difficult for adults to focus and retain the material they are being taught. Kinesthetic teaching is one of the solutions to this problem. It is beneficial for a learner to learn through different modalities (Cheney & Rowan., 2017). A learner should not learn exclusively by visual, kinesthetic, or auditory means. A learner benefits from learning in a mixture of all types of learning. It has been shown on countless occasions that kinesthetic teaching is beneficial to the learning and retention of new material. Keep this in mind kinesthetic learning should be incorporated into learning wherever possible

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SIGNIFICANCE OF NEW EDUCATION POLICY (2020) FOR ADULT EDUCATION

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ABSTRACT

Recently many changes have been introduced in the academic system of India starting from the school to college level. New National Education Policy has been approved by the Union Cabinet reflecting all the changes. Adult education is the result of strong and innovative government initiatives – specifically, facilitating social engagement and the smooth and beneficial integration of technology. This paper highlighted its scope to accelerate this important goal of achieving 100% literacy. Extensive field studies and analyses, both in India and across the world, clearly demonstrate that volunteerism and community involvement and mobilization are key success factors of adult literacy programs, in conjunction with political will, organizational structure, proper planning, adequate financial support, and high-quality capacity building of educators and volunteers. Successful literacy programs result not only in the growth of literacy among adults, but also result in increased demand for education for all children in the community, as well as a greater community contribution to positive social change.

Introduction

The opportunity to attain foundational literacy, obtain an education, and pursue a livelihood must be viewed as the basic right of every citizen. Literacy and basic education open up whole new worlds of personal, civic, economic, and lifelong learning opportunities for individuals that enable them to progress personally and professionally. At the level of society and the nation, literacy and basic education are powerful force multipliers that greatly enhance the success of all other developmental efforts. Worldwide data on nations indicate extremely high correlations between literacy rates and per capita GDP.

Meanwhile, being a non-literate member of a community, has innumerable disadvantages, including the inability to: carry out basic financial transactions; compare the quality/quantity of goods purchased against the price charged; fill out forms to apply for jobs, loans, services, etc.; comprehend public circulars and articles in the news media; use conventional and electronic mail to communicate and conduct business; make use of the internet and other technology to improve one's life and profession; comprehend directions and safety directives on the street, on medicines, etc.; help children with their education; be

aware of one's basic rights and responsibilities as a citizen of India appreciate works of literature; and pursue employment in medium or high-productivity sectors that require literacy. The abilities listed here are an illustrative list of outcomes to be achieved through the adoption of innovative measures for Adult Education.

The National Literacy Mission, when it was launched in 1988, was largely based on the voluntary involvement and support of the people, and resulted in significant increases in national literacy between 1991 and 2011, including among women, and also initiated dialogue and discussions on pertinent social issues of the day. Strong and innovative government initiatives for adult education - in particular, to facilitate community involvement and the smooth and beneficial integration of technology - will be affected as soon as possible to expedite this all-important aim of achieving 100% literacy.

A review of adult education

First, an outstanding adult education curriculum framework will be developed by a new and well-supported constituent body of the NCERT that is dedicated to adult education, to develop synergy with and build upon NCERT's existing expertise in establishing outstanding curricula for literacy, numeracy, basic education, vocational skills, and beyond. The curriculum framework for adult education will include at least five types of programs, each with clearly defined outcomes: (a) foundational literacy and numeracy; (b) critical life skills (including financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare); (c) vocational skills development (to obtain local employment); (d) basic education (including preparatory, middle, and secondary stage equivalency); and (e) continuing education (including engaging holistic adult education courses in arts, sciences, technology, culture, sports, and recreation, as well as other topics of interest or use to local learners, such as more advanced material on critical life skills). The framework would keep in mind that adults in many cases will require rather different teaching-learning methods and materials than those designed for children.

Second, suitable infrastructure will be ensured so that all interested adults will have access to adult education and lifelong learning. A key initiative in this direction will be to use schools/ school complexes after school hours and on weekends and public library spaces for adult education courses which will be ICT-equipped when possible and for other community engagement and enrichment activities. The sharing of infrastructure for school, higher, adult, and vocational education, and for other community and volunteer activities, will be critical for ensuring efficient use of both physical and human resources as well as for creating

synergy among these five types of education and beyond. For these reasons, Adult Education Centres (AECs) could also be included within other public institutions such as HEIS, vocational training centers, etc.

Third, the instructors/educators will be required to deliver the curriculum framework to mature learners for all five types of adult education as described in the Adult Education Curriculum Framework. These instructors will be trained by the National, State, and district-level resource support institutions to organize and lead learning activities at Adult Education Centres, as well as coordinate with volunteer instructors. Qualified community members including from HEIs as part of each HEI's mission to engage with their local communities will be encouraged and welcomed to take a short training course and volunteer, as adult literacy instructors, or to serve as one-on-one volunteer tutors, and will be recognized for their critical service to the nation. States will also work with NGOs and other community organizations to enhance efforts toward literacy and adult education.

Fourth, all efforts will be undertaken to ensure the participation of community members in adult education. Social workers/counselors traveling through their communities to track and ensure the participation of non-enrolled students and dropouts will also be requested, during their travels, to gather data of parents, adolescents, and others interested in adult education opportunities both as learners and as teachers/tutors. The social workers/counselors will then connect them with local Adult Education Centres (AECs). Opportunities for adult education will also be widely publicized, through advertisements and announcements and events, and initiatives of NGOs and other local organizations.

Fifth, improving the availability and accessibility of books is essential to inculcate the habit of reading within our communities and educational institutions. This Policy recommends that all communities and educational institutions - schools, colleges, universities, and public libraries - will be strengthened and modernized to ensure an adequate supply of books that cater to the needs and interests of all students, including persons with disabilities and other differently-abled persons. The Central and State governments will take steps to ensure that books are made accessible and affordable to all across the country including socio-economically disadvantaged areas as well as those living in rural and remote areas. Both public and private sector agencies/institutions will devise strategies to improve the quality and attractiveness of books published in all Indian languages. Steps will be taken to enhance the online accessibility of library books and further broaden basing of digital libraries. For ensuring vibrant libraries in communities and educational institutions, it will be

imperative to make available adequate library staff and also devise appropriate career pathways and CPD for them. Other steps will include strengthening all existing libraries, setting up rural libraries and reading rooms in disadvantaged regions, making widely available reading material in Indian languages, opening children's libraries and mobile libraries, establishing social book clubs across India and subjects, and fostering greater collaborations between education institutions and libraries.

Finally, technology will be leveraged to strengthen and even undertake the above initiatives. Quality technology-based options for adult learning such as apps, online courses/modules, satellite-based TV channels, online books, and ICT-equipped libraries and Adult Education Centres, etc. will be developed, through government and philanthropic initiatives as well as through crowd-sourcing and competitions. In many cases, quality adult education could thereby be conducted in an online or blended mode.

Benefits of New Education Policy 2020

Some of the important benefits of the New Education Policy 2020 are as follows:

- The New Education Policy will give importance to students' practical knowledge instead of just pushing them toward rote learning.
- It will help students to develop a scientific temper from a young age.
- The NEP aims to make it easier to set up new quality higher educational institutes which will be at par with global standards.
- Since NEP will make it easier for foreign colleges to set up their campuses here many students who are unable to go abroad due to multiple reasons will be able to experience it and get global exposure.
- This will promote value-based education.

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SELF-DIRECTED LEARNING: ANDRAGOGY APPROACHES**Dr.V.LAVANYA**

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ABSTRACT

The term "andragogy" arose in the field of adult education in the 1970s and is still a widely used term in the field of education. It is a system of ideas, concepts, and approaches to adult learning that has become foundational to the thinking of many adult learners. In adult education, the concept of self-directed learning has great importance. Self-directed learning includes the conceptualization, design, implementation, and evaluation of learning guided by learners and may be referred to as a method of organizing learning. Learners control the task of learning as individuals take responsibility for their learning and embrace individual autonomy and preferences. Several novel issues emerge over time, and the adult learner needs to keep pace with these issues. This paper deals with the approaches to self-directed learning for adult learners.

INTRODUCTION

The adult learning approach known as andragogy calls for the learner to strike a balance between his obligations and the demands of learning. The premise of andragogy is that learners are independent, self-directed, inwardly driven, pragmatically oriented, and problem-solving people who need to be recognized and appreciated for their knowledge and experience. To become motivated and effective learners, students therefore frequently engage in self-directed learning activities. Self-directed learning is a process in which individuals take the initiative to diagnose their learning needs, formulate learning goals, identify human and material resources for learning, select and apply appropriate learning strategies, and assess learning outcomes. This can be done with or without the assistance of others. Evidence suggests that self-directed learning has had a significant impact on people's lives throughout the world. Socrates referred to himself as an independent learner. According to Plato, the ability to learn for oneself should be the ultimate goal of education for children. Aristotle also emphasized the importance of self-realization as a type of wisdom that can be attained even without extensive teacher guidance. Today, self-directed learning is a global phenomenon. Because it is a necessity for survival, no one can escape from it. A deeper understanding of it and a methodical approach to achieving it will greatly improve one's quality of life. Self-directed learning has therefore proven to be quite advantageous.

Self-Directed Learning

Self-Directed Learning refers to two distinct but related dimensions. The first of these dimensions is a process in which a learner assumes primary responsibility for planning, implementing, and evaluating the learning process. An education agent or resource often plays a facilitating role in this process. The second dimension canters on a learner's desire or preference for assuming responsibility for learning, which is the personality aspect. Thus, self-directed learning refers to both the external characteristics of an instructional process and the internal characteristics of the learner, where the individual assumes primary responsibility for a learning experience. There are some features of teaching andragogy. They are;

Adult Dependence: Adults are independent. They strive for autonomy and self-direction in learning.

Resources for Learning: Adults use their own and others' experiences.

Reasons for Learning: Adults learn when they experience a need to know or to perform more effectively.

The focus of learning: Adult learning is task or problem-centered.

Motivation: Motivation stems from internal sources—the increased self-esteem, confidence, and recognition that come from successful performance.

Teacher's role: Teachers enable or facilitate a climate of collaboration, respect, and openness.

Learning Approaches

Learning is a multi-faceted process with numerous aspects. The demand for cooperative and collaborative learning approaches in higher education is a result of the worldwide connectivity of information resources. The following are the attitudes toward adult learning:

Thirst for Knowledge: Teachers must impart knowledge in a way that inspires pupils to like learning. Learning needs to take place just for its own sake, without regard to tests.

Reputation: Learning should instill in students a sense of righteous behavior or principles.

Natural Ability: Learners' innate abilities should be discovered and developed via learning.

Optimistic Mentality: Educators must introduce pupils to the larger world and assist them in developing a better, forward-thinking, and positive mentality. Education is essential.

Learn to Discover: Even if someone has a passion for learning, they still need to be able to process what they are learning and turn it into knowledge. The majority of today's students lack the necessary focus to acquire improved knowledge, which causes them to perform

poorly on competitive exams. For any learner, environmental awareness is crucial. They must be taught to be conscious of their needs and make an effort to learn only that particular body of knowledge.

Imagination: Imagination is the soul of human activity. The majority of modern learners are consumers of creativity; very few are producers. Every human being is born with the ability to produce, flourish, and advance. When his experiences fail to enlighten him, these attributes either emerge or disappear. Adult learners must therefore be careful when choosing the experiences to mine, as well as when, how, and how to best meet their needs. Such imaginative attitudes must be instilled in students by educational institutions to foster their aptitude for innovation.

Competitiveness: There is an invisible but well-known global threat of rivalry. Every sector is strongly motivated to advance prosperity, sustainability, and survival. Our students must be capable of competing with their adversaries.

Tenacity: Despite having a high drive and a desire to succeed, students in today's generation frequently fail miserably because they lack ongoing persistence. In addition to personal problems, socioeconomic circumstances pose a threat to and undermine their persistence.

Making Decisions: Learning must enable students to make excellent decisions and must be brave enough to support those decisions. To present themselves as the ideal personality, people must be taught to remain awake even in dangerous situations and to change their perspectives. Perspective, integrity, and insight all aid in a person's success. Therefore, appropriate curriculum practices must be provided to aid students in developing strong decision-making skills.

Oriented toward information and communication technologies, ICT tools control today's world. So students should equip themselves with the latest technologies.

Conclusion

The pedagogical approach has influenced educators' teaching philosophies all around the world. The pedagogical approach has lost some of its effectiveness in instructing adult learners to meet the present needs in adult education. The capacity for self-direction is crucial for a person's integration into society, career, and personal growth. As a result, the instructors must consider this and modify the learning environment to cater to students' various levels of self-direction. Teachers must be aware of the significant disparities in ability and willingness to self-direct that exist to design effective learning environments for their students. Thus, andrological teaching is intended to be an awakening as much as a means of instruction. It is

required educators to be as effective and efficient as possible in assisting young brains in understanding, absorbing, and applying shared knowledge.

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PROACTIVE ATTITUDE OF HOME-REARED ADOLESCENT LEARNERS

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ABSTRACT

Transferable skills are abilities that are appropriate and useful across different areas of a human life. Proactive attitude is one of the transferable skills. This study examines the proactive attitude of adolescent learners. Survey method was used for the study. Simple random sampling technique was used for selecting 264 adolescents from Tuticorin, Tirunelveli, and Kanyakumari districts from Tamilnadu. Descriptive and inferential statistical techniques were used for analyzing data. It was found that home-reared adolescents are having the moderate level of proactive attitude and its dimensions. There was no significant difference in the proactive attitude and its dimensions of home-reared adolescents in terms of gender, districts. Moreover it was found that there was no significant association between parental status and proactive attitude and its dimensions of home-reared adolescents.

INTRODUCTION

Transferable skills are those that are required in different life contexts and that people can transfer to different social, cultural or work settings. It includes proactive attitude that enables children and adolescents to pursue lifelong learning and become active and productive citizens (Herrity, J 2022). Transferable skills work synergistically with other skills and help them interact and reinforce each other. Also, greater access to education is the relevant learning achievement that significantly reduces the persistent challenges that plague countries of economic and social inequality (Kaplan, Z 2022). Overcoming these challenges requires greater emphasis on incorporating proactive attitudes into educational regulation. (Pardo, D 2018). This implies the need to promote curriculum reforms, train teachers, implement innovative teaching methods and ensure availability of necessary human and financial resources (Pelta, R. 2022). Integrating transferable skills proactively in pre-primary and secondary and post-secondary education will ensure holistic development and better learning outcomes, support youth employability in the school-to-work transition process, and strengthen economic growth.

GNIFICANCE OF THE STUDY

Transferable, or "portable skills," are skills that can be carried from one job to another. For example, the ability to communicate ideas clearly with others solves unexpected problems or works well in a group. As skills requirements continue to evolve and change, the importance of transferable skills should not be underestimated. Initiative is a personality trait that has implications for motivation and action (Schwarzer, R. 1999). It is a belief that rich possibilities of change can improve oneself and one's environment. It includes various aspects like resourcefulness, responsibility, values and vision. Being active allows an individual to dictate a specific position and gives a sense of control over any situation that are faced by an individual. Importantly, a proactive attitude can help everyone to be more prepared. When one is proactive, he/she is able to think and act before situations change. Today's home grown adolescent needs a proactive approach to face the challenges in the life.

OBJECTIVES

1. To find out the level of proactive attitude of home-reared adolescents
2. To find out significant difference between male and female home-reared adolescents in their proactive attitude and its dimensions.
3. To find out significant difference among Thoothukudi, Tirunelveli and Kanyakumari home-reared adolescents in their proactive attitude and its dimensions.
4. To find out significant association between parental status and proactive attitude and its dimensions of home-reared adolescents.

HYPOTHESES

1. There is no significant difference between male and female home-reared adolescents in their proactive attitude and its dimensions.
2. There is no significant difference among Thoothukudi, Tirunelveli and Kanyakumari districts home-reared adolescents in their proactive attitude and its dimensions.
3. There is no significant association between parental status parental status and proactive attitude and its dimensions of home-reared adolescents.

METHODOLOGY

Survey method is used for the study. The sample of the study has been selected using Simple random sampling technique. Investigator selected 264 adolescents from three districts. Proactive attitude questionnaire was constructed and validated by the investigator and the research supervisor (2020). The investigator has used differential analysis.

DATA ANALYSIS AND INTERPRETATION

Objective 1

To find out the level of proactive attitude of home-reared adolescents

Table 1
LEVEL OF PROACTIVE ATTITUDE OF HOME-REARED
ADOLESCENTS

Dimensions	Low		Moderate		High	
	N	%	N	%	N	%
Prediction	41	15.5	165	62.5	58	22.0
Prevention	58	22.0	154	58.3	52	19.7
Planning	60	22.7	137	51.9	67	25.4
Participation	58	22.0	154	58.3	52	19.7
Performance	41	15.5	165	62.5	58	22.0
Proactive attitude	43	16.3	176	66.7	45	17.0

It is inferred from the above table that 15.5% of home-reared adolescents have low, 52.5% of them have moderate and 22.0% of them have high level of prediction.

Among the 22.0% of home-reared adolescents have low, 58.3% of them have moderate and 19.7% of them have high level of prevention.

Among the 22.7% of home-reared adolescents have low, 51.9% of them have moderate and 25.4% of them have high level of planning.

Among the 22.0% of home-reared adolescents have low, 58.3% of them have moderate and 19.7% of them have high level of participation.

Among the 15.5% of home-reared adolescents have low, 62.5% of them have moderate and 22.0% of them have high level of performance.

Among the 16.3% of home-reared adolescents have low, 66.7% of them have moderate and 17.0% of them have high level of proactive attitude.

Null Hypothesis 1

There is no significant difference between male and female home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude.

Table 2
DIFFERENCE BETWEEN MALE AND FEMALE HOME-REARED
ADOLESCENTS IN THEIR PROACTIVE ATTITUDE

Dimensions	Category	N	Mean	S.D.	Calculated t-value	Remarks at 5% level
Prediction	Male	132	17.99	2.907	1.866	NS
	Female	132	17.33	2.899		
Prevention	Male	132	34.82	6.295	0.415	NS
	Female	132	34.49	6.448		
Planning	Male	132	25.98	5.729	0-.867	NS
	Female	132	26.58	5.626		
Participation	Male	132	34.20	6.454	1.171	NS
	Female	132	35.11	6.260		
Performance	Male	132	17.98	2.854	1.780	NS
	Female	132	17.34	2.955		
Proactive attitude	Male	132	130.96	10.074	0.083	NS
	Female	132	130.86	10.559		

(At 5% level of significance the table value of t' is 1.96)

It is inferred from the above table that there is no significant difference between male and female home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude as the calculated t' value is less than the table value. Hence the null hypothesis is accepted.

Null Hypothesis 2

There is no significant difference among Thoothukudi, Tirunelveli and Kanyakumari home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude.

Table 3

DIFFERENCE AMONG THOOTHUKUDI, TIRUNELVELI AND KANYAKUMARI HOME-REARED ADOLESCENTS IN THEIR PROACTIVE ATTITUDE

Dimensions	Source of variation	df=2, 261		Calculated „f” value	Remark at 5% level
		Sum of squares	Mean square variation		
Prediction	Between	3.023	1.511	0.177	NS
	Within	2234.295	8.561		
Prevention	Between	3.508	1.754	0.043	NS
	Within	10642.125	40.774		
Planning	Between	122.189	61.095	1.910	NS
	Within	8347.068	31.981		
Participation	Between	44.008	22.004	0.542	NS
	Within	10601.625	40.619		
Performance	Between	18.023	9.011	1.060	NS
	Within	2219.295	8.503		
Proactive attitude	Between	181.114	90.557	0.853	NS
	Within	27718.705	106.202		

(At 5% level of significance the table value of f^* is 3.02)

It is inferred from the above table that there is no significant difference among Thoothukudi, Tirunelveli, and Kanyakumari district home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude as the calculated f value is less than the table value. Hence the null hypothesis is accepted.

Null Hypothesis 3

There is no significant association between parental status and prediction, prevention, planning, participation, performance and proactive attitude of home-reared adolescents.

Table 4
ASSOCIATION BETWEEN PARANTAL STATUS AND PROACTIVE ATTITUDE
AND ITS DIMENSIONS OF HOME-REARED ADOLESCENTS

Dimensions	df	Calculated „ χ^2 “ value	Remarks at 5% level
Prediction	6	01.132	NS
Prevention		09.667	NS
Planning		03.841	NS
Participation		07.603	NS
Performance		04.809	NS
Proactive attitude		10.058	NS

(At 5% level of significance the table value of χ^2 is 12.592)

It is inferred from the above table that there is no significant association between parental status and home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude as the calculated χ^2 value is less than the table value. Hence the null hypothesis is accepted.

FINDINGS

1. Home-reared adolescents have the moderate level of proactive attitude and its dimensions.
2. There is no significant difference between male and female home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude as the calculated t value is less than the table value.
3. There is no significant difference among Thoothukudi, Tirunelveli, and Kanyakumari district home-reared adolescents in their prediction, prevention, planning, participation, performance and proactive attitude as the calculated F value is less than the table value.
4. There is no significant association between parental status and proactive attitude of home-reared adolescents in their prediction, planning, participation, performance and proactive attitude as the calculated χ^2 value is less than the table value. Hence the null hypothesis is accepted.

INTERPRETATION AND DISCUSSION

Home-reared adolescents are having the moderate level of prediction, prevention planning, participation, performance and proactive attitude. As they are living in the digital world, they want to enjoy every moment at present and they don't think of future. To improve the proactive attitude, adolescents must be trained to plan ahead, set goals, prioritize, learn to solve the problem, take action and advice them to not to dwell on the mistakes from the past, but motivate them to learn from.

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TEACHING THE ADULT USING E-LEARNING

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ABSTRACT

In the present consumer educational market, educational institutions are rapidly incorporating more online opportunities. The various issues that learners and instructors cope with are addressed by the literature and our adult students. The key issue is creating a quality learning experience for adult students. Not only does the instructor need to incorporate what we already know about adult learning, but they must also approach the course development with a constructivist mindset. The major force in creating a quality learning experience is the discussion generated. Instructors must assist students in creating their knowledge and developing the ability to discuss in a virtual environment

Introduction

E-learning is commonly referred to as the intentional use of networked information and communication technology in teaching and learning. Several other terms are also used to describe this mode of teaching and learning. They include; Online learning, Virtual learning, Distributed learning, Network, and web-based learning.

E-Learning - Definition

The term e-learning comprises a lot more than online learning, virtual learning, distributed learning, and networked or web-based learning. As the letter "e" in e-learning stands for the word —electronic, it would incorporate all educational activities that are carried out by individuals or groups working online or offline, and synchronously or asynchronously via networked or standalone computers and other electronic devices.

E-Learning for Adults

According to Malcolm Knowles, who is one of the pioneer scholars in education, adult learning has six components. Adult learning is self-directed and autonomous, they utilize knowledge and life experience, they are goal-oriented, learning is relevancy-oriented, education highlights practicality, and it encourages collaboration.

Online adult learners must be intimately involved with goal setting and have the reins on when and how they educate themselves. Adults generally like to apply what they learn to

pass experience and make choices based on what they have gone through historically. It has to be knowledge that is practical and has uses in their lives, and collaborating with fellow students is key to truly grasping a concept.

How eLearning Suits Adults

E-Learning for adults usually consists of online schooling at a university or institution to learn valuable skills for their current or future careers. It is particularly suited for adults because online learning is very much self-directed and can be done on your own time and around your busy schedule. It's a style of learning that respects the adult's independence and allows for autonomy.

E-Learning is also very collaborative and involves teamwork with online classmates. This kind of teamwork in solving practical issues and using experience as a guide is integral to the successful completion of a course.

Principles Of eLearning

In his book, *Multimedia Learning* [1], Richard E. Mayer discusses 12 principles that shape the design and organization of multimedia presentations.

Here, we break down and demystify 11 of these fundamental eLearning principles:

1. Multimedia Principle

This principle uses words and graphics concurrently, rather than words exclusively. This approach engages both visual and auditory elements as learners often prefer to learn from both words and pictures, rather than from words alone. With innovations such as 3-D modeling and animation, Virtual Reality, and Augmented Reality courses are being brought to life like never before, creating maximum impact. This principle is economical and impactful and the combinations therein are virtually limitless, making it an easy choice.

2. Contiguity Principles

This principle leverages words and corresponding graphics, presenting both elements near one another, and is broken into 2 subcategories: spatial and temporal contiguity.

- **Spatial Contiguity Principle**

This principle relies on spatial relativity, keeping the words explaining a concept and their accompanying images together, and facilitates a learner's ability to fully understand and process the information.

- **Temporal Contiguity Principle**

Conversely, this principle presents corresponding words and images simultaneously, rather than successively. Both visuals—words and images—can then be processed concurrently to facilitate retention and understanding.

Think of it like this: instead of revealing all page elements at once, learners can instead actively select certain features using a ‘_hover-and-reveal’ or ‘_click- and reveal feature to avoid overloading the screen—and the audience.

3. Modality Principle

This principle presents words and information in the form of audio narration, rather than on-screen text. Images are described as well so learners don’t risk experiencing cognitive overload, as they can instead focus on one element: the narration.

According to the Cognitive Load Theory, the amount of information that working memory can hold at one time is limited. As such, this principle caters to the theory that related sources of information can be understood with the integration—rather than the separation—of information through narration.

The narration is a powerful tool, especially when leveraged as a real-life testimonial that conveys the intensity or severity of topics. Through impactful student testimonials, for example, there are online learning modules that use the power of storytelling narration in their online learning designed to prevent sexual assault, dating, domestic violence, and stalking on college campuses.

4. Redundancy Principle

This principle explains visuals with words in audio or text, but not both. As such, both elements instead complement one another, rather than confound a learner with an overload of all available elements, using a less-is-more approach.

An example of this principle in action is when learners are empowered to choose whether they want to listen to audio or read the text. Captions can be turned on or off, and audio can be muted for times when learners are in a shared space.

5. Coherence Principle

Similar to the Redundancy Principle, this also adopts a less-is-more approach. Irrelevant, extraneous, or inapplicable information is eliminated, including audio, visuals, and words, to avoid distraction and increase learning and retention, allowing the learner to concentrate on critical elements only.

Simply put: if words, audio, or images can be omitted without affecting the impact of the message or information, omit them.

6. *Personalization Principle*

This principle indicates the use of a conversational-style voice and tone— rather than a formal, authoritative tone—to put the learner at ease. It serves to give the content a more approachable, intimate feel so learners can process the content more easily with increased attention and engagement.

Consider these 2 tones for explaining compounding interest in eLearning and the Science of Instruction :

- **Example 1**

__Interest is compounded or added to the existing cash balance monthly. For disclosure on client statements, the annual percentage yield earned is calculated as follows ...‘

- **Example 2**

__Clients will often ask you to explain how the Annual Percentage The yield on their statement was calculated. This can be confusing, so let'srun through an example ...‘

The Personalization Principle would then suggest that the second, more informal example is more relatable and, therefore, more engaging to the learner.

7. *Segmenting Principle*

This principle serves to manage complexity by breaking a lesson into smaller, more palatable parts. Since eLearning is predominantly self-paced, this principle helps to reinforce that process, facilitating learning with user-paced segments, rather than as a continuous module. Further, this principle gives learners more control, allowing them to find what they need, see where they've been, and know what to expect.

Accordingly, micro-learning, a new technique being utilized in eLearning, breaks down course material into smaller, more digestible segments.

8. *Signaling Principle*

This principle suggests that people learn better when cues that highlight the organization of the essential material are added, encouraging organized learning content. Further, it suggests that content should get incrementally more complex, with simpler concepts being presented first.

The simplest way to contextualize the principle is to think back on meals as a child. Just as you would spread your lima beans all over your plate to give the illusion you've eaten more than you have, breaking up blocks of content into visually smaller

chunks gives the illusion of more manageable, bite-sized content.

Andragogy e-learning

In attempting to document differences between the ways adults and children learn, Malcolm Knowles (1980) popularized the concept of andragogy (—the art and science of helping adults learn), contrasting it with pedagogy (—the art and science of teaching children). He posited a set of assumptions about adult learners—namely, that the adult learner

- Moves from dependency to increasing self-directedness as he/she matures and can direct his/her learning;
- Draws on his/her accumulated reservoir of life experiences to aid learning;
- Is ready to learn when he/she assumes new social or life roles;
- Is problem-centered and wants to apply new learning immediately; and
- Is motivated to learn by internal, rather than external, factors. Inherent in these assumptions are implications for practice. Knowles (1984) suggests that adult educators
 - Set a cooperative climate for learning in the classroom;
 - Assess the learner's specific needs and interests;
 - Develop learning objectives based on the learner's needs, interests, and skill levels;
 - Design sequential activities to achieve the objectives;
 - Work collaboratively with the learner to select methods, materials, and resources for instruction; and
 - Evaluate the quality of the learning experience and make adjustments, as needed, while assessing the need for further learning

Improves your knowledge retention.

Every learner, regardless of age or educational background, can benefit from a personalized eLearning experience. It gives them the ability to learn at their own pace and on their terms, which boosts knowledge absorption and retention. They can choose when to move on to the next module, rather than moving along with the pace of their peers. If a busy adult learner feels rushed during an eLearning course, then he/she is less likely to acquire the new information offered. On the other hand, if learners can learn in the moments when it's most convenient for them, then they can become truly immersed in the eLearning experience.

Fits into your schedule.

Busy adult learners can access eLearning courses during work breaks, while they are waiting in the doctor's office, or when they have a free moment before going to bed after a long day. ELearning fits into any schedule because learners can access eLearning courses and learning materials when and where it's most convenient for them. They don't have to follow a specific eLearning course schedule or attend learning events, and can even download eLearning course materials if they won't be able to access the eLearning due to lack of an internet connection.

1. You don't need to make travel arrangements.

Adult learners don't have to worry about sitting in traffic to get to a class or taking time out of their busy schedules to arrange for transportation to attend a training event. It's all done virtually, which means there isn't any need to spend time making travel arrangements or spending money to pay for transportation costs (gas, bus fare, etc). Even if a learner has a busy lifestyle or lives in a distant area, he/she can still have access to high-level education.

2. You can customize your learning experiences...

No two learners are alike, which means that no two learning experiences should be alike. eLearning allows busy adult learners to get a customized eLearning experience every time, which means that they have complete control over what and how they learn. For example, adult learners can further explore a topic that interests them, master a particular skill set or quickly complete modules that they have prior experience with. They don't have to be bored by tedious modules or feel frustrated by challenging modules that must be completed quickly because they have control over every aspect of the eLearning process.

3. Doesn't interfere with your work or home life.

The primary reason that many adult learners, and particularly those who seem to always be pressed for time, do not enroll in classes is that they simply don't want to have to choose between educational and personal or professional obligations. As such, they miss out on invaluable learning opportunities that, in all actuality, could improve all aspects of their lives. However, eLearning doesn't conflict with work schedules or personal appointments. It can be done anywhere and anytime, making it possible for busy adult learners to engage in guilt-free learning. They don't need to miss out on their child's

performance in the school play or have to decide between an important work meeting and class. eLearning courses can be accessed when the time is right for each adult learner

Recent developments and trends

During the past few years, a variety of new developments and trends has been implemented in e-learning activities:

Blended learning

Blended learning is an important trend for distance learning, involving a mixture of traditional face-to-face and e-learning activities, in which the online portion serves as an extension of traditional classroom learning. However, several other definitions of blended learning have been used, including a mixture of instructional technologies (*e.g.* virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text), or a combination of various pedagogical approaches, including constructivism, behaviorism, or cognitivism.

Mobile learning

Mobile learning addresses the increasing capabilities of mobile electronic devices, *i.e.* smartphones and tablets. The objective of mobile learning is to provide access to education to the individual user anywhere and at any time.

Microlearning

Microlearning is a recent trend in social learning which breaks up the educational content into small units that can be quickly completed. Microlearning is often based on quiz questions and flashcards that can be used either individually or as parts of a broader educational concept.

Social learning

The social learning theory by Albert Bandura, goes back to the 1970s, stating that behavior is learned primarily by observing and imitating others. This type of learning can be covered in today's e-learning through the use of information exchange *via* social media channels like Twitter or Facebook.

Conclusion:

Throughout the world, policymakers are demonstrating their commitment to widening participation in education by promoting alternative pathways to gaining academic qualifications. This paper reports a study that aimed to investigate the potential of online learning to overcome barriers to participating in education by socially

disadvantaged adults and to identify the factors that influenced such students' participation and successful completion of online course learning.

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TEACHER EDUCATION IN NEP 2020

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Abstract

The tolerable enactment of the National Education Policy (NEP) 2020 positioned the teachers and students at the vanguard. Teachers shape children's futures, thereby shaping the destiny of our nation. Teaching is regarded as the most honorable of all vocations.

Teachers infuse values, knowledge, empathy, creativity, ethics, life skills, and social responsibility in our students, rendering teachers the very core of the educational process and a vital vehicle toward a progressive, educated, and successful society. Teacher education genuinely promotes the greatest influence on the community and makes progress toward attaining societal transformation. As a consequence, the many components of teacher education highlighted in NEP 2020 must be thoroughly analyzed in the context of widespread concern, responsibility, and an integrated perspective for policy implementation.

The mission of NEP 2020 explicitly stated that all schoolchildren at all levels of school education are taught by teachers who are enthusiastic, motivated, highly qualified, professionally trained, and well-equipped. In this regard, NEP 2020 also offers groundbreaking policy reforms in the teacher education system to address several issues/challenges experienced by teachers/educationists at various stages of school education are foundational, preparatory, middle, and secondary education including pre-service and in-service.

KEYWORDS: - *Transformation, National Education Policy, Teacher Education, Skills, 21st Century*

INTRODUCTION

The National Education Policy was formulated in 1966 by that the Kothari Commission. The quality, aptitude, and character of our teachers are probably the most important of all the variables that affect the quality of education and its contribution to national growth. Their perspective continues to remain incredibly relevant, fifty-six years later and our teachers continue to hold the key to our country's destiny.

The New Education Policy, often known as the NEP, was announced in 2020 by

the Ministry of Human Resource Development. The Indian educational system is predicted to go through several significant modifications as a consequence of the forthcoming education policy in 2020. Among them, the changes influencing teachers have been among the most desired.

The lack of teaching quality and passion among Indian teachers is attributed by NEP 2020 to the terrible circumstances underlying teacher education, recruiting, deployment, and service conditions. The significance of competent teacher preparation is emphasized by the policy. It seeks to launch a slew of structural improvements to persuade brilliant and gifted young minds to pursue teaching.

NATIONAL EDUCATION POLICY 2020

The National Education Policy 2020, based on the core pillars of Access, Equity, Quality, Affordability, and Accountability, is consistent with the 2030 Agenda for Sustainable Development and aspires to transform India into a thriving knowledge society and global knowledge superpower.

TEACHER EDUCATION

Teacher education is essential in developing a pool of educators who will mold the leaders of tomorrow. The process of preparing teachers necessitates the acquisition of diverse views and knowledge, the construction of attitudes and values, and the practice of teaching under the guidance of the most qualified mentors. In contrast to being knowledgeable about the most recent developments in education and pedagogy, teachers must have a solid foundation in Indian values, languages, knowledge, ethos, and traditions, particularly ethnic traditions.

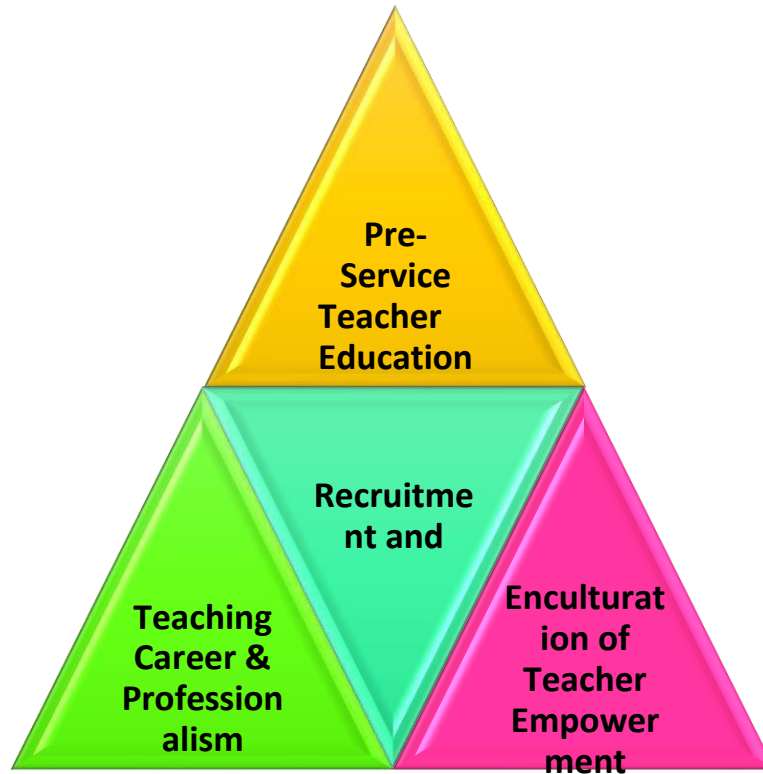
INTEGRATED TEACHER EDUCATION PROGRAMME

A four-year Integrated Teacher Education Programme (ITEP) created solely for school teachers will commence being administered by 45 universities across India in January 2022. The program integrates a BA, BSc, and B.Ed degree B.Ed degree to establish a dual-major bachelor's program that enables students who want to become teachers to save one year of academic tasks. The ITEP grants applicants a significant advantage over the present system, which requires them to devote five years to earning their bachelor's degree and their B.Ed. before starting their professions as teachers.

Following the NEP 2020, ITEP will constitute the only criterion for hiring teachers starting in 2030. The National Common Entrance Test, or NCET, scores will be used to determine admission to this program. In India, 45 interdisciplinary institutions are

offering the course.

Here are some of the significant changes that NEP provided toward teacher education:



♥ Pre-Service Teacher Education

To coordinate pre-service teacher education and training, the NEP 2020 proposes creating a National Curriculum Framework for Teacher Education, or NCFTE 2021. For the quality of education provided in academic, vocational and other specialized education streams, the NCFTE will recommend the optimum pre-service and in-service education/training techniques.

♥ Recruitment and Hire of Teachers

The educator must qualify for the National Testing Agency's Teacher Eligibility Tests (TETs) to be hired in either private or public schools. NEP 2020 encourages schools to share teachers across campuses to tackle the teacher shortage, particularly for disciplines including art, craft, music, and dance. The policy also suggests contacting prominent persons or local authorities to participate as "master instructors" in traditional arts.

♥ Teaching Career & Professionalism

The National Professional Standards for Teachers (NPST) will be established by the NEP and will govern all strategies for professional development, wage increases, and other areas of managing a teacher's career. Another crucial component of NEP for teachers is teacher audits and professional evaluations. In-depth research will be carried out on international pedagogical approaches by NCERT, and the outcomes will be included in the CPD programs for NEP teacher training. Following NEP 2020, teachers must complete a minimum number of hours of continuous professional development (CPD) every year.

♥ Enculturation of Teacher Empowerment

The NEP 2020 strategy outlines the critical part that teachers should perform. In the long haul, teachers will be granted the ability to take part in establishing school goals and rules. Giving teachers the ability to choose what and how to teach will give them autonomy and control over their work and will include them in the reform process. It is believed that the major element of teacher autonomy is to empower teachers and inspire them to perform better. The policy also seeks to acknowledge, record, and disseminate novel pedagogies and instructional strategies developed by Indian educators. Finally, NEP will aim to create active teacher communities as part of the enculturation of teacher empowerment to strengthen networking and minimize teacher isolation.

CONCLUSION

The NEP 2020 for teachers has come as a promising sign in light of the lackluster attempts that have previously been made to enhance the wages and working conditions for instructors. A better learning environment for pupils worldwide may be created with the support of initiatives for pre-service teacher education and in-service NEP teacher training programs. In the coming decades, the education sector has a good chance of becoming a prosperous career choice for smart young people.

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SIGNIFICANCE OF NEW EDUCATION POLICY (NEP) 2020 FOR ADULT EDUCATION AND LIFE LONG LEARNING PROGRAM

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ABSTRACT

The basic rights of every citizen are to obtain an education, provide an opportunity to attain foundational Literacy, and pursue a livelihood to become a better citizen of a country. Adult Education and Life Long Learning play a vital role in the life of individuals to progress personally and professionally. Enhancing the success of all developmental efforts of society and the nation depends on literacy and basic education. Literacy and basic education open up whole new worlds of personal, civic, economic, and lifelong learning opportunities for individuals that enable them to progress personally and professionally. Literacy and basic education are powerful force multipliers that greatly enhance the success of all other developmental efforts.

INTRODUCTION

Adult Education Program is an imperative platform to spread literacy, raise awareness, and functional, amenabilities, and sensitize each member of the community irrespective of age, region, and religion. National Adult Education Program (NAEP) was initiated on 2nd October 1978 to spread literacy among communities belonging to the age groups 15 – 35 years.

Adult Education was transfigured to Life Long Learning to engulf people of all age groups and all regions with special emphasis on socially and economically deprived sections of the community.

The emergence of Digital India and Atma Nirbhar Bharat makes it indispensable for each member of the community to be well aware of the basic skills that are imperative to be an independent and useful member of society. Adoption of innovative measures for Adult Education will help them to carry out basic financial transactions, compare the quality/quantity of goods purchased against the price charged, fill out the forms to apply for jobs, loans, services, etc, comprehend public circulars and articles in the news media, use conventional and electronic mail to communicate and conduct business, make use of the

internet and other technology to improve one's life and profession, comprehend directions and safety directives on the street, on medicines, etc., help children with their education, be aware of one's basic rights and responsibilities as a citizen of India, appreciate works of literature, and pursue employment in medium or high productivity sectors that require literacy.

The key success factors of adult literacy progress in India and across the world are volunteerism, community involvement, and mobilization in conjunction with political will, organizational structure, proper planning, adequate financial support, and high-quality capacity building of educators and volunteers.

Successful Literacy Programmes result in the growth of literacy among adults, increased demand for education for all children in the community, and greater community contribution to positive social change. Strong and innovative government initiatives for adult education is to facilitate community involvement and smooth and beneficial integration of technology.

SALIENT FEATURES

- ❖ The school will be the unit for the implementation of the scheme.
- ❖ Schools will be used for surveying beneficiaries and voluntary Teachers.
- ❖ Different strategies are to be adopted for different age groups.
- ❖ Foundational Literacy and Numeracy will be imparted through critical life skills to all non-literates in the age group of 15 years and above.
- ❖ Use of Technologies to import Adult Education for wider coverage of the scheme.

IMPORTANT AIM OF ADULT EDUCATION

- An outstanding adult education curriculum framework will be developed for literacy, numeracy, basic education, vocational skills, and soon.
- The curriculum framework should include foundational literacy and numeracy, critical life skills such as financial literacy, digital literacy, commercial skills, health care and awareness, childcare and education, and family welfare.
- Vocational skills development
- Basic education
- Continuing Education including arts, sciences, technology, culture, sports, and recreation, advanced material on critical life skills.
- Suitable infrastructure will be ensured so that all interested adults will have access to adult education and lifelong learning.

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- Sharing of infrastructure for school, higher, adult, and vocational education for community and volunteer activities.
 - Instructors or educators will be required to deliver the curriculum framework to mature learners.
 - Instructors will be trained by the National, State, and District level resource support institutions to organize and lead learning activities at Adult Education Centers, as well as coordinate with volunteer instructors.
 - All efforts will be undertaken to ensure the participation of community members, social workers, non-enrolled students, and dropouts.
 - Opportunities for adult education will also be widely publicized through advertisements, announcements, events, and initiatives of NGOs and other local organizations.
 - Improving the availability and accessibility of books is essential to inculcate the habit of reading within our communities and educational institutions.
 - Strengthening existing libraries, setting up rural libraries, and reading rooms, making widely available reading material in Indian Languages, Opening children's libraries, and mobile libraries, establishing social book clubs, and fostering greater links with educational institutions.
 - Technology will be leveraged to strengthen and even undertake the above initiatives.
 - Quality Technology-based options should be developed through government and other initiatives.

CONCLUSION

Adult Education and Life Long Learning is a web of Skill Development Programs in current digital India. Adult Education Programs and Life Long Learning play a vital role in making society economically independent. National Education Policy aims to increase the GER to 100% in preschool to secondary level by 2030 whereas GER in Higher Education including vocational education from 26.3% (2018) to 50% by 2035.

Online modules covering the entire gamut of adult education will be introduced. The objectives of the scheme are to impart not only foundational literacy and numeracy but also to cover other components which are necessary for a citizen of the 21st century such as critical life skills, vocational skills development continuing education, and basic education.

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TRANSFORMATIVE PATHWAYS IN HIGHER EDUCATION- ANDRAGOGY IN FUTURISTIC PERSPECTIVE: DIGITAL LITERACY AND ANDRAGOGY

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ABSTRACT

This paper provides a purpose for the concept of —digital literacy in education. Pointing to some of the boundaries of content sharing in this area, it outlines a framework based totally on 4 key principles drawn from media education. It applies these ideas to the World Wide Web used for educational purposes and to create laptop games for getting knowledge about education digital literacy, and discusses the position of digital media manufacturing with the aid of school and college students in creating digital literacy in the current situation. This paper emphasizes the significance of creating indispensable strategies for digital media as a quintessential prerequisite for their usage of them as a source of learning.

Keywords: media literacy, digital literacy, media education

INTRODUCTION

Technology has existed for hundreds of years, from the invention of the wheel onward. Technology below girded the Industrial Revolution. Today's science is marked by way of its electronic, digital nature. As such, digital technological know-how permeates society at the everyday stage as nicely as on the governmental level. Technological know-how has to turn out to be so ubiquitous that it can be overlooked. Even in growing international locations, the place the primary trouble is survival and lifestyles seem to be timeless, technological know-how can have an impact on them; technology-based lookup informs agricultural practices, neighborhood merchandise attain faraway distances due to the fact of technological logistics, and herbal mess ups are addressed extra rapidly due to the fact of technology-based conversation and coordination.

Global problems can be heard right now due to the fact of telecommunications, and the monetary world would shut down if it have been to be reduced from technological know-how for a week. Even if they are unaware of technology, adults have to cope with its impact.

The academic use of TV can equally be utilized to more recent media, media must no longer be considered in basic terms as educating aids or equipment for learning. Education about the media ought to be considered a critical prerequisite for training with or thru the media. Likewise, if we desire to use the web or pc video games or different digital media to teach, we want to equip college students to recognize and critique these media

With the developing convergence of media, the boundaries between –information|| and different media have come to be more and more blurred. In most children's leisure-time experiences, computer systems are an awful lot greater than gadgets for data retrieval: they bring pics and fantasies, supply opportunities for resourceful self-expression and play, and serve as a medium via which intimate private relationships are conducted. These media can't be effectively understood if we persist in concerning them as being counted machines and techniques, or as "hardware" and "software". The internet, pc games, digital video, cellular telephones, and different current applied sciences supply new methods of mediating and representing the world, and communicating. Outside school, youth are enticed with these media, no longer as applied sciences but as cultural forms. If educators desire to use these media in schools, they can't find the money to overlook these experiences: on the contrary, they want to grant college students the skill to grasp them. This is the feature of digital literacy.



Multiple literacies

"Economic literacy", "emotional literacy" and even "spiritual literacy" appear to prolong the software of the period to the factor the place any analogy to its unique which means (that is, about written language) has been lost. "Literacy" comes to be used in basic terms as an indistinct synonym for "competence", or even "skill". It is well worth noting in this appreciation that such expressions can also be particular to the English language.

The period "literacy" absolutely incorporates a diploma of social status; and to use it in connection with other, decrease reputations such as television, or about more modern media, is, therefore, to make an implicit declaration for the latter's validity as objects of study. Yet as makes use of the period multiplies, the polemical fee of such a declaration and its strength to persuade – is certain to decline. Thus, whilst recognizing the magnitude of visible and audio-visual media, some students task this extension of the term, arguing that "literacy" has to proceed to be limited to the realm of writing; whilst others -dispute the thinking that visible media require a system of cultural studying that is comparable to the mastering of written language. The analogy between writing and visible or audio-visual media such as movies may additionally be beneficial at an everyday level, however, it frequently falls when we seem to be greater closely: it is viable to analyze large classes such as narrative and illustration throughout all these media, however, it is a great deal tougher to maintain greater particular analogies, for instance between the movie shot and the word, or the movie sequence and the sentence.

The wondering about digital literacy is no longer new. Once the time length "computer literacy" is generally poorly described and delineated, every in phrases of its traditional desires and in phrases of what it entails. As they suggest, rationales for laptop computer literacy are regularly based absolutely on dubious assertions about the vocational relevance of computer skills, or about the inherent fee of gaining an understanding of computers, which have been substantially challenged. In current usage, digital or pc literacy often appears to volume to a minimal set of competencies that will permit the man or woman to characteristic effectively with software program application tools, or in performing easy data retrieval tasks.

This is certainly a purposeful definition: it specifies the most important skills that are required to undertake special operations, however, it does now no longer go very some distance previous this. For example, the British authorities have tried to outline and measure the ICT abilities of the populace alongside regular literacy and numeracy as a phase of its Skills for Life survey This survey defines these abilities at two levels. The level consists of a grasp of frequent ICT terminology; the capability to use primary aspects of software program equipment such as word processors and spreadsheets; and the potential to store data, replica and paste, control files and standardize codecs inside documents. Level two consists of the use of search engines and databases, and the potential to make extra superior use of software program tools.

Media literacy goes online

Many conceptual aspects in the education field are generally regarded as essential components of media literacy. While digital media is raise new questions in the new method and requires new methods of investigation, this basic conceptual framework continues to provide new education needs in education literacy a useful means of

Representation

Methods of learning media, digital media represents the world, rather than simply its reflection. Educationists offer particular interpretations and selections of reality, which inevitably embody implicit values and ideologies in this process Informed users of media need to be able to evaluate the material they encounter, for example by assessing. They offer particular interpretations and selections of reality same this field, which inevitably embodies implicit values and ideologies of education needs to the students.

Language

A truly literate individual is able not only to use language but also to understand how it works. This is partly a matter of understanding the "grammar" of particular forms of communication; this process means acquiring the knowledge of analytical skills, and a meta-language for describing how language functions in an easy way. Digital literacy must therefore involve a systematic awareness of how digital media are constructed, and of the unique —rhetoric|| of interactive communication in this language functioning.

Literacy additionally entails grasping who is speaking to whom, and why. In the context of digital media, young humans want to be conscious of the developing significance of industrial influences – in particular as these are regularly invisible to the user. There is a —safety| issue to this: adolescents want to comprehend when they are being centered through business appeals, and how the records they grant can be used using business corporations

But digital literacy additionally entails a broader recognition of the international position of advertising, promoting, and sponsorship, and how they impact the nature of the facts that are accessible in the first place. Of course, this consciousness needs to additionally lengthen to non-commercial sources and pastime groups, who are an increasing number of the usage of the internet as a skill of persuasion and influence.

In the creator's view, this method is extensively greater complete and greater rigorous than most present procedures for "internet literacy". It contains questions about bias and reliability, however units these inside a broader difficulty with representation. This in flip is associated with a systematic evaluation of the "grammar" or "rhetoric" of online communications, that consists of visible as nicely as verbal dimensions; and an account of the industrial and institutional pursuits at stake. The strategy additionally entails a reflexive perception of how these elements influence the consumer – how customers are focused and invited to participate, what they do with the medium, and what they locate significant and pleasurable. I would argue that this strategy strikes nicely past a slim problem with "information" and a simplistic strategy to the comparison that sees it in basic terms in phrases of reality and falsity.

Game literacy

The strategy outlined right here is now not solely relevant to —information media. In principle, it can additionally be utilized for different elements of digital media, which includes "fictional" media such as pc and video games. Of course, there is a developing hobby in the usage of laptop video games in education; however, right here again, most proposals implicitly conceive of video games as an impartial "teaching aid". To date, most proposals for instructing video games in colleges have been developed through instructors of English or language arts. As such, these proposals tend to emphasize the components of video games that shape most without difficulty with English teachers' common literary concerns, for instance with narrative or the building of character. In phrases of our four-part framework, the emphasis is on language and to some extent on representation;

The "literacy" applies to the ludic dimension of games. There is a developing literature, each in the discipline of sport diagram and in educational research that seeks to perceive primary generative and classificatory concepts in this respect. This sort of evaluation focuses on troubles such as how video games manipulate time and space, the —economies, dreams and barriers of games, and problems such as guidelines and conditionality. It is these ludic elements that distinguish video games from films or books. However, these factors are no longer separate from, or antagonistic to, the representational elements; and any account of "game literacy" desires to tackle each of the factors that video games have in frequent with different media and the factors that are unique to games. However, there is little engagement with the extra sociological troubles to do with manufacturing and target market that are vital

issues for media teachers. "Types", and as factors of getting admission to the action; however the vital distinction is that they can be manipulated, and in some cases positively changed, via the player. This factors into the fundamental interpenetration of the representational and the ludic dimensions of games.

The digital literacy "recipe" outlined right here is meant solely as a short indication of the possibilities: extra specific proposals for study room exercise can be determined elsewhere. These tips will fluctuate by the wants and hobbies of the students; though it must be viable to tackle the common conceptual problems at any level. Nevertheless, it must be obvious that drawing close to digital media via media training is about a whole lot greater than virtually "accessing" these media, or the use of them as equipment for learning; on the contrary, it capability creating a plenty broader quintessential understanding, which addresses the textual traits of media alongside their social, monetary and cultural implications.

Writing digital media

It is essential to realize that these quintessential understandings can and ought to be developed via the ride of media production, and no longer only thru crucial analysis. Media literacy entails "writing" the media as properly as "reading" them; and right here again, digital technological know-how offers some essential new challenges and possibilities. The developing accessibility of this science skill that pretty younger youngsters can effortlessly produce multimedia texts, and even interactive hypermedia – and growing numbers of teenagers have to get entry to such science in their homes. Indeed, new media are a key issue of the lots extra participatory media subculture that is now rising – in the shape of blogging, social networking, game-making, small-scale video production, podcasting, social software, and so on. Growing numbers of instructors have sought to harness the productive chances of these media, albeit in pretty restricted ways. As with older media, many instructors are the usage of multimedia authoring programs as the ability to support situations studying in a variety of curriculum areas. Here, college students produce their personal multimedia texts in the structure of websites or CD-ROMs, frequently combining written text, visible images, and easy animation, audio, and video material.

Other attainable makes use of digital media have emerged from arts education. These tasks frequently contain the participation of the "digital artists" exterior of the school, and their main emphasis is on the use of the media for self-expression and innovative exploration. The implicit mannequin right here is that of the avant-garde multimedia artwork work, though college students tend to "import" factors of famous culture, for example, describes an online multimedia undertaking that set out to strengthen hyperlinks between a baby college and its community. The undertaking used to be supposed to mark the school's centenary, and to provide the young people possibilities "to check out their families, community, histories, and experiences, exploring adjustments and celebrating diversity". Using multimedia authoring software, the challenge introduced collectively photography, video, drawing, story-telling, digital imaging, sound, and text.

Media schooling is commonly characterized by using a specific focal point on famous tradition – or at least on the attraction with students' everyday experiences of digital media, as a substitute for trying to impose an "artistic" or "educational" practice. In the case of the internet, this ability to recognize that most younger people make use of the medium is no longer in particular "educational", at least in the slim sense. Teachers want to comprehend that younger people's makes use of the net is intimately linked with their different media enthusiasms – and that this is certain to be mirrored in the texts they produce.

critical literacy

Improvement of "critical literacy". In the context of media education, the purpose is no longer especially to increase technical skills, or to promote "self-expression", however, to inspire a greater systematic grasp of how the media work, and as a result to promote extra reflective approaches of the usage of them. In this latter respect, media training immediately challenges the instrumental use of media production as an obvious or impartial "teaching aid". This digital equipment can allow college students to conceptualize the pastime of manufacturing in tons greater effective approaches than used to be feasible with analog media. For example, when it comes to video production, digital technological know-how can make overt and see some key factors of the manufacturing procedure that regularly stay "locked away" when the usage of analog technologies. This is mainly obvious in the factor of editing, the place complicated questions about the selection, manipulation, and aggregate of pictures and, in the case of video, of sounds can be addressed in a whole lot greater hand way. In the process, the boundaries between vital evaluation and sensible manufacturing – or between "theory" and "practice" – are turning more and more blurred.

CONCLUSION

The media literacy mannequin places problems on the agenda that are generally omitted or marginalized in questioning technology in schooling – and specifically in the faculty problem of ICT. Media literacy affords the potential of connecting study rooms makes use of technological know-how with the "techno-popular culture" that increasingly suffuses children's amusement time – and it does so in a critical, alternative than a celebratory way. It raises essential questions that most methods of statistics techno-logy in schooling fail to address, and thereby strikes decisively past in simple terms instrumental use of technology.

This paper examines technological elements that impact the prerequisites and techniques of personal learning, and how personal educators can deal with these adjustments effectively. Technology can toughen and decorate grownup learning, offering getting-to-know surroundings with equipment and sources that the learner can discover and control, hence fostering extra independent, adult-centered learning. Adults gaining knowledge of adjustments due to the fact of the want to study how to use science tools, the chance for multiplied get right of entry to resources, the editions in designing and experiencing mastering experiences, and the extended possibilities to have interaction with these sources and with different learners. Several problems contextualize the realities and challenges of the person studying as impacted by using technology: a place of work studying and gaining knowledge of organizations, casual learning, distance education, globalization, the Digital Divide, and older person learners. Emerging tendencies are additionally mentioned.

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ADULT EDUCATION AND LIFELONG LEARNING- NATIONAL EDUCATION POLICY-2020

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Abstract

This article focuses on the adult education and lifelong learning in national education policy-2020 , plans and programmes in India. It argues that by adapting the new paradigm of LLL, which is largely driven by market centric neoliberal principles, Indian adult education has lost its core and traditional learning ecology as there is a gradual submission to the pursuit of global economic competitiveness. Every individual must be in a position to keep learning throughout his life. The idea of lifelong education is the keystone of the learning society. The lifelong concept covers all aspects of education, embracing everything in it, with the whole being more than the sum of its parts. There is no such thing as a separate —permanent part of education which is not lifelong.

Introduction

"Education for All" is the Global slogan for decades. Its aim is to ensure that the children and all young adults are not left out of the education system and are included in the process of education while meeting their essential learning needs. Yet 'Education for All' has not been achieved till date. Moreover, non-literacy is one of the impediments in the development process. It is understood that the human development is not possible till the eradication the illiteracy. Hence, it is significantly important to educate the non-literate youths and adults in the development process.

What is Adult Education

The Adult Education means imparting knowledge of letters inclusive of basic literacy, basic education, vocational (Skill) education, equivalency education, physical and psychological development, art, suitable scientific knowledge, inclusive of entertainment, along with opportunities for lifelong continuous learning to adults of age 15+ who are deprived of formal education. The main aim and goal of literacy program is to provide basic literacy and opportunity for lifelong learning.

UNESCO Definition

According to UNESCO the Literacy is –the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy is lifelong learning to enhance knowledge and skills of every individual in order to achieve one's goals in this extensive world.

Importance of Adult Education.

There are a vast number of non-literates, school dropouts, semi literates, who are deprived of learning opportunities. These people do not have opportunities for lifelong learning. Hence there will be uncertainty in their lives. They are incapable of managing their finances, buying the best quality products at suitable rates, procuring loan, job, or filling up of application form to obtain different services. It is difficult for them to read public notices and circulars, to provide quality education to their children, to know their duties and responsibilities, to adjust to the modern-day life. Hence, if basic literacy, basic education is provided along with the opportunities of lifelong learning it will facilitate their personal development. Moreover, it will also enhance human development index.

Adult Education in NEP

Adult Education plays a vital role in achieving 'Education for All'. The NEP is aiming at achieving an equal and dynamically knowledgeable society providing Quality Education to all. Adult education creates opportunities for lifelong learning besides providing basic literacy. That's why it is suggested that in NEP-2020 adult education curriculum should be developed in 5 widely spread areas. Viz. 1. Basic Literacy and Numeracy 2. Basic Education. 3. Critical life skills. 4. Vocational skill development and 5. Continuing Education. For the implementation of an effective and people centric Adult Education program in future, NEP 2020 would provide the roadmap.

Strengths and Weaknesses of Adult Education

The strengths and weaknesses of Adult Education program have been highlighted in 80 evaluation reports of Total Literacy Programs of NLM implemented from 1978 onwards. They are listed below:

Strengths;

- Participation and enthusiasm of women was good.
- The programs were convenient for the economically weaker sections and SCs and STs
The method of implementation was convenient for implementation
- The teaching learning materials prepared by SRC were of excellent quality

- Implementation of the program was excellent in places where vocational
- Skills were provided.

Weaknesses

- Trainings of the functionaries were of poor quality.
- Environment building was poor.
- Media support was scant and not up to the required level.
- Since there was a time gap between Basic literacy, post literacy and continuing education, the neo-literates relapsed into illiteracy.
- Literacy achievement was far below the expected level.
- There was no sufficient political and administrative support from the state and
- Panchayat raj institutions. Even now the adult education program is facing the same kind of weaknesses.

Added to this the adult education is restricted to basic literacy alone. There is no opportunity for Post literacy, stabilization and continuing education. Therefore, those who have acquired basic skills relapse to illiteracy. Training is not considered as an important implementation technique. Even though there is lack of volunteerism, it is still considered as a chief mode of implementation and the program is heavily dependent on volunteer services. Moreover, there is lack of enthusiasm among the learners as well as volunteer teachers. A project for adult education and lifelong literacy that can overcome these challenges is to be effectively implemented. The weaknesses found in the evaluation reports can be noticed even now. An appropriate solution needs to be evolved while implementing the NEP.

Adult Education and Lifelong Learning in National Education Policy -2020.

Important Points.

NEP-2020 is related to adult education and lifelong education. The important goals referred are as follows: -

- Basic literacy, getting educated, exploring and getting opportunities for livelihood is the fundamental right of every citizen of India.
- Literacy rate, per capital income and GDP are greatly related to each other.
- Management of livelihood finances, filling up of application forms in different
- situations and daily activities, use of modern technology, awareness of duties and responsibilities, finding opportunities of employment need literacy skills.

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- SHG, Community participation and organization are the important principles of success of adult education program.
 - Adult literacy increases demand for children's education.
 - The curriculum framework for adult education includes at least five types of programs, (a) foundational literacy and numeracy; (b) critical life skills (c) vocational skills development (d) basic education and (e) continuing education.
 - Provide opportunity for adult education and continuous lifelong learning to all the interested adults.
 - Information, Education and Communication system should be made available.
 - The program implementation should be through volunteerism or —Each one teaches one method as a national service.
 - Ensure the participation of all the members of the community
 - Create a reading society. Establish digital library, rural reading room, and
 - Mobile library.
 - Develop software required for adult education.

Objective

To attain 100% literacy by 2030 and expand Continuing education program.

Adult Education Curriculum.

The curriculum should be simple, need based and easily implementable in the following five stages suitable to the local art, culture, literature, language, knowledge, interest, customs and habits. Curriculum needs to be developed both at the National and State levels in five stages. 1.Preparation of teaching learning materials,

2. Effective planning.
3. Effective implementation and
4. Monitoring.

Curriculum Framework of Adult Education

(In accordance with NEP)

Till now the curriculum framework of Adult Education aimed at providing self-competency in reading, writing, and numeracy besides creating awareness to the adult learners about different subjects and application of the acquired literacy skills and knowledge in their day-to-day life. It aimed at fast and maximum learning in a short period of time. National Values like National Integration, Environmental Conservation, Gender Equality, Small Family Norm, Development of Scientific Temperament and local

issues were a part of the Adult Education curriculum limited to Basic literacy. The present NEP-2020 has 5 Programs.

Vision of Adult Education in NEP 2020.

1. —The ability to attain foundational literacy, getting education, and pursuing livelihood skills must be viewed as fundamental rights of every citizen (DNEP 2019, Introductory paragraph of Chapter 21 p.373-374)
2. —Successful literacy programs not only leads to growth of literacy among adults, but also lead to increased demand for education for all children in the community, as well as greater community contribution to positive social change (NEP 2020, para 21.3)
3. —Strong and innovative initiatives and strategies by the government are essential for achieving cent percent literacy. Above all facilitation of community involvement and smooth integration of technology are also essential components for achieving 100% literacy (NEP2020, 21.4).

The present day technology and other media will be used to make Teaching learning more attractive in order to convert "Karnataka state" into "100 percent literate Karnataka" in the coming 5 years and to move ahead towards the personal and all round development of the learners. To increase the number of self-motivated learners. There is a need for the development of effective curriculum of adult education keeping in mind the previous experiences in Adult Education, the constitutional aspirations, factors affecting success of democracy and the recommendations made in the Draft National Education Policy 2019 and NEP -2020 for the program of Adult Education and Lifelong Learning. The following curriculum framework for adult education can be prepared keeping in view the guidelines issued by the ministry of education for the preparation of position paper and the anchor document pertaining to adult education

Scope of the Curriculum Framework

—The curriculum framework for adult education will include at least five types of programs, each with clearly defined outcomes: (a) foundational literacy and numeracy; (b) critical life skills (including financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare); (c) vocational skills development (with a view towards obtaining local employment); (d) basic education (including preparatory, middle, and secondary stage equivalency); and (e) continuing education (including engaging holistic adult education courses in arts, sciences, technology, culture, sports, and recreation, as well as other topics of interest or

use to local learners, such as more advanced material on critical life skills)¶. [NEP 2020, 21.5].

Recommendations for the Implementation of Adult Education

1) „Mass Education“ (Nomenclature): All the beneficiaries are of 15 + years age, and include adolescents, youngsters and adults. Hence, it's appropriate to rename this Adult Education program as 'Mass Education'. In Karnataka state name 'Directorate of Adult Education' has already been changed to 'Directorate of Mass Education' from 1989. It is desirable to use 'Mass Education' at the district level also.

2) Release of Grants: A plan is required to make the Karnataka state 100% literate in accordance with the Sustainable Development Goals and provide opportunities for lifelong education. It should be implemented effectively. Hence the grants required for Adult Education and Lifelong Learning activities should be allocated in the budget. According to 2011 census 25% of the population was illiterate. In order to provide learning opportunities for these persons and an equal number of school dropouts the program should be implemented through the 5 activities viz. 1. Foundational Literacy and Numeracy, 2. Critical Life Skills, 3. Basic education, 4. Vocational Skill development and 5. Continuing Education. Special budgetary provision is to be made in the State budget and with a special attention to get CSR funds at State and District levels.

3) Separate Existence: Formal Education, teaching and the curriculum is based on —Pedagogy —to help children learn effortlessly based on child psychology. On the other hand, adult education is based on —Andragogy¶ based on adult psychology. Since the formal education and adult education are based on different psychologies it is not justifiable to implement the adult education program as a part of education department. Hence, separate plan, separate activities, separate plan of action are essential. Therefore, a separate Directorate must be allowed continue.

4) Administrative setup and network: In 1978 separate directorate came into existence at the center and state level to implement the Adult Education program. The continuation of this directorate and a suitable network from the state level to GP level is necessary to effectively implement NEP-2020. Therefore, separate C&R rules are essential. A network of functionaries at village level and ward level in GP and Urban areas respectively is necessary for the implementation of the program of Adult Education and Lifelong Learning.

5) Collaboration of NGOs: Many NGOs are implementing different developmental programs. Adult Education program will be implemented to the non-literates of the groups in collaboration of such groups.

6) Participation of Community Based Organizations: The CBOs which strive for the development of their own community will be involved to make the persons of that community literate.

Conclusion:

NEP-2020 is an important attempt to achieve —Education for All at the global level to bring all the non-literates to the world of literacy and development. It represents the academic responsibility of eradication of illiteracy while acknowledging the results of previous literacy programs. Today we must move from basic literacy to multi directional continuing education activities. Different modern technical knowledge needs to be used suitably. Adult Education is not only learning of letters but also a platform to gain livelihood skills while improving the standard of living. Similarly, it is a process of improving and developing human resource. It is an opportunity to utilize vast human resource constructively and to ensure their development. In this way, the national and state development can possibly be achieved. Adult education program is the foundation to achieve Sustainable Development and to ensure **–NOBODY IS LEFT BEHIND**.

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SECRET FOR EFFECTIVE 21ST-CENTURY PEDAGOGY SKILLS

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Abstract

The effect of teacher instructional quality is being attributed to the development of 21st-century skills competences. However, a major obstacle to achieving the needed improvements is the absence of relevant strategies for supporting teacher professional development and a context-specific understanding of teaching practises. This one focuses on the requirement for contextualised evaluation of the social quality of instructional processes. The Teaching Instructional Practices and Processes System (TIPPS) was used in three separate contexts—secondary education in Uganda, primary education in India, and higher education in Ghana—to design and assess teacher practises and classroom procedures (pre-school).

It is hoped that by looking at how such a tool may be utilised for teacher feedback, reflective practise, and continual growth, it will help teachers and students in the 21st century develop the skills they need to succeed. Critical thinking, problem solving, creativity, metacognition, communication, digital and technology literacy, civic duty, and global awareness are among the characteristics usually considered to be part of the 21st-century skillset. And nowhere is the acquisition of such competencies more crucial than in the contexts of emerging nations, where a glaring lack of progress in learning outcomes has shown the urgency of raising instructional quality. The lack of context-specific knowledge about teaching techniques and effective strategies for assisting teachers in their professional development makes it difficult to achieve the needed improvements.

Keywords: Classroom observation, 21st-century skills, Professional development.

Introduction:

The effectiveness of classroom instruction (and how it relates to learning outcomes) can be a key lever for educational transformation. But there is still much to learn about what really occurs in classrooms, especially in low- and middle-income nations (LMICs). Although there are many observational tools available today, few have been utilised in a variety of contexts, cultures, and interventions and the majority have not undergone rigorous methodological development (Bruns, 2011; Crouch, 2008). Since they are more affordable

and convenient to use for intervention studies, many of these observational instruments have traditionally been more popular and have taken the form of checklists or time on task measures.

According to a recent comparative assessment of observational tools by Bruns et al. (2016), time on task measurements are too imprecise to be used for performance or instructor feedback. Additionally, important elements of the classroom environment in the twenty-first century, such as student engagement, effective instructional tactics, or emotional components that enhance child development, cannot be distinguished by time on task metrics (Seidman et al., 2018). Therefore, it follows that checklists and time-on-task metrics need to be abandoned.

Pedagogical Trends in 21st century skills:

This topic, describe the efforts to develop and measure teacher practises and classroom processes with reliability and concurrent validity in secondary, primary, and pre-school classrooms in India, using the Teacher Instructional Practices and Processes System (TIPPS; Seidman et al., 2013); and how these tools can be fed into future research.

★ The social processes (or how) of good instruction:

Historical social context frameworks have underlined the significance of viewing teachers as facilitators of a student's learning experience (Cohen et al., 2003; Pianta and Hamre, 2009; Tseng and Seidman, 2007). In addition to being a byproduct of the culture in which the processes are practised, learning and growth are rooted in the regular interactions and experiences that take place in the classroom (Seidman and Tseng, 2011; Tseng and Seidman, 2007; Wolf et al., 2018). (Stigler et al., 2000). The fundamental procedures and methods are always active in a classroom.

Making meaningful distinctions between concurrent behaviours is necessary from the standpoint of classroom observations, though, since doing so will help us determine how these behaviours relate to important elements of the learning environment in the classroom. In the classroom, emphasis is placed on procedures and methods, shifting the attention from what is being taught alone to how it is being taught. Despite the difficulty of the task, this technique is theoretically and programmatically coherent to facilitate a thorough examination.

★ How to evaluate effective teaching practises:

Checklists and rating/categorization scales are the two main categories that can be used to categorise quantitative techniques to evaluating schools. Checklists often ask the observer to indicate whether an item is present or absent in the classroom. They can catalogue a

variety of desired structures, from artefacts in the classroom to teaching approaches, and they have very minimal inference requirements. Rating or classification scales are frequently higher inference techniques that can concentrate on the value of particular behaviours as well as how frequently they occur in the classroom (Waxman et al., 2004). Rating or classification scales have a much larger chance of being used to provide feedback to teachers so they can alter their practises.

Teacher Instructional Practices and Processes System (TIPPS):

A classroom observation tool called the TIPPS was created with these factors in mind and primarily to evaluate process quality in LMIC environments. Additionally, TIPPS was created to examine teaching practises in a detailed, nuanced, and culturally appropriate way in order to provide teachers with feedback on how to improve both their performance and the academic and social-emotional results for their students. Students are taught how to link the behaviours they see in the classroom to the indicators under each tool's dimension. In order to help observers better understand common observational biases (such as sympathy scoring or appearance prejudice), they are directed through examples of these biases.

Developing 21st-century teacher skills:

The way in which students acquire 21st-century abilities is significantly influenced by the way that education is delivered. The way 21st-century skills are developed and tracked depends heavily on pedagogy, curriculum, school policies and atmosphere, evaluations, and benchmarking skill acquisition. However, the key setting where the aforementioned elements come together to promote information acquisition and skill development is the classroom. Additionally, students can practise these abilities in the classroom while watching their teachers display them for them. As a result, it is equally necessary to prepare and train teachers in both the acquisition and diffusion of 21st-century abilities. An essential initial step can be to assess how well classroom procedures and instructor methods promote and enable the growth of 21st-century abilities in the classroom.

Conclusion:

Individual must concentrate on teachers' 21st century skills and rethink teacher evaluation and training in order to develop learners who are prepared for the 21st century. One has to use constructivist theories of classroom activity, particularly teacher practises, to accomplish this. Beyond the typical dimensions of practises, one should look for and created dimensions that might be conveyed in meaningful, culturally and contextually appropriate

ways. In this line, an individual is able to find valid concurrent dimensions that can be used to provide feedback to teachers.

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DIGITAL LITERACY AND „Z' GENERATION IN THE EPOCH OF VIRTUAL TECHNOLOGY

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INTRODUCTION

The ability to read and write is the concept of being literate. In today's world, literacy goes beyond the ability to comprehend text. Students would need to master a new skill, Digital Literacy (Lynch, 2017). Recent developments in Information and Communications Technology (ICT) have transformed how individuals learn. ICT has acquired a prominent role in the learning process, both in the educational system and at home (Meyers et al., 2013, Argentin, et. al., 2014). The Internet, in particular, has made available a virtually unlimited number of sources of information. As a result, the learning process increasingly requires the ability to access, locate, extract, evaluate, organize, and present digital information (Argentin, et. al., 2014). Digital literacy encompasses a wide range of skills, all of which are necessary to succeed in an increasingly digital world. At present, it plays an important role in the teaching and learning process. Educators are increasingly required to teach students with digital tools as their teaching aids. Over the last few decades, the concepts of digital literacy and digital competence have been used more frequently and are increasingly discussed in the field of education. This article discusses about digital literacy, Z generation, their learning style and why digital literacy is essential for the Z generation.

DIGITAL LITERACY

In year 1997, Paul Glister popularized the term —Digital Literacy|. He conceived it as simply —Literacy of Digital Age. Likewise, in the study conducted by Enes Ahmet (2017) that the concepts of digital literacy are the set of competencies required for full participation in a knowledge society. It includes devices such as smartphones, tablets, laptops, and desktop PCs for purposes of communication, expression, collaboration and advocacy. These definitions imply difference between knowledge and competency while in actual practice it is harder to pinpoint, particularly in the educational setting. Teachers are backed up with digital technology to make the curriculum enriched thereby enhancing the pedagogical approaches in the 21st century classrooms.

Digital literacy, also known as virtual learning and e-learning has the potential to improve lifelong learning. It involves learning through various technology platforms, such as computers, the internet, remotely, or a combination of all three. Becoming digitally literate means that students develop technological skills, learn authorship rules, such as copyright and plagiarism, understand how to access online information and learn social responsibility while interacting on social networks. Digital literacy is not just reading and writing online. It is also the ability to find information, use critical thinking skills to evaluate the credibility of the information, create new content, and communicate all of that. As the definition points out, digital literacy requires an ability to use many different forms of technology, on top of the more traditional literacy and critical thinking skills.

„Z“ GENERATION

The west has a neat tradition of sorting the generations into nomenclatures like Gen X, Gen Y and now Gen Z. They are fast learners in technological environments (Prensky, 2001). Generation Z, also named as the "internet generation", bit generation, iGeneration, or NET generation are those who were born after 1995 (Dani, 2014; Kozinsky, 2017; Mathur & Hameed, 2016; Ozkana & Solmaz, 2015). Generation Z exhibits different preferences and patterns of digital media behaviour compared to the previous generation. They possess mobile expertise, are well networked compared to earlier generations, are more exposed to digital media, are self-reliant and career driven, and have the ability to accept challenges and use media simultaneously (Kozinsky, 2017; Mathur & Hameed, 2016; Ozkana & Solmaz, 2015).

For Generation Z, learning is without boundaries as a digitalized environment provides the convenience for students to be well versed in current events and exposed to various popular culture and global trends as they grow up. Generation Z has changed the way of learning, from being teacher-centred to learner-centred. The emergence of Generation Z affects the innovation of learning tools and teaching styles. Furthermore, they lead the direction of the learning environment to be more student-centred (Kozinsky, 2017).

People of Gen Z are naturally thought of as being so comfort-able with technology, that interacting on social media, websites is a significant portion of their socializing behaviours. Gen Z are having a strong 'virtual bonding', and it helps youngsters to break out from emotional and psychological struggles they face online. The early, regular and influential exposure to technology by Gen Z have their plus and minuses in terms of rational, sentimental, and social consequences.

DIGITAL LITERACY AND „Z“ GENERATION

Since the members of this generation frequently use digital technologies and social networks for social interactions, they rely heavily on the online world. Students that are members of this generation are not accustomed to thinking critically about the information they read online and the sources of those information. The large amount of available information that is being received and processed on a daily basis resulted in students having shorter attention spans and taking longer to complete a single task. Because the members of the Generation Z spend a lot of time by themselves, reading about the current events and communicating with others via digital devices, their process of learning is often intrapersonal.

At the beginning of their learning process, the students belonging to this generation want to independently acquire new knowledge via various types of digital technology. Later in the learning process, when they are already familiar with the learning matter, they relax enough to work in groups. The students of Generation Z are not able to memorize as much information as the previous generations and they find it more important to know how to find specific information in the vast sea of data available on the Internet. Consequently, they are skilled in filtering and sorting the information they need, which makes them a new generation of learners.

HOW Z GENERATION LEARNS

Millennials were raised with technology too, but the key difference is, they weren't always surrounded by it. They straddle a time between analog and digital. Their classrooms were dominated by textbooks and chalkboards, rather than tablets and smartboards. So it makes sense that Gen Z's learning style would be different from theirs.

Learning by doing

Z generation learners want to tackle challenges in a fully-immersive environment that lets them conduct their own research, make decisions, and take action. Not only do they find hands-on learning to be more effective, but Gen Zers also say it can help make learning more fun and interactive.

Learning via video

Close that textbook, because today's students are overwhelmingly turning to video platforms like YouTube for learning. Not only does Z generation learners spend a significant amount of time on YouTube each day – upwards of three or more hours, to be exact – but 59 percent say it's their preferred learning method. In fact, video is already a prominent in teaching Z generation learners with 55 percent reporting that YouTube has contributed to their

education, learning or personal development over a 12-month period. Not only does it mesh with existing behavior with nearly 80 percent of Gen Zers using the platform, but it also satisfies their desire for on-demand content and tech-forward learning.

Social learning

Collaboration counts for this generation that seeks to engage, share knowledge, co-create with and learn from others both online and offline. Their social learning networks could include their classmates, friends, family, and even people from around the world. Social learning allows students to learn from each other through observation and participation, solving problems faster by combining complementary skills, and adopting solutions that students wouldn't otherwise think of alone. Ask Gen Zers how they prefer to study, for example, and 80 percent will tell you: with friends. 60 percent are also happy to share their knowledge online with others.

Personalized learning

Though they take more standardized tests than any other previous generation, Gen Z's learning style is anything but standard. As the most diverse and technologically connected generation to date, they're used to being bombarded with information geared just for them, in the ways that suit them best. Adaptive learning is an example of personalization in action. Involving students in learning decisions and direction can help personalize the experience without overburdening teachers as well.

Hybrid learning

Z generation learners transition smoothly between online and in-person interaction, whether it's the way they socialize with each other or the way they learn. Hybrid learning is all about blending the traditional classroom with methods used in e-learning. And good news for this generation: technology has a huge role to play when teaching Gen Z. Hybrid learning offers students more opportunities to make choices and take control over their learning journey. Gen Z learning tools like Google Classroom can streamline assignments and facilitate communication between students and teachers. Plus, e-learning tactics help create a more fun and engaging learning environment. Take Kahoot! for example – a platform that lets teachers and students create and play learning games in a simple way, online or in the classroom.

WHY „Z“ GENERATION NEED TO KNOW ABOUT DIGITAL LITERACY?

With the pandemic hastening the pace at which digital technology is being adopted across sectors, „z“ generation need to know to use it safely and effectively. Many youngsters

use a range of technological tools, but this does not mean that they use the same tools for learning. Here are a few ways in which ‘z’ generation can be taught about digital literacy

Promote critical thinking for online content: The Internet is an enormous resource with all kinds of information, all of which students have easy access to. Therefore, they are more vulnerable to fake news and misinformation. Encourage students to ask questions and finalise answers after comparing information from multiple sources.

Social media for learning: Most students are active on social media and adept at using it. They must be made aware that platforms like Twitter can be used to conduct research polls and Facebook and LinkedIn can be used to connect with peers.

Avoiding plagiarism: Students often cite a quote or a paragraph without giving due credit to the original work. They need to be taught the correct way to use citations, quotes and support their answers by attributing information to the original author.

Teach Internet safety: With personal or sensitive information being stolen, students should know the necessity of having a strong password, what to do while using a public network, what phishing is, and more. Internet theft is a serious issue and digital literacy can help counter it.

Effective use of search engines: Students need to be taught how to get results that are relevant to their queries. Techniques like using —OR between two search queries can combine results. A —related in front of a web address can help get other similar sites.

Managing digital distractions: Constantly being around digital tools can make a person feel distant and drained. Digital literacy can help students learn distraction-management techniques such as taking multiple breaks and muting notifications while studying.

CONCLUSION

Generation Z as a digital native, uses the internet with high duration. It is because they grow up surrounded by the rapid development of digital technology. It causes them to become accustomed and fluent in the use of digital technology, making digital literacy skills high, especially in access or operational skills (Wang et al., 2012). They grew up in an internet-connected world – and many can’t remember a time without it. They are known for their hard-working, risk-averse and independent nature. They number about 2.47 billion people (that’s 32 percent of the world’s population). They are Generation Z, and today, they account for the vast majority of students within our K-12 schools. But is teaching Gen Z more difficult than previous generations? Like every generation, Gen Z has distinct characteristics – especially when it comes to learning. Their classrooms look different than

those of previous generations. They turn to different sources of information than their predecessors. They consume that information and use it in ways that Millennials and Gen Xers never dreamed of.

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E-RESOURCES BLENDED ANDROID APPLICATION FOR LEARNING ENGLISH GRAMMAR

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ABSTRACT

Every language has a unique manner of creating words. Grammar is universal and consistent from person to person, which is the ultimate reason for choosing this topic. A language's structure must be understood in order to be spoken and written correctly. In order to effectively teach English, teachers must be able to bridge the gaps between their daily classroom issues and the potential connections across different disciplines. Technology has become a necessary and unavoidable component of learning English language in the current decade. This study investigate how an Android application that has been specifically created can help a students effectively learn English grammar.

Keywords: Android application, Language skills, Syntax, Grammar.

INTRODUCTION

"English is studied in high schools and in universities in order that we might keep ourselves intouch with the living stream of ever growing knowledge."

-Dr. S. Radhakrishanan (1948).

Fromkin (2010) believes that more than any other attribute, it's the possession of language that distinguishes humans from other animals. Language plays numerous significant functions in the life of individuals. A language is a tool that enables people to express their emotions, ideas, and other thoughts while also facilitating communication. Access to the knowledge that is dispersed throughout the world is also helpful. Nagarajan (2014) reported that those who speak English fluently earn up to 34% more than those who don't speak the language, confirming the link between an education in English and scope of employment opportunities. Aggarwal (2003) defines language as a set of symbols used in more or less uniform ways by a number of people, who are thus able to communicate with each other. Language proficiency is seen as the key to success in the modern world. Basic language proficiency in any language is a plus for a person. When it comes to the English language, nevertheless, this is more advantageous. One of the top newspapers claims that those with strong English communication abilities experience extraordinary success.

Until recently, English teaching in our schools was in a very haphazard state. The lack of a distinct and attainable teaching goal was the most unpleasant element. Ineffective English language

teaching methods and tactics were being used by teachers during class interactions. The current trend is for English education to be efficiently delivered to all types of pupils in the classroom and for no kid to be denied its advantages. Many actions and initiatives have been launched in this context to elevate English's status as a significant language and its education. One of the most important innovations in the field of English language teaching is that of the unprecedented advancement and enhancement in the use of educational technology. Fortunately, this change has influenced the classroom teaching and language learning process.

LSRW SKILLS

LSRW skills stand for listening, speaking, reading and writing. They are also known as language skills which are basic and essential skills for learning a language. They are considered as the most important and all activities in the language classrooms are related to these skills. LSRW skills are the central part of learning a language.

THE COMPONENTS OF LANGUAGE

Reading would not exist without the human capacity for language. Because the components of language and their associated terminology align with our demarcations for many of the elements of reading, they are described as follows

1. **Morphology** (the way words are formed)
2. **Phonetics** (basic sounds)
3. **Syntax** (grammar)
4. **Semantics** (the way language conveys meaning)
5. **Pragmatics** (appropriate word choice)
6. **Orthography**, (spelling pattern system)
7. **Lexicology** is the study of how words are made up of morphemes (the study of words).

THE STATUS OF ENGLISH IN INDIA

English is a global language and it is difficult to think of a country where English is not being taught. In the Republic of India the demand for English language has been growing rapidly. India desperately needs English for its development in all aspects of life. At present, there is a great demand for English as it is seen as a key language to serve as a medium of international communications. It is used to a considerable extent in education, politics, science, trade, tourism, mass media and international relations. For many Indians, knowledge of English is a way to gain prestige and a key to success. It guarantees a better employment, the chance for higher education, access to modern knowledge, and interaction with the outside world. English is regarded as the

language that offers better possibilities and results in constructive social development. It can be seen as the main method of entry into the field of science and technology.

ENGLISH IN EDUCATION

T. C. Baruah (2004) in *'The English Teacher's Hand Book'* mentioned. 'For almost two centuries now, English has been playing an important role in our educational system as well as in our national life. English also served as a great unifying force in our struggle for independence. It is through this language that leaders from the four corners of our vast country could communicate and chalk out their common plans of action. Even now, English is playing this important role as the national link language for the purpose of inter-state correspondence and as the language of trade and commerce between different parts of the country. English has also greatly contributed to the growth of knowledge in India, particularly in the field of science and technology. It has brought home to us in proper understanding the world situation'.

The Kothari Commission (1964-66) endorsed the three language formula, while recommending Hindi and English as link language, and English as a library language and a medium of international communication. Two important recommendations were that English should be the medium of instruction in all universities and special units should be set up for teaching English as a skill not so much as literature.

THE NEED FOR GRAMMAR SKILL

A component of communicative ability is grammar proficiency. Learners should focus on knowing and using grammar in order to develop effective communication skills. Because English is a language that is virtually universally spoken in the nation, learning English is essential for anyone looking for work in today's competitive labour market. In competitive exams, a few grammar-related questions are regularly asked. A solid command of grammar also makes it possible to write perfect English. Concentrating on that, the demand for grammar has been rising steadily. Writing calls for grammar, particularly in report writing and competitive exams.

In the domain of English, grammar is one of the main components in competitive examinations. A sound knowledge of grammar is needed to get more marks and crack the competitive examinations. It is preferred to have a good and clear knowledge of grammar if one has to succeed and score good marks in competitive examinations. Most of them have a section where they test the learners' grammar ability. Candidates need to write verbs in correct tense forms, arrange words in the correct order in a sentence and answer similar items in basic and functional grammar.

Allocation of marks for L2 English in the curriculum of secondary education and senior secondary education in the state of Tamil Nadu is as follows: Prose- 30% Poetry- 25% Grammar- 25% Non- detailed study- 20%.

TEACHING OF ENGLISH GRAMMAR

Labels and rules are valued in the traditional approach. Labels are given after the teaching of rules. The students are expected to follow the guidelines precisely. They memorise information and are conversant with laws. Learners are asked to match the labels to the grammatical structures after being taught the labels. The learners do not have any speaking role. Most of the time, it is the teachers who speak, throughout the period. Ebenezer(2015)'Most of the learners spend a year of study in a particular class even without speaking for a minute or two. Since grammar is taught by various other methods, which are handy to the teachers, no emphasis is laid on the learners learning the grammar for functional usage. Moreover, the methodology employed are convenient to the educators, rather than the students. Grammar learning is made hard and the grammar classes are considered boring. Neither the teacher, nor the students pay attention to the learning of grammar. The educator is keen in teaching grammar in a traditional way'.

CURRENT TRENDS IN LEARNING ENGLISH GRAMMAR

The 21st century is known as the era of invention and technology. The advancement of technology has made it possible for students to arm themselves with online learning environments. Mobile Assisted Language Learning (MALL) has revolutionised learning outcomes in the past ten years despite the availability of numerous technology assisted language learning resources. One of the most recent trends in language teaching and learning is MALL. Even though it aids the teacher in learner-centric teaching, it examines paths that lead to independent study.

Android is a mobile operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen mobile devices such as smartphones and tablets. Android is developed by a consortium of developers known as the Open Handset Alliance and commercially sponsored by Google. It was unveiled in November 2007, with the first commercial Android device, the HTC Dream, being launched in September 2008.(wiki, 2019).

There are innumerable Android apps for teaching grammar in the play store which is also called Google apps. There is no single application covering all the selection of testing items in the verb and its clue categories where the present study focuses on. The researcher combined the features of many of the existing apps, as listed below, and created a

customised app which could

fulfil the needs of the testing items. This custom-built app was validated with the help of experts. Here some best grammar teaching android applications are listed below:

Grammaropolis: _Grammaropolis uses the parts of speech as animated characters whose personalities are based on the roles they play in the sentence.‘

Grammar For Kids: _A perfect app for kids to practice the 8 parts of speech: Noun, Pronoun, Adjective, Adverb, Verb, Preposition, Conjunction and Interjection.‘

Practice English Grammar _Improve your English grammar now with more than 1000 questions, 750+ flashcards and 100+ games. Learning by doing & tracking your progress!‘

English Grammar Punctuation Marks Game: _The English Grammar Punctuation Marks Game lets you practice identifying different punctuation marks and how to properly use them.‘

iGE(the interactive Grammar of English from UCL): _The interactive Grammar of English(iGE) is a comprehensive introductory course in English grammar which takes you from the most basic elements to the most complex constructions.‘

Practice English Grammar: _Improve your English grammar now with more than 1000 questions, 750+ flashcards and 100+ games. Learning by doing & tracking your progress!‘

The Pronoun Party: _Learn pronouns in four different Levels! For each level, the child can choose one of four games to play; the party, the beach, the bedroom and the park.‘

English Grammar in Use: English Grammar in Use is an app for people who have now attained an intermediate level in understanding English grammar.. There are about 145 units of grammar explanations containing different topics with easy explanations.

Grammar Express: Grammar Express is one of the best English Grammar learning apps on the list. The Super Edition of the app brings all topics, including nouns, parts of speech, tenses, etc. and interactively teaches them. If you want to learn English grammar from the very basics, this app will be great.

CONCLUSION

Grammar teaching in English is one of the key components of learning communication skills, and its importance cannot be understated. The study suggests that the crucial input is the intervention carried out via the Android application. Therefore, this study suggests employing comparable technological tools to help pupils with their grammar. The primary responsibility is still to provide pupils with practice in a variety of grammatical categories.

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TEACHING DIGITAL LITERACY TO 21ST CENTURY LEARNERS

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Abstract

Digital literacy represents the ability to use information and communications technologies safely and critically for work, both on a personal as well as on social level. The main features of this 21st century literacy are the using of computers for the purpose of finding, evaluating, creating, displaying and sharing information over the Internet. Acquiring knowledge and skills in the field of ICT is one of the prerequisites for successful social inclusion in contemporary society and the labor market in urban India, while the digital literacy is one of the necessary competences of a modern Indian in urban as well as rural societies. Therefore, in order to achieve quality education, these two concepts have become part of the framework of the national educational system. The concepts of Info-Tech application and digital literacy in the educational process have led to a change and upgrades in the role of teachers and pupils, as well as the resources used in the teaching and nature of teacher instruction. Starting from the acquisition of digital literacy to aligning the curriculum with technology, the teacher's tasks are numerous in order to make changes, including their knowledge and skills related to the use of technology, as well as understanding the relationship between technology, methods and content.

Keywords: ICT, digital literacy, technology, education, teachers, competences.

For today's students, a curriculum that includes cursive writing and penmanship has all but disappeared. Gone are the days of long, hand written papers or pen pals who write and send letters, gasp, via the US Postal Service. Today, laptops, tablets, cell phones, email, eReaders, and social media reign supreme. While these devices have brought a tremendous amount of value to schools and learners of every age, the digital world is one with its own set of rules and risks. Furthermore, for students to get the most out of technology and the benefits it offers, they need to know how to use it to process, deliver and receive digital information most effectively. Digital literacy for today's students is crucial.

Introduction

Digital revolution and rapid development in ICT have made digital literacy the main concern in this age of modern digital education. Accordingly many schools and educational institutions have redesigned the curriculum and several others are expected to follow the suit. In order to bring about long lasting effective changes at the classroom level, it is important

that the teachers follow a regimen of constant training. As a teacher plays an integral role in education, improvement in their knowledge and skills is imminent to develop their digital literacy in order to use new methods in the classroom.

The main aim of this paper is to point out the general concept of digital literacy, the role it plays in today's education, the challenges for modern teachers in the digital era who need to master new digital skills and introduce new methods using technology.

Concept Of Digital Literacy: Literacy means reading and writing skills. ‘Digital’ is an elaborate topic, but in short, it is something that deals with modern digital technology. Digital Literacy is about being able to make sense of digital media. This occurs through meaningful and sustainable consumption and curation patterns that improve an individual’s potential to contribute to an authentic community. This includes the ability to analyze, prioritize, and act upon the countless digital media 21st century citizens encounter on a daily basis. In fact, digital literacy is different from computer literacy. It requires critical thinking skills, an awareness of the necessary standards of behaviour expected in online environments, and an understanding of the shared social issues created by digital technologies. Or alternatively: digital literacy = digital tool knowledge + critical thinking + social engagement. According to the American Library Association’s task force,—Digital literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.¶ Digital literacy means to live, learn and work in a digital society. A digitally literate person should possess both digital skills and knowledge to use computer networks, engage in an online community, and understand the societal issues which are raised by digital technologies.

Digital Citizenship

Digital citizenship is widely defined as the appropriate and responsible use of technology. Vicki Davis, teacher and author, discussed in an Edutopia article, the —9 key P’s¶ of digital citizenship that she teaches her students. The 9 P’s are:

- **Passwords** – Includes teaching students how to create secure passwords and systems/apps for creating and remembering passwords.
- **Privacy** – Teaching students how to protect sensitive information such as address, phone numbers etc. What should and should not be posted on social media and how hackers can use this information.
- **Personal Information** – Teaching students what is appropriate to share online and via what mediums.

- **Photographs** – Includes teaching students about geotagging, facial recognition software, and general safety precautions around photo posting.
- **Property** – Teaching students to understand copyright laws and property rights for online assets.
- **Permission** – How to site work and content taken from online sources.
- **Protection** – Understanding viruses, cyber threats, phishing, cyber bullying etc.
- **Professionalism** – Teaching students to be aware and professional in a globally connected arena.
- **Personal Brand** – Ensuring students understand the digital tattoo and how to create their digital brand

Digital Tools

For teachers looking to integrate digital literacy into their curriculum, it is important to start with a plan that includes defining the required skills you expect your students to have mastered by the completion of the year or semester and determining what type of content is best for your class level. Teachers need to ensure that they are directing their digital lesson curriculum appropriately towards the student's level of development.

There are a number of teaching and learning tools around digital literacy that teachers should explore as they develop their strategy and lesson plans. Some of these tools include:

- Snopes.com (content evaluation)
- Common Sense Education (digital citizenship curriculum design)
- Digital Literacy.Gov (general digital literacy)
- TED (content evaluation)
- Classroom Aid (tons of links to great resources across the digital literacy spectrum)

At the University of San Diego we offer a 100% online Master of Education degree with four options for specialization including Literacy and Digital Learning. To learn more about our nationally accredited program, visit our program page.

Conclusion

Imparting education online is not new. The world is undergoing rapid change, and for almost a decade, digitalization of all sectors is being emphasized. The education sector was also revamped in the light of the newfound knowledge and has been a boon to many. All schools must work in this way, and now NCERT has introduced a digital safety curriculum for schools. Soon, we will see our digitally literate teachers building the pathway towards a digitally educated India who have full knowledge of digital etiquettes and are responsible digital citizens. However, India still has to improve over existing infrastructure. We should

not lose hope, and help our brethren as we all are part of this great nation. A smart blend of online and offline teaching can help in bridging the digital divide. With the growing use of smartphones by all categories of people, mobile based learning can also help in serving as a tool to provide digital literacy. Moreover, modern-day youth is aware that digital literacy places them in a better position to earn a job. Rapid growth is seen in jobs, signings and education institutes working in the field of ICT, InfoTech, Software and Computing Services. Corporations and Government is investing heavily in these sectors for the promotion of Artificial Intelligence, Programming and digitization of documents, identification, data tracking, exchange and communication systems.

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THE INFLUENCE OF SOCIAL MEDIA ON INTERPERSONAL SKILLS***P. NAGARAJAN, **Dr. K. R. SELVAKUMAR,**

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ABSTRACT

Today's world is growing fast in terms of technological development including the new discoveries and inventions. The whole world is experiencing this technological development in various ways to simplify and enjoy their life which has brought a big change in our society and everyday life of the peoples. Social media is computer based technology and gives users to share the electronic communication content, such as personal information, documents, photos and videos. There are four categories of social platform. They are social networks, media sharing networks. Community based networks and review board networks. Some example for Facebook, LinkedIn, Pinterest, Reddit, Twitter, Wikipedia and Instagram. Interpersonal skills are the ability to communicate and relate well with others. The term 'Interpersonal relations' was first introduced by an American Psychiatrist Harry Stack Sullivan. It signifies relationship among different persons in a group. It is a person-to-person relationship. Interpersonal skills are broadly divided into two major dimensions: One, interpersonal communication and second, interpersonal relationship. Interpersonal Communications consists of components like Verbal communications, Non-verbal communications, Active Listening, Written Communication and Assertive Communication Skills. Interpersonal Relationships consists of components like Co-operation and Coordination, Trust, Inter-Cultural sensitivity, Service orientation, Self-presentation, Social influence and conflict Resolution and Management. Social media have had a considerable positive and negative impact on the way people communicate and develop relationships.

Key words:

Social media, Social networks, Interpersonal skill, Interpersonal Communication, Interpersonal relationship.

Introduction

Today's world is growing fast in terms of technological development including the new discoveries and inventions. The whole world is experiencing this technological development in various ways to simplify and enjoy their life which has brought a big change

in our society and everyday life of the people. This advancement has affected every aspects of our life either directly or indirectly.

Social media refers to the means of interactions among people in which they create, share or exchange information and ideas in virtual networks and communities. Social media is computer based technology and gives users to share the electronic communication content, such as personal information, documents, photos and videos. Interpersonal skills are the skills people use every day when they communicate and interact with other people, both individually and in groups.

Social Media

Computer, internet and social media are the result of these processes and in today's world social media has become a part of our everyday life. Every single person in this world is using social media in one or the other way. Social media has an impact on people's eating and drinking habits, fashion and lifestyle, thinking behaviour, interaction pattern and relationship values, knowledge and information level etc.

Social media originated to interact or communicate with friends and relatives but later it was adopted by the people to various purposes including business, education, entertainment and marketing etc. It is typically features user – generated content and personalized profiles. The significant feature of social media is to share or exchange of information with anyone from anywhere and anytime with many people simultaneously. There are more than 4.5 billion of people around the world use social media to share information as of October 2021.

Social media are used by users in three levels, namely personal level, professional level and company level. On the personal level, social media is used to communicate or interact with friends and family, learn new things, develop our interest. On a professional level we can use social media to broaden our knowledge in a particular field and build our professional network by connecting with other professionals in our industry. At the company level, social media use to conversation with audience, gain customer feedback and elevate brand.

Types of social media

The four main categories of social platform are these:

- 1. Social networks.** People use these networks to connect with one another and share information, thought and ideas. The focus of these networks is usually on the user. User profiles help participants identify other users with common interest or concerns. Facebook and LinkedIn are good examples.

2. Media – sharing networks. These networks focus is on content. For example, on YouTube, interaction is around videos that users create. Other media-sharing networks are TikTok and Instagram. Streaming platforms like Twitch are considered a subset of this category.

3. Community-based networks. The focus of this type of social network is in-depth discussion, much like a blog forum. Users leave prompts for discussion that spiral into detailed comment thread. Communities often form around select topics. Reddit is an example of a community – based networks.

4. Review board networks. With these networks, the focus is on a review, usually of a product or service. For example, on Yelp, users can write reviews on restaurants and endorse each other's reviews to boost visibility.

Examples of Social media

Here are some examples of popular web-based social media platforms:

Facebook is a free social networking website where registered users create profiles, upload photos and videos, send messages and keep in touch with friends, family and colleagues.

LinkedIn is a social networking site designed for the business community. Registered members can create networks of people they know and trust professionally.

Pinterest is a social curation website for sharing and categorizing images found online. The main focus of Pinterest is visual, though it does call for brief descriptions of images. Clicking on an image will take a user to the original source.

Reddit is a social news website and forum where site members curate and promote stories. The site is composed of hundreds of sub-communities called subreddits. Each subreddit has a specific topic, such as technology, politics or music.

Twitter is a free microblogging service for registered members to broadcast short posts called tweets. Twitter members can broadcast tweets and follow other active users tweets using several platforms and devices.

Wikipedia is a free, open content encyclopaedia created through a collaborative community. Anyone registered on Wikipedia can create an article for publication: registration is not required to edit articles.

Instagram is a free photo and video sharing app that allows user to apply digital filters, frames and special effects to their photos and then share them on a variety of social networking sites.

Interpersonal Skills

Interpersonal skills are the ability to communicate and relate well with others. All people need and use a variety of Interpersonal skills in every aspect of their work. An interpersonally skilled person is one who demonstrates humane and caring qualities.

Interpersonal Skills relate to a wide variety of skills that are instrumental in successful communication, socialization and connecting with a person or a group. It can be understood as a skill directed outward which provides with a set of abilities for positive interaction and efficient working with others.

Certain personal qualities are a prerequisite of effective interpersonal; relationship. A basic cluster of such necessary qualities may be identified as: warmth, genuineness, empathy and unconditional positive regard (Rogers 1967). This cluster of qualities occurs again and again in both the literature and the research into interpersonal skills (Tvuax and carkuff 1967, Schulman 1982, Burnald and Morrison 1989). These personal qualities cannot accurately be described as skills but they are necessary if we are to use interpersonal skills effectively and caringly. They form the bedrock of all effective human relationships.

The term ‘Interpersonal relations’ was first introduced by an American Psychiatrist Harry Stack Sullivan. Fritz Heider has defined it as denoting relations between ‘few’ usually ‘two’ people. It signifies relationship among different persons in a group. It is a person-to-person relationship. It may appear between two persons or more. It may include the friendly as well as unfriendly relations.

Kretch and Crutchfield emphasize that interpersonal relations depend on the individual characters. Discussing the constitution of group they give many kinds of interpersonal relations like —Feelings of friendship, love, administration, respect, identification, loyalty, co-operation as well as dislike, hatred, sadism, masochism, dominance, submission, rivalry and just sheer indifference.

The interpersonal relations may be due to pregarious instinct, instinct of submission, instinct of self-assertion etc. According to instinct theory propounded by McDougall, a person becomes a member of the group due to gregarious instinct present in him.

fDimensions and Components of Interpersonal Skills

Interpersonal skills broadly divided into two major dimensions: One, interpersonal communication and second, interpersonal relationship.

These two domains can be further divided into twelve clearly defined components. Interpersonal Communications consists of components like Verbal communications, Non-verbal communications, Active Listening, Written Communication and Assertive

Communication Skills. Interpersonal Relationships consists of components like Co-operation and Coordination, Trust, Inter-Cultural sensitivity, Service orientation, Self-presentation, Social influence and \conflict Resolution and Management.

Hogan and Lock (1995) Classified interpersonal skills into seven different categories: 1) Sensitivity to others' need, 2) Flexibility, 3) Perceptiveness, 4) Instilling trust in others, 5) Consistency across interactions, 6) Accountability, and 7) Effective Communication

Kantrowitz (2005) categorized interpersonal skills into ten categories. They are 1) Communication skills, 2) Leadership skills, 3) Decision making skills, 4) Self-managing skills, 5) Management skills, 6) Organization skills. 7) Interpersonal skills, 8) Political skills, 9) Creativity skills, 10) Sales skills.

Influence of Social Media on Interpersonal Skill.

Social media have had a considerable impact on the way people communicate and develop relationships. First, the nature of communication changed dramatically. Modern people pay little attention to geographic or time boundaries. (Lipschultz, 2017).

Communication become immediate as a person can reach another individual within seconds sharing some information. Video calls make communication patterns quite different as people do not need to wait until they meet in person. They can see each other online and leave personal meeting aside.

Some people argue that social media are destroying interpersonal relationships and communication. They stress that people spend less time interacting face to face and prefer sharing information, including pictures, text messages and videos in the digital world.

However, recent studies show that social media can actually have a positive influence on people's lives and the quality of their relationships with others. For instance, Kimet al. (2016) found media use improved college students' engagement in social activities was also enhanced due to the utilization of digital world is a facilitator of people's communication in real – life settings. People expand their social links and create networks that are instrumental in developing different types of relationships (Lipschultz, 2017)

The development of relationships also becomes more convenient and easier as people who find it difficult to address people in real life can form online social links more easily. At the same time, it is important to note that these transformations may have both positive and negative effects on each person's life.

Conclusion

Social media and interpersonal skills are two factors greatly impacted on people's communication skill development. These are very essential role in the communication

development of each and every person. Social media is computer based technology and gives users to share the electronic communication content, such as personal information, documents, photos and videos. Social media has changes the way we all interact with each other online. It allows individuals to keep in touch with friends and extended family. Some people will use various social media applications to network and find career opportunities, connect with people across the globe with like-minded interests, and share their own thought, feelings and insights online. Interpersonal skills are strongly linked to knowledge of social expectations and customs, whether that knowledge is inherent or learned. People with the strongest interpersonal skills adjust their tactics and communication as needed, depending on the reactions of others to their messages and meanings. Social media have had a considerable positive and negative impact on interpersonal skills including interpersonal communication and interpersonal relationship. In the positive influence social media promote the interpersonal communication and relationship. On the other hand it affect the interpersonal communication and relationship of people.

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**ENHANCEMENT OF TEACHERS' PEDAGOGICAL SKILLS
THROUGH EXPERIENTIAL LEARNING**

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Abstract

Teachers have a significant impact on the evolution of the educational system. At all stages of schooling, qualified instructors enhance institutional capability. Teachers' skill, sensitivity, and drive play a major role in determining the caliber and level of student accomplishments. For the broader education system to become more qualitatively sound, an effective teacher preparation program is crucial. A teacher education program is required to give several learning methodologies to educate student instructors with both pedagogical skills and subject matter knowledge. This will help them become competent, effective, and efficient teachers. One way in teacher education that gives students hands-on practice applying ideas and techniques is experiential learning. Learning from Experience. It reflecting on their attempts to effect change in their classroom and the results of those efforts is one way that experiential learning aids student teachers in growing as professionals.

Experiential Education

Students "learn by doing" and reflect on the experience during experiential learning, which is an active learning process. Hands-on laboratory experiments, internships, practicums, fieldwork, study abroad, undergraduate research, and studio performances are just a few examples of experiential learning activities.

Through the encouragement of interdisciplinary learning, civic involvement, career development, cultural awareness, leadership, and other professional and intellectual abilities, well-planned, supervised, and evaluated experiential learning programs can inspire academic inquiry.

The following components are included in "experiential" learning:

- Thinking Critically
- Opportunities for students to take initiative, make decisions, and be accountable for the results.
- Opportunities for students to engage intellectually, creatively, emotionally, socially,

or physically.

- A designed learning experience that includes the possibility to learn from natural consequences, mistakes, and successes.

Some forms of experiential learning include (Indiana University, 2006; Moore, 2010):

- Internships
- Service Learning
- Cooperative education
- Clinical Education
- Student teaching
- Practicum
- Undergraduate research experience
- Community-based research
- Fieldwork
- Study abroad

Principles of Experiential Learning (EL)

According to the Association for Experiential Education (2011, para. 4), the following is a list of experiential learning principles:

- When carefully selected experiences are accompanied by reflection, critical analysis, and synthesis, experiential learning happens.
- Experiences are designed to make the learner take charge, make choices, and take responsibility for the outcomes.
- The learner actively participates in asking questions, looking into things, trying things out, being interested, working through issues, taking charge, being imaginative, and creating meaning throughout the experiential learning process.
- Students are involved physically, mentally, emotionally, socially, and/or spiritually. The perception that the learning task is authentic is produced by this involvement.
- Both the teacher and the pupil could achieve success, fail, failure, adventure, risk-taking, and uncertainty because the outcomes of the experience cannot be predicted.
- The main responsibilities of the teacher are to provide students with appropriate experiences, pose challenges, establish limits, support them, ensure their physical and mental safety, and facilitate the learning process.

Process of Experiential Learning

In order for students to "completely gain new skills and knowledge," experiential learning entails a number of processes that provide them with a hands-on, collaborative, and reflective learning experience (Haynes, 2007). Although learning knowledge is crucial, the core of experiential learning is learning from the experience. Students will interact with the material, the instructor, and one another throughout the experience. They will also reflect on their own learning and adapt it to new circumstances.

Discovering/Experiencing "Doing"

With little to no assistance from the teacher, students will perform or complete a hands-on, mind-on activity. The student's learning from the event, not the quantity or quality of the encounter, is a crucial aspect of experiential learning.

Reflecting on and Sharing "What Happened?"

The outcomes, responses, and observations will be discussed among the students. Additionally, students will hear from their peers about their own experiences, as well as about their emotions, insights, and sentiments the encounter sparked. Sharing entails thinking back on what they learned and relating it to earlier experiences that can be applied in the future.

Processing/Analyzing What Matters Most

Students will talk about, evaluate, and think back on the event. Students will also talk about the logistics of the experience and how themes, topics, and challenges developed as a result of it.

Broadening the "So What?"

The experience will be related to real-world examples, trends or universal truths will be found, and principles from "real life" will be identified by the students.

Request "Now What?"

Students will apply what they gained in the event to a related or dissimilar circumstance, as well as what they learned from prior experience and practice. Each student should have a sense of ownership for what they have learned, according to the instructor.

Pedagogical skills

To ensure that students are learning the appropriate material, teachers balance their classroom activities using pedagogical skills. The best pedagogical techniques encourage students' active involvement in the learning process. Strong instructional abilities support improved classroom and behavior management.

Teachers' role in Experiential Learning

- When pupils are genuinely interested in learning, the instructor facilitates the process rather than controlling it. The instructor takes on the role of a facilitator and follows some essential procedures for experiential learning, as mentioned (Wurdinger & Carlson, 2010, p. 13).
- The results of the experience cannot be predicted, the teacher and student may encounter success, failure, adventure, taking risks, and uncertainty.
- Be prepared to accept a less dominant role for the teacher in the classroom.
- Approach the learning process with positivity and without dominating it.
- Choose a project that kids will be enthusiastic about and invested in.
- Give the pupils an explanation of the aim of the experiential learning scenario.
- Let your students know how you are feeling and what you are thinking, and let them know that you are also learning from the experience.
- Connect the course's learning objectives to its activities and hands-on learning opportunities to ensure that students understand their responsibilities.
- To assist kids achieve, offer them resources that are meaningful and pertinent.
- Give pupils the freedom to experiment and figure out solutions for themselves.

The main responsibilities of the teacher are

- to provide students with appropriate experiences,
- pose challenges,
- establish limits,
- support them, ensure their physical and mental safety,
- facilitate the learning process.

Integrating experiential learning in the classroom

When integrating experiential learning (EL) into the classroom, teachers' key responsibility is to find a situation that requires students to solve problems cooperatively, collaborate, discover themselves, and reflect on their actions. Decide what the pupils should learn or receive from the learning experience at the same time.

Plan

Determine what students will need to complete the exercise once the EL experience has been chosen. Then, tie the experience to the course learning objectives (resources such as readings and worksheets, research, rubrics, supplies, and directions to off-campus locations, etc.). Decide on the logistics as well, such as how long it will take the students to finish the

experience.

Prepare

Prepare resources, rubrics, and assessment tools after the planning is finished, and make sure everything is ready before the experience starts.

Facilitate

Like with other educational methods, the teacher should start the activity. As soon as you start, you should stop giving students all of the course material, details, and comprehensive responses to their queries. . Instead, guide students through the process of finding and determining solutions for themselves.

Evaluate

Discussions, reflections, and debriefing sessions can help decide whether an experiential learning activity was a success. Debriefing can help to prolong and reinforce learning by serving as a culminating experience. Utilize the previously planned assessment strategies in addition.

Advantages:

1. Using different senses can help students remember what they've studied.
2. Different teaching/learning approaches can be combined to increase creativity and adaptability
3. Client-centered learning is given priority
4. The process of learning new things and finding answers helps people become competent and confident.
5. Learning is more enjoyable for both teachers and students.
6. The satisfaction of addressing issues in the community
7. Students can acquire constantly useful life skills.

Disadvantages

1. A decentralized strategy may appear less organized and less comfortable for a teacher who prefers an authoritarian manner.
2. It needs the leader or teacher to prepare more and may take more time to process.
3. It necessitates the instructor or facilitator's patience and direction.
4. There is frequently no one "correct" response.

Conclusion

The instructor's role would change away from a sole focus on knowledge transmission and toward a combination of pedagogical techniques that include learning facilitation and direction if they were to be most compatible with an active student role. At all educational levels, experiential learning has been applied in a number of ways and has been essential in integrating real-world learning and work experience into the classroom. It is advantageous for teachers to develop their reflective teaching abilities and teaching strategies. By allowing people to reflect on their experiences and grow more capable and proficient in their respective duties, experiential learning methodologies help both teachers and learners to identify their areas of strengths and weaknesses.

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TECHNO-PEDAGOGICAL TECHNIQUES IN TEACHING AND LEARNING**M.Janet Godwin Asha**

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ABSTRACT

21st century pedagogy aims to develop the skills and knowledge students need to succeed in work, life and citizenship. 21st century skills can be applied in all subject areas, and in all educational, career, and civic settings throughout a student's life. Establishing a pedagogy for the 21st century classroom—best practices that support technology integration standards. (multimedia presentation, handout; Scott) a. Synthesis of research and technology standards that establish educational best practices and instructional strategies. B. Program Restructuring—establishing a curricula to support this new pedagogy: classroom instruction and field experiences that infuse technology into the learning experiences of teacher candidates. C. Professional Development—providing technology education opportunities for university faculty and K-12 cooperating teachers to develop new pedagogical skills d. Performance Assessment—authenticating pedagogical skills of teacher candidates, university faculty, and K-12 cooperating teachers.

Keywords:- Techno-Pedagogical, metateaching, K-12

Introduction

The technical teaching methods mentioned by most lecturers are solved online except for the computer and stage connected to the Internet, which hardly contains any other equipment. Some of them utilize a stage that includes a course management framework, alternative presentations, video conferencing, and online assessment equipment. Crucially, they must make use of smart classroom offices, reusable material objects, peer-to-peer collaboration, advanced libraries, e-books, and other assistive virtual technologies to do this based on the Web to achieve convincing online delivery of guidance and course structure. Often, the potential of advanced innovation is largely underutilized. Advanced innovation provides free online guidance through a large number of open online courses. Due to the development of e-learning devices, printed learning structures are being widely digitized. Many research institutions store their learning structures in smartphones, iPods, iPhones, or

tablets . Online platforms and portals encourage learning from anywhere in the world. In addition, social media frameworks such as Facebook, Twitter, Pinterest, and WhatsApp allow a wide range of offices to be organized for peer-to-peer acceptable learning and collaborative guidance

Importance of Techno-Pedagogical Skill for a Classroom Teacher

Technology promotes effective, user-centric, interdisciplinary, self-paced real-time teaching. It meets the needs of individual learners and is applicable to all learning methods. Therefore, it is widely used for teaching purposes in the education sector. By doing so, it encourages students to develop higher-level thinking skills, such as analysis, synthesis, application, and creation, which are very important in today's competitive world. Teachers today must understand ICT and its application in the teaching process. They should know how to successfully incorporate the right type of ICT into their subject while planning courses and providing learning experiences. The selected technology assets should complement educators' information and help learners develop information [16]. Technical teaching capabilities enable classroom educators to teach topics more effectively by focusing on personal needs. This, in turn, enables the learner to fully grasp the concepts in a way that better maintains the learned concepts. Mastering the level of professional teaching will make teaching enjoyable because it will reduce the burden on teachers and enable students to remember more deeply [17]. It helps teachers to engage students in self-study because this is an important skill that all students should have today. There are many e-learning resources, and teachers with solid technical teaching skills can motivate and help students choose comprehensive reading materials using e-resources. Teachers can also encourage students who are unable to continue their education for obvious or personal reasons to continue their education through the remote e-learning mode.

Techno-Pedagogical Skills and Teachers' Performance

Techno-pedagogical skills are characterized by the ability to use ICT in an academic environment, which combines the ability to learn through ICTs, plan information, execute code procedures, and evaluate. The use of technology in education is considered to be a general modern teaching method that coordinates innovation into educational modules. In the method of integrating these technologies into educational modules, the most focused teachers encountered some obstacles when trying to coordinate innovations into their educational modules. Many school districts are promoting the progress of teaching at all levels. Later, it was believed that the effective implementation of teaching innovation usually depends on the

mental state of teachers. Many studies have pointed out that teachers' attitudes or beliefs are one of the few key human variables, including a significant impact on the use of technical teaching methods and classroom innovation. In terms of selecting techniques, the teacher's behavior may be the main enabling/disabling character. Lecturers who have a positive attitude toward innovation will feel more at ease, and when using it, they will often not participate in innovation education. After preparation for the use of technology, teachers' negative behavior toward innovation has changed.

Techno-Pedagogy in the Classrooms as a New Pedagogy

The techno-pedagogical method may be the key choice factor of the metateaching cross-method. In the past two decades, the issue of improving technical teaching ability has been considered in the higher teaching framework in the world. The use of technical teaching ability can eliminate some obstacles that lead to poor achievement, insufficient learning, and instructional avoidance. Although the use of innovation in schools has changed, it can actually be divided into three categories: innovations in guiding plans, innovations in guiding communication, and innovations as learning tools. Teachers' proficient use of innovation includes arranging different classroom exercises, for example, planning the instructional structure, communicating or collaborating with peers, research subjects, and their guardians, finding high-level assets, and developing lesson plans [48]. When technology is used to instruct transportation, instructors or professionals can use it. Teachers can display teaching content through a projector or use computer-assisted learning applications (such as exercises and exercises, guided exercises, and entertainment activities) for learning. Innovation as a device includes the underutilization of basic computer program applications to enhance its ability to clarify problems, produce projects, or exchange and share opinions with each other [49]. The illustration application includes word preparation, introduction, database, spreadsheet, Web 2.0 installation, and concept mapping.

Conclusion

The best educators bring different experiences and reference outlines to the classroom. In today's situation, educators who use innovation in teaching and learning play a vital role. Technology has improved learning, making teaching and learning more curious. Therefore, it is necessary to further expand the lecturer's technical teaching ability so that the technical teaching method has a positive attitude. The technical teaching method may be the key choice of the metateaching cross-method. In the past two decades, the development of

technical teaching ability has been considered in the higher teaching framework in the world. The use of technical teaching skills can eliminate some of the stimuli and instructive avoidance barriers that lead to poor achievement and insufficient learning. Although it is necessary to arrange and execute activities to improve some technical teaching skills in higher education, the investigation of the current situation has found many components that hinder the technical integration of higher education.

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NATIONAL POLICY ON EDUCATION

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Abstract : Quality education is the need of the hour and government is trying to accomplish the same through National Education Policy. It has brought in drastic changes in the education system and it would not be wrong to say it has completely evolved the system of education from NPE. The NPE was launched in 1986. This policy emphasized a 10 +2 system of education, along with the 3 years of graduation, which was followed by post-graduation of 2 years, and then 2 years of MPhil, followed by 3 to 5 years of Ph.D. This policy had many drawbacks, which needed to be covered.

Keywords : Higher Education, Women's Equality, Reforms.

INTRODUCTION:

In 1986 the Parliament during the Budget Session adopted the —National Policy on Education. 23 Task Forces were constituted and each was assigned a specific subject covered by the National Policy on Education (N.P.E.). Educationists, experts and senior representatives of Central and State Governments were associated with these task forces. The subjects assigned to the Task Forces were as Making the system work, Content and processes of school education, Education for women's equality, Education of the SC, ST and BC sections, Minorities education, vocationalisation, Higher education, De-linking degrees from jobs and Manpower Planning, Rural Universities and Institutes. The Task Forces were requested to examine the present situation in respect of the subjects assigned to them and to elaborate the implications of the specific statements contained in the N.P.E.

PRESENT SITUATION IN HIGHER EDUCATION :

We have a large system of higher education. But the development in this field have been extremely uneven. The facilities provided in Universities and colleges vary widely. Research in the universities is cost effective, but large inputs have gone to laboratories outside the Universities. The courses offered by the universities have not been reorganised to meet the demand of the times. Their relevance and utility are constantly questioned. The credibility of the evaluation system is being eroded.

THE POLICY, PROGRAMMES AND STRATEGIES FOR IMPLEMENTATION :

The main features of the programmes and strategies to impart the necessary dynamism to the higher education system will consist of the following :

1. Consolidation and expansion of institutions.

2. Development of autonomous colleges and departments.
3. Training of Teachers.
4. Improvements in efficiency.
5. Redesigning Courses.

OPEN UNIVERSITY AND DISTANCE EDUCATION :

The Open University systems augments opportunity for higher education, ensures access, is cost-effective and promotes a flexible and innovative system of education. The Indira Gandhi National Open University has been established with these objectives and came into existence in September 1985. The university has been assigned the responsibility to coordinate the distance learning system in the country and determine its standards. In order to develop and strengthen the Open University System; The Indira Gandhi National Open University has initiated action for its academic programmes. In the first instance, the programmes will consist of undergraduate degree and diploma programmes. The university will offer the diploma level courses in distance education and management from early 1987. These programmes will be followed by diploma in rural development and in computer science which will be offered in the latter part of 1987. A diploma in creative writing is also envisaged. Preparation for the undergraduate programmes is in the progress and the courses will be offered for early 1988. The university will design courses especially in the areas of relevance to the needs of women and for teacher orientation.

The courses will be structured on a modular pattern with the facility for accumulation of credits. Provision will be made for transfer of credits from the formal to the non-formal systems, and vice – versa. Standards will be prescribed to determine the minimum level of learning at every stage of education and criteria will be evolved to objectively assess this level of attainment so that opportunities can be provided to all including housewives, agricultural and industrial workers and professionals to continue their education.

State Government will ensure that open university are established after very careful planning and that the required resources and facilities are available to them. The National Open University will also give financial assistance to the State Open Universities and departments of correspondence courses for development purposes.

WOMEN's EDUCATION:

Special polytechnics for women have been set up in all states. However, to give adequate attention to the women's education more such polytechnics may have to be established. Further, increased hostel facilities may have to be provided for women to enable them to avail themselves of facilities for technical education.

TECHNICAL EDUCATION FOR WOMEN:

Women's access to technical education will be improved qualitatively and quantitatively. Additional women polytechnics will be established by the state government and residential polytechnics for women of a larger size will be set up under the central sector. The choice of trades offered to women at certificate / diploma / degree levels in all types of technical education institutions will be made keeping in view the objective of bringing about women's equality. Identification of certain skills and occupations as suitable or relevant for women will no longer dictate the choice of subjects, either in the institutions meant exclusively for women or in the other. The selection of subjects will be based on the employment potential. Counselling services will be provided to enable women to opt for new subjects. All technical education institutions will be encouraged to start new formal programmes for women. For increasing opportunities for entry, incentives such as hostel facilities, freeships, stipends, scholarships, will be provided particularly for courses in emerging technologies and programmes in which women's participation in the past has not been adequate. Formulating of guideline for this purpose will be attended to by AICTE.

RESTRUCTURING THE COORDINATING COMMITTEE:

The Coordinating committee of the All India Council for Technical Education will be re-structured and strengthened to ensure effective coordination between the different Boards of studies and closer integration of the Technical and Management Education System.

DELINKING OF DEGREES FROM JOBS AND MANPOWER PLANNING:

The Policy visualizes de-linking of university degrees from the requirement for recruitment to services for which a university degree need not be a necessary qualification. It is also envisaged that this measure will lead to a refashioning of job-specific – course.

PROBLEMS AND SHORTCOMING IN HIGHER EDUCATION:

Uneven spread of research effort and research scholars. Most of the effort is concentrated in a few institutions and not spread over the entire system. This should be seen in the context of the need to grow R&D culture in all institutions and at the same time using selectivity for creating and supporting groups of excellence. Cooperation and collaboration between research centers located in universities or with R & D labs in industry is scarce. Choice of research problems is largely dictated by considerations of easy publication in international journals.

CONCLUSION :

The NPE stipulates that whatever possible education of children with locomotor handicap and other mild handicaps will be common with that of others. The children with severe handicaps are proposed to be enrolled in special schools with hostels at district headquarters. Appropriate arrangements for pre-school preparation for the handicapped children and vocational preparation in common with others as well as in special vocation centres have also been envisaged.

The implication is that there will be a system for identification diagnosis and assessment of the handicapped for placement in schools. Further the children will be prepared for education in the pre school years under the ECCE and pre-school education.

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AN INSIGHT ON SOCIAL MEDIA AS THE KEY TO WOMEN EMPOWERMENT

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Abstract

Across major social media platform, people have unleashed their creative side to bring forward important issues like empowerment of women in today's society. Women for generations, have played a vital role in building a society they thrive in. Women as an integral part of the society, Comprise of and contribute to it. Only 35% of the Indian population uses internet when compared to the 50% global internet population rate. In India, in every age group, male Social media users outnumber female social media users. In this research, the researcher strive to analyse the perspective of women with regard to usage of social media in their empowerment. Online spaces provide a platform for an individual to voice their opinion, Share the content. Women with access to these online spaces have opportunities for the same. Online spaces offers to have scope to learn, to educate, opine on anything, express their ideas, and views. Social media offers potential platform for information, entertainment mobilization. It paves way for a change in the traditional roles of women.

Key words : Social media, women empowerment, Internet impact

Introduction:

Patriarchy is a social system where men primarily dominate in terms of power, Key roles, leadership, authoring, privileges and properly contribute with women secondary to them. In today's scenario women are offered a lot of opportunities in education, career, business, labour market, economy and politics where women work and make decisions equal to men. Even today the patriarchal ideology considers women subordinate and inferior to men.

Information and communication technologies have an inevitable role in the society, in contributing to the economic and social development in service sections leading to the growth of networking among the users and participants through new employment opportunities and improvement. Eventhough there exists a potential for certain reparation of uneven dissemination within or between societies and nations. Poverty, illiteracy, lack of computer literacy and language barriers are some acceptable factors hampering the access of ICT ,especially in developing countries -With the trends changing very much over the decades, the role of women have changed with women working equal to men taking decision making roles and participate as well as contribute in all fields including the labour market, politics and economy .Technology in many ways has direct or indirect influence on the role of modern women, the most important of which is enabling availability of access to internet and social media.

Social media-Women Empowerment in India

In India from the very beginning of the civilization, female philosophy in the creation of human race has been indicated. Indian culture has always venerated the Divine Mother and Goddesses have been

looked upon as the feminine par excellence. Also women have been regarded as embodiments of the Divine Mother and worshipped at every stage of their life. The significance of many Indian women who have contributed as scholars and in the Indian history our folklore and mythology, from the ancient times, Cherished the women and respected. Educated and independent women like Avvayar, Kakkipadinia and the later rulers like Raziya Begum and Jansi Rani had their own prominence marking the vedic period.

In India, social media is an alternative media that is emerging as a platform to share and service the restricted voices of women[Ranjay Vardhan 2017]. People are joining cyber hands to help women with global online space to raise their voice against anything and share their voices. In protest to support other women. As such women empowerment can be linked to social media as an emerging powerful tool that raises awareness and offers action. Empowerment of women is crucial for a society to evolve as a knowledge society wherein personal growth of women will contribute to individual families, thereby contributing in the society and the country as a whole. Social media provides to expedite the voices of women, which have been restricted and contained for generations.

Social media is globally one of the powerful emerging tools. The ICT sector in India has been experiencing expeditious growth since 1990's and expansion since 2000. Popular social network like facebook, Twitter, linkedin etc have become an inevitable way of socializing. Out of the total 1,347 million population, 250 million are active on social media, Out of which 230 million access social media via mobile phones. Social networking sites have not only paved way for communication at global level but they have played a major role in empowering women and also in encouraging their civic participation in the total world.

Social Analysis :

To understand sociologically social media, primarily we must know the meaning of 'social'. It means living in company of others, group life, commonness, sharing, co- operation, opinion-knowledge-services-ideas, information exchange etc. On the other hand conflict of ideas, opinions and abuse of power [power to write anything, using this fast communication medium for anti-human, anti- nationalist, anti- religious activities] to create fear among people, creating fake profiles, negative social learning etc- Society has everything. It has ever-changing complex web of relationships.

Media become social media when internet technology is combined with computers, tabs and smart phones these days. These two technologies have connected the whole world irrespective of time and space, internet based all platforms are like 'online society' or we might call it 'cyber society' as it has all the features, functions and dysfunction similar to actual society.

Internet provides different kinds of platforms for communication like actual society provide different kinds of communication, online office like actual office, online buying and selling. Online relations with known with strangers sometimes with actual feeling, sentiments and sometimes just time-pass, exchange of knowledge, experience, ideas, socialization, like actual society provide knowledge through schools, colleges, by elders etc.

Role of Social media in empowering women

Social media emerging as an alternative media and is the latest technological tool for Economic empowerment of women. The concept of entrepreneurship has helped women to get rid of the tag of being a burden on others economically, Online presence of social media is providing women with new freedom, independence and control, liberty and empowerment like never before. It helps them to try things that were impossible in the real scenario. Social networking offers more of an opportunity to network and get to know people and places. The more women use social media the more she will be left from it as well. Social media helps women to master with friends, followers and connections of all over the country or over the world. She may start to like, tweet, share, follow be linked to new sort of technological empowerment and dynamism.

Social Media and Internet- impact as seen for women Empowerment;

After the Delhi gang rape incident within two days facebook group 'Delhi owned for women safety' was created which received 1.75 lakh likes and many other such group were created. Such group in Social media attracted public attention and created platform for both for women justice and women empowerment at global level. Social media has become so powerful today that in the face of such incidents social media becomes the voice of people. Everyone starts sharing, tweeting hashtagging their views, rags and demand for justice on social media. Also it has proved to be a powerful vehicle for bringing women's rights issues to the attention of wider public, galvanising action on the streets of cities around the world and encouraging policy makers to step up commitments to gender equality.

Celestine lugage ukpere and Adre D Slabbert [2014] found that Social Media has taken over the dwindling circulation of traditional media such as television, radio, newspaper, and magazines. The practice of surfing the web 2.0 to obtain real time information instantly, has led to the rise of evermore connected infrastructure atmosphere globally. The study of social media platforms and their impact in unlocking the financial success of the women entrepreneurs globally has been widely observed and quite vital to the new generation of gender based ventures that are digitally driven through the use of technology there are websites that focus on women empowerment, covering many fields such as health, knowledge, lifestyle, education and more.

Conclusion

Considering the part of knowledge society in the new media era, Social media contribute to women empowerment by offering information and education that presents women users with strategies offering more informed decision making from everywhere which may not be possible in other ways. From history, issues related to gender stereotyping, discrimination and inequality have been found prevalent with no exception of social media in today's scenario. Women bloggers turn to social media in general for recreation, relatively psychological needs for affiliation and self-discussion is associated with the information motivation and self-disclosure. Social media can offer new challenges and opportunities for entrepreneurship in terms of developing the marketing mix and addressing to the preferences of customers. Internet development has made it inevitable for consumers to be present on social networks and businesses have moved to online environment. The empowerment of women in media assumes critical

importance of this juncture of economic development. It is also necessary that stabilizing force of women must be brought home to the Indian people. The subject women and media is quite relevant in the present day context from the platforms of discussions on which the subject is being initiated.

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DIFFERENT TEACHING METHODS FOR EFFECTIVE LEARNING – ADULTS

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ABSTRACT

Children and adults learn differently. While much learning design is focused on creating effective learning experiences for young minds, as the need for re-skilling and cross-skilling continues to gain prominence across industries, exponentially increasing the number of adult learners, learning and instructional designers have been focusing on creating learning experiences specifically designed for adult learners. This is where andragogy comes into play. There are three major characteristics that define adult learning: learner-centeredness, self-directed learning, and a humanist philosophy. Learner centeredness is the principle that refers to how the learner's needs and wants are central to the process of teaching, while self-directed learning touches on the responsibility and involvement of learners in their education ("Invariable structure" 2001). This paper intensively focuses on different teaching methods for effective learning for adults.

Key Words: Andragogy, Simulation, Flipped method, Questioning and Discussion.

Introduction

Adult learning refers to the education and training pursued by mature learners. It is the process by which adults gain knowledge, competence, and skills, whether formally or informally. It emphasizes learning that is relevant to immediate application and the learners, usually college-aged or older, making sure they are in charge of their own development. According to the U.S. Department of Education (2018), adult learners are aged 25 and older. They make up 40% of the student population, and the figure is expected to rise over the next decades. Studies in adult learning theory show that adults prefer courses that focus heavily on application of concepts to relevant issues. To retain and use new information they need to be able to integrate the information with what they already know. Tasks must be slow to moderate pace and not complex or unusual to avoid interference with adult learning. Adults

prefer a personalized learning environment with focused effort on concept application where they can solve problems and take personal responsibility.

Effective Teaching Methods for Adults

Independent Learning

Adult learners prefer learning on their own. Self-study or group collaboration projects that require negligible information are a good way to get through to adult learners. Games or simulations that have minimal instructions and allow learners to explore on their own can also be effective. It can develop;

- inquisitiveness, by providing opportunities for long term research and other work, collaboration, by involving parents and others in the learning process and so providing an important motivational function.
- persistence, by allowing students to develop their ability to work independently.
- discipline, by allowing valuable practice and extension of skills, knowledge and understanding learned in the classroom.
- imagination, by allowing students to use materials and other sources of information that are not always available in the classroom.

Experiential Learning

Developed by David Kolb in the 1970s, by drawing on the work of John Dewey, Kurt Lewin, and Jean Piaget, experiential learning requires a hands-on approach that puts the learner at the center of the learning experience.

- Active participation is the key but the theory says that learning happens only when the individual reflects upon what they are doing.
- The four elements of experiential learning are active involvement, reflection upon practice, conceptualization of the experience, and use of knowledge gained from experience.

Keep Learning Practical

Use a how-to approach that covers only one topic at a time and links to concrete examples and situational practices. For each learning point, provide adult learners with a chance to demonstrate their knowledge with a simulation, worksheet or discussion. Use a learner's personal experiences (such as financial mistakes they've made) as a valuable learning resource in your program. Getting a clear understanding of the learner's expectations

at the beginning can ensure the learner is matched to an appropriate program. This helps minimize any feelings of frustration, distraction and possible disinterest that may be experienced if the adult doesn't view the course content as being valuable.

Self-directed Learning (SDL)

It is a process where individuals take the initiative to diagnose learning needs, form learning goals, identify resources, implement a learning plan, and assess their own results. It often occurs with the help of teachers, mentors, resources, and peers. Requires the learner to be able to access and select appropriate learning. The learner exercises control over all learning decisions.

Project Based Learning (PBL)

Developed by John Dewey in 1897, project based learning theory holds that learners acquire deeper knowledge through active exploration of real-world problems. Dewey called this principle "learning by doing." PBL requires learners to solicit feedback and continually review results. This iterative process is believed to increase the possibility of long-term retention of skills and knowledge. It requires the use of diverse skills, including inquiry, critical thinking, problem solving, collaboration, and communication.

Create a Comfortable Environment

Teach adults with books, television, programmed instruction, "how-to" content and applications. Adult learners positively rate short seminars and lectures as a preferred learning method because these venues give them face-to-face and one-on-one access to an expert. The lectures must be short because adults tend to have a high level of irritability if they have to sit for long periods in a learning environment. The environment must be physically and psychologically comfortable, and they should have time to practice what they are learning.

Critical Reflection

Ask learners to give feedback, express opinions, discuss results, and draw personal conclusions. Introduce self-evaluation to enable learners to track the progress of their own learning and review their own goals.

Feedback and Practice

Provide feedback during skills practice sessions. Learners depend on the instructor to give them feedback to let them know how they are doing, if they are grasping the concepts and ideas, and for confirmation. Likewise, the instructor is dependent on learners for feedback about curriculum and her classroom performance. This valuable information gives the instructor the opportunity to make midstream changes to positively affect the learning environment if needed.

Adult learners like being involved in their evaluation process. When instructors ask adult learners to share their feedback, it gives them an opportunity to customize the course, assignments, activities, and assessments in a way that will help their learners the most. Use these principles and ideas to design more effective courses, activities, assessments, assignments, and case studies for adult learners. Allow learners to contribute to their learning experience to help keep them motivated and engaged. Have them make meaningful choices regarding their course material and delivery method, such as asking for feedback on a reading selection.

Focusing on Learners' Life Experience

In general, when teaching adult learners, use familiar terms and address them at an appropriate level for their experience, background, and age. Sometimes using acronyms and buzzwords is the most appropriate way of teaching—it can quickly convey your experience and authority within your field, and reassure learners that you know what you're talking about. However with a novice audience, too many new terms will only be confusing. You want your learners to be able to follow what you're saying without having to focus on deciphering the meaning of your words.

Break up Information to Avoid Cognitive Overload

Make a list or bullet points of each step of your master class, and identify where individual sections begin and end. This style of teaching will help keep you on track, as well as improve your learners' outcomes. If you have to pause for any reason, or find the class discussion wandered away from your original subject, it's easy to return to your lesson plan and continue from where you left off.

Encourage Questions and Discussion

Adult learners typically need to understand new material in the context of their own life experiences, and one of the best ways to make those connections is by talking. Allowing your learners time to ask you questions, and to discuss your lessons among each other, is a great way of helping cement your teaching in their minds. It's also a good time for you to spot any mistakes or incorrect assumptions your learners are making, and by opening the floor to general questions you might find learners are approaching your material in ways you hadn't envisioned. This provides invaluable feedback and insight into your teaching, and gives you the opportunity to make adjustments in real time.

Flexibility in Teaching

Unlike kids, adult learners don't have to be kept to a rigid schedule to keep learning. Structuring your courses is a great idea, both to keep you on track and to help frame your

lessons in a logical, progressive way. However you can afford to allow short breaks and discussions without your learners losing track of what you were teaching. When you host a master class for adult learners, you and your lessons are the most interesting thing. This means you can relax a little and let your master class flow more naturally. Broadening the scope of discussion during a learning experience is also a great way of understanding how your learners are interacting with your teaching, and what information they're really taking away from your class.

Problem Solving Method

It's a good idea to include activity-based or case study-based learning when designing courses for adult learners. Keep in mind that adult learners are typically not interested in memorizing concepts, definitions, etc. but need to understand how learning a concept will help them overcome an issue they face on a day-to-day basis.

Simulation Method

Simulation is a method of teaching that can be used to provide opportunities to gain understanding of clinical competencies in a safe environment and enrich learning. Simulation allows students to build on previously known knowledge and attach value to experiences. Simulation has a positive influence on students' communication skills, confidence levels, and preparedness for their own discipline encounters. Following the simulation scenario, students are provided with an opportunity for reflection, referred to as debriefing. Simulation also has several associated challenges. Cost, absence of support, lack of time and space, and shortage of proper equipment are the main barriers that have been reported by educators. Although simulation requires significant preparation of staff initially, it is an excellent learning tool.

Flipped Classroom Method

A "flipped" classroom methodology is a teaching strategy that has gained popularity in recent years. Using this technique, information that is typically taught in the classroom setting is assigned as pre-class work for students to complete. Active teaching techniques such as case studies, role-play, patient scenarios, concept maps, mini lectures, and group discussions are utilized in the classroom to enhance and construct knowledge related to the pre-work. The goal of a flipped classroom is to make students become more active and self directed in their learning, build on and construct knowledge, and improve critical thinking skills.

Conclusion

The art of teaching adults requires a deeper understanding of why and how adults learn. This is where the study of adult learning theories proves essential by knowing the motivation behind adult learning, facilitators and professional instructors can come up with more effective practices and learning models for adult students. The truth is that adults experience more difficulties when it comes to learning a new skill, trade, or even a language. Over the years, educational researchers have explored many different principles to find out what drives adults to pursue additional learning. Specifically, they shine a light on learners' eagerness to study relevant material and their motivation for personal and professional growth. This paper explained clearly what are the methods can be followed in teaching – learning process for effective learning in higher level of study.

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