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THE EFFECTIVENESS OF INQUIRY TEACHING METHOD ON STUDENTS' LEARNING OUTCOME: A CONCEPTUAL AND EMPIRICAL REVIEW

Dr. Aliyu Y. Aliyu*

Abstract

Research has found that inquiry-based activities can boost students' learning in a wide range of school subjects. There is evidence that inquiry-based learning can motivate students to learn and advance their problem solving and critical thinking skills. The paper provides a conceptual and empirical review of relevant literature on the effectiveness of the inquiry method of teaching on students' learning outcomes. The concept of inquiry, inquiry-based teaching; and types of inquiry have been concisely discussed. Empirical studies which confirm the use of inquiry as an effective method for enhancing students learning outcomes have also been highlighted. The paper concludes with recommendations such as: Teachers should be encouraged to change from the conventional lecture method to the inquiry related methods and strategies in order to effectively implement school curriculum. Government, curriculum planners and school administrators should emphasize the use of inquiry related teaching strategies in the implementation of school curriculum as it produces a better performance than other teaching methods.

Keywords: *effectiveness, inquiry method, teaching, student's learning outcomes*

Introduction

There are many methods and techniques for effective teaching. These different methods and techniques should be used skillfully in the class by the teacher in order to teach his students effectively (Vin-Mbah, 2012). The skilful and competent teacher uses as many methods

and techniques as possible because, there is no single method which is regarded as the best for every teaching situation. In a single lesson therefore, the teacher can employ as many methods as possible. The success of every method depends on the caliber of the teacher and his professional experience in the field of teaching. However, this study

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is anchored on Jerome Brunner's theory of discovering learning.

Brunner (1996) argues that there can be a massive transfer of concepts, principles and strategies from one learning situation to another within the same discipline as well as between subjects. He is an advocate of discovery method of learning. Discovery involves all forms of obtaining knowledge for oneself by use of one's mental processes. This approach is considered same as the problem solving method and uses the discovery capabilities of students (Brown, 2002). Inquiry on the other hand emanated from discovery, it goes further than discovery in the sense that it involves finding some answers or reasons why a certain problem exists with a view to solve them. Sund and Trowbridge in Bentley (2009) defined "inquiry" as a teaching method aimed at finding out how scientists develop, understand and apply new knowledge of ideas through systematic questioning, hypothesizing and experimenting which involves discovery rather than verification of facts i.e. "search rather than product". It is an organized directed search, whose activities are directed by tentative solution (hypothesis) which determines facts to be selected in terms of relevance by the solution to the problem. Here the responsibility for learning is placed clearly on the students. He asks questions and examines possible solutions. Suchman in Dunkhase (2000) believed that individuals have a natural motivation to inquire; the inquiry training model is built around intellectual confrontations. The student is presented with a puzzling situation and inquires into it. Inquiry training according to Suchman originated in a belief in the development of independent learners, its method requires active participation in scientific inquiry.

Children are curious and eager to grow and inquiry training capitalizes on the natural energetic explorations which give them specific directions so that they explore new areas more forcefully. The general goal of inquiry training is to help students develop the intellectual discipline and skills necessary to raise questions and search out answers steaming from their curiosity. The system is based on the scientific method of investigation which requires posing a problem, generating hypothesis about the problem, testing the hypothesis and applying the solution. Inquiry method develops all the domains of educational behavioral objectives. The essence of the model is the involvement of the students in a genuine problem of inquiry by confronting them with an area of investigation, helping them identify a conceptual or methodological problem within that area of investigation, and inviting them to design ways of overcoming that problem (Joyce and Weil in Murdoch 2006). Thus, they see knowledge in the making and are initiated into the community of scholars. At the same time, they gain a healthy respect for knowledge and will probably learn both the limitations of current knowledge and its dependability.

Concept of Inquiry and Inquiry Based Teaching

Inquiry has been defined in many different contexts, and it generally refers to the art and science of asking questions that are accessible, can be answered in part or in whole, and ones that lead to meaningful tests and explorations (Hebrank, 2004). The inquiry technique usually involves careful observation and measurement, hypothesizing and interpreting, and theorizing. It requires experimentation, reflection, and recognition of the strengths

and weaknesses of its own methods. In education, while much thought and research have been spent on the role of inquiry in science education, this approach can be applied to many disciplines, including social sciences, humanities, or even arts. Inquiry-based learning is defined as a way of acquiring knowledge through the process of inquiry. In this approach, the learners generate their own question or are posed with a question by the teacher, or by the computer. Regardless of the source of the question, this approach requires a more active role of the learners in answering the given questions or problems through discovery, investigation or experimentation. There are several types of inquiry-based learning approach, such as Structured Inquiry, Guided Inquiry, as well as Open Inquiry (Herron as cited in Hebrank, 2004).

In a Structured Inquiry (Level 1), the learners will conduct an investigation and discovery based on the questions and procedures provided by the teacher. In the Guided Inquiry approach (Level 2), although the learners investigate based on the questions posed by the teacher, they determine the discovery procedures. In an Open Inquiry (Level 3), the learners will investigate and explore based on the questions and procedures that they have to construct. These three levels of inquiry as suggested by Herron in Hebrank (2004) rely on the degree of commitment from the learners; the more commitment they put in their learning process, the more they achieve higher level of inquiry learning. Schulman and Tamir in Olukayode (2012) describe guided inquiry as a learning process in which the teacher provides the basic elements during the learning process, while the learners make a generalization. The teacher acts as a facilitator who poses

questions to stimulate the learners to continue their discovery process.

Types of Inquiry and Inquiry Based learning

Inquiry terms referred to in books and journals are usually defined in the following four ways:

- 1. Open or full inquiry:** Open or “full” inquiry can be defined as a student-centered approach that begins with a student’s question, followed by the student (or groups of students) designing and conducting an investigation or experiment and communicating results (National Research Council, 1996; Colburn, 2000). This approach most closely mirrors scientists’ actual work. Open inquiry requires higher-order thinking and usually has students working directly with the concept and materials, equipment, and so forth. Allowing students ask the questions that guide their own investigations is the key to open inquiry.
- 2. Guided inquiry:** In guided inquiry the teacher helps students develop inquiry investigations in the classroom. Usually, the teacher chooses the question for investigation. Students in one large group or several small groups may then assist the teacher with deciding how to proceed with the investigation. Teachers find that this is a time when specific skills needed for future open-inquiry investigations can be taught within context. Guided inquiry is a natural lead-in to open inquiry. When students must learn about more complex phenomena that cannot be investigated directly in a classroom, a teacher (or students)

can provide applicable scientific data from a variety of sources to use in the investigation.

3. Coupled inquiry: Coupled inquiry combines a guided-inquiry investigation with an open-inquiry investigation (Dunkhase, 2000). By beginning with an invitation to inquiry along with the guided inquiry, the teacher chooses the first question to investigate, specifically targeting a particular standard or benchmark (Martin, 2001). After the guided inquiry, a more student-centered approach is taken by implementing an open-inquiry investigation. This approach of guided inquiry followed by open inquiry results in student-generated questions that closely relate to the standard or benchmark from the first investigation. Specific concepts can be explored in a more didactic fashion allowing students to connect their concrete experiences to abstract concepts, similar to a learning-cycle approach. The coupled-inquiry cycle is as follows: 1) an invitation to inquiry, 2) teacher-initiated “guided inquiry,” 3) student-initiated “open inquiry,” 4) inquiry resolution, and 5) assessment. This cycle can then lead back to more student-initiated open inquiry (Dunkhase, 2000; Martin, 2001).

4. Structured inquiry: Structured inquiry, sometimes referred to as directed inquiry, is a guided inquiry mainly directed by the teacher. Typically, this results in a cookbook lesson in which students follow teacher directions to come up with a specific end point or product. Sometimes this approach is appropriate to use

in the classroom; however, students engagement in the task is limited to following teacher instructions. Simply following directions in a cookbook manner does not actively engage students’ minds. Therefore, one could argue that structured inquiry does not include much true inquiry. More students thinking takes place when the teacher allows students to make choices and decisions in classroom investigations (Clough & Clark, 1994). Ways to create a more student-centered approach include asking students to help devise the procedure necessary for an investigation; taking away a prepared data table so that students must consider how to create their own table, asking students to determine which data should or could be gathered instead of prescribing the method, and asking students to explain how an experiment could be improved for a better investigation.

Advantages of Inquiry Based Method of Teaching

According to Brunner in Phillip (2000) the knowledge discovered by the individual himself is the most uniquely personal thing about that individual. He maintained that the idea of inquiry is for students to put things together for themselves to be their own discoveries. Some advantages of inquiry method are summarized as follows:

- a. It gives the students opportunity to think carefully about ideas, problems and questions being considered valid by class.
- b. It creates room for students’ full participation which increases their curiosity both inside and outside classroom work.

- c. It makes the students to develop the spirit of personal initiative.
- d. It encourages patience, co-operation, unity and decision making amongst the students.
- e. It arms the students with the right type of attitudes; values; skills and knowledge that enable them explore their social environment.
- f. It increases students understanding of processes, concept and relationship.

Disadvantages of Inquiry Based Method of Teaching

- a. It is time consuming. That is, it may involve several stays or weeks before completion.
- b. It puts the students on a lot of task. The students will be busy working towards completion of the task given to them at the neglect of their other tasks. They work hard to meet up the stipulated time tagged for handing in of their papers.
- c. It may be too expensive when it involve trip making to places where the facts are available
- d. As much is expected of students, they could be frustrated particularly if they cannot find appropriate dues to solve problems or if they cannot solve them at all.
- e. If often leads to withdrawal from lessons or schools especially when the task is difficult to solve.
- f. It is not always possible to use inquiry in all topics or situations especially in large class sizes or where a large amount of materials is required to be taught in a limited time.

Empirical Studies

Iyamu and Otete (2006) carried out an assessment of inquiry teaching competences of social studies teachers in junior secondary schools in South Central Nigeria. The objective of the study was to find out whether the overall inquiry-teaching competence mean score of social studies teachers will not be significantly less than the acceptable level. The study employed the survey research design. It used a random sample of 100 professionally trained social studies teachers in junior secondary schools in south central Nigeria. The observation method was used for the collection of data. The study also used a 20-item four –point rating scale covering important skills and activities related to inquiry teaching. On the analysis of data, it was found that the overall inquiry-teaching competence of the teachers was significantly below the acceptable level.

Sola and Ojo (2007) investigated the effects of project, inquiry and lecture-demonstration teaching methods on senior secondary students' achievement in separation of mixtures practical test. The study assessed and compared the relative effectiveness of three methods for teaching and conducting experiments in separation of mixtures in chemistry. A pre-test, post-test experimental design with a control group was used. Two hundred and thirty three randomly selected Senior Secondary School I (SSS I) chemistry students were drawn from four Local Governments Areas of Osun State, Nigeria. The research instruments developed were a twenty-five item supply/select response questions used for the pre-test and post-test tagged Chemistry Achievement Test

(CAT). Students were divided into three experimental and one control groups.

Students in the three experimental groups were subjected to treatment using project, inquiry or lecture-demonstration method respectively while students in the control group were taught using the traditional method of teaching. The pre-test was administered to students in all the four groups before teaching commenced and after the teaching and the experiment, a post-test was then administered. The data was analyzed using t-test analysis, one way Analysis of Variance (ANOVA) and Scheffe post-hoc analysis. The results of ANOVA of the difference in the scores of the post-test of the project, inquiry, lecture-demonstration methods and control group showed a significant difference between the groups. Students taught with project method performed better in the Chemistry Achievement Test (CAT) than the students taught with lecture-demonstration method, while those students taught with the lecture-demonstration method performed better than those taught with inquiry method. Students taught with project method performed better than students taught with inquiry method. The study concluded that the project method enhanced better performance in Chemistry practical better than either inquiry or lecture-demonstration method. Ergul (2011) investigated the effects of inquiry-based science teaching on elementary school students' science process skills and science attitudes. The purpose of this study was to determine Turkish elementary school students' level of success on science process skills and science attitudes and if there were statistically significant differences in their success degree and science attitudes depending to their grade level and teaching method. The

total 241 students comprised of 122 males, 119 females. For this purpose, a pretest-post test control group and experimental group design was used. The data were collected through using Basic Science Process Skill Test and Integrated Science Process Skill Test and Science Attitude Scale. Study was conducted during the two semesters. Results of the study showed that use of inquiry based teaching methods significantly enhances students' science process skills and attitudes.

Abdu-Raheem (2012) conducted a study to investigate the effects of problem-solving method of teaching on secondary school student's achievement and retention in social studies in Ekiti state Nigeria. The objective of the study included: (a) To find out the difference between the achievement mean scores of students in the experimental and control groups and (b) To find out the difference between the retention mean scores of students in the experimental and control groups. The study adopted a quasi-experimental, pre-test, post-test, control group design. The population for the study comprised all junior secondary school students in Ekiti state with total number of 14,867 students. The sample consisted of 240 junior secondary school class II students of social studies from six schools. The instrument used for the study was a social studies achievement test (SSAT) designed by the researcher. The data were analyzed using t-test and ANCOVA statistical tools. The results showed that there is a significant difference between the achievement mean scores of students in the experimental and control groups and there is also a significant difference between the retention mean scores of students in the experimental and control groups. Edinyang and Ubi (2012) investigated the relative effectiveness of

inquiry and expository methods of teaching social studies on academic performance of secondary school students in Akwa ibom state Nigeria. The objective of the study was to compare the expository and inquiry methods of teaching social studies with a view to determine which of the two, if well used, by the teacher can have a higher effect on students academic achievement in social studies. The design adopted by the study was a pre-test, post-test control group experimental design. The population of the study consisted of all junior secondary two (2) students in the state owned post primary schools. Fifty students were randomly selected from each school under study. The instrument used was test, and the results of the data collected were subjected to t-test analysis. The findings of the study showed that the students in the inquiry group performed significantly better than their counterparts in the expository group of the study because of their physical involvement in the lesson and the teachers teaching technique. Aliyu (2015) investigated the effects of Inquiry and Lecture methods on Social Studies students' performance in Colleges of Education, North-West Geo-Political zone, Nigeria. The objectives of the study were to determine the effects on performance of students taught using inquiry and lecture methods and to ascertain the difference in the attitude of students in the experimental groups with those of the control groups.

The research design adopted for the study is a pre-test, post-test quasi-experimental design. The students were assigned to two experimental groups and one control group. The experimental groups were taught some social studies concepts using guided inquiry method and the guided lecture methods respectively. Two research

instruments were used for the study. The first is a forty-multiple choice social studies performance test (SPT) used for pre-test in order to determine the level of academic equivalence of students and as post-test in order to measure the potential effect of the intervention. The second is a social studies attitude scale (SSAS) developed to establish students attitudes towards social studies before and after the commencement of the treatment. The results showed that students taught using guided inquiry method performed significantly better than those taught using guided lecture method and the guided inquiry method influenced students' attitudes towards social studies significantly better than the guided lecture method.

Effectiveness of Inquiry Teaching Method on Students' Learning Outcome

Inquiry-based teaching is a pedagogical approach that invites students to explore academic content by posing, investigating, and answering questions. Also known as problem-based teaching or simply as 'inquiry,' this approach puts students' questions at the center of the curriculum, and places just as much value on the component skills of research as it does on knowledge and understanding of content. There are strong arguments for choosing an inquiry-based approach over more conventional models of direct instruction. An inquiry-based curriculum develops and validates 'habits of mind' that characterize a life-long learner: It teaches students to pose difficult questions and fosters the desire and skills to acquire knowledge about the world. Students are given opportunities to take ownership of their own learning, a skill necessary for one to succeed in higher

education and in most professional settings. Additionally, an inquiry-based approach allows students to draw connections between academic content and their own lives, which can be particularly important for culturally and linguistically diverse learners. A Center for Inspired Teaching (2008) document presents several sound studies that have demonstrated the positive outcomes associated with inquiry-based teaching. They include the following:

1. **Inquiry-based teaching inspires students to learn more, and to learn more thoroughly:** Middle-school physics students taught through inquiry outperformed high school students taught with conventional methods. Three middle school science teachers in urban public schools taught fundamental concepts of physics by using a computer-based inquiry curriculum. Instead of emphasizing facts and details, the curriculum engaged students in authentic scientific investigations that asked students to create and apply models of force and motion. The curriculum also challenged students to inquire into their own learning, through an exercise that invited students to generate and discuss a personal assessment of their performance in class. Students who benefited from this type of teaching outperformed high school physics students when asked to apply the concepts of force and motion to real-world situations (White, et al, 1999).
2. **An inquiry-based curriculum yielded significant gains in student achievement without sacrificing state curriculum standards:** In a partnership with Detroit Public Schools, researchers at the University

of Michigan implemented inquiry-based science units in sixth, seventh and eighth grade classrooms over a three year period. One unit, for example, was based on the question, “How can I move big things?” and invited students to create projects to explore simple machines and the concept of force. Over 8,000 students were tested before and after the curriculum was implemented and to assess their knowledge of the content, understanding of the process, and overall achievement. Each of these three categories was evaluated for students enrolled in the six courses offered using this curriculum, resulting in eighteen assessment categories. In seventeen of eighteen categories, students who took part in the inquiry curriculum made statistically significant gains in achievement. The researchers concluded that their results demonstrate that an inquiry approach can benefit students who have been low achievers in the past (Marx, et al 2004).

3. **An inquiry-based curriculum can increase student achievement and narrow the gap between high- and low-achieving students:** Middle school teachers who used an inquiry approach increased the achievement scores of African American students, narrowed the achievement gap between male and female students, and found that their students were more interested in what they had to teach. The State of Ohio spearheaded an initiative to reform math and science teacher professional development to emphasize inquiry-based teaching. In each of eight urban middle schools that were studied, students of teachers who participated in inquiry workshops

outperformed students of teachers who did not receive the training. Not only did inquiry-based techniques raise student achievement scores overall, but score differences between female and male students were less evident in the classes taught by teachers who used the inquiry approach. Finally, students in the inquiry-based classrooms reported being more interested in the subjects they studied (Kahle, et al 2000).

4. **Use of an inquiry-based teaching approach classroom can bridge the gap between home and school culture:** Non-native teachers of Navajo students at a school in Arizona struggled to adapt lessons to the students' cultural norms of speaking. Students' concerns about 'showing off' conflicted with teachers' expectations that students be actively engaged in discussions. When four primary school social studies teachers at the Rough Rock Demonstration School engaged collaborative peer groups in inquiry projects rather than relying on whole-group lecture and discussion, they saw significant gains in student participation levels and greater student interest in connecting content to the social, economic and cultural realities of their society. Students who were formerly quiet and seemingly disengaged began to actively participate in class and applied what they learned to a variety of new contexts (McCarty, et al 1991).

Conclusion

Inquiry-based instruction often creates a new and complex classroom situation. Both students and teachers alike need time to gradually make a transition from the more classical confirmation-type activities and lectures to open-ended activities

characteristic of inquiry-based instruction. The key point is to make changes in your teaching slowly, and not continuing on with something new until both you and your students feel comfortable. Successful inquiry-based instruction is more than curriculum materials. Instead, the teacher is the key element in a classroom. He or she must possess certain attitudes and skills to encourage student success in the inquiry-based classroom. First, the teacher must support inquiry-based instruction. He or she must believe in the value of students having some element of control over what they will do and how they will behave. In addition, to be really successful the teacher needs formal operational thinking abilities, knowledge of the subject students are investigating, and some understanding of how students learn (to be able to respond effectively to student statements).

Recommendations

1. Teachers occasionally should give students concepts to go and make inquiry about it, so that before the teacher teaches a new concept, students will be able to explain in their own terms what they know about the new concepts.
2. Government, curriculum planners and school administrators should further emphasize the use of inquiry related teaching strategies in the implementation of school curriculum as it produces a better performance than other teaching methods.
3. Government should also organize on-the-job training, workshops, seminars and conferences for teachers on effective use of inquiry based methods of teaching.
4. Teachers should be encouraged to change from the conventional lecture

method to the inquiry related methods and strategies in order to effectively implement school curriculum.

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ANALYSIS OF THE COMPREHENSIVE SEXUALITY EDUCATION AND ITS IMPACT ON NIGERIAN CULTURE

Maijidda Maaji*

Abstract

The urgent need to address the consequences of early and unprotected sexual activity had been widely acknowledged by Nigerian health and education professionals. Following its introduction in 2003, Nigeria has developed a well thought through strategy to scale up Comprehensive sexuality education (CSE). CSE is a lifelong process of acquiring information and forming attitudes, beliefs and values about identity, relationships and intimacy. CSE has been used as a technique to safeguard young people from negative behaviour and give them the information and skills they need to make informed decisions about their health. Nigeria is a diverse country with numerous ethnic groups, each with its own unique cultural beliefs, values, and norms. The successful implementation of CSE requires an understanding of how different cultures respond to and engage with the curriculum. This review provides a comprehensive summary of the Nigerian Comprehensive sexuality education curriculum and its impact on Nigerian culture.

Keywords: curriculum, school, comprehensive sexuality education, culture

Introduction

Comprehensive sexuality education (CSE) is defined as “education about all matters relating to sexuality and its expression” by the International Planned Parenthood Federation (IPPF). The subjects covered in comprehensive sexuality education include sex education, relationships, attitudes toward sexuality, sexual roles, gender interactions, and the

social pressures to engage in sexual activity (Browne, 2015). CSE is a central global intervention. In addition to having the ability to protect young people from undesirable behaviour, it also gives them the knowledge and skills they need to make educated decisions about their health (Taiwo, 2022). Sexuality education is one of the increasing societal challenges in the globe, which is

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quickly taking centre stage in discussions among key players in the public health and educational sectors in all countries (Obiekea, Ovri & Chukwuma 2013). Nigeria is one of the few countries that reported almost completely implementing national policies on comprehensive sexuality education in schools (Huayno *et al.*, 2014). The CSE was first introduced in Nigerian government junior secondary schools in 2003 under the Family Life and HIV Education (FLHE) Curriculum (Taiwo, 2022). The advent of western civilization, culture, and technological advancement in Nigeria, have made it easy for teenagers and young adults to socialize or enter into early romantic relationships with people of the opposite sex in their immediate surroundings (Obiekea, Ovri & Chukwuma 2013). Moreover, the prevalence of unsafe abortions, unwanted pregnancies, Sexually Transmitted Diseases (STDs), early childbearing, drop-outs from school at early age, psychological defeats, deviant behaviours among young adults made it necessary for the study of sexuality education to be taught early among youths in secondary education (Obiekea, Ovri & Chukwuma 2013). Nigeria is a diverse country with numerous ethnic groups, each with its own unique cultural beliefs, values, and norms. The successful implementation of CSE requires an understanding of how different cultures respond to and engage with the curriculum. Hence, this review examines the CSE curriculum and its impact on Nigerian culture.

Definition of Comprehensive Sexuality Education

The CSE is a curriculum-based process of teaching and learning about the cognitive, emotional, physical, and

social aspects of sexuality which aims to equip children and young people with knowledge, skills, attitudes, and values that will empower them to realize their health, well-being, and dignity. It also seeks to help young people develop respectful social and sexual relationships; consider how their choices affect their own well-being and that of others; and understand and ensure the protection of their rights throughout their lives (UNESCO, 2023a). CSE is defined by SIECUS (1999) as “lifelong process of acquiring information and forming attitudes, beliefs and values about identity, relationships and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image and gender roles. Sexuality education addresses beyond biological, sociocultural, psychological and spiritual dimensions of sexuality”.

Origin and Evolution of CSE in Nigeria

The evolution of sexuality education and its introduction in Nigerian schools came about when it became apparent that there was as an urgent need to address adolescents’ reproductive health, reproductive rights and sexuality issues. The need to prepare the adolescents for their adulthood roles that conform to contemporary life styles has become paramount and success was seen to depend greatly on basic education and information on health care and positive relationships provided the adolescents (Adepoju, 2005). In 1994, 179 governments, including Nigeria, agreed to the Programme of Action of the International Conference on Population and Development (ICPD), which addresses the sexual and reproductive rights of all people, recognizing the particular needs of

adolescents. The ICPD explicitly supports comprehensive sexuality education stating that; “information and services should be made available to adolescents to help them understand their sexuality and protect themselves from unwanted pregnancies, sexually transmitted diseases, and subsequent infertility (Adepoju, 2005). In October of 1995, the National Advisory Committee convened the National Guidelines Task Force, a coalition of key agencies and institutions working in the areas of adolescent health, education, and development. The meeting was held in Lagos to offer suggestions on how to make the final text culturally appropriate for Nigerian Youths and children. The group discussed and debated contentious issues like abortion, marriage, gender roles, and sexual orientation during this meeting (Adepoju, 2005).

The Guidelines for Comprehensive Sexuality Education in Nigeria (Guidelines in Nigeria) were introduced to the Nigerian public on October 8, 1996 in a ceremony attended by more than 400 people at the Nigerian Institute of International Affairs on Victoria Island in Lagos. This open approach to sexuality education was a first for Nigeria and it served to usher in a new openness about sexuality, young people, and the need for a countrywide strategy to address their sexual and reproductive health needs (AHI, 2002). The National Council of Education, Nigeria’s highest policymaking body on education, approved a provision for the integration of comprehensive sexuality education in the public-school curricula using the Guidelines in Nigeria as a framework. Following this success with the Guidelines in Nigeria, the National Council on Education approved a national sexuality education curriculum, entitled the

Family Life and HIV Education (FLHE) Curriculum (Brocato, 2015). The first attempt at institutionalizing Family Life and HIV Education was by Action Health Incorporated, through its collaboration with the Sexuality Information and Education Council of the United States. This led to a national coalition of leading youth organizations in the country and the development of the Family Life and HIV Education curriculum by the Nigerian Educational Research and Development Council (NERDC). At its 48th session in 2001, the National Council on Education formally approved a sexuality education curriculum for Nigerian schools. The curriculum was developed in 2003 by the NERDC through a participatory and consultative process that involved non-governmental organizations from all regions in the country, as well as international agencies (AHI, 2002). The curriculum’s content was comprehensive and included information on contraception, sexual abuse, gender roles, female genital mutilation, sexual orientation, masturbation, and abortion, among other subjects (AHI, 2002). Family Life and HIV Education was introduced into schools in 2004, with 40,000 copies of the curriculum distributed to all states in Nigeria. In 2008, the Federal Ministry of Education issued guidelines for the implementation of Family Life and HIV Education in collaboration with Action Health Incorporated, to ensure adequate and effective teaching. By 2008, 34 states were at various stages of implementing the curriculum, as a stand-alone course. Starting in 2009, the Family Life and HIV Education was to be mainstreamed into various carrier subjects, depending on the particular issue covered. This was based on two main assumptions: that all the topics

and issues in the stand-alone curriculums had been fully mainstreamed; and that every teacher involved in the curriculum implementation would have received focused curriculum training as a student-teacher (UNESCO, 2023).

Content of the Nigerian CSE Curriculum

The content of CSE remains contested in many parts of the world due to variations in framing and notions of sexuality, fears related to disrupting identities, values of the communities and compromising children's innocence (UNESCO, 2009). The Nigerian CSE Curriculum has six component themes. Adolescents are taught about their bodies, puberty, gender, safe sex, sexual diversity and sexual health. They are also taught assertiveness, life skills on communication and negotiation as well as linkage to adolescent reproductive health services. CSE uses age-appropriate, culturally-sensitive curriculum and commence prior to puberty (Rosen, Murray, & Moreland, 2004). Hence the curriculum is organised around the following themes:

1. Human Development
2. Personal Skills
3. Sexual Health
4. Relationships
5. Sexual Behaviour
6. Society and Culture (NERDC, 2003).

Each theme comprises learning contents and activities, teaching and learning materials, and appropriate evaluation guides (UNESCO, 2023b). In 2002, The National Council on Education formally approved Family Life and HIV Education curricula at the basic, secondary and tertiary levels as

stand-alone documents (UNESCO, 2023b). At the **lower primary level** (ages 5-8), the content addresses issues related to body parts, how people can help each other, right of the child to care, attention and protection by parents is considered to be weak. The curriculum does not cover issues related to feelings, human rights, gender, and social norms. With regard to sexual health content, the CSE Curriculum is mainly focused on abstinence, omitting other issues such as abortion, contraception use, masturbation, and sexual diversity (UNESCO, 2023b).

At **upper primary level** (ages 9-12), the curriculum covers issues including values for healthy interpersonal relationships, behaviours that eliminate or reduce risky pregnancy or STIs, such as abstinence, condoms and contraceptives and non-penetrative sexual behaviour, effective communication, decision-making, and treatment for AIDS & HIV treatment. Other key topics such as feelings, human rights, gender and social norms are either not reflected or inadequately dealt with relative to global best practice (UNESCO, 2023b). At **junior secondary level** (ages 12-15), there is contents related to knowledge with specific reference to the harmful effects of discrimination, stigma and bullying including people living with HIV & AIDS, and the use of condoms and contraceptives to reduce unintended consequences (UNESCO, 2023b). The **senior secondary school curriculum** (15-18 years) largely indicates weak features due to wide discrepancy between its content and the Sexuality Education Review and Assessment Tool (SERAT) (UNESCO, 2023b).

Impact of Comprehensive Sexuality Education in Nigerian Schools

1. Promotion of Healthy Sexual Behaviours:

CSE programs in Nigerian schools have shown positive effects on knowledge acquisition, empowering adolescents to make informed decisions regarding their sexual health (Smith, 2015).

The inclusion of topics such as contraception, sexually transmitted infections (STIs), and consent in CSE curriculum has led to increased awareness and utilization of preventive measures among students (Oladapo *et al.*, 2017).

2. Reduction of Risky Behaviours:

Evidence suggests that CSE interventions in Nigerian schools have contributed to a decrease in risky sexual behaviours, such as early sexual initiation and unprotected sex (Okonofua *et al.*, 2013). Schools implementing CSE programs have reported lower rates of unintended pregnancies and STIs among students compared to schools without such interventions (Asekun-Olarinmoye *et al.*, 2018).

3. Addressing Social and Cultural Barriers:

Comprehensive sexuality education helps challenge traditional gender roles and norms, thus promoting gender equity and reducing gender-based violence (Ibrahim *et al.*, 2016). CSE programs provide a safe space for open discussions, challenging cultural stigmas surrounding sexuality and fostering acceptance and tolerance among students (Enehet *et al.*, 2019).

Benefits of the CSE Implementation

Integrating and implementing CSE in schools has a number of advantages (Emambokus & Oogarah-Pratap, 2019; Chavula *et al.*, 2022). The benefits of CSE includes the following;

1. **Sexual Purity:** There is evidence that students who had acquired CSE knowledge and skills were more likely to delay sexual initiation (Tabonget *et al.*, 2018), in addition, CSE has been reported to contribute to reduced numbers of teenage pregnancies, early marriages, STIs, and HIV (Ramet *et al.*, 2020).
2. **Acquisition of life skills:** one of the major objectives of the CSE is to provide young adults with life skills including assertiveness, self-esteem, decision-making, critical thinking, and self-efficacy (Emambokus & Oogarah-Pratap, 2019; Chavula *et al.*, 2022)
3. It enables young people and adolescents to grasp the importance of healthy relationships and helps them to appreciate the need to love and respect one another and protect themselves (Emambokus & Oogarah-Pratap, 2019).

Challenges of the implementation of CSE in Nigeria

1. **Socio-Cultural Problem:** The sociocultural attitudes of Nigerians around sexuality and the concern that the CSE will promote promiscuity are of the program's main obstacles. Sexuality is traditionally frowned upon, especially among the young, who are advised to wait until marriage before engaging in any sexual activity (Kolawole, 2010).

2. **Religious Restriction:** Despite the fact that some religious leaders were involved in the curriculum's creation, some regions of the country oppose its implementation (Kolawole, 2010). Some Muslims believe it is imposing the western ideology of female liberation and gender equality. Additionally, they are concerned that the curriculum's open descriptions of sex and condom advocacy may encourage promiscuity. While some Christians want emphasis placed on prevention of HIV, STIs through abstinence and not condoms. (NFC, 2004).
3. **Financial constraint:** Lack of financing has hindered the curriculum from being widely implemented throughout Nigeria. Additionally, the absence of "political will" on the part of the government makes it a low priority issue, which explains the reliance on NGOs and donor funds. Also, there are insufficient teaching aids, books and poor funding has prevented large scale training and retraining of teachers (Kolawole, 2010).

Responses of the Nigerian Cultures to the Introduction of the CSE Curriculum

Nigeria is a large country with more than 250 different ethnic groups. The population is diverse in a variety of ways, including in terms of its religious, cultural, and linguistic customs (Huaynocha *et al.*, 2014). The successful implementation of CSE requires an understanding of how different cultures respond to and engage with the curriculum. While some cultures in Nigeria accepted the adoption of the curriculum right away, others feared that CSE could undermine their values, promote

promiscuity, or introduce topics they deem inappropriate for young people and hence, did not accept the curriculum until after about a decade (Ibadan Social and Evaluation Research Team 2014). Herein, we will be examining the response of three major Nigerian cultures (i.e Hausa, Igbo, and Yoruba) to the implementation of the CSE curriculum.

1. Hausa

In Kano State which is the focal representative of the Hausa community, and has Islam as the central to socio-political life, the CSE adoption was delayed for years. The state did not embrace the curriculum until 2011 when the state Ministry of Education signed a memorandum of understanding with Association for Reproductive and Family Health (ARFH), the implementation organization for the CSE intervention (ARFH 2013). Between 2003 and 2011, the 'Ulama' and the local chiefs objected to the implementation of the curriculum on the grounds that the contents were culturally inappropriate (Kunnujiet *al.*, 2017). The local champions advocating for its adoption were intimidated and threatened. For example, a teacher training workshop for CSE was disrupted and organizers were ordered to discontinue the training; the opposition 'Ulama' also attempted to use radio programs to incite the general public against the government decision to implement CSE; and opponents convinced the government of neighbouring Jigawa State to outlaw an NGO promoting the curriculum (Kunnujiet *al.*, 2017).

To address these issues, the Ministry of Education organized seminars in 2011 and 2012 with the assistance of ARFH to talk with 'Ulama' about the necessity of CSE. The 'Ulamas' were given the opportunity

to identify and suggest the removal of any information they felt was culturally inappropriate during these courses. This process led to the removal of illustrations, such as reproductive organs, that were considered sexually explicit. Following this exercise, 436 teachers of Physical and Health Education and Basic Science subjects into which CSE was integrated, received in-service training on CSE (ARFH 2013; Kunnujiet *al.*, 2017).

2. Yoruba

Unlike the Hausa community, the Yoruba community accepted the CSE without much opposition. For example, Lagos and Oyo have adopted and implemented it in private, public, and even for out- of-school adolescents after pilot programs (Odukoya *et al.*, 2006). This is probably because these states are richer and had strong support from NGOs like AHI and ARFH who were involved in the development of the guidelines. Oyo state had implemented the earlier population/ Family Life (POP/FLE) program so it was easy to introduce the CSE curriculum (Kolawole, 2010). AHI has been operating in Lagos State since 1989, promoting young people's access to sexual and reproductive health information and services. Right after it was introduced at the federal level in 2003, the state embraced the FLHE curriculum, and in 2004 it started to be used in 320 junior secondary schools. Since 2013, the state has continued to improve implementation of the curriculum through the inclusion of FLHE topics into two related subjects (Basic Science and Social Studies) for effective monitoring. It has also revised the student FLHE handbook to expand gender equality content and critical thinking activities (AHI 2014). As a result, the implementation

of FLHE in the state has become a model for other states, some of which send representatives to Lagos (Ahonsi 2010). However, some critics question the efficacy of the state's program. For instance, a representative of a major donor organization argued that "the success story of Lagos has been overblown" (Kunnujiet *al.*, 2017). Nonetheless, compared to other states, evidence indicates that Lagos has been more successful in implementing the CSE curriculum (Kunnujiet *al.*, 2017).

3. Igbo

The Igbo community in Nigeria exhibits diverse perspectives on the implementation of Comprehensive Sexuality Education (CSE). Some individuals support CSE, seeing it as essential for addressing sexual health, teenage pregnancies, and sexually transmitted infections (Ibe, 2018; Nwosu & Okoye, 2020). However, there are concerns about potential conflicts with traditional cultural norms and values, especially regarding gender roles and premarital sex (Eze, 2017).

Religion also influences attitudes, with varying interpretations of sexual education within Christianity, the dominant religion among the Igbo people (Uzochukwu, 2019). The effective implementation of CSE faces challenges such as inadequate resources and resistance from conservative segments of society (Okonkwo *et al.*, 2020). Engaging traditional leaders, who hold significant influence, is crucial for success (Anyanwu, 2018). To address these challenges, incorporating local cultural practices and norms into CSE programs may create a more receptive environment (Ezeani, 2019). Community-based organizations and NGOs can play a vital role in facilitating dialogue and promoting CSE within the Igbo

community (Okeke, 2021). In conclusion, the Igbo community's response to CSE implementation is characterized by a mix of support and resistance, necessitating a culturally sensitive approach involving key stakeholders (Onyema, 2021).

Conclusion

The need to focus attention on various aspects of the development of adolescents and youth, especially their sexual and reproductive health, is imperative. Like their peers worldwide, adolescents in Nigeria need information, instruction, and communication on sexuality, physical changes, gender, and psychosocial development. Because discussing sex is often regarded as "taboo" by parents, they are typically kept in the dark. Additionally, teachers frequently feel awkward discussing these topics, as a result, teenagers rely on information they learned from peers who may not know any better. The comprehensive sexuality education seeks to help young people develop respectful social and sexual relationships in addition to helping them understand and ensure the protection of their rights throughout their lives. By implementing comprehensive sexuality education, Nigeria can better equip its young population with the necessary information and skills to make informed decisions and lead healthy lives.

Recommendations

1. **Sensitization and Community Engagement:** Educate parents, guardians, and community leaders about the importance of CSE in promoting sexual purity, preventing teenage pregnancies, early marriages, and the spread of STIs and HIV.
2. **Customization and Cultural Sensitivity:** Adapt CSE programs to align with Nigerian cultural values and traditions. Involve religious leaders in the development and implementation process to ensure the curriculum respects religious beliefs while addressing the health and well-being of adolescents. Emphasize the importance of healthy relationships and respect, incorporating cultural norms and values into the curriculum.
3. **Teacher Training and Capacity Building:** Invest in comprehensive training and capacity building programs for teachers to effectively deliver CSE. Address the financial constraints by allocating sufficient funds for training, teaching aids, and books. Encourage collaboration between government bodies, NGOs, and donors to ensure sustainable funding and support for CSE initiatives.
4. **Advocacy and Policy Support:** Strengthen the political will and commitment to CSE implementation by engaging policymakers and key stakeholders. Highlight the positive outcomes and evidence-based research on CSE's effectiveness in improving adolescent health outcomes. Advocate for the inclusion of CSE in national education policies and ensure its integration within the broader framework of reproductive health and rights.

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ENVIRONMENTAL IMPLICATIONS ON INTERNALLY DISPLACED PERSONS (IDPs)

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Abstract

The history and development of Internally Displaced Persons (IDPs) globally is associated with the World War II. In African for example, IDPs are linked to slave trade, inter-tribal war and colonialism. Therefore, the paper seeks to examine: environmental implications on internally displaced persons (IDPS). These has caused Displacement of inhabitant who seek refuge in another location outside their ancestral homes. Environmental factors associated with the climate change have a devastating demographic implication on the IDPs especially women and children. Environmental factors like drought, inundation, communal conflict and other elements of climate changes have propelled forced movement of people within the Nigerian geography. In Nigerian environment, the emerging issues of IDPs became prominent as a result of internal insecurity occasioned by the separatist /secessionist agitations in the country. In methodology, secondary materials were used to identified issues relating to the environment and how it had affected the IDPs. The paper adopts social exclusion theory as a framework. The paper recommends an integrated and holistic responses to needs of the most vulnerable population like the IDPs. Environmental factors that predispose human population to force or involuntary migration should be checked. The unconditional cash transfers scheme of the government should be enhanced to promote the sustainability and livelihood of the IDPs.

Keywords: *Environmental, internally displaced persons, implications*

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Introduction

From the historical perspective and demographic analysis, the concept of IDPs is associated with “displaced, homeless, involuntary migrant” etc. Human Displacement remains one of the most substantial demographic and humanitarian challenges facing the world of over 33.3 million internally displaced persons in the world, 15 million internally displaced persons can be found in Africa with an increase of 7.5% between 2013 and 2014 and Nigeria hosting over 3,300,000 IDPs (Osagioduwa and Oluwakorede 2016). In Nigeria, insecurity and environment constitute threat to lives and property, hinder Economic activities leading to internal displacement of Nigerians (Abdulrahman and Muhammad, 2021).

Environmental factors and demographic indices are the key determinants in the process of movement or resettlement of Internally Displaced Persons (IDPs) in temporary or permanent camps in Nigeria and Africa as a whole. Therefore, there is a demographic relationship between environment and all forms of migration. Most displacement in Nigeria and other African countries is associated with environmental and man-made disasters like communal conflict, internal armed conflicts, political instability, ethnic agitation, tribal war, soil erosion, banditry, population density, flood and amongst others (Ushie, Ogar, Egidi and Ushie, 2020). Internally Displaced Persons are persons who have been displaced from their ancestral homes due to demographic and other social factors. The Internally Displaced Persons face grave dangers in their home countries as they are vulnerable within their environment which pushed them to move

internally (Grace, 2017). According to the United Nations (UN) working definition of IDPs, they are seen as Displaced persons under international law are persons or groups of persons who have been forced or obligated to flee or to have cause to leave their homes or place of habitual residence in particular, as a result of or in order to avoid the effect of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and they must have either remain within their own national borders (Ladan, 2006). According to the IDP Atlas of October 2022, in Nigeria, a total of 1,087,875 IDPs in 180,307 households in Nigeria’s North-Central and North-West zones have been recorded. Hence, IDPs have increased by 12.2 per cent. The report further indicates that between August and September 2022 in 1,690 localities in the eight states of North-Central and North-West Nigeria (Benue, Kaduna, Kano, Katsina, Nasarawa, Plateau, Sokoto and Zamfara) the incidence of IDPs have increased as a result of banditry. Based on Atlas report of October 2022, the highest IDPs concentration was in Benue state due to farmer’s/ herders’ clashes. The environmental implications on the IDPs include: environmental pollution, food insecurity, over population, depopulation (Egidi, Ayuk, and Emeka, 2019). The rate of internally displaced persons in Nigeria occasioned by environmental and demographic changes is becoming alarming. Internally Displaced persons are victims of brutality of inhumanity against man, environmental and climate change. Since Nigeria’s returned to the democratic government in 1999, Nigeria had recorded thousands of people being killed in recurring inter-communal conflicts and politically motivated violence that

have also led to consistently large waves of internal displacement (IDMC, 2013).

Internally displaced persons (IDPs)

Africa as a continent, and sub-Saharan countries in particular, are experiencing incomparable urbanization, economic and population growth, which has increased the number of people exposed to internal displacement. Internal displacement refers to the voluntary or forced movement, removal or relocation of persons or groups of persons within an internally recognized State borders (Adesote and 2015).

The internally displaced persons are different from refugees because the IDPs are within the national boarder (Syrakoy, 2018). The incidences of IDPs are often unsolidified with new displacements and movements of people in search of a durable solutions in new environment. In Africa, the demographic implication is that Africa hosts over one-third of the global IDPs population (Adesote and Peters, 2015). At the end of 2011, more than 26 million people were internally displaced by conflict and violence across the world. More than a third of them were in Africa, the region with the highest number of IDPs.

Environmental hazards such as floods, storms and drought have triggered 2.6 million displacements in Africa in 2020 (Umaru, 2017). In Nigeria, internal displacement is also linked to the activities of banditry, communal clashes, Boko Haram's activities, insurgency, farmers/herders clash which has caused 74,000 displacements in north-western and North Central of Nigeria (Syrakoy, 2018). In Nigeria, the issue of environmental factors on the internally displaced persons became prominent in 1990s because during these

eras, the people forced from their homes as a result of environmental factors like: armed conflict, communal violence, human rights and humanitarian law abuses, natural or man-made disasters and other climate change factors. IDPs always flee to neighboring communities that are asylum, usually taking refuge in temporary locations like schools, police stations, military barracks, public buildings and places of worship among others. In most camps of the IDPs, there is overcrowding which create informal settlements on public and private lands thereby affecting the aesthetics of the environment. Within the IDPs environment, trees are cut down for firewood, building material and charcoal burning, causing environmental degradation. In an urban environment where the IDPs flee to, they turned into migrants, settle and re-integrate into urban life and seek opportunities of new livelihood of self-reliance and economic emancipation especially when families are torn apart and relatives are killed or missing within their ancestral homes and these are considered as the demographic implications.

Environmental issues and Internally Displaced Persons (IDPs)

Internally displaced persons in any environments are always in a hazardous situation affecting their rights, lives and social wellbeing. Deprivation and violence attacks are weighty environmental issues affecting the Internally Displaced Persons (IDPs) from both the ancestral homes and host communities (Ushie and Egidi, 2021). Environmental issues that degenerate into internal displacement are armed attacks, military junta, family separation, loss of shelter, heightened risk of sexual and gender-based violence, arbitrary

deprivation of land, poor condition of housing, flooding and climate change are factors promoting internal displacement. These environment issues left the IDPs without protection as their plight is matted up with regular migration, voluntary environmental migration, and climate change migration manifesting inform of Land dislocation, Livelihood displacement, Family disorganization, retarded development and Population loss as people go into different locations (Ushie and Egidi, 2021). Environmental factors are profound to over-population and depopulation of any countries of the world.

The rapid alterations of ecosystems prompted by climatic and anthropogenic influences have direct and indirect impacts on societies which have caused displacement and force migration within the human environment. In 1990, the Intergovernmental Panel on Climate Change (IPCC) predicted that “the gravest effects of climate change may be those on human migration as millions are displaced by shoreline erosion, coastal flooding and severe drought” these will necessitate the displacement of the affected populations (Adesote and Peters, 2015). Therefore, climate change has increasingly impacted on ecological and social systems of the people leading to force migration and population movement internally. The International Federation of Red Cross and Red Crescent Societies (IFRC) projected in 2001 that for the first time the number of environmental IDPs exceeded those displaced by war. United Nations High Commissioner for Refugees (UNHCR, 2002) estimated there were then approximately 24 million people around the world who had fled because of floods, famine and other environmental factors. The survey further revealed that

there are already 30 million environmental displaced persons. The Almeria Statement (1994) observed that 135 million people could be at risk of being displaced as a consequence of severe desertification within the human environment. Myers, in 1993 predicted 150 million environmental human displacement, now believes the impact of global warming could potentially displace 200 million people (Myers 2005). Friends of the Earth (2007) predicted that climate change has the propensity to displaced 200 million people worldwide and one million from small island states of Africa by 2050. Christian Aid have postulated that a billion people could be permanently displaced by 2050, 250 million by climate change-related phenomena such as droughts, floods and hurricanes and 645 million by dams and other development projects within the environment (Christian Aid 2007). Therefore, environmental changes accentuate and superimposes the internally displacement of human population within Africa and Nigeria in particular.

Demographic implications on internally displaced persons (IDPs)

Internally displaced persons (IDPs) are always faced with the following Demographic implications: Mortality, there is a growing rate of infants and maternal mortality amongst the IDPs. The mortality among the IDPs on camp is associated with lack of access to food, water, shelter, sanitation and medical facility unhygienic environment (Al Asali Elizabeth and Ramage. 2019). Due to preventable infectious diseases with the camping environment. The mortality at the IDPs camp is prevalence among women and children. Mortality at the IDPs camps is associated with draughts,

floods, famine, epidemics and other communicable diseases. Food security is poorer for IDPs than for other groups which leads to mortality of women and children. Another demographic implication is the unemployment rate: displaced persons, have lower rates of occupation in government and small businesses and sometimes lacks employability skills leading to low-paying positions like domestic workers and laborers (Abdulrahman and Muhammad, 2021). The income level of the IDPs is considerably low because displaced families have a greater dependence on secondary sources of employment and income. Secondary sources are more likely to be insecure like casual labour, begging, hawking or family support gifts for survival. Due to the unemployment levels of the IDPs, their income is unpredictable. IDPs earn less from their petty trading activities within the camp and host community. Reduction in household composition is another demographic consequence on the IDPs (Obikaeze and Onuoha, 2016). This is because the IDPs share single rooms and sometimes sleep outside due to a lack of space. Majority of IDPs at the camp live in houses constructed of wooden planks, with a corrugated iron roof. Buildings are often hastily and hazardously erected through a self-build process to meet the housing need of the IDPs. Therefore, housing security is poor, especially among displaced families. The structural view of the IDPs houses are often in need of repair, do not lock, have visible damage or can be easily forced open. Another issue is the sanitation and hygiene; the Overall sanitation conditions of the IDPs are poor, with many households using poorly built or dilapidated latrines and, in several quarters, open sewers (Odusanya, 2016). Displaced persons are less likely to have a latrine within the camp premises. In

a critical situation, those without latrines are most likely to use those of the neighbors, public latrines and the practice of open defecation. Other demographic implications include: morbidity, food shortage, Fertility, changes in population size, displacement of household structure and livelihoods displacement.

Social exclusion theory

The theory was propounded by Black and Muddiman, (1997). The basic assumption of the theory is that individuals and groups are subjected to discriminatory practices that expose them to humiliations and deprivations within the environment. The theory also noted that social exclusion separates and alienates some groups of individuals from the conventional society with resultant negative effects on environment and other socio-economic and demographic wellbeing of migrants. These exclusions are not limited to material resources but also interpersonal relations and group interactions. The paper lean on the strength of the theory which explains the reason for migration of people from their home paternity. Hence, the theory is appropriate to the study because it exposed demographic and environmental implications of IDPs. The shortfall of the theory is that the theorist never made a realistic recommendation towards the resettlement of the IDPs. Secondly, approach to mitigate the environmental and demographic implications were not preferred in the theory. However, the theory reminds a useful framework to the paper.

Conclusion/recommendations

The IDPs account for the greatest share of displaced populations globally either socially or environmentally induced with demographic implications on the victims. In

Nigeria, the number of internally displaced people is on the increase because of the raising level of insecurity and sectoral violence across the country. The issue of IDPs has become a humanitarian and demographic phenomenon.

IDPs are experiencing growing exposure to environmental and demographic challenges like mortality, overcrowding, morbidity, food insecurity, health concern, climate change amongst others. Thus, it has made the process of achieving human development and sustainable development goals utopia. The paper recommends an integrated and holistic responses to needs of the most vulnerable population like the IDPs. Environmental factors that predispose human population to force or involuntary migration should be checked. The unconditional cash transfers scheme of the government should be enhanced to promote the sustainability and livelihood of the IDPs. The paper also recommends modern infrastructure to reduce the environmental impacts on the health and wellbeing of the IDPs especially at the camp.

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DIGITAL READINESS OF PROSPECTIVE TEACHERS IN THE CONTEXT OF COVID-19 TRIGGERED ONLINE LEARNING

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ABSTRACT

The COVID-19 pandemic has affected the way of human life worldwide, not just in terms of health but also in terms of economic, psychosocial, and educational spheres. The covid- 19 pandemic highlighted the necessity for teachers to have digital skills for effective online teaching-learning competently. Teachers face difficulty in handling online classes and they realised the importance of exploring technology to exploit, use, and apply digital technologies in all teaching-learning activities inside and outside the classroom. This study aims to analyze the digital readiness of prospective teachers in the context of covid-19 triggered online learning. The study was designed in a descriptive survey model. A digital readiness scale was prepared by the investigator as a tool to measure the digital readiness of prospective teachers. The sample comprised 193 prospective teachers in the Thiruvananthapuram district. The digital readiness of prospective teachers was compared based on the subject of specialization as a categorical variable. Along with the descriptive statistics namely: mean and standard deviation, the test of significance of the difference between the means of two large independent samples was also used for data analysis. The study found that the majority of prospective teachers belonging to different subjects of specialization in teacher education courses in Kerala is having average digital readiness. The study also found that there is no significant difference in the digital readiness of prospective teachers belonging to different subjects of specialization

Keywords: Digital readiness, Prospective teachers, online learning.

Introduction

The emergent situation due to the COVID-19 pandemic emphasized the importance of having digital skills for both teachers and students. To reduce the pandemic outbreak, governments all over the world-imposed lockdown measures,

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which also adversely affected schools. In the majority of the countries, educational activities were severely affected. The closure of schools in more than 160 nations prevented 87% of students from attending in-person classes. More than 1.5 billion students had to take online classes from their homes, and more than 60 million teachers had to use digital tools to deliver their lessons.

The transition to online teaching and learning, however, wasn't fully embraced by all educational institutions and educators. In most countries, teachers had limited digital skills and experience with online teaching and learning. The pandemic lockdown made it clear that all teachers must be proficient in using digital technology for online teaching and learning.

There are many different definitions regarding the components that constitute the digital skills to be possessed by teachers. Although there is much research regarding digital skills in education, there is confusion between the basic digital skills and the digital skills of teachers. This may happen because teacher's digital skills include a large variety of knowledge and skills regarding the usage of digital technologies and their application in the classroom. In addition to the ambiguity surrounding the definition of digital skills of teachers, several related concepts are frequently used as synonyms for digital skills of teachers, including ICT competence of teachers, ICT skills, digital competence, digital literacy, digital pedagogy, and pedagogical digital skills. However, all definitions place a strong emphasis on the need for teachers to be proficient in using digital technologies and incorporating them into their teaching and learning strategies.

Guzman & Nussbaum (2009) in their article titled 'teaching competencies for technology integration in the classroom' identified six skill domains for teachers: technological, pedagogical, didactic, evaluative, communicational, and attitudinal. Another study conducted by Almerich, Orellanz, Rodriguez & Garcia (2016) suggested technological and pedagogical abilities as two sub-domains for teacher's digital competencies. Additionally, instructional skills are influenced by technical skills. According to Tsankov & Damyanov (2017), digital skills of teachers include their ability to seek, assess, and utilize instructional content on the internet via digital technology. A prospective teacher must possess the requisite digital skills to deliver lessons effectively in the context of covid-19 triggered online learning.

The following components are included in the operational definition of digital readiness: (i) digital - the skills necessary to initiate an online teaching session, surf the internet, and share content online. (ii) perception of prospective teachers on their ability to assess the reliability of information from an online platform and protect personal data. These two dimensions are reflected in use, which measures how much prospective teachers use digital technology when conducting online instruction. Digital readiness is defined as the inclination and willingness to switch and adopt digital technology and the readiness to create new innovative opportunities by using technology in order to bring an individual, organization, industry, and country to achieve their goals faster and with greater results. (Westermann, Bonnet, and McAfee 2014). Digital readiness has diverse meanings in literature. It can be

interpreted as the readiness of individuals, institutions, industries, and countries in adopting and utilizing digital technology to acquire the maximum benefits from those technologies. This study aims to analyze the digital readiness of prospective teachers in the context of covid-19 triggered online learning.

Need and Significance of the Study

The covid-19 pandemic has brought about drastic changes in the education systems across the globe. There is a revamp from the traditional offline mode of teaching to the online mode of teaching. In the face of COVID-19-triggered online learning, teachers must be able to effectively use digital technologies for teaching and supporting their students. Most of educational systems across the globe have been recommending blended learning. NEP 2020 itself is recommending a technology-integrated curriculum. To teach students on online platforms, teachers must be equipped with digital competency and digital literacy. They must have a positive attitude towards digital learning and must be aware of digital safety aspects. In short, they must be able to transact the curriculum and achieve the teaching-learning objectives effectively using technological devices and online platforms.

In the classroom, digital readiness promotes self-directed learning by creating a more open environment. The classroom begins with the teacher preparing lessons that use technology in authentic and meaningful situations. Teachers should use the technology in such a way that it supports the curriculum. Both teacher and student can take the advantage of using technology if teachers know how to integrate it successfully into the curriculum.

Teachers face a more demanding professional role as managers of the digital learning environment. They must have a range of technical and pedagogical skills, with continuous updates on advances in technology and modes of use. A classroom is heterogeneous. A teacher must address the individual differences of students. Digital learning can sustain differentiated activities for different learners within one classroom. A teacher may use software to provide challenging activities for groups of learners, thereby giving more free time to individual students to work with other students. It brings media richness, both in learning materials and in the creative work produced by the students themselves. The value of this goes beyond multi-media learning and may help to accommodate differences in learning styles.

Be it offline mode of teaching or online mode of teaching, the role of a teacher in the educational process is imperative and teachers constitute an inevitable component of the educational system in every society. The necessary teaching competencies and skills are inculcated into the teachers during their pre-service training. Today we were living in the era of a digital revolution. To survive and become successful in this world of the information revolution and digital revolution, everyone, especially teachers need to be equipped with digital skills as they are the social engineers who provide the building blocks for the future generation. Hence it is highly recommended that teachers be inculcated with digital skills and competencies at the pre-service training stage itself. It is in this context the investigator studied the digital readiness of prospective teachers.

The teacher's survey "International Computer and Information Literacy", ICILS 2018, revealed that most teachers had high

confidence in their ability to find pertinent educational resources online (95%) prepare presentations with simple animations (84%), plan educational activities with students using various digital tools (84%), and assess students' performance with digital tools (78%). On the other hand, they lacked confidence in their capacity to use a learning management system (59%), take part in an online conversation (58%), and collaborate with others on public platforms (57%).

Tondeur, Aesaert, Pynoo, Braak, Fraeyman, and Erstad (2015) developed a self-report questionnaire to assess preservice teacher's ICT competencies in the classroom and also investigated the pre-service teacher's ability to use ICT for teaching as well as to provide the opportunity to use ICT by his/her students. Furthermore, Tondeur, Scherer, Baran, Siddiq, Valtomen, and Sointu (2019) investigated the profiles of teacher educators to determine how effectively they could prepare preservice teachers for incorporating technology in the classroom. They found that the more multifaceted strategies pre-service teachers perceived during their teacher education, the higher their perceived benefits to using digital technologies for teaching and learning. Though the studies mentioned above investigated the teachers' abilities to use digital technologies in the teaching-learning process, they were done before the onset of the COVID-19 period. Only a few studies were conducted to examine the digital readiness of prospective teachers during the pandemic period. As such the investigator tries to find the digital readiness of prospective teachers in the context of covid -19 triggered online learning. Here, the investigator is trying to answer the following questions:

1. Do prospective teachers possess digital readiness in the context of covid -19 triggered online learning?
2. Is there any significant difference between the digital readiness of prospective teachers with different subjects of specialization in the context of covid -19 triggered online learning?

Keeping these research questions in mind the investigator decided to conduct a study on the digital readiness of prospective teachers in the context of covid-19 triggered online learning using simple random sampling techniques and formulated the following hypotheses and objectives for the present study.

Objectives

1. To find out the extent of the digital readiness of prospective teachers in the context of covid-19 triggered online learning.
2. To find out whether there is any significant difference between the digital readiness of the prospective teachers with different subjects of specialization in the context of covid-19 triggered online learning.

Methodology

The present study is intended to find out the digital readiness of prospective teachers in the context of covid-19 triggered online learning. The investigator used the descriptive survey method to collect data relating to the variable from 193 prospective teachers in Kerala studying in various teacher education institutions, in Thiruvananthapuram district. The digital readiness of prospective teachers in the context of covid-19 triggered online learning was measured using the digital readiness

scale prepared by the investigator. It is a 3-point scale (always, sometimes, never) and has items with 4 dimensions namely; Digital competence, Digital learning, Digital literacy, and Digital safety. The data obtained were statistically analyzed to find out the extent of the digital readiness using the arithmetic mean and standard deviation and the significant difference between the mean scores of the digital readiness of the prospective teachers with different subjects of specialization in the context of covid-19 triggered online learning was calculated using the test of significance of the difference between means of two large independent samples.

Table 1

Mean and standard deviation of the digital readiness of prospective teachers in the context of covid-19 triggered online learning

| Variable | Sample | N | Mean | SD |
|-----------|---------|-----|-------|-------|
| | Science | 92 | 73.13 | 21.06 |
| Digital | Arts | 101 | 73.09 | 19.87 |
| Readiness | Total | 193 | 73.11 | 20.39 |

In the sample, there are 92 prospective teachers with science as optional subject of study and 101 prospective teachers with arts as optional subject of study. From table 1, it is seen that the mean and standard deviation of the variable digital readiness of prospective teachers in the context of covid-19 triggered online learning are 73.11 and 20.39 respectively. The mean and standard deviation of the variable digital readiness of prospective teachers with science as optional subject of study are 73.13 and 21.06 respectively and for the prospective teachers with arts subjects as optional, these values are 73.09 and 19.87 respectively.

Analysis and Interpretation

The data collected were analyzed by calculating the mean, standard deviation, and test of significance of the difference between means of two large independent samples. The details of the analysis as per the objectives of the study are given below:

Extent of the digital readiness of prospective teachers in the context of covid-19 triggered online learning is calculated in terms of Mean and standard deviation of the variable measured for the subsamples and total sample

The investigator further identified the prospective teachers with varying level of digital readiness (high, average and low digital readiness) using mean (M) and standard deviation (σ) distance method. Those who scored between $(M + \sigma)$ and $(M - \sigma)$ were considered as prospective teachers with average digital readiness; those who scored above $(M + \sigma)$ were considered as prospective teachers with high digital readiness and those who scored below $(M - \sigma)$ were considered as prospective teachers with low digital readiness. Then the percentages of prospective teachers belonging to each category were found. The details are given below in Table 2.

Table 2

Level of digital readiness of prospective teachers in the context of covid-19 triggered online learning

| Category | Number of prospective teachers | Percentage |
|---------------------------|--------------------------------|------------|
| High digital readiness | 37 | 19.17 % |
| Average digital readiness | 124 | 64.25 % |
| Low digital readiness | 32 | 16.58 % |

From Table 2, it is clear that most of the prospective teachers were having average level of digital readiness (N=124;64.25%) in the context of covid-19 triggered online learning. Those who possessed high digital readiness (N=37; 19.17%) are greater in number than those who possessed low digital readiness (N=32; 16.58%).

Comparison of the digital readiness of prospective teachers classified on the basis of subject of specialization

Digital readiness of prospective teachers with science as optional subject of study and arts as optional subject of study were compared using test of significance of difference between means of independent samples (t-test). The data and results of test of significance of difference between means of digital readiness of prospective teachers with science as optional subject of study and arts as optional subject of study are given in Table 3

Table 3

Data and results of Test of significance of mean scores of digital readiness of prospective teachers with science as optional subject of study and arts as optional subject of study

| Variable | Sample | N | Mean | SD | t- value |
|-------------------|---------|-----|-------|-------|----------|
| Digital Readiness | Science | 92 | 73.13 | 21.06 | 0.014 |
| | Arts | 101 | 73.09 | 19.87 | |

The t- value of digital readiness of prospective teachers studying science and arts subjects is found to be 0.014. Here the value obtained is smaller than 1.96, the table value set for significance at 0.05 level. That means there is no significant difference in digital readiness of prospective teachers studying science and arts subjects.

Discussion of Results

In the present century of technology, the power of technology cannot be under estimated. The present educational system is trying to integrate technology into every walk and talk of education. The study conducted revealed that 19.17% of prospective

teachers have high digital readiness in the context of covid-19 triggered online learning and 64.25% of prospective teachers have average level of digital readiness. Those who possessed high digital readiness (19.17%) is greater in number than those who possessed low digital readiness (16.58%).

The t-value (0.014) of digital readiness of prospective teachers studying science and arts subjects revealed that there is no significant difference in the digital readiness of prospective teachers studying science and arts subjects.

The study revealed that most of the prospective teachers possess a moderate level of digital readiness. This need to be enhanced. This can be achieved by incorporating more digital content in the curriculum of teacher education programmes. The curriculum planners can create such a curriculum that enhances digital readiness skills of prospective teachers, which will surely lead to increased digital literacy. Incorporating digital skills into the curriculum will enhance the teachers' cognitive as well as non-cognitive skills. A teacher with high cognition can contribute to the academic success of students. Teachers can create such an environment where the chance for practicing digital skills like digital proficiency, digital competency, etc., will enhance the students' digital readiness too. Becoming digitally competent will help the teacher to encounter technological glitches while teaching online.

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THE CONTEMPORARY RELEVANCE OF GANDHIAN EDUCATION IN INDIA

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ABSTRACT

In the contemporary Indian education needs more vocational, productive and quality education at all levels. Gandhi said that the society could be transformed and the nation made self-dependent if a proper system of education was adopted and the future generation of the country is given the correct type of education. Gandhi offered a revolutionary concept of new education – “Nai Talim”. Gandhiji concentrates, Child centred or Learner centred, Dynamic, Co-operative, Non-violent, Geared toward the acquisition of self-sufficiency aspects of life. The basic characteristic of Basic Education are; Intended at the development of the whole man, Free and compulsory education, Education through Craft, Self-supporting aspect of the Scheme, Medium of instruction, Ideal of citizenship, Flexible-Curriculum-and-free-Environment, etc. The NEP 2020 also recommends a vocational education system in India.

Key Words: Education, Nai Talim, Basic Education, Child Centred, Free and Compulsory Education, Self-Supporting Education, etc

Introduction

Gandhi never claimed to have founded any ‘ISM’. The sum total of his believes, ideas, teaching etc. is known by the name Gandhism. The special feature of Gandhism is that he successfully united spiritual world to temporal world. So he can be called as a “Saint among the politician and politician among the saints”. Gandhi knew the importance of education. He knew

that the society could be transformed and the nation made self-dependent if a proper system of education was adopted and the future generation of the country is given the correct type of education. He also wanted people to earn their livelihood after having achieved education. He did not think that mere acquiring of knowledge would be sufficient to achieve the real place and status in the life.

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In order to achieve this objective Gandhi convened a conference of educationalists at Wardha. In the conference a scheme of education was involved which came to be known as the Basic scheme of Education. This scheme of education as intended to increase the spirit of nationalism in children, making them realize the art of living, teaching them the lesson of national self-independence and equipping them with the requirements of life and making them grow into good citizens of the country. He wanted a craft-centered and craft oriented education which would enable the children to gain their livelihood also.

The Government of India Act, 1935 came into force in 1937. According to the Act. Congress Ministries were formed in seven provinces in India. Prior to this Congress had been strongly pleading for free, compulsory and universal education. After having the power the Congress had to implement it in action. Gandhiji was the leading figure of the Indian political scene and he came forward to meet the situation. Gandhiji was fully conversant with the deplorable condition of education in the land. For improving this condition he advocated a scheme of primary education based on Indian traditional culture through the medium of mother tongue. But this required a huge sum of money which meant fresh taxation.

The situation was further complicated as Mahatma Gandhi promised to introduce total prohibition which again meant the loss of a huge amount of revenue. Congress was committed to both prohibition and compulsion. To end this dilemma Gandhiji put forward the proposal that the plan of is education need not be held up for want of funds. Free and compulsory primary

education could be given to every child if the process of schooling could be made self-supporting by imparting education through a useful and productive craft. Gandhiji expressed his views on education through a series of articles in "Harijan" in June 31, 1937, which later on developed into the Wardha Scheme of Basic Education. The views of Gandhiji created controversies in the academic circles. Therefore it was desirable to get the scheme examined by experts and educationists. Finally, Gandhiji placed his Basic Education System to the nation in the Wardha Conference in 1937.

The New Education of Gandhi

Before we look at the Gandhian system of education, let us examine in brief the background on which it was based, Gandhi was deeply rooted in Indian civilization and hence his educational system was derived from India's past and molded to meet the current needs and future challenges in Indian society. Elaborating his views on education in free India, he said, "I say without the fear of my figures being challenged successfully that today India is more illiterate than it was 50 or 100 years ago, because the British administrators, when they came to India, instead of taking of things as they were, began to root them out. They scratched the soil and began to look at the root and the root like the beautiful tree perished.

The village schools were not good enough for the British administrators, so they came out their own programme-every-school should have so much paraphernalia, building and so forth. There were not so many such schools at all (in the villages). There are statistics left by which the British administrators which show that in the places where they have carried out a survey, ancient schools have gone by

the board because there was recognition to these schools and those schools which established the European Pattern were too expensive for the people.

Gandhi said "I defy anybody to fulfil the programme of compulsory primary education of the masses inside of a country. This very poor country of mine is ill able to sustain such an expensive method of education. Our state (free India) would revive the old village school master and dot every village with a school for both boys and girls. Once a normal date was established, national processes of revolutionary progress would take over through reform, refinement, enhancement and sublimation.

Gandhi suggested the following system of education for children which was also modified in the ashrams and schools started in his life time.

1. Young boys and girls should have co-education at least until they are eight years old.
2. Their education should consist in manual training and drawings under the supervision of an educationalist.
3. The special aptitudes of the each child should be recognized in determine the work she or he would do.
4. The reasons for every process should be explained before the process is carried out.
5. General knowledge should be imported as the child beings understand things. Learning writing and reading should come later.
6. The child should first be taught to draw simple geometrical figures and when he has learnt to draw these with ease, he should be taught to write the alphabet. If this is done, he will write a good hand from the very beginning.
7. Reading should come before writing. The letter should be treated as pictures to be recognized and later on to be copied.
8. A child taught thus will have acquired considerable knowledge, according to his capacity by the time he is eight
9. Nothing should be taught to a child by force.
10. He should be interested in everything taught to him.
11. Education should appear to the child like play is an important part of education.
12. All education should be imported through the mother tongue to begin with.
13. The child should be taught Hindi as the national language, before he learns letters.
14. Religious education in indispensable and the child should get it by watching the teachers conduct and by hearing him talk about it.
15. Nine to sixteen constitutes the second stage of education.
16. It is desirable that the boys and girls have co-education during the second stage also as far as possible.
17. Hindu children should be taught Sanskrit and Muslim children Arabic.
18. Manual training should be continued during the second stage. Library education should be allotted more time according to necessity.
19. The boys during this stage should be taught their parents vocation in such way that they will, by their own choice, obtain their livelihood by practicing the hereditary craft. This does not apply to the girls nor should it be compulsory.

20. During this stage, the child should acquire a general knowledge of world history and Geography, Botany, Astronomy, Arithmetic, Geometry and Algebra.
21. Each child should now be taught to second and to cook.
22. Sixteen to twenty five is the third stage, during which every young person should have an education according to his other wishes and circumstances.
23. During the second stage (9-16) education should be self-supporting: that is, for the child. All the time that he is learning, he is working upon some industry, the process of which will meet the expenditure of the school.
24. Production starts from the very beginning but during the first stage it does not still catch up with the expenditure.
25. Ideally speaking, the teachers should be paid not very high salaries, but only a living wage the spirit of service should inspire them. It is an unfortunate thing to take any Tom, Dick and Harry as a teacher in the primary stage. All teachers should be women and men of character.
26. So long as the country is poor, big and expensive buildings are not necessary for educational institutions but they must be commodious neat and clean.
27. English should be taught only one of the several languages. As Hindi is the national languages, English is to be used in dealing with other nations and International conferences.
28. As for women's education, I am not sure whether it should be difficult from men's and when it should begin. But I

am strongly of the opinion that women should have the same facilities as men and even special facilities where necessary.

29. There should be night schools for illiterate adults. But I do not think that they must be taught the three R's. They must help to acquire general knowledge through lectures etc., and if they wish, we should arrange to teach them three R's also.

Gandhi offered a revolutionary concept of new education –“Nai Talim”. He called it Jivana Shikhna or Basic Education he said, “This system I meant to transform the Village children in the model villagers. It is principally designed for them. The inspiration for it has come from the villages. Basic education links the children whether it is in the city or villages, to all that is best and last in India. It developed the body and mind and keeps the child rooted to the soil with the glorious vision of the future in the realization of which he or she begins to take his or her share from the very commencement of his or career in school”.

The object of basic education is the physical, intellectual and moral development of the children. Any scheme from the educational point of view which is efficiently managed is bound to sound economic for instance, we can teach our children to make clay toys that are to be destroyed. Afterwards, that too will develop their intellect, but it will neglect the very important moral principal, viz that of human labour. A material should never be used in a wasteful or unproductive way. The emphasis is laid on the principle of spending every minute of one's life usefully.

The Basic education or Nai Talim in its essential fosters. “Self-sufficiency”.

With that aim in mind the students do their own laundry, work in the kitchen, sweep and scrub, practice gardening, weaving pottery, carpentry as well as learn the three R's and acquire knowledge of essential academic subjects. In summation the "Basic Education is";

1. Child centred or Learner centred
2. Dynamic
3. Co-operative
4. Non-violent
5. Geared toward the acquisition of self-sufficiency"

According to Gandhi the fundamentals of basic education were as follows.

- All the education must be true and self-supporting, that is to say, in the end it will meet the expenses excepting the capital which will remain intact.
- All education should be imparted with the medium of provincial language.
- In this there is no room for sectional religious training.
- This education whether it is confined to children or adults, male or female, will find its way to the homes of the pupils.
- Since millions of children receiving the education will consider themselves as of the whole of India. They must learn inter provisional language.

The Contemporary Relevance of Gandhian Education in India

Intended at the development of the whole man: Basic education was intended at the development of the personality of the child. The development of the boys and girls into whole women and men.

Free and compulsory education: Gandhiji wanted education to be free and compulsory for all boys and girls between the ages of seven to fourteen. He evolved a scheme of education which would be in harmony with the culture and civilization of the Indian people and which would solve the problem of mass education in a practical way.

Education through Craft: The basic idea of this scheme is to impart education through some craft or productive work. Craft work helps the child to acquire sensor and motor co-ordination and to appreciate the value of honest labour. Gandhiji was of the opinion that the method of training the mind through village handicraft from the beginning as the central focus would promote the real, disciplined development of the mind. The advantages of making craft as the centre of education as listed by the Zakir Hussain Committee are as follows-

- Psychologically, it is desirable, because it relieves the child from the tyranny of a purely academic and theoretical instruction against which its active nature is always making a healthy protest.
- Scheme will increase the productive capacity of our workers and will also enable them to utilize their leisure advantageously.
- From educational point of view, greater concreteness and reality can be given to the knowledge acquired by children through craft as knowledge will be related to life.

Self-supporting aspect of the Scheme: The self-supporting aspect of the scheme may be interpreted in two ways- education that will help one to be self-supporting in later life and Education which in itself is self-

supporting. The basic idea of Gandhiji was that if the craft chosen is taught efficiently or thoroughly, it would enable the school to pay the cost of salaries of teachers. At the same time his aim was to accord dignity of labour and ensure an honest and livelihood for the student after leaving school.

Medium of instruction: One of the resolutions that was adopted at the All India National Conference at Wardha was that education must be imparted through the mother tongue. In this connection, the Zakir Hussain Committee's observation was that the proper teaching of the mother tongue is the foundation of all education. Without the capacity to speak effectively and to read and to write correctly and lucidly, no one can develop precision of thought or clarity of ideas. Moreover, it is a means of introducing the child to the rich heritage of his people's ideas, emotions and aspirations.

Ideal of citizenship: Another important feature of the basic scheme is the ideal of citizenship which is implicit in it. It aimed at giving the citizens of the future a keen sense of personal growth, dignity and efficiency and social services in a cooperative community. The Zakir Hussain Committee envisaged that the new generation must at least have an opportunity of understanding their own problems and rights and obligations. A completely new system is necessary to secure the minimum of education for the intelligent exercise of the rights and duties of citizens.

Flexible-Curriculum-and-free-Environment: The flexibility of the curriculum and free for the child to perform according to his own capacity are another remarkable features of basic education. Under this scheme the teachers and students are free to work according to

their interest and there is no compulsion for completing a prescribed portion due to fear of examinations. Necessary changes may be introduced in the curriculum if a situation demands. Thus, whatever the child learns according to his interest and capacity is permanently remembered by him. The teacher is also free to organize necessary environment for the development of the child.

Moral values and spirit of Nationalism: Gandhi's basic education was aimed at including moral values and a spirit of nationalism in the educated. He wanted basic education to be used as an instrument of social and national construction. That is why the system of education has been recognized as a way of life.

Physical labour: The basic scheme of education made it imperative for the educators to do physical labour.

Curriculum of Basic Education: Wardha education conference in 1937 suggested the basic education for children between 7-14 years of age and curriculum has also been suggested accordingly. A large emphasis was given on general science for boys and on home science for girls.

Primary education: Gandhi felt that primary education should be given for at least a year without books, and even after that use of books should be restricted to the minimum. According to Gandhi if books are introduced from the very start and the children made to master the alphabet, the development of their various abilities are asserted and their intelligence started, although this is the time when it should grow rapidly. Child begins to learn, through the eyes and ears of through the senses.

And as soon as he has learnt to speak, that is imitate the sound of words he begins to rapidly acquire the use of language. Naturally he picks up the same language as that of his parents. If the parents have taste and refinement, he also develops those activities. He pronounces the word correctly and copies their good manner and conduct this is a real educational act. If the culture and traditions had not fallen apart, children would still be receiving the best kind of education.

Vocational Education: In Gandhi's Scheme of basic educational training or work experience is of utmost importance. Education is clearly linked with the socio-economic development. He wants to make it as a crucial adjunct to it. Gandhi's concept of basic education involves the making of education self-supporting. Gandhi believes that the students must be trainees to become an earning unit after the completion of his studies. Basic education or NaiTalim is based on the fundamental principle of learning by doing. The basic need of the curriculum is to closely interlink the physical environment, social environment and craft work and the Individual.

Higher Education: Gandhi stated that he would revolutionize the college education and relate it to national necessities. They should mechanical and others engineers. They would be attached to different institutes which should pay for the training of the graduates they need. Thus the Tatas would be expected to run a college for training, engineers under the supervision of the state, the Mill Association would run among them a college for training graduates whom they need. Similarly for the other industries that may be commerce will have its college. The remaining is arts, medicine, agriculture, etc. Several private arts colleges would be

attached to certified hospitals. As they are popular among the moneyed men, they may be expected by voluntary contribution to support medical colleges and agricultural colleges to be worthy of the name must be self-supporting. I have painted experience of some agricultural graduates.

Education to Gandhi is a strong weapon in the process of social reconstruction and change. It aims at not only material advancement, political evolution, moral development for individuals in society but also a sort of spiritual training. His nature of education does not consist in teaching just the three R's, but in making the people conscious of their humaneness to make them conscious of their right to exist as human beings and realise the oneness of humanity, to help them know the path to salvation, to apply their innate potentialities which is essentially divine to the above goal.

That is every one of us has been essential goodness in the soul, it needs to be drawn out by the teachers. In other words Gandhian, philosophy of education, lies not in reading, writing or arithmetic, but in changed ways of thinking and changed ways of life. Gandhi a true nationalist has announced his conception of basic education- NaiTalim keeping in view the basic needs of villages. As we all know India is a country of villages. But the education one receives is not cantered round the village life.

Emphasis on morality: By education, Gandhi meant improvement of morality within a student. Without being bookish, a student should adopt certain moral ethical codes like truth, nonviolence, charity and so on which will illumine his character. Thus a character building through education was a prime concern for Gandhi.

Non-participation in politics: Gandhiji wanted to keep the students away from politics. If students will participate in politics, they will be pawn at the hands of the politicians who will utilize them for fulfilling their desire. This will hamper the development of a student and his education will suffer a setback. So, he advised the students to keep themselves completely away from politics.

Women education: Gandhi was a protagonist of women education. He advocated that there should be no distinction in equality of status between men and women in society. He vehemently opposed “Purdah system” and “widowhood”. He wanted to free women from social serfdom. So, the number of girl students considerably rose in various educational institutions inside the country. Thus, Gandhi emphasized the need of women education to improve the lot of society.

Women had a key role to play in the family, in Gandhi’s opinion. The family was the crucible of society where future citizens, leaders and lawgivers were nurtured. Hence, it was here that the mother could mold the values and traits of her children in a direction that could lead to social progress. The ultimate aim was to teach children to be self-reliant and not keep them dependent on the family’s resources.

Gandhi had strong views on another key subject relating to women. This was the value of equality between the sexes. He was definitely against gender bias in the training of children. He asserted that girls ought not to be taught to adorn themselves as that identified them as objects of desire without any other distinct human qualities. The latter had to be highlighted if they wished to be

accepted as equal partners of men. He was also of the opinion that housework must be divided equally between boys and girls as the home belonged to both. Also, both boys and girls ought to have vocational training in some occupation so as to assure them a future livelihood when the need arose.

Conclusion

Gandhi’s idea on education is a novel one. His idea of vocational education was unique which even now-a-days is being promoted by the government in India. Gandhi was of the opinion that women were superior to men in their moral and spiritual strength. They had greater powers of self-sacrifice and suffering. On this account, women were capable of infinite strength, which they only needed to realize and channel.

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AWARENESS ON LABORATORY SAFETY MEASURES AMONG SCHOOL STUDENTS

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ABSTRACT

Science laboratory play a crucial role in promoting hands-on learning experiences and fostering scientific inquiry. However inadequate knowledge and awareness on safety protocols within these settings can lead to accidents and potential harm to students. The aim of this study was to assess the level of awareness among school students regarding science laboratory safety measures. This study employed a quantitative research design, utilizing a structured questionnaire to collect data from a representative sample of secondary school students (51 students). The questionnaire focused on assessing student's knowledge of safety measures, understanding of potential hazards, familiarity with safety equipment and adherence to safety guidelines. The findings of the study revealed that only a small proportion of school students exhibited high level of awareness on laboratory safety. This study underscores the urgent need to enhance awareness and understanding of science laboratory safety measures among school students. By addressing these gaps, educational institutions can create safer learning environment, minimize the risk of accidents and promote the well-being of students pursuing science education.

Keywords: Science laboratory, Experiment, Safety Protocols, Scientific inquiry, Hazards.

Introduction

Experiments play a crucial role in the progress of science. A school science laboratory is a place where basic experimental skills are learnt by systematically performing a set of prescribed and suitably designed experiments. A course on practical work in science curricula in schools at the secondary stage is essentially designed to

acquaint the learners with the basic tools and techniques used in a science laboratory. It also envisages problem solving skills. These skills help the learner to acquire ability to identify a problem, to design and to set up the experiment, to collect and analyse data through experiment, and to interpret data to arrive at plausible solution in due course

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of time. These are in fact, the long-term objectives of laboratory work and become the nucleus of the philosophy of construction of knowledge by the learner. Laboratory personnel must be able to identify potential hazards present in the laboratory such as toxic chemical substances, flammable materials, sharp and pointed objects, risk of electrical equipments etc. By acquiring knowledge of potential hazards and proper safety protocols, students become equipped to identify risks and protect themselves from accidents or injuries. This empowers them to work confidently in the lab and develop a sense of responsibility towards their personal safety. Studying awareness on safety measures in science laboratories is of paramount importance for school students.

Laboratory Safety Awareness

Laboratory safety is the process of taking precautions against accidents and dangers that may occur during laboratory studies, determining the problems that may occur in the laboratory and solving the problems with scientific methods. In laboratories where dangerous conditions might exist, safety precautions are important. Safety awareness in the laboratory is essential to reduce occupational risks. Safety awareness is a critical component in a workplace especially in a laboratory, a facility implementing scientific discipline owing to health hazards exposure (Udoh, 2013). It refers to the knowledge and consciousness of potential hazards and risks present in a laboratory environment, as well as the understanding of safe practices and protocols to reduce and avoid accidents, injuries, and exposure to dangerous substances. It is essential for anyone working in or around laboratories including researchers, scientists, technicians, students and visitors.

The experiments and project works suggested at the secondary stage intend to develop basic skills of measurement; handling of some common measuring instruments, equipment and chemicals; setting simple apparatus; handling microscope; and preparing slides; making observations, collecting data and presenting it in appropriate format, interpreting and drawing conclusions and preparation of report. To make science teaching effective and efficient science laboratory is very essential. The important function of science laboratory is that deepening of the student's understanding that science concepts and theories are originated from natural environment. Science teaching should correlate with laboratory work. Pupil should be made well aware about the nature and scope the work. It is not that students should come mechanically in the laboratory and initiate what the others do or try. They should be aware about the concepts that they are working with. If there are a large number of students, then the students should be admitted in batches in the laboratory.

Review of Related Literature

Numerous studies have highlighted the importance of science laboratory safety and the need to promote awareness among students. For example, Schroder et al. (2015) concluded that the rate of compliance with the rules and safety requirements in academic laboratories is lower than industrial and governmental laboratories and that (25%) of the users of the academic laboratories do not receive any training on safety measures. Other studies show that safety precautions are few and below expectations in some aspects (Almodifer, 2005; Julius & Thomas, 2014). Furthermore, there is a set of laboratory malpractices (Nasim et al., 2010) which can be attributed

to low level of awareness and skills of the staff due to poor training (Al Habeel & Aish, 2012; Zaveri, 2012). Chemical safety was investigated by Okebukola et al. (2021) in Nigerian secondary schools. Using a mixed-method survey, they investigated the awareness level and implementation of the best practices of chemical safety by 1246 senior secondary school chemistry students. Students in rural schools were found to have a lower level of awareness of chemical safety compared to the students in urban schools. Statistically significant differences were found in all except one of the awareness measures--washing hands before practical and after leaving the chemistry lab. Urban students were more in breach of chemical safety practices than students in rural schools.

Need and Significance of the Study

Laboratory accidents are common when safety precautions are not observed. These accidents may result in simple injuries as well as very serious situations such as loss of life. Most accidents are caused by human errors. Laboratory studies are very important for science education but also involve various risks. It is possible to minimize these risks by providing a safe working environment. Building a laboratory safety culture requires a broad commitment from all levels of the educational institution. Since the school laboratory is the most important learning environment and the most widely used in teaching Science, the attention of specialists in scientific education has been drawn up to study how to activate it and utilize its contents in order to effectively contribute to achieving the goals of scientific education. However, its use is shrouded in many difficulties and problems that hinder its activation appropriately including the risks caused by

the improper use of laboratory equipment or tools, poor storage and preservation of certain materials, or errors resulting from the improper practices in handling materials or implementing some operating procedures. Therefore, the concern in activating the role of laboratory was integrated with an equal concern in providing safety and security precautions, accident and injury prevention measures, and providing first aid skills to whomever works or exists there.

A critical aspect of laboratory safety is the use of appropriate personal protective equipment include lab coats, safety goggles, gloves, closed -toe shoes for ensuring safety from chemical spills and splashes. Knowledge of proper chemical storage, handling and disposal procedures is crucial to prevent accidents and exposure to hazardous substances. Understanding the handling of laboratory equipments involve the use of user manuals, knowing about emergency shutdown procedures etc coming under laboratory safety awareness. Awareness on electrical safety measures is vital to prevent accidents. Laboratory safety measures help to ensure that experiments are conducted in controlled and safe conditions thereby minimizing the risk of errors, accidents, injuries and inaccuracies.

Many reagents used in chemical laboratories are hazardous and can be characterized as corrosive, explosive, easily oxidizing, flammable, irritating, and so on. In addition, tools, equipment, and instruments used pose risks, including glassware, burners, gas bottles, and instruments with high pressure and temperature. Therefore, safety must be a consideration for everyone exposed to hazardous substances, as well as to the risks in the standard operation of laboratory equipment. In order to prevent accidents, considerable efforts have been undertaken to improve safety education.

The primary objective of studying safety measures in science laboratories is to safeguard the well-being of students. By prioritizing safety, students are equipped with the knowledge and skills necessary to protect themselves and others from potential hazards. This focus on safety not only prevents accidents and injuries but also cultivates responsible attitudes, critical thinking, problem-solving abilities, and effective communication skills. Ultimately, creating a safe and conducive learning environment in science laboratories empowers students to explore, experiment, and develop a lifelong passion for scientific inquiry.

Fostering a culture of laboratory safety from young age instills responsible scientific practices. Students who understand the importance of safety are more likely to adhere to protocols throughout their scientific careers, ensuring ethical and responsible conduct in research and experimentation. A safe laboratory environment enhances the overall learning experience. Students feel more comfortable in conducting experiments, leading to increased engagement and interest in scientific subjects. By understanding safety protocols, they can conduct experiments effectively, analyze results, and draw meaningful conclusions thereby bridging the gap between theory and practice. Laboratory safety awareness among school students is essential for their personal safety, prevention of accidents, development of responsible scientists and the overall improvement of the learning experience. This study is conducted to find out the level of awareness of students on safety measures to be adopted in science laboratory.

Objectives

1. To find the level of awareness on safety measures to be adopted in science laboratory among school students.
2. To compare the level of awareness on laboratory safety measures with regard to Gender.

Method And Sampling

The study was carried out using the survey method, which is one of the quantitative research methods. This survey method aims to determine the knowledge and views of students on laboratory safety and to identify their misconceptions in this regard. This study was conducted among secondary school students from different schools. A total of 51 students consisting of 34 boys and 17 girls voluntarily participated in the study.

Data Collection Tool

The tool used for the present study was an open-ended questionnaire to find the level of awareness on laboratory safety among school students. The questionnaire (google form) consisted of 20 questions related to chemical safety measures, first aid, rules and regulations etc.

Analysis and Findings

Analysis and interpretation of the distribution of the scores on science laboratory safety among secondary school students.

The first objective of the study was to find out the level of awareness on safety measures to be adopted in science laboratory among school students. Table 1 shows frequency distribution of the scores on laboratory safety awareness.

Table 1
Frequency distribution of the scores on Laboratory Safety Measures

| Class Interval | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| 0-20 | 4 | 7.8 |
| 20-40 | 12 | 23.5 |
| 40-60 | 16 | 31.3 |
| 60-80 | 14 | 27.4 |
| 80-100 | 5 | 9.8 |

From the table, the investigator observes that the majority of the score falls

Table 2
Mean, Median, Mode and Standard deviation of the scores on Laboratory Safety Measures

| Variable | Mean | Median | Mode | Standard deviation |
|-----------------------------|-------|--------|------|--------------------|
| laboratory safety awareness | 52.84 | 55 | 45 | 20.91 |

The total mean of 52.84 suggests that, on average, the laboratory safety awareness falls within 52-53 range. This provides a general idea of central tendency of the scores. The standard deviation of 20.91 indicates the degree of variability of the scores obtained. A higher standard deviation suggests a wider range of values, while a lower standard deviation indicates more concentrated data set. In this case, standard deviation of 20.91 implies a moderate level of variability in awareness on laboratory safety across different class intervals.

Table 3
Classification of the total sample of the students based on their scores on laboratory safety awareness.

| Level of Awareness | Range | Number of students | Percentage (%) |
|--------------------|--------------|--------------------|----------------|
| High | | 9 | 17.64 |
| Average | 73.75- 31.93 | 32 | 62.74 |
| Low | | 10 | 19.60 |

within the class intervals of 40-60 and 60-80, with 16 and 14 students respectively. This suggests that there is a relatively higher level of laboratory safety awareness within this range. The class interval of 0-20 has a frequency of 4, indicating that there are few students with very low safety awareness. Even though it only represents a small group of the sample; this could be a concern. Students do not know precisely what is right and what is wrong. Only 9.8% students show high level of awareness on laboratory safety. The mean and standard deviation of the scores on laboratory safety awareness is presented in table 2.

Based on the mean and standard deviation of the scores obtained on laboratory safety awareness, the investigator classified the whole sample into three categories namely High level of awareness (Above $M + \sigma$), Average level of awareness (Between $M + \sigma$ and $M - \sigma$) and Low level of awareness (Below $M - \sigma$). Where M is the mean of the scores of laboratory safety awareness and σ is the standard deviation of the scores on laboratory safety. The classification of the total sample of secondary and higher secondary students based on their scores is given in table 3.

From table 3, it is evident that only 9 students fall under high awareness category. The percentage of students in this category is 17.64. This suggests that a relatively small portion of the total students have high level awareness on safety measures to be adopted in a science laboratory.

The majority of the sample, with a percentage of 62.74 falls under the moderate awareness category. There are 10 students representing 19.60% of the total sample, where the awareness level is classified as low. These cases have a range less than 6.41. Overall, the table indicates that majority of the students fall under the moderate awareness category, while a smaller portion falls under high and low awareness categories. This highlights the need for continuous efforts to improve laboratory safety awareness, particularly in the low awareness category.

Table 4

Results of the Test of Significance of Difference between the Scores on Awareness on laboratory safety measures

| Variable | Group | N | Mean | SD | t value | p value |
|---|-------|----|-------|-------|---------|---------|
| Awareness on laboratory safety measures | Boys | 34 | 48.68 | 20.53 | 2.078 | 0.043 |
| | Girls | 17 | 61.18 | 19.65 | | |

From Table 4, it is obvious that the t value ($t_{(51)} = 2.078$, $p < .05$) is significant at .05 level of significance. Therefore, the null hypothesis H_0 1 which states that 'there is no significant difference between the means of the scores on laboratory safety awareness with respect to gender' is not accepted. From this the investigator infers that there is significant difference between the means of the scores on laboratory safety awareness with respect to gender. Since the mean of

Comparison of mean and standard deviation of scores on laboratory safety with regard to Gender

The investigator formulated the second objective of the study as "To compare the level of awareness on safety measures to be adopted in science laboratory among school students with regard to Gender". The number of boys and girls responded to the survey was 34 and 17 respectively. The investigator formulated the null hypothesis H_0 1 in order to compare the means of the scores on laboratory safety awareness of boys and girls.

Null Hypothesis H_0 1: There is no significant difference between the means of the scores on laboratory safety awareness with respect to gender. The investigator subjected the pertinent data to the test of significance of difference between the means of two independent groups. The investigator presents the detailed description of the analysis in Table 4.

the scores on awareness on laboratory safety measures of Girls ($M = 61.18$) is higher than that of Boys ($M = 48.68$) the investigator concludes that the scores on laboratory safety awareness is higher for girls than boys.

Major Findings

- Out of 51 students, only 17.647% students show high level of awareness on laboratory safety.

- The majority of the sample, with a percentage of 62.74 fall under the moderate awareness category.
- 19.60% of the students fall under the low awareness category.
- There is significant difference between the means of the scores on laboratory safety awareness with respect to gender. The scores on laboratory safety awareness is higher for girls than boys.

Conclusion

Laboratory safety awareness is a fundamental concept that encompasses various key aspects to ensure the well-being of individuals working in a laboratory setting and safeguard the environment. A laboratory possesses potential risks due to exposure to corrosive and toxic materials, flammable solvents, high pressure gases, explosive chemicals and dangerous microbes. A little care and adherence to prescribed safety guidelines will help to avoid laboratory mishaps. The results of the present study showed that only small percentage of the respondents have high level of awareness on safety measures to be adopted in the science laboratory. A generation of safety-conscious scientists and researchers can contribute to significant advancements in various fields. Their work can address global challenges ranging from environmental issues to healthcare improvements, in a safer and more responsible manner.

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A STUDY ON SEXUAL HEALTH STATUS AMONG UNDERGRADUATE STUDENTS OF KANNUR UNIVERSITY

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ABSTRACT

The main objective of this study was to compare the sexual health status of undergraduate students enrolled at Kannur University. A total of 1,200 undergraduate students, comprising 436 male students and 764 female students from different colleges, participated in the study. To assess sexual health status, a self-made questionnaire was used, which was part of a broader evaluation of the students' overall health. Data analysis involved statistical techniques such as percentage analysis and chi-square tests. The results of this study emphasize the significance of academic institutions offering comprehensive sex education to their students. It highlights the need for improved sexual health awareness and knowledge among college students.

Key words: *Sexual Health and Under Graduate Students*

Introduction

The rapid process of globalization, advancements in education standards, improved living conditions, urban migration, urbanization, modernization, and the influence of foreign cultures have all played a part in fostering an increased inclination towards sexual desires among

Indian youth, particularly college students. The advent of modern technology and multimedia has further heightened the susceptibility of Indian youth to explore their sexuality through internet and mass media platforms. As they live in an increasingly liberal environment, the

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emergence of sexual interest among the youth has become a prevalent phenomenon.

In India, while premarital sex is generally discouraged, it is recognized that some young individuals do engage in such relationships. Consequently, it becomes crucial to examine the characteristics and prevalence of youth sexual behavior, as well as their knowledge and attitudes towards reproductive health issues and sexual behavior. Despite societal disapproval, various factors such as the rising age of marriage and the portrayal of sexual scenes in Indian cinema and other forms of entertainment significantly contribute to the promotion of premarital sex.

According to the World Health Organization (WHO), sexual health encompasses a comprehensive state of well-being that goes beyond the mere absence of disease, dysfunction, or infirmity. It encompasses physical, emotional, mental, and social aspects related to sexuality. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, enabling individuals to have pleasurable and safe experiences that are free from coercion, discrimination, and violence. To attain and maintain sexual health, it is crucial to acknowledge, protect, and fulfill the sexual rights of all individuals. Without adequate access to comprehensive sex education, individuals are less likely to develop and sustain healthy sexual relationships. This lack of knowledge and understanding can lead to negative academic outcomes and have long-lasting effects on overall well-being. Comprehensive sexual education, which promotes the benefits of abstinence while also providing information about contraception and methods of disease prevention, has been proven to reduce rates

of unintended pregnancy and HIV/STI infection (WHO, 2006). Knowledge about sex and sexuality, as well as sexual attitudes and behaviors, are influenced by societal, cultural, environmental, and physical factors (WHO, 2006).

As students transition into college life, they also form new relationships, leading to an expansion of their social network. Engaging in clubs and programs, including those with religious or cultural affiliations, enables students to connect not only with fellow students but also with advisors and staff members. Interactions with friends, peers, parents, clubs, and advisors all contribute uniquely to shaping students' knowledge, attitudes, and self-efficacy regarding their sexual health (Davis, 2010). The social support networks that students have can play a vital role in the information they receive and the decisions they make regarding their sexual health. Friends and family members can influence students' attitudes and behaviors related to sexual health by providing ongoing messages about health and prevention (Deptula et al., 2010).

Improved access to accurate information and comprehensive knowledge regarding reproductive health, contraception, and available services can significantly decrease the rates of early pregnancies, young childbirth, and sexually transmitted diseases among girls (Park, 2014). Cultural and ethnic groups exhibit significant variations in values, attitudes, beliefs, levels of knowledge, and communication patterns related to health, sexuality, relationships, contraception, and childbearing (Kirby, 2008). Many young individuals are increasingly accepting of the idea of engaging in premarital romantic and/

or sexual relationships, indicating a shift from the previously prevalent conservative perspective to a more liberal and 'Western' outlook (Nag, 1995). The traditional Indian societal norm of 'virginity till marriage' is also gradually undergoing changes (Kakar, 1989).

There is evidence to indicate that sexual harassment disproportionately affects women students when it comes to accessing opportunities and facilities on campus. As a result, women students bear the burden and face the consequences of sexual harassment. This situation often leads to feelings of fear, embarrassment, and intimidation, which can hinder their access to resources. These symptoms may also make them apprehensive about competition, causing them to withdraw from programs and miss out on available facilities and opportunities, ultimately placing them at a greater disadvantage compared to their male counterparts. However, creating a conducive learning environment is crucial for achieving gender equity and equality (Muasya, 2014). A recent study involving African American girls aged 14 to 18 years discovered that those with multiple sexual partners or a history of sexually transmitted infections reported a higher likelihood of watching television shows that portrayed women as sexual objects or prizes (Wingood & Di Clemente, 1998).

Although pre-marital sexual behavior among adolescents and youth remains a relatively unexplored topic in India, available evidence suggests that approximately 20 to 30 percent of males and up to 10 percent of females engage in sexual activity during adolescence. Additionally, condom usage is inconsistent, leading to a higher risk of unwanted pregnancy and sexually

transmitted infections among sexually active young people. Typically, young females have limited decision-making power within their sexual relationships (Jejeebhoy, 2000). It has been observed that around 90 percent of television shows featuring teenage characters contain sexual content (Kelly, 2010). Moreover, only 60.9 percent of adolescents learned about sex from their parents, which is only slightly higher than the 57 percent who obtained such information from the media (Jeffrey et al., 2013).

Traditional norms and the influence of family are diminishing in their ability to govern the sexual behavior of young people in India. It is crucial to implement school-based sexuality programs that provide students with accurate information about pregnancy, contraception, and sexually transmitted diseases (Abraham & Pillai, 1999). These programs are based on the fundamental idea that increased exposure to media can shape individuals' values, beliefs, and behaviors, especially when they are portrayed as reinforced or without adverse consequences. Research on exposure to violent content in the media partially supports these perspectives (Comstock, 1991; Rich et al., 1998). Unrestricted exposure to mass media and the internet has the potential to negatively influence the sexual patterns and behaviors of youths (Nigeriakum, 2013).

Methodology

This survey study involved a group of 1,200 college students, including 436 males and 764 females, from different colleges associated with Kannur University. The purpose of the study was to assess the participants' sexual health through a questionnaire developed specifically for

this research. The questionnaire consisted of questions about sexual attitudes and behaviors. To analyze the data collected, we used percentage analysis and chi-square tests. These statistical methods helped us obtain valuable insights and draw

meaningful conclusions about the sexual health status of the participants.

Analysis and Results

The response to the questions relating to sexual health of college students have been presented in table 1.

*Table 1
Sexual health of male and female undergraduate students*

| | Characteristics | Male | Female |
|--|-----------------|-------|--------|
| Influence of media on youth, matters related to health | Yes | 83.4% | 88.3% |
| | No | 16.6% | 11.7% |
| Media encourages premarital sex | Yes | 46.7% | 50.4% |
| | No | 53.3% | 49.6% |
| Love affair | Yes | 30.9% | 22.4% |
| | No | 69.1% | 77.6% |
| Sex before marriage is a normal phenomenon | Strongly agree | 12.8% | 1.6% |
| | Agree | 16.5% | 6.3% |
| | Disagree | 70.7% | 92.1% |
| | Yes | 20.3% | 13.3% |
| | No | 79.9% | 86.7% |
| Unmarried friends with sexual intercourse experience | Yes | 24.4% | 7.3% |
| | No | 75.6% | 92.7% |
| Sexual intercourse experience | Yes | 3% | 0.8% |
| | No | 97% | 99.2% |
| Peer pressure in sexual intercourse experience | Yes | 4.9% | 0.4% |
| | No | 95.1% | 99.6% |
| Adequate knowledge about safe sex | Yes | 63.4% | 36.3% |
| | No | 36.6% | 63.7% |
| Sex education to be part of the curriculum | Yes | 58% | 43.2% |
| | No | 42% | 56.8% |
| Enough Knowledge about HIV and AIDS | Yes | 98.6% | 98.4% |
| | No | 1.4% | 1.6% |
| Role of AIDS on pregnancy and child birth | Always | 36.7% | 38.4% |
| | Sometimes | 17.9% | 14% |
| | Never | 45.3% | 47.6% |

| | | | |
|--|-----------------------------|-------|-------|
| | Almost everyday | 6.6% | 0.3% |
| | Sometimes (2-3 days a week) | 13.3% | 0.5% |
| | Rarely | 62.3% | 8.2% |
| Habit of watching pornographic videos | Never | 17.8% | 91% |
| | Yes | 21.9% | 11.6% |
| Segregation of spaces for boys and girls in the campus | No. | 78.1% | 88.4% |

Table 1 presents the responses of undergraduate students from Kannur University regarding their sexual health status. The table reveals that 83.4% of males and 88.3% of females agreed that media strongly influences young people's perception of sex-related matters. When asked whether the media encourages pre-marital sex, 46.4% of males and 50.4% of females believed that the media has a strong influence, while 53.3% of males and 49.6% of females stated that the media does not encourage pre-marital sex. In terms of romantic relationships, 30.9% of males and 22.4% of females reported being involved in a love affair. Regarding the statement "sex before marriage is a normal phenomenon," 12.8% of males and 1.6% of females strongly agreed, while 16.5% of males and 6.3% of females agreed. On the other hand, 70.7% of males and 92.1% of females disagreed with the statement. The table also provides information about the participants' social circle. It shows that 24.4% of males and 7.3% of females had unmarried friends with sexual intercourse experience, while 75.6% of males and 92.7% of females did not have such friends. In terms of personal experiences, 3% of males and 0.8% of females reported having had sexual intercourse, while the majority, 97% of males and 99.2% of females, had not engaged in sexual intercourse. Regarding

the impact of peer pressure on sexual experiences, 4.9% of males and 0.4% of females felt that peer pressure influenced their decision, while 95.1% of males and 99.6% of females did not feel any peer pressure in this regard.

Regarding adequate knowledge about safe sex, 63.4% of males and 36.3% of females expressed confidence in their understanding of safe sexual practices. However, 36.6% of males and 63.7% of females admitted to lacking sufficient confidence in this area. When asked about the necessity of sex education in the curriculum, 58% of males and 43.2% of females believed that it is not needed. Regarding knowledge about HIV and AIDS, a high percentage of both males (98.6%) and females (98.4%) claimed to possess adequate knowledge on the subject. However, a small percentage of males (1.4%) and females (1.6%) acknowledged that they did not have sufficient knowledge about HIV and AIDS.

A significant portion of the total students, comprising 37.55%, believed that women with AIDS would always give birth to a child with the same disease. Additionally, 15.9% of the total students thought that there was sometimes a chance for the disease to be transmitted, while 46.45% of the total students believed that

there was no chance for a woman with AIDS to pass the disease to her child. In terms of the frequency of watching pornographic videos, 6.6% of males and 0.3% of females reported watching such videos almost every day. Furthermore, 13.3% of males and 0.5% of females watched them 2-3 days a week, while a majority of 62.3% of males and 8.2% of females rarely watched pornographic videos. Interestingly, 17.8% of males and 91% of females reported never watching such videos. Regarding campus

environment, 16.75% of the total students reported that there is segregation of spaces for boys and girls on the campus. However, a majority of 83.25% of the total students stated that there is no segregation of spaces based on gender on the campus.

The chi-square analyses were conducted to determine if there is a significant relationship between gender and various aspects of sexual health. The table provides the statistical findings.

Table 2

Association of Gender with Respect to sexual health status of male and female undergraduate students

| Questions/Statements | Chi Square Value | df | Asymp. Sig.(2-sided) |
|--|---------------------|----|----------------------|
| Influence of media on youth, matters related to health | 5.595 ^a | 1 | 0.018 |
| Media encourages premarital sex | 1.482 ^a | 1 | 0.223 |
| Love affair | 10.690 ^a | 1 | 0.001 |
| Sex before marriage is a normal phenomenon | 1.042 ^a | 2 | 0.000 |
| Experienced kissing with opposite sex | 9.997 ^a | 1 | 0.002 |
| Unmarried friends with sexual intercourse experience | 68.856 ^a | 1 | 0.000 |
| Sexual intercourse experience | 8.264 ^a | 1 | 0.004 |
| Peer pressure in sexual intercourse experience | 27.480 | 1 | 0.000 |
| Adequate knowledge about safe sex | 81.009 ^a | 1 | 0.000 |
| Sex education must be part of the curriculum | 24.101 ^a | 1 | 0.000 |
| Enough knowledge about HIV and AIDS | 0.069 ^a | 1 | 0.792 |
| Role of AIDS on pregnancy and child birth | 3.131 ^a | 2 | 0.209 |
| Habit of watching pornographic videos | 6.440 ^a | 3 | 0.000 |
| Segregation of spaces for boys and girls in the campus | 22.436 ^a | 1 | 0.000 |

a.0 cells (.0%) have expected count less than 5

The chi-square analyses aimed to determine if there is a significant relationship between gender and different factors related to sexual health. The table shows the obtained statistical values. Significant chi-square values were found for the influence of media on youth matters related to sex ($\chi^2 = 5.595$, $p < 0.05$), indicating that there is a significant association between gender and the influence of media in this context. Similarly, significant values were observed for factors such as love affairs ($\chi^2 = 10.690$, $p < 0.05$), considering sex before marriage as a normal phenomenon ($\chi^2 = 1.042$, $p < 0.05$), experiencing kissing with the opposite sex ($\chi^2 = 9.997$, $p < 0.05$), having unmarried friends with sexual intercourse experience ($\chi^2 = 68.856$, $p < 0.05$), personal sexual intercourse experience ($\chi^2 = 8.264$, p

< 0.05), peer pressure in sexual intercourse experience ($\chi^2 = 27.480$, $p < 0.05$), having adequate knowledge about safe sex ($\chi^2 = 81.009$, $p < 0.05$), advocating for sex education to be part of the curriculum ($\chi^2 = 24.101$, $p < 0.05$), having a habit of watching pornographic videos ($\chi^2 = 6.440$, $p < 0.05$), and the existence of segregation of spaces for boys and girls on the campus ($\chi^2 = 22.436$, $p < 0.05$). However, in the case of factors like media encouraging premarital sex ($\chi^2 = 1.482$, $p > 0.05$), having enough knowledge about HIV and AIDS ($\chi^2 = 0.069$, $p > 0.05$), and understanding the role of AIDS on pregnancy and childbirth ($\chi^2 = 3.131$, $p > 0.05$), the chi-square values were not significant, indicating that there is no significant association between gender and these particular aspects of sexual health.

Table 3

Frequencies and percentages of participants' response with regard to the source of information about HIV and AIDS

| Sl.No. | Primary Reason | Male | | Female | |
|--------|----------------------|-----------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage |
| 1 | Radio | 76 | 17.4 | 197 | 25.8 |
| 2 | T V | 303 | 69.5 | 549 | 71.6 |
| 3 | Newspaper/Magazine | 291 | 66.7 | 559 | 73.2 |
| 4 | Friends | 242 | 55.5 | 319 | 41.8 |
| 5 | College Teachers | 102 | 23.4 | 215 | 28.1 |
| 6 | Local health workers | 102 | 23.4 | 330 | 43.2 |
| 7 | NGO Staff | 16 | 3.7 | 22 | 2.9 |
| 8 | Internet | 227 | 52.1 | 206 | 27 |
| 9 | Other | 24 | 5.5 | 75 | 9.8 |

The participants were asked to indicate all the relevant sources they sought information from about HIV and AIDS. Table 3 presents the frequencies and percentages of the sample, categorized by gender, and their responses regarding the

sources of information. The table shows that 17.4% of males and 25.8% of females sought information from the radio. TV was the primary source for 69.5% of males and 71.6% of females, while newspapers/magazines were the source for 66.7% of

males and 73.2% of females to gather information about HIV and AIDS. Friends served as a source of information for 55.5% of males and 41.8% of females, whereas college teachers were relied upon by 23.4% of males and 28.1% of females. Local health workers were a source of information for 23.4% of males and 43.2% of females. NGO staff played a role for 3.7% of males and 2.9% of females, and the internet

served as the primary source for 52.1% of males and 27% of females. Other sources were mentioned by 5.5% of males and 9.8% of females as their primary sources of information about HIV and AIDS.

Figure 1 provides a graphical representation of the participants' responses regarding the sources of information about HIV and AIDS.

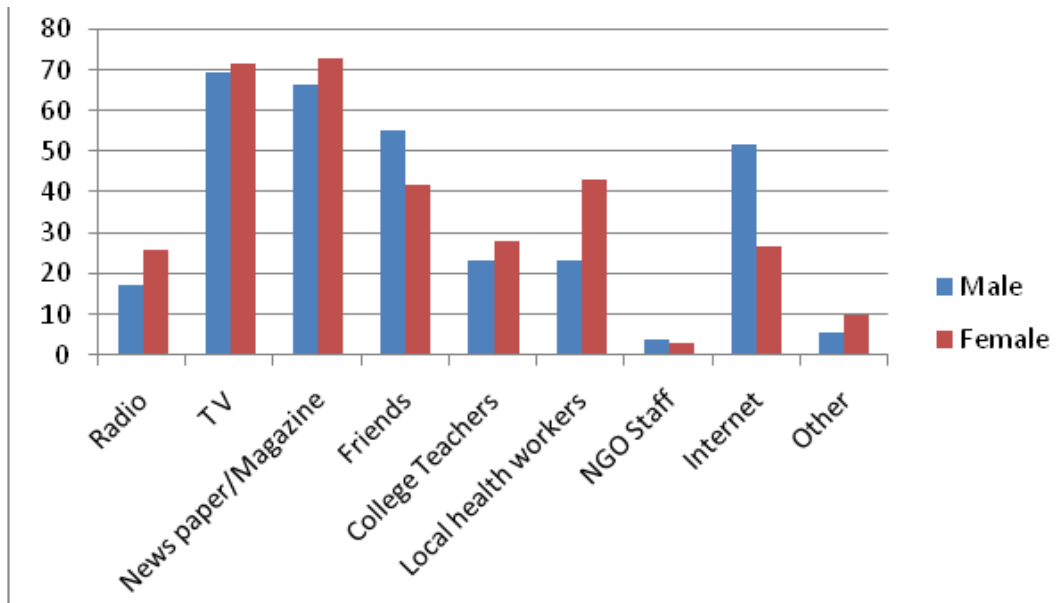


Figure 1. Participants' response to the source of information about HIV and AIDS

Table 4

Frequencies and percentages of the participants with respect to consultation to clear doubts related to sexual matters

| Sl.No. | Consultation | Male | | Female | |
|--------|---------------------------|-----------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage |
| 1 | Parents | 18 | 4.1 | 221 | 28.9 |
| 2 | Friends | 368 | 84.4 | 389 | 50.9 |
| 3 | Teachers | 8 | 1.8 | 1 | 0.1 |
| 4 | All the above | 32 | 7.3 | 111 | 14.5 |
| 5 | Missing (did not respond) | 10 | 2.3 | 42 | 5.5 |

The table provided displays the frequencies and percentages of the sample, categorized by gender, in relation to their responses regarding consulting to clear doubts related to sexual matters. According to the table, 4.1% of males and 28.9% of females reported consulting with their parents to seek clarification about sexual matters. In contrast, 84.4% of males and 50.9% of females preferred to consult with their friends to address any doubts they had regarding sexual matters. Furthermore, a small percentage of 1.8% of males and 0.1% of females chose to consult with their teachers. On the other hand, 7.3%

of males and 14.5% of females reported utilizing multiple sources to clear their doubts related to sexual matters. These findings indicate that females were more likely to consult with their parents and rely on multiple sources, including friends, to seek information and clarify doubts about sexual matters. Conversely, males primarily turned to their friends as the primary source of support and guidance in this regard.

The graphical representation of participants' response to consultation to clear doubts related to sexual matters is shown in figure 2.

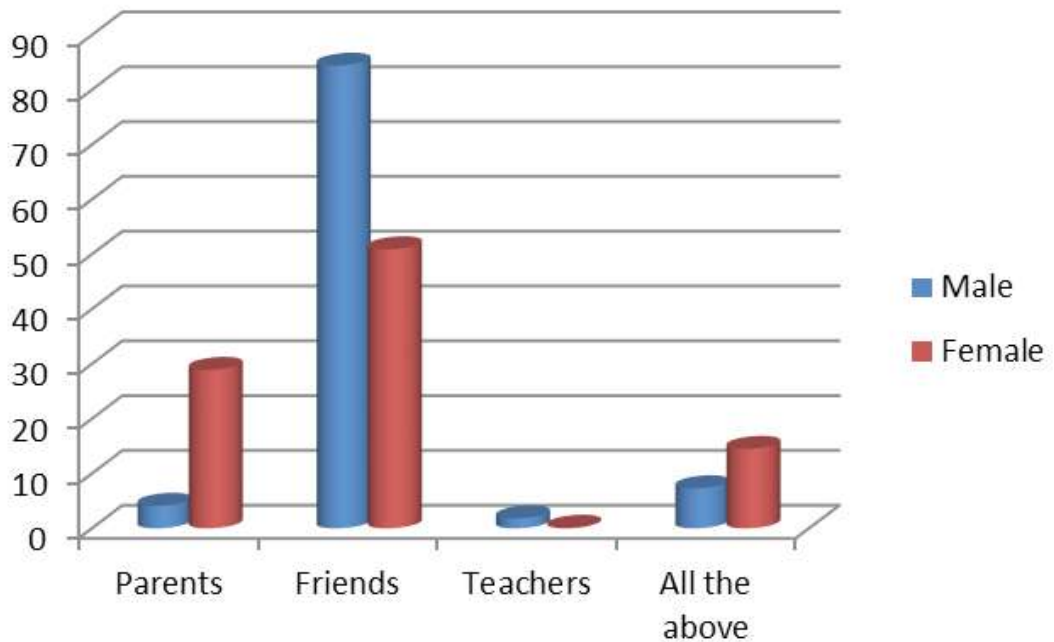


Figure 2. Participants' response of consultation to clear doubts related to sexual matters

Discussion

The study examining the sexual health status of undergraduate students at Kannur University revealed various findings regarding the association between gender

and sexual health attitudes and behaviors. Firstly, a significant proportion of males (83.4%) and females (88.3%) reported that media had a strong influence on youth

matters related to sex. This suggests that both genders acknowledge the impact of media in shaping attitudes and behaviors surrounding sexuality. Secondly, a notable percentage of males (30.9%) and females (22.4%) reported having engaged in a love affair. This indicates that a considerable portion of the student population has experienced romantic relationships. Regarding attitudes towards premarital sex, 12.8% of males and 1.6% of females strongly agreed that sex before marriage is a normal phenomenon. Additionally, 16.5% of males and 6.3% of females agreed, while a majority of males (70.7%) and females (92.1%) disagreed with this statement.

The study also revealed that 24.4% of males and 7.3% of females had unmarried friends with sexual intercourse experience. Moreover, 20.3% of males and 13.3% of females reported having experienced kissing with the opposite sex. In terms of sexual experience, 3% of males and 0.8% of females reported having had sexual intercourse. Additionally, a small percentage of males (4.9%) and females (0.4%) felt peer pressure related to sexual intercourse. Regarding knowledge about safe sex, 63% of males and 36.3% of females expressed confidence in their knowledge. When it came to sex education, 58% of males and 43.2% of females believed that it should be included in the curriculum.

The study also found that a high percentage of males (98.6%) and females (98.4%) reported having adequate knowledge about HIV and AIDS. However, a significant proportion of males (36.7%) and females (38.4%) held the misconception that women with AIDS would always give birth to a child with the same disease. Regarding pornography consumption,

a small percentage of males (6.6%) and females (0.3%) reported watching pornographic videos almost every day. The majority of males (75.6%) and a small portion of females (5.5%) reported watching pornographic videos rarely. Conversely, a significant percentage of males (17.8%) and a majority of females (91%) reported never watching pornographic videos.

The study also examined the perceptions of segregation between boys and girls on campus, with 21.9% of males and 11.4% of females expressing the belief that such segregation exists. When seeking information and clearing doubts about sexual matters, a higher percentage of males (84.4%) turned to friends, while a larger proportion of females (41%) consulted with their parents. Finally, newspaper/magazines and TV were identified as the most informative sources about AIDS for both male and female students.

In summary, the study highlighted several important findings related to gender differences in sexual health attitudes and behaviors among undergraduate students at Kannur University. The results shed light on the influence of media, romantic relationships, attitudes towards premarital sex, experiences with sexual activity, knowledge about safe sex and HIV/AIDS, pornography consumption, perceptions of segregation, and preferred sources of information and guidance on sexual matters.

Conclusion and Suggestion

The lifestyles of young people are changing rapidly, and this includes their sexual behaviors, which are greatly influenced by societal and cultural norms. It is of utmost importance to ensure that young individuals receive comprehensive

education on safe sex practices and the prevention of sexually transmitted diseases. The media has a significant impact on shaping the sexual attitudes and behaviors of youth, as it plays a prominent role in disseminating information and influencing their perceptions. Additionally, friends play a crucial role as a trusted source of information and support for students when they have questions or seek clarification about sexual matters. Therefore, it becomes imperative to incorporate sex education into the school curriculum, as it provides an opportunity to equip students with the necessary knowledge and awareness regarding sexual health. By doing so, we can empower young individuals to make informed decisions and promote healthier sexual behaviors.

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SOCIAL SENSITIVITY AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

The present study is to study the Social Sensitivity among Secondary School Students using Descriptive Survey Method. The sample consists of 450 Secondary Students selected from six Secondary Schools of Kottayam District. The technique used for selecting the sample is Stratified Random Sampling giving due representation to Gender, and Locale. The investigator used a scale- Social Sensitivity Scale for measuring Social Sensitivity among Secondary School Students. For analysis statistical techniques like Mean, Standard Deviation and Test of Significance of the Difference between Means(t-test) are used. The findings of the study reveals that there is significant difference between the means of scores on Social Sensitivity among the Secondary Students with regard to Gender and Locale- Social Sensitivity of Girls is higher than that of Boys and Social Sensitivity of students in Rural Schools is higher than that of Urban schools. Therefore the investigator concludes that Gender and Locale influence the Social Sensitivity of the Secondary School Students.

Key Words: Social Sensitivity, Locale, Gender, Rural, Urban, Boys, Girls, Secondary School Students, etc.

Introduction

Education is the process that lead to enlightenment and wisdom. John Dewey says, Education is the process of living through a continuous reconstruction of experiences. It is a form of learning in which the knowledge, skills and habits of a group of people are transferred from one generation to the next through teaching, training or research It is

the development and fulfilment of one's possibilities. An educated person has the ability to differentiate between right and wrong or good and evil. The widest road leading to the solution of all our problems is education. Education is the creation of a sound mind in a sound body. It must refine human beings and bring all humanistic

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elements in a person. Social Sensitivity is an important quality required for efficient social life. Schools can play an important role in developing Social Sensitivity among people.

Significance of the Study

Modern world is becoming more and more complex. There needs co-operation and sensitivity among people to adjust with problems of life. Social Sensitivity is one of the most important and useful qualities every one should possess to lead a successful life. People have started acknowledging the importance of Social Sensitivity. It plays a very important role in personal and professional life. It is very important that everyone learns and upgrade themselves with social qualities. It is important to note that younger generations lack social qualities which are very important to adjust with others in society. School can play an important role in developing Social Sensitivity among students. It is important to study the extent of among secondary level students. Also the difference in the Social Sensitivity based on Gender and Locale also requires special attention.

Objectives of the Study

The following are the objectives for the present study.

1. To compare the Social Sensitivity among Boys and Girls of Secondary Schools.

2. To compare the Social Sensitivity among students in Urban and Rural Secondary Schools.

Methodology of the Study

The investigator used Descriptive Survey Method to study the Social Sensitivity among Secondary School Students. The sample consists of 450 Secondary School Students selected from six Secondary Schools of Kottayam District, using Stratified Random Sampling Technique giving due representation to Gender, and Locale. The investigator used a scale- Social Sensitivity Scale for measuring Social Sensitivity among Secondary School Students. For analysis statistical techniques like Mean, Standard Deviation and Test of Significance of the Difference between Means (t-test) are used.

Social Sensitivity among Secondary School Students with regard to Gender

The first objective of the study is to compare the Social Sensitivity among Boys and Girls in Secondary Schools. The investigator observes that the means of scores on Social Sensitivity among Boys is 100.91 and Girls is 102.85. For analyzing and interpreting data the investigator used inferential statistics namely the Test of Significance for large independent sample (two tailed t- test) The t -value set as 1.96 at .05 level of significance with degrees of freedom 448. The investigator presents the data and results of the scores on Social Sensitivity among the Boys and Girls in Secondary Schools in the following table.

Table 1

Variable, Number, Mean, Standard Deviation and *t*-value of the Social Sensitivity among Boys and Girls in Secondary Schools

| Variable | Category | N | Mean | SD | df | t-value | Remarks |
|--------------------|----------|-----|--------|------|-----|---------|--------------------------|
| Social Sensitivity | Boys | 225 | 100.91 | 8.50 | 448 | 2.62 | Significant at .05 level |
| | Girls | 225 | 102.85 | 7.17 | | | |

From the table the investigator interprets that the obtained *t*-value is 2.62 which is greater than the table value 1.96 at .05 level of significance with degrees of freedom 448. It shows that means of the scores on Social Sensitivity among Students with regard to Gender differ significantly. There is significant difference between the means of scores on Social Sensitivity among Boys and Girls. Social Sensitivity among Girls is higher than that of Boys. Therefore the investigator concludes that Gender has significant influence on Social Sensitivity of Secondary School Students.

Social Sensitivity among Secondary School Students with regard to Locale

The second objective of the study is to compare the Social Sensitivity among Urban and Rural students in Secondary Schools. The mean score on Social Sensitivity among Rural students is 103.51 and Urban students is 100.28. For analyzing and interpreting data the investigator used inferential statistics namely the Test of Significance for large independent sample (two tailed *t*' test) The *t*-value set as 1.96 at .05 level of significance with degrees of freedom 448. The investigator presents the data and results of the scores on Social Sensitivity among Urban and Rural Secondary Students in the following table.

Table 2

Number, Mean, Standard Deviation and *t*-value of Social Sensitivity among students in Urban and Rural Secondary Schools

| Variable | Category | N | Mean | SD | df | t-value | Remarks |
|--------------------|----------|-----|--------|------|-----|---------|--------------------------|
| Social Sensitivity | Urban | 225 | 100.28 | 8.48 | 448 | 4.41 | Significant at .05 level |
| | Rural | 225 | 103.51 | 6.97 | | | |

From the above table the investigator interprets that the obtained *t*-value is 4.41, which is greater than the table value 1.96 at .05 level of significance with degrees of freedom 448. It shows that means of the scores on Social

Sensitivity among Secondary Students with regard to Locale differ significantly. There is significant difference in the means of scores on Social Sensitivity among the Urban and Rural students in Secondary Schools. Social Sensitivity

of students in Rural Schools is higher than that of Urban schools. Therefore the investigator concludes that Locale has significant influence on Social Sensitivity of Secondary School Students

Major Findings of the Study

The major findings of the present study are the following:

- There is significant difference between the means of scores on Social Sensitivity among Boys and Girls in Secondary Schools. Social Sensitivity of Girls is higher than that of Boys.
- There is significant difference in the means of scores on Social Sensitivity among the Urban and Rural students in Secondary Schools. Social Sensitivity of students in Rural Schools is higher than that of Urban schools.

Conclusion

The present study attempts to analyze the Social Sensitivity among the Secondary School Students. The findings of the study shows that there is significant difference between the means of scores on Social

Sensitivity among the Secondary School Students with regard to Gender and Locale. Social Sensitivity of Girls is higher than that of Boys and Social Sensitivity of students in Rural Schools is higher than that of Urban schools. Therefore the investigator concludes that Gender and Locale influence the Social Sensitivity of the Secondary School Students.

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ENHANCING SELF DIRECTED LEARNING SKILLS OF PRE-SERVICE TEACHERS THROUGH CROSS DISCIPLINARY PEDAGOGICAL APPROACH FOR MULTIDISCIPLINARY EDUCATION

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Abstract

The world beyond the classroom is Cross-curricular. Cross disciplinary Pedagogical Approach recognizes the multiple viewpoints and seeks to build more knowledgeable, lasting and transferable understandings of the world around us. The need for Cross-Disciplinary Pedagogy for multidisciplinary education has become more prevalent in the 21st century learning. Self-directed Learning in its broadest meaning describes a process in which individuals take the initiative, with or without the help of others. The study aimed at fostering Self-directed learning skills in pre-service teachers through cross-disciplinary theme teaching. This experimental study used pre-test post-test control group design. A sample of 60 Pre-service teachers formed the sample of the study. The experimental treatment included the Training Modules with essentials on lesson plan development on Cross-Disciplinary Theme teaching for Pre service Teachers. An adapted version of “Self-directed Learning” instrument of Khiat H. (2015) was used for data collection. Results indicated that the Pre-service Teachers exposed to Cross-Disciplinary Pedagogical Approach Training Modules exhibited significantly better Self-directed learning skills than those exposed to traditional discipline-based teaching. The study has implications for pre-service and in-service teacher education at all levels of Education.

Keywords: *Cross-Disciplinary Pedagogical Approach, Self-directed learning skills, Pre-service teachers*

Introduction

Traditional discipline-based teaching tends to create a gap between education and the emerging needs of modern society.

The world beyond the classroom is Cross-curricular/disciplinary. If subjects are necessary to investigate exhaustively

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one dimension of reality, understanding reality as a whole requires interdisciplinary (Timmerman, 2017). The need for Cross-Disciplinary Pedagogical Approach (CDPA) for multidisciplinary education has become more prevalent in the 21st century learning. CDPA has the potential to bridge the gap by moving away from traditional disciplinary based approach to Cross disciplinary approach in teaching and learning at school and college levels. CDPA is a creative practice that involves an extension to other disciplines or the integration of other disciplines into one's own discipline. The roots of cross-curricular/disciplinary teaching can be found in educational progressivism, which was developed at the turn of the 19th/20th century up to about 1933. CDPA is the extension to other subjects or the integration of these into one's own subject. Therefore, successful work requires a proficient co-operation with other subjects. Given these considerations CDPA implies the co-operation of various subject teachers. Beckmann (2009) provided a practical approach to Cross-Curricular/ Disciplinary Pedagogical Approach in his work on "A Conceptual Framework for Cross-Curricular Teaching". With the introduction of New Education Policy (2020) in India, the scope of implementing CDPA has been widened considering its potential in providing holistic approach to education, specifically to Teacher Education. According to Knowles (1975), Self-directed Learning (SDL) in its broadest meaning describes a process in which individuals take the initiative, with or without the help of others, in diagnosing their own learning needs, formulating learning goals, identifying

human and material resources for learning, choosing and implementing appropriate learning strategies and evaluating learning outcomes. The present study is an attempt to train pre service teachers with knowledge and skills to use CDPA with a view to develop the ability to integrate knowledge and develop Self-directed Learning (SDL) skills to prepare them to deal with the complexity of the real world and are able to play the role of facilitators in providing Multidisciplinary Education.

Review of Literature

Van der Lecq (2016) in a study described how students attending the interdisciplinary (Dutch) Liberal Arts and Sciences program at Utrecht University demonstrated self-authorship at the end of their undergraduate journey. It also identifies two factors that contributed to the development of students as self-directed learners: the complexity of the interdisciplinary projects and the responsibility the students have for their own education. According to Lander (2013) interdisciplinary approaches can be difficult for both faculty members and students who are used to more traditional approaches. One possible solution to some of these difficulties may lie in the use of self-directed learning which can guide both faculty members and students to improve success of interdisciplinary educational approaches. Lindgreen (2020) explored the procedure to undertake cross-disciplinary research that advances knowledge and understanding and examined how to break cross-disciplinary boundaries. A Cross-curricular Teaching (CROSSCUT) European project (Reference Framework,

2019) aimed at supporting secondary level teachers' professional development by training them to adopt cross-curricular teaching approach. Zhan Y. et al. (2017) explored senior secondary students' beliefs and experiences of learning an interdisciplinary curriculum and sheds light on the realization of interdisciplinary learning in secondary education in contexts where teacher-centered pedagogy remains influential. Greenwood (2013) sought information on the extent to which Northern Ireland primary school teachers have developed cross-curricular topics. This study described integrated approaches as being a better reflection of the realities of pupils' experiences outside and stated that 'Curriculum integration is one of those ideas that is obviously good'. Traditional subject teaching tends to create a gap between education and the emerging needs of modern society. The effectiveness of CDPA has not been sufficiently explored in the Indian context. This study is an effort in training pre-service teachers with knowledge and skills to use CDPA in classroom context that gives them the confidence to move away from traditional disciplinary approach at school and college levels.

The Present Study

This Experimental research aimed to study the effectiveness of CDPA on Self-directed Learning skills of pre-service Teachers. The experimental design was pre-test post-test control group design. The independent variable was CDPA, which referred to an integrative approach that involved the integration of other disciplines into one's own discipline. The treatment involved the exposure of pre-service teachers to the training modules based

on Beckmann's Model (2009) for cross curricular/subject integrative teaching in order to enable them to gain knowledge and skills to apply the theme/topic-based CDPA to prepare lessons and execute them in peer teaching sessions with an objective to enhance their Self-directed learning skills. In the present study, SDL referred to a process that centres on the pre-service teachers assessing their learning needs, securing the relevant learning resources and activities, conducting the planned learning activities and, finally, assessing their resultant learning. Ten Self-directed Learning skills measured in the study included Assignment Management, Online Learning Proficiency, Stress Management, Technical Proficiency, Procrastination Management, Online Discussion Proficiency, Seminar Learning Proficiency, Comprehension Competence, and Examination Management.

Objectives of the Study

1. To study the Effectiveness of CDPA on Self-directed Learning of pre-service Teachers.
2. To study the Effectiveness of CDPA on Self-directed Learning skills namely. Assignment Management, Online Learning Proficiency, Stress Management, Technical Proficiency, Procrastination Management, Online Discussion Proficiency, Seminar Learning Proficiency, Comprehension Competence, and Examination Management of pre-service Teachers.

Hypotheses of the Study

H₀1: There is no significant difference in the mean gain scores on Self-directed Learning of Experimental and Control group pre-service teachers.

H₀2: There is no significant difference in the mean gain scores on Self-Directed Learning skills of Experimental and Control group pre-service teachers.

Sample of the Study

The sample of the study consisted of 60 (sixty) pre-service teachers pursuing their two-year Bachelors of Education programme in the academic year 2021-22. The Experimental and Control groups with thirty pre-service teachers in each group were formed by matching the pre achievement scores.

Tool Used

A rating scale on “Self-Directed Learning” by Henry Khat (2015) with 26

items was adapted with modification of 6 items in terms of usage of language for better understanding by the Pre-Service Teachers in Indian context. The Scale measured ten Self-Directed Learning skills namely, Assignment Management, Online Learning Proficiency, Stress Management, Technical Proficiency, Procrastination Management, Online Discussion Proficiency, Seminar Learning Proficiency, Comprehension Competence, and Examination Management.

Analysis

The Hypotheses H₀1 and H₀2 were tested using the ‘t’ test of significance and the results are given in Table 1 and Table 2.

Table 1

Test of Significance results of gain mean scores on Self-directed Learning of Experimental & Control group Pre-service Teachers.

| Variable | Groups | N | Mean | SD | t |
|-------------------------------|--------------|----|-------|-------|-------|
| <i>Self-directed Learning</i> | Experimental | 30 | 19.72 | 16.84 | 5.32* |
| | Control | 30 | 1.47 | 13.73 | |

*p < 0.05

The Table 1 results indicate that ‘t’ value of 5.32 is significant, hence H₀1 is rejected and alternate hypothesis is accepted. Thus, it is concluded that the “CDPA is

significantly effective in enhancing the Self-directed Learning of Pre service Teachers”.

Table 2

Test of Significance results of gain mean scores on Self-directed Learning skills of Experimental & Control group Pre service Teachers

| Self-directed Learning Skills | Groups | Mean | SD | t |
|-------------------------------|--------------|------|------|-------|
| Assignment management | Experimental | 7.28 | 9.27 | 4.83* |
| | Control | 0.22 | 2.76 | |
| Online Learning Proficiency | Experimental | 1.78 | 3.9 | 1.51 |
| | Control | 0.19 | 4.94 | |

| | | | | |
|-------------------------------|--------------|-------|------|-------|
| Stress Management | Experimental | 8.38 | 9.39 | 5.8* |
| | Control | -0.69 | 2.63 | |
| Technical Proficiency | Experimental | 0.88 | 4.67 | 0.89 |
| | Control | -0.13 | 4.46 | |
| Procrastination Management | Experimental | 2.69 | 4.85 | 2.89* |
| | Control | -0.94 | 4.92 | |
| Online Discussion Proficiency | Experimental | 0.22 | 3.7 | 0.28 |
| | Control | 0.47 | 3.42 | |
| Seminar Learning Proficiency | Experimental | -0.19 | 4.56 | 1.55 |
| | Control | 1.34 | 2.86 | |
| Comprehensive Competence | Experimental | 0.53 | 3.17 | 0.16 |
| | Control | -0.25 | 2.96 | |
| Examination Management | Experimental | 1.53 | 3.35 | 1.43 |
| | Control | 0.56 | 3.22 | |
| Time Management | Experimental | 2.81 | 6.85 | 1.23 |
| | Control | 1.13 | 6.03 | |

* $p < 0.05$

The Table 2 results indicate that ‘t’ values of assignment management (4.83), stress management (5.8) and procrastination management (2.89) are significant, hence H_0 is rejected and alternate hypothesis is accepted. Thus, it was concluded that the **“CDPA is significantly effective in enhancing the Self-directed skills namely, Assignment Management, Stress Management and Procrastination Management of Pre service Teachers”**.

Discussion of Results

Results indicated that the pre-service teachers exposed to CDPA training modules have exhibited significantly better Self-directed Learning than those exposed to traditional discipline-

based teaching. This implies that the use of the Training Modules on CDPA as a pedagogical tool is an effective approach in the development of Self-Directed Learning among the Pre-Service Teachers and would help improve the adult learning and make them independent learners. Moreover, this pedagogical practice provided an opportunity to the pre service teachers to move out of their discipline boundaries and connect to knowledge as a whole. This required the use of critical thinking, reflective thinking and reference skills in planning and implementing lessons using CDPA that in turn developed self-directed learning which involved a process that centered on the preservice

teachers assessing their learning needs, securing the relevant learning resources and activities, conducting the planned learning activities and, finally, assessing their resultant learning. Further, the results also revealed CDPA is effective in enhancing three Self-directed Learning skills namely, Assignment Management, Stress Management and Procrastination Management. Assignment management being one of the important SDL skills referred to the ability to plan, do and score well in the Tutor marked Assignments and Group Based Assignments. Stress Management referred to the ability to handle academic stress, and Procrastination Management to the ability to manage procrastination in learning. The results are supported by the study done by Lecq, R. (2016) which described how students attending the interdisciplinary (Dutch) Liberal Arts and Sciences program at Utrecht University demonstrated self-authorship at the end of their undergraduate journey. It also identifies two factors that contributed to the development of students as self-directed learners: the complexity of the interdisciplinary projects and the responsibility the students have for their own education. Lander, L. (2013) argued that the interdisciplinary approaches are difficult for both faculty members and students who are used to more traditional approaches. One possible solution to some of these difficulties may lie in the use of self-directed learning which can guide both faculty members and students to improve success of interdisciplinary educational approaches. Page, M., Schagen, S., Fallus, K., Bron, J., De Coninc, C., Maes, B.,

Sleurs, W., & Van Woensel, C. (1998) in their report state that cross-curricular approach provides helpful constructions to ensure curricular balance in the new emergent forms of knowledge, which must be considered as a valuable innovation. Today, some of the European countries like Denmark, Finland, France, Norway, Poland and Portugal have introduced cross-curricular teaching approach. Such teaching culture is not deliberately made in Indian education system though the teachers are using it unconsciously. In this creative practice, teachers are required to collaborate and co-operate with teachers who teach other subjects. The successful implementation of this interactive teaching approach requires training of pre-service and in-service teachers to make it truly multidisciplinary in nature. Hence, the need for training the teachers to get use to this exposed to CDPA is of great importance in Indian context. The Pre service teacher education Institutions should train their teachers in applying CDPA and provide opportunities to enhance pre-service teachers Self-directed Learning skills. Though the above empirical research supports the results of the study, arguments concerning the implementation of cross-disciplinary to teaching and learning have been debated for many decades, either ardently supporting or opposing implementation of this innovative approach in schools (Reid & Scott, 2002, Timmerman, 2017). Hence, future research is required in the Indian context to generalize the results.

Conclusion

CDPA when implemented effectively can yield a rich array of benefits for

students, teachers, and institutions of higher education. Traditional discipline teaching approach will no longer be sufficient to fully integrate new information and elaborate forms of knowledge that a 21st century society needs. The pre-service teachers who participated in CDPA Training Modules enhanced their Self-directed Learning skills and were exposed to knowledge as a whole, and were provided opportunity to pull together appropriate knowledge from a range of subjects and relate it to everyday life. They dealt explicitly with questions and issues that enabled them to explore fundamental aspects of their lives. This gave us insight that when CDPA is implemented effectively it can benefit the students and educators. For the successful implementation of CDPA in pre-service and in-service teachers training, it should be given the priority and make multidisciplinary and convergence approaches applicable in a real sense. It also requires teachers' self-confidence, adequate content knowledge, co-operation and collaboration of a team of teachers to plan and deal jointly with many subjects and constantly in touch with one another. This study aimed to motivate and help the teachers to start realizing that teaching needs to go beyond the disciplinary boundaries. This study has implications for teachers at all levels of Education to adopt CDPA to enhance Self-directed Learning skills.

Limitations and Future Studies

The research was experimental in nature hence, it manifested only the cause-effect relationship. The present study was limited only to pre service teachers who

were pursuing their Two-year bachelors programme in Teacher Education. However, the study has a wide scope of application at schools and colleges to move away from traditional disciplines/subject teaching to cross-disciplinary pedagogical/ andragogical approach. Future researches can concentrate on developing teacher manuals for large scale integration of CDPA. Future researchers can undertake long duration experimentation involving other dependent variables namely achievement, Critical thinking, Creative thinking and Problem-solving skills so as to examine the potential of CDPA in enhancing the 21st century skills. Similar studies can be undertaken for in-service teachers.

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HUMAN RIGHTS VIOLATIONS AGAINST WOMEN AND GIRL CHILDREN

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ABSTRACT

Women empowerment is inevitable to speed up the process of development. Women's education is an indicator of educational development of a region. Reduction in gender disparities in education results in liberation of women, thus making them active participants in national development. In India, women in general, and the poor women in particular are relatively powerless with little or no control over resources and little decision-making power. Attaining equality between women and men and eliminating all forms of discrimination against women are fundamental human rights and United Nations values. Women's ability to participate in public and political life is integrally related to their ability to claim citizenship and nationality-related rights. Women in all countries, irrespective of status, class, age, caste or religion, experience violence in virtually all spheres of life, whether in the home, at work, on the street, in government institutions, or in times of conflict or crisis. The best way to protect the rights of women is to empower them through the effective education and share the experiences of model women in the national, regional and international levels.

Key Words: *Women empowerment, Gender discrimination, Gender identity, Human Rights, Gender sensitivity, Gender responsibility, Human rights violations, etc.*

Introduction

Educated and skilled people are an asset to the nation. Education helps a nation in her economic development, social progress, political progress, scientific advancement and cultural progress. The education needed to make democracy work effectively is not just any kind of education, but is education, which can discipline the

mind, enrich the spirit and improve the living conditions of people. It is a prerequisite for the efficient functioning of democracy. The distinguishing character and guiding belief of every generation are conditioned by its educational system. The encouragement for the development of great character can be given only through a

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sound education. The finished product of a sound education should be a well balanced, empowered personality who can enrich the life around.

International community has been taking serious view of the lack of education among children, women and adults particularly in the less developed and least developed countries of the world. The right to education was articulated clearly in Article 26 of the universal declaration of human rights (1948). Five international conferences on adult education (CONFINTEA) held at Elsinore in 1949, Montreal, Canada in 1960, Tokyo, Japan in 1972, Paris in 1985 and Hamburg, Germany in 1997 were organized to put adult literacy on the world education agenda more firmly. National governments agreed to dedicate themselves to secure the goal while international agencies pledged that no country thus committed would be prevented from achieving them due to lack of resources. Despite all these efforts of interalia providing adult, basic and continuing education, the Global Monitoring Reports (2009) indicate that the literacy and literate environment which are essential are yet elusive.

Empowerment of Women

‘Women Empowerment’ does not mean that, women are weak. It becomes relevant in our social scenario where women have to realize their strength and apply it as per need. Women empowerment is inevitable to speed up the process of development; as social justice is an invariable component of development. The progress and uplift of backward classes including women is essential for ensuring social justice. The analysis of empowerment of women can be summarized as;

- i. Recognizing women’s contribution and knowledge.
- ii. Helping women fight their own fears and feelings of inadequacy and inferiority.
- iii. Women enhancing their self-respect and self-dignity.
- iv. Women controlling their own bodies.
- v. Women becoming economically independent and self-reliant
- vi. Women controlling resources like land and property
- vii. Reducing women’s burden of work, specially within the house
- viii. Creating and strengthening women’s groups and organizations (Bhasin, 1992).

Empowerment is an individual’s self esteem and collective mobilization for challenging basic power relations like social injustice and mobilization of resources. Empowerment is self-governance, self,- sufficiency and self-maintenance. Empowerment in the Indian context means the development of women capacity to make informed choices and expansion of their capacity to manage their domestic and economic environment efficiently. It is needless to say that India’s economic development is also closely intertwined with the process of women’s oppression. Unless it is removed, it is not possible to achieve expected target. This has to be taken note of by all policies and action intended to bring about the advancement, development and empowerment of women.

Women empowerment refers to self-determination and self-confidence that allows them to play an active role in society. The taxonomy of empowerment of women indicates the following characteristics among the empowered women.

1. Courage
2. Self-reliance
3. Economical independence
4. Take decision about age of marriage for girls, education of children and property
5. Have awareness on human rights
6. Participation in political activities
7. Have control over their body and assets
8. Send their children to school (boys & girls)
9. Create awareness among family members about health and hygiene
10. Conservation of natural resources
11. Have lesser number of children and care for elderly persons
12. Engage in gainful economic activities
13. Develop savings habit
14. Co-operate with group members and share their views
15. Contribute to community welfare
16. Manage time and finances
17. Active participation in educational programmes
18. Disseminate information about innovations in science and technology
19. Participation in social functions
20. Practise basic human values and adopt eco-friendly practices

Women empowerment enables autonomy and control over their lives. The empowered women become agents of their own development, able to exercise choices to set their own agenda and be strong enough to challenge and change their subordinate position in the society. In order to achieve this, emphasis should be placed on formulation of appropriate organization for women to facilitate communication, learning and organized action.

Women's education is an indicator of educational development of a region. Reduction in gender disparities in education results in liberation of women, thus making them active participants in national development. In many third world countries and developing countries, continuing education has been recognized as a lever for socio-economic development. It is also a harbinger of social change. Continuing education, thus, is a tool for empowerment of women that identifies their innate potentials and channelizes them in the right directions. It is a power-engine to enable women participate in developmental programmes and become competitive and productive. Women's empowerment through continuing education has gained wider recognition in developing countries, especially in India. Women's role as educator in family, community, informal school systems and in public life is highly recognized by UNESCO (2000).

Empowerment of women could be achieved only if they are given adequate educational opportunities. For realising this objective, the Continuing Education Centres were established in almost all big villages of the country. The centres were manned by preraks, who were expected to organize the various activities. Necessary financial grants were provided to these centres. These schemes have been in operation for the last three decades, in different phases in different states. Women's education is an indicator of educational development of a region. Reduction in gender disparities in education results in liberation of women and thus making them active participants in national development. Education, thus, is a tool for empowerment of women that identifies the innate potentials and channelizes them in the right direction.

Empowerment refers to increasing the political, social, educational, gender, or economic strength of individuals and communities. Empowerment is not giving people power, people already have plenty of power, in the wealth of their knowledge and motivation, to do their jobs magnificently. We define empowerment as letting this power out. It encourages people to gain the skills and knowledge that will allow them to overcome obstacles in life or work environment and ultimately, help them develop within themselves or in the society. To empower a female "...sounds as though we are dismissing or ignoring males, but the truth is, both genders desperately need to be equally empowered." Empowerment occurs through improvement of conditions, standards, events, and a global perspective of life.

Empowerment of weaker sections of society, especially women, through continuing education is an important concern of voluntary agencies, state governments and the government of India. To make continuing education an instrument of awakening among women, it is necessary to organize and implement its programmes focusing on women empowerment. Empowerment is not something which could be made available in the form of a capsule to those whom we think are in need of it. It is not just a concept that could be defined with the help of some universally accepted parameters. Empowerment (Lucy Lazo, 2002) is a process and includes the following components.

1. Equal access to opportunities for using society's resources
2. Prohibition of gender discrimination in thought and practice
3. Freedom from violence
4. Economic independence
5. Participation in all decision making bodies

6. Freedom of choice in matters relating to one's life.

Empowerment is a process, which is both individual and collective, since it is through involvement in groups that people quite often develop awareness and organize actions capable of effecting change. In short, empowerment is a process of awareness and capacity building leading to greater participation, to greater decision making power and control and to transformative action

The concept of empowerment emerged during the U.S civil rights movements in the 1960s, after substantial work took place in civil disobedience and voter registration efforts to attain democratic rights for Afro- Americans. Displeased with the space and scope of the changes, several black leaders called for black power. Empowerment began to be applied within the women's movements in the mid 1970s. The similarities among oppressed groups are considerable because they face the common problem of limited willingness by those in control to see the seriousness of their condition and to work to solve it. Under the circumstances, the oppressed must themselves develop power for change.

Applied to gender issues, the discussion of empowerment brings women into the political sphere, both private and public. Its international use probably began with the appearance of the book by Sen and Grown, *Development Crisis and Alternative Visions: Third World Women's Perspectives* (1985) prepared for the Nairobi conference at the end of the UN Decade for women in 1985. In this book, a section on "empowering ourselves" clearly identifies the creation of women's organizations as central to the design and implementation of strategies for gender transformation.

Status of Women in Kerala

As far as status of women is concerned, the scene is quite different in Kerala from the rest of the country. The matriarchal system that prevailed among certain communities in the state and the progressive social movements paved the way for women's development. The development indicators of women in Kerala are relatively very high compared to the rest of the county. The sex ratio as well as the literacy rate and the life expectancy rate of women in Kerala are the highest in the country.

But, in general, women do not take a central place in social inclusion. First, women are not just one group amongst several disempowered subjects of society (the poor, ethnic minorities, etc.); they are a cross-cutting category of individuals that overlaps with all the other groups. Second, the household and interfamilial relations are a central locus of women's empowerment in a way that is not true for other disadvantaged groups. Third, women's empowerment requires systematic transformation in not just any institution, but fundamentally in those supporting patriarchal structures (Kabeer, 2001).

Kerala occupies a unique position in achieving the highest literacy rate and in being the forefront of female literacy. In the 2001 census, the total literacy rate of the state was 90.92 with a break up of 94.20 for male and 87.86 for female against an all India average of 65.38 (National), 75.85 (Male) and 54.16 (Female) respectively. The human development Index (HDI) of Kerala is the highest among the Indian states, despite the low per capita income. This can be attributed mainly to the high literacy rate of the state. Among the Indian States, the status of women in Kerala

aroused the attention of many scholars at home and abroad. The enhancement of female education is currently accepted as the most promising agent of change in women's access to power and control over resources.

Despite all these accolades, women are yet to be empowered. In India, women in general, and the poor women in particular are relatively powerless with little or no control over resources and little decision-making power. Often the decisions made by others affect their lives. In Kerala also, women belonging to the weaker sections are by and large ignored. They have various problems of their own. Gender disparity still persists. Social inhibitions and customs restrict them from taking their proper role in the development process of the country.

Atrocities on women are on the rise. Differential wage structure, decline in the child sex ratio, violence against women and insufficient representation of women in local self governments are the crucial issues faced by women. The social evils can be exterminated only through a mass movement coupled with a stern and strict enforcement of law. This in turn is possible only in a learned society. A revamped educational policy is the only means to making women conscious of their own aspirations and potentials.

It is a sad reality that our society is not anywhere near becoming a learning society. Ours is, at best, a "drop-out" society in which majority of poor women are neither able to continue to learn nor able to make a creative use of what has been learned. The necessity of a major shift in our educational policy, incorporating the true spirit of life-long learning, is felt by all. UNESCO has

observed that the under five mortality rate would be 61 percent lower if all women in India had completed secondary education.

Human Rights and Human Rights Education

Human rights may be simply defined as those minimal rights, which every individual must have against state or other individuals or authorities by virtue of his being a member of the human family, irrespective of other considerations. The concept of human rights is quite often identical with the idea of fundamental rights. There are differences between these two ideas. Generally the basis for claiming fundamental right is the membership in a national state, in the form of citizenship. However, the basis for claiming human rights is the membership in the family of human beings, which is open to all human beings. *Human rights are universal birth privileges that every individual is granted regardless of his/her gender, religion, class, age, nationality, ability or culture.* These rights are the guarantee for basic dignity and freedom, that are a must to live a normal life.

The *Universal Declaration of Human Rights* (UDHR) is a declaration adopted by the United Nations General Assembly on 10 December 1948 at the Palais de Chaillot, Paris. The Declaration arose directly from the experience of the Second World War and represents the first global expression of rights to which all human beings are inherently entitled. The United Nations Organization made its well-known declaration of Human Rights in December 10th, 1948. In 1993, India made its declaration of human right. Among 30 articles, Article I of the Universal Declaration of Human Rights states, *“All human beings are born free and equal in dignity and rights. They are*

endowed with reason and conscience and should act towards one another in a spirit of brotherhood”.

Human Rights Education promotes democratic principles. It examines human rights issues without bias and from diverse perspectives through a variety of educational practices and helps to develop the communication and informed critical thinking essential to a democracy. It provides multicultural and historical perspectives on the universal struggle for justice and dignity. It engages the heart as well as the mind. It challenges students to ask what human rights mean to them personally and encourages them to translate caring into informed, nonviolent action. It affirms the interdependence of the human family. It promotes understanding of the complex global forces that create abuses, as well as the ways in which abuses can be abolished and avoided. *Human rights education consists of all learning that contributes to the development of the knowledge, skills and values of human rights.*

Principles of the Human Rights Education

The human rights framework protects civil, political, economic, social and cultural rights. But no matter what kind of right is at issue, there are basic principles that are always part of human rights standards and implementation. These principles include:

Universality: Human rights must be afforded to everyone, without exception, means, that people are entitled to these rights simply by virtue of being human.

Indivisibility: Human rights are indivisible and interdependent, which means that in order to guarantee civil and political rights, a government must also ensure economic, social and cultural rights

(and visa versa). The indivisibility principle recognizes that if a government violates rights such as health, it necessarily affects people's ability to exercise other rights such as the right to life.

Participation: People have a right to participate in how decisions are made regarding protection of their rights. This includes but is not limited to having input on government decisions about rights. To ensure human rights, governments must engage and support the participation of civil society on these issues.

Accountability: Governments must create mechanisms of accountability for the enforcement of rights. It is not enough that rights are recognized in domestic law or in policy rhetoric, there must actually be effective measures put in place so that the government can be held accountable if those rights standards are not met.

Transparency: Transparency means that governments must be open about all information and decision-making processes related to rights. People must be able to know and understand how major decisions affecting rights are made and how public institutions, such as hospitals and schools, which are needed to protect rights, are managed and run.

Non-Discrimination: Human rights must be guaranteed without discrimination of any kind. This includes not only purposeful discrimination, but also protection from policies and practices which may have a discriminatory effect.

Women Empowerment and Human Rights

Attaining equality between women and men and eliminating all forms of discrimination against women are fundamental human rights and United Nations values. Women around the world

nevertheless regularly suffer violations of their human rights throughout their lives, and realizing women's human rights has not always been a priority. Achieving equality between women and men requires a comprehensive understanding of the ways in which women experience discrimination and are denied equality so as to develop appropriate strategies to eliminate such discrimination.

The United Nations has a long history of addressing women's human rights and much progress has been made in securing women's rights across the world in recent decades. However, important gaps remain and women's realities are constantly changing, with new manifestations of discrimination against them regularly emerging. Some groups of women face additional forms of discrimination based on their age, ethnicity, nationality, religion, health status, marital status, education, disability and socioeconomic status, among other grounds. These intersecting forms of discrimination must be taken into account when developing measures and responses to combat discrimination against women.

In 1967, United Nations Member States adopted the Declaration on the Elimination of Discrimination against Women, which states that discrimination against women is an offence against human dignity and calls on States to "abolish existing laws, customs, regulations and practices which are discriminatory against women, and to establish adequate legal protection for equal rights of men and women". Less than a year later a proposal for a legally binding treaty on women's rights was made. The Convention on the Elimination of All Forms of Discrimination against Women was adopted by the General Assembly in 1979. Its preamble explains that, despite the

existence of other instruments, women still do not enjoy equal rights with men.

The Convention defines discrimination in its article 1 as "... any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field." Such discrimination encompasses any difference in treatment on the grounds of sex which:

- Intentionally or unintentionally disadvantages women;
- Prevents society as a whole from recognizing women's rights in both the private and the public spheres;
- Prevents women from exercising the human rights and fundamental freedoms to which they are entitled.

Women's Rights in Public and Political Life

Historically, women have been excluded from political life and decisionmaking processes. Women's campaigns for participation in the public and political arena date back to the nineteenth and twentieth centuries and continue today.

According to the Universal Declaration of Human Rights, everyone has the right to take part in the government of his or her country. One of the first tasks of the Commission on the Status of Women was to write the 1952 Convention on the Political Rights of Women. The Convention on the Elimination of All Forms of Discrimination against Women builds on previous conventions and its article 7 concerns

women's access to decision-making in political and public life. Article 7 guarantees the right of women to vote in all elections and public referendums and to be eligible for election to all publicly elected bodies, the right to participate in the formulation of government policy and its implementation, to hold public office and perform all public functions at all levels of government, and the right to participate in non-governmental organizations (NGOs) or associations concerned with the public and political life of the country. Article 8 requires State parties to "take all appropriate measures to ensure to women, on equal terms with men and without any discrimination, the opportunity to represent their Governments at the international level and to participate in the work of international organizations."

Women's right to a nationality

Women's ability to participate in public and political life is integrally related to their ability to claim citizenship and nationality-related rights. The Convention on the Elimination of All Forms of Discrimination against Women calls on States to "grant women equal rights with men to acquire, change or retain their nationality" and to "ensure in particular that neither marriage to an alien nor change of nationality by the husband during marriage shall automatically change the nationality of the wife, render her stateless or force upon her the nationality of the husband" (art. 9). It also requires State parties to "grant women equal rights with men with respect to the nationality of their children".

Rights on Sexual and Reproductive Health

Reproductive health is defined in the Programme of Action of the International Conference on Population and Development

as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes.” In 2004, the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health defined sexual health as a state of physical, emotional, mental and social well-being related to sexuality, not merely the absence of disease, dysfunction or infirmity (E/CN.4/2004/49). This definition is based on the recognition in the Programme of Action that the purpose of sexual health “is the enhancement of life and personal relations, and not merely counselling and care related to reproduction and sexually transmitted diseases.”

Violations of women’s sexual and reproductive health rights are often deeply ingrained in societal values pertaining to women’s sexuality. Patriarchal concepts of women’s roles within the family mean that women are often valued according to their ability to reproduce. Early marriage and pregnancy or repeated pregnancies spaced too closely together, often as the result of efforts to produce male offspring because of the preference for sons, have a devastating impact on women’s health with sometimes fatal consequences. Women are also often blamed for infertility, and ostracized and subjected to various human rights violations as a result.

Women’s Right to an Adequate Standard of Living

The International Covenant on Economic, Social and Cultural Rights mentions the right to adequate food, clothing and housing, and the continuous improvement of living conditions as part

of the right to an adequate standard of living for oneself and one’s family (art. 11). Women’s rights to land, property, food, water and sanitation, as well as work and social security, are intrinsically linked to the right to attain an adequate standard of living. All these rights are guaranteed under international human rights law, including the right to enjoy these rights on an equal basis with men, without discrimination. Women’s access to services, to education and to productive resources is paramount to the realization of the above-mentioned rights

Violence against women and their right to housing

The Declaration on the Elimination of Violence against Women defines “violence against women” as “any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life.” Since the beginning of the 1990s, violence against women has gained much attention in the human rights discourse.

Domestic violence has been found to be a leading cause of women’s (and often their children’s) homelessness, and many women try to avoid homelessness by staying in abusive relationships. Women who are property owners or landowners experience less domestic violence, which points to the importance of guaranteeing women’s security of tenure. Assumptions that a woman has to “leave” an abusive home instead of removing the abusive husband and the lack of support for removing the abusive partner by local authorities, community and/or family

laws and regulations, greatly undermine women's right to adequate housing as well as their right to live a life free of violence.

Overcrowding, poverty and unemployment also have an impact on the above-mentioned rights and directly affect the level of violence and sexual abuse in homes and communities. In addition, insufficient protection for victims of domestic violence, including insufficient shelter homes, legal aid and information to women about their rights, has an impact on the level of domestic violence and women's homelessness. Consequently, States should address all these issues as issues of women's rights to property, land, housing, life, personal security, gender equality and being free from violence and discrimination.

A human rights-based approach to maternal mortality

The Human Rights Council requested the Office of the United Nations High Commissioner for Human Rights to prepare a series of reports on maternal mortality and morbidity as a human rights issue. In the first report in 2010, the High Commissioner outlined seven important principles of a human rights-based approach: non-discrimination, accountability, participation, transparency, empowerment, sustainability, and international cooperation. In 2011, a compilation of good practices was presented, in which the High Commissioner observed five common features of good practices to reduce maternal mortality and morbidity in line with human rights obligations: enhancing the status of women by removing barriers to an effective human rights-based approach to eliminate maternal mortality and morbidity, ensuring sexual and reproductive health rights, strengthening health systems to increase access to and use

of skilled care, addressing unsafe abortion, and improving monitoring and evaluation.

Gender Mainstreaming and Protection of Rights

Gender mainstreaming (or integration) is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve equality between men and women. Gender integration as a strategy and methodology does not in theory mean an emphasis on women's experiences. However, given the socially constructed differences and relations between males and females in most of the world's societies, in practice it often results in a specific focus on women because they are mostly adversely affected by existing gender inequalities.

Conclusion

Women in all countries, irrespective of status, class, age, caste or religion, experience violence in virtually all spheres of life, whether in the home, at work, on the street, in government institutions, or in times of conflict or crisis. Violence is also present throughout the lifetime of a woman, affecting girls and older women too. Specific groups of women suffering from various forms of discrimination, such as women with disabilities or migrant women, lesbian, bisexual and transgender women, are particularly vulnerable to violence. Understanding that violence against women

is a manifestation of historically unequal power relations between men and women, a human rights analysis posits that the specific causes of such violence and the factors that increase the risk of its occurrence are grounded in the broader context of systemic gender-based discrimination against women and other forms of subordination. The best way to protect the rights of women is to empower them through the effective education and share the experiences of the various categories of women in the national, regional and international levels. This will not only assist them to remember the importance of the human rights taught but will also enable them to understand their practical application and protect the rights.

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SELF-MANAGEMENT SKILLS AMONG UNDER GRADUATE STUDENTS

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ABSTRACT

The capacity to control oneself is vital in a more complex world of today. One of the most important skills needed to succeed in life is the ability to self-manage. Self-management empowers individuals to take responsibility for their personal and professional lives, which boosts productivity, strengthens bonds with others, and improves overall wellbeing. In this context, Self-management among the Undergraduate Students was investigated using descriptive method. The sample consisted of 111 Undergraduate Students in Kottayam district, Kerala. The tool used for the study was the adapted version of the Self-management Scale by Xue & Sun, (2011). The investigator found that 19 percent of the Undergraduate Students possess High Self-Management Skill, 68.4 percent of students possess Average Self-Management Skill and 14.6 percent of the Undergraduate Students possess Low Self-Management Skill. It is also found that Self-Management Skill among the Undergraduate Students does not differ significantly with respect to Gender.

Keywords: *Self-Management Skill, Undergraduate Students*

Introduction

One of the most important skills needed to succeed is the ability to self-manage. This particular skill is vital in all aspects of life, including in the field of education. Self-Management skill is, “the ability to restructure or modify one’s physical and social environment when it is necessary to learn more effectively” (Dembo, 2004, p. 165). It is a multi-faceted skill that involves intentionally managing one’s emotions, behavior and environment. How well people manage themselves largely determines

the quality of their daily life and personal achievement. Good self-management, including prioritizing to-do-list, completing big projects before the final deadline, and figuring out the steps to accomplish goals, has been one of the keys to success in school and the workplace. Improving self-management skills in learning is crucial in improving student achievement. Self-management abilities are crucial for pupils since they enable them to manage their timetables, put their responsibilities at

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hand, cooperate with people at home and at school and carry out plans to finish tasks, preparing for exams and remain attentive in class. The current study aims to find out Self-management skills of under-graduate students. For under-graduate students, good self-management has important implication for both their study and future development.

Meaning and concept of Self-Management Skills

According to Bandy and Moore (2010), self-management is one of the five social-emotional areas of learning which is identified by the collaboration for academic, social, and emotional learning. They suggested that the ability to control the emotions and consequential manners that are socially suitable, enables students to deal with undesirable results, perseveres when facing difficulties, and sets goals for the best achievement. Self-management, is the ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. Several self-management skills also fall under the broad category of "Study Habits, Skills, and Attitudes," which are associated with successful college performance, even after controlling for high-school grade point average and standardized test scores (Credé & Kuncel, 2008).

According to Zimmerman and Risemberg (1997) and Zimmerman and Schunk (2013), there are three areas of self-management that one should observe to succeed; these are motivation, behavior, and learning and study strategies. Motivation means the ability to motivate oneself, manage to set goals, define objectives,

develop and keep the motivation high to get things done. Motivational strategies mean the capacity to manage and cope with stress and conflict. The absence of this strategy often results in emotional instability, especially when things do not work out as intended. As with motivational strategy, behavioral strategy means the ability to have a positive attitude, self-control, and good time management. Learning and study strategies relate to learners' ability to maximize their time to get the best out of their study (Choi & Chung, 2012).

Need and Significance of the Study

In every sphere of life, whether in education, jobs, or relationships, one has to manage time, environment, attention, effort, and emotions. People who struggle with self-management often have difficulties in achieving their goals and they become frustrating or dull. Effective self-management is crucial since the world is getting more complex in this era. Self-management empowers individuals to take responsibility for their personal and professional lives, which boosts productivity, strengthens bonds with others, and improves overall wellbeing. It is the cornerstone of emotional intelligence and a crucial factor in determining one's happiness index. Self-management is a main ability that will benefit students during their life, which help them control impulses, set goals, and get organized so they can be strong self-motivators. Students who can regulate their emotions, control impulses and manage stress are more likely to identify goals and consistently meet them. Choi and Chung (2012) agreed that the development of Self-Management Skills tends to be a

useful strategy for students who may lose confidence in their ability to succeed and tend to blame external circumstances for their performance. Self-management is also important for functioning outside of school and work. Individuals with better self-control reported fewer psychological symptoms, higher self-esteem, better relationships, and stronger interpersonal skills (Tangney, Baumeister, & Boone, 2004).

It has been reported that successful learner can achieve own learning goals through self-management. Findings of Jasim (2020) reveal that all of the colleges' students have experienced good level of academic achievement who have high Self-Management Skill. People having high self-management are more likely to perform very well in their tasks due to ability to adapt and initiate in times of changes. Study conducted by Chudari (2017) points out how self-management contributes to the improvement of bad habits into better emotional state and good conducts. As Rosenbaum (1980) points out, there are significant individual differences in how well people can manage themselves. Effectively managing emotions supports academic achievement through improved attention control and memory (Davis & Levine, 2013). Training in self-management skills significantly improved job performance as assessed through both objective and subjective measures (Frayne and Geringer, 2000).

For the healthy development of one's professional life and in order to produce powerful managers and leaders for the country Self-management skills

play a central role. Self-management allows students to follow through plans to complete the tasks, and study of the tests, and continue to focus in the classroom. (Transforming Education, 2020).

Objectives of the study

1. To find self-management skills among undergraduate students
2. To compare the self-management skills among undergraduate students with respect to Gender

Hypothesis of the Study

1. There is significant difference in the Means of Scores on Self-management skills among undergraduate students with respect to gender.

Methodology of the Study

The present study follows a descriptive survey method. The sample consisted of 111 undergraduate students in Kottayam district, Kerala. The tool used for the study was adapted version of the Self-management Scale by Xue & Sun, (2011). Statistical techniques used to analyse the data collected are Mean, Standard Deviation and *t*-test.

Analysis and Interpretation of Data

The first objective of the study was to study the distribution of the scores on Self-management Scale among the undergraduate students of Kottayam District. The investigator presents the frequency distribution of the scores on Self-Management Scale among the Undergraduate Students of Kottayam District in Table 1.

Table 1
Frequency Distribution of the Scores on Social Adjustment

| Class Interval | Frequency | Percentage |
|----------------|-----------|------------|
| 40-50 | 2 | 1.8 |
| 50-60 | 9 | 8.2 |
| 60-70 | 37 | 33.3 |
| 70-80 | 43 | 38.7 |
| 80-90 | 15 | 13.5 |
| 90-100 | 5 | 4.5 |
| Total | 111 | 100 |

Table 2

The Number (N), Mean (M) and Standard Deviation (SD) of Self-Management Skill among undergraduate students

| Variable | Number | Mean | Median | Mode | SD |
|-----------------------|--------|-------|--------|-------|-------|
| Self-Management Skill | 111 | 72.56 | 72.00 | 76.00 | 10.30 |

From table 2, the investigator observes that the mean of the scores on Self-Management Scale among the undergraduate students is 72.56 and

From table 1 it is clear that 43 of the total 111 students lie in the class 70-80, 37 students lie in the class 60-70, 15 students lie in the class 80-90 and 9 students lie in the class 50-60. There are only 5 students in the class with interval 90-100 and 2 students in the class 40-50. The investigator calculated the mean and standard deviation of the scores on Self-Management Scale among the undergraduate students and the data is presented in table 2.

standard deviation is 10.30. The median and mode of the distribution are 72.00 and 76.00 respectively.

Table 3

Classification of the Total Sample based on Self-Management Skill

| Level | Range | Number of Students | Percentage |
|---------|-------------------------|--------------------|------------|
| High | Above 82.86 | 19 | 17.1 |
| Average | Between 82.86 and 62.26 | 76 | 68.4 |
| Low | Below 62.26 | 17 | 15.3 |
| | Total | 111 | 100 |

From Table 3 the investigator observes that 19 Undergraduate Students scored above 82.86 and they possess High Self-Management Skill. There are 76 Undergraduate Students who lie between 82.86 and 62.26 and they possess Average Self-Management Skill. There are 17 Undergraduate Students who scored below 62.26 and they have low Self-Management Skill.

The next objective of the study was to analyze and find out the significant difference in Self-Management Skill among the Undergraduate Students with respect to gender. For this the investigator formulated a null hypothesis which states that “there is no significant difference in Self-Management Skill among the undergraduate students with respect to gender”. In order to test the null hypothesis, the investigator used the statistical technique *t*-test and the result is given in table 4.

Table 4

Variable, Category, Number (N), Mean (M), Standard Deviation (SD), t-value and p-value on Self-Management Skill of Total Sample of the Undergraduate Students with respect to Gender

| Variable | Category | Subcategory | N | M | SD | t-value | p value |
|-----------------------|----------|-------------|----|-------|-------|---------|---------|
| Self-Management Skill | Gender | Male | 39 | 73.74 | 10.53 | .884 | .378 |
| | | Female | 72 | 71.93 | 10.19 | | |

From table 4, the investigator observes that the *t*-value is .884 which is not significant at .05 level. Therefore, the null hypothesis is accepted and the investigator infers that there is no significant difference in Self-Management Skill among the undergraduate students with respect to gender.

Findings of the study

- The investigator found that 19 percent of the Undergraduate Students possess High Self-Management Skill, 68.4 percent of students possess Average Self-Management Skill and 14.6 percent of the Undergraduate Students possess Low Self-Management Skill.
- Self-Management Skills of Undergraduate Students do not differ significantly with respect to Gender.

Educational Implications

Evaluating Self-Management Skills allows the identification of signs of social anxiety, social withdrawal, or other Self-Management problems. This may enable timely intervention and support, which can prevent the increase of issues and promote positive self-development. The investigator found that only 19 percent of the Undergraduate Students possess High Self-Management Skill. So, attention can be given by teachers, administrators and curriculum developers to improve the Self-Management Skill among Undergraduate

Students. The various educational implications are as follows:

- Educators can integrate self-management skills instruction in their teaching
- Educators can give practice to emotion regulation by rethinking about situations that cause unhelpful and distressing emotions.
- Educators can use strategies such as mindfulness, yoga and metacognitive monitoring for developing self-management skills in their classrooms.
- When setting goals, students should be encouraged by their teachers to identify times or settings where they can act on their goals as well as the specific behaviors, they can use which will support their goals.

Conclusion

Self-management skills are important for academic and occupational success and are associated with other positive life outcomes. The present study aims to assess self-management skills of undergraduate students. Reliable and valid measurement of self-management skills is important to the development of these skills. This research will provide valuable insights into areas where students may need support to improve self-management skills. By providing feedback on students' level of self-management skills, assessments can

guide educators about what type and level of interference is needed for their students to effectively manage academic responsibilities and achieve their educational goals.

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PEDAGOGICAL SKILLS FOR 21ST CENTURY TEACHERS

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Abstract

A classroom during the classic era of teaching can be envisioned with a teacher up front and the students in nice neat rows not allowed talking to each other. Gone are those days, when a teacher, the only source of authority, disseminating classic information, and kids will restate it back up on their test, designed to measure how much content that they could remember. The present-day kids do not always like a classic and redundant way of teaching. Such teaching techniques do not always inspire them. Students love having choices, and when a classroom is converted to a situation with student choices, a class becomes an inclusive teaching place.

Key words: *Collaboration, communication, critical thinking, creativity and caring, etc*

Introduction

Albert Einstein's perspective explains that "Education is not the learning of fact but the training of the mind to think" (Spectar, 2015). A classroom of the 21st century must have four C's: *Collaboration, Communication, Critical Thinking, and Creativity* (Happ, 2013). Collaboration requires communication, and that is where creativity arises, and a unique perspective can be seen among students. There must be learning activities available to the students, designed to meet the diverse learning styles that kids love. With few changes in

conventional practices, a student can learn to ponder on the facts with collaboration, communication, practicing critical thinking, and creativity with their own choice.

From diverse literature sources, it is clear that there are two things needed for effective teaching in the 21st era, research-based teaching techniques and relationship with the students (Ambrose, et al., 2010; Dewing and Munro, 2005; Gijbels, et al., 2005; Mahyuddin et al., 2006). Out of the two factors, the relationship is a significant

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factor (Gijbels, et al., 2005; Mahyuddin et al., 2006).

A classroom of the 21st century

There is a beautiful saying by William Butler Yeats, apt for 21st teaching techniques, “*The mind is not a vessel that needs filling but wood that needs igniting*” (Cola, 2018). A teacher-centered classroom to a teacher becoming more of a guide is needed. A teacher should stand on the side rather than a sage on the stage. Such efforts will open opportunities to not only teach but also to coach, mentor, nurture, and inspire students. The tutorials, learning activities are something kids like over lectures and end-term examinations judging their ability to stuff their minds with facts, not aptitude. Kids would like to work on some website activities online, while future kids in a class can be visualized with their headphones on, watching a video related to the subject and be more pragmatic than ever. There would be students who like doing laboratory activities. Kids would prefer a gaming environment designed to educate them about topics they are struggling with often. A section of kids wants to do first-hand simulations that help them to understand complicated subjects. In contrast, other kids like self-reflection relating their efforts that take prior experience and connect to new knowledge.

Students enjoy arts and entertainment and they can follow up on any concept visually by developing project presentations and sharing them with the rest of the class. Arts and entertainment must be non-traditional and the students should be taught to expand their knowledge with their imagination so they can showcase what they have learned in either a form of a song, a skit, vlog, a blog, or a model that they

have built. Such type of teaching techniques is not only useful, but also, it is fun because it allows a teacher to develop a relationship with all students while adopting technology in their pedagogy.

It allows an instructor to sit down with a small group of kids and respond to questions that they start. Other than that, a teacher can listen to their thinking. All such teaching techniques create irony by removing a teacher from front and center and become less critical. Still, paradoxically an instructor becomes more significant because they are working as a guide.

It does not matter what techniques are used; the two things always work in favor of a teacher, first the teacher’s love and passion for the subject, and second the teacher’s honest love for the kids. The passion and love for a subject can be seen in the eagerness of students to learn more, inspiring students to achieve success in their lives. Teacher’s honest love for kids includes the highest level of love known as a self-sacrificial kind of love that is passionately committed to the wellbeing of their pupils. Self-sacrificial love is not always emotional, but it is decisional, and a teacher can love their kids, even when they are not likable. Such love motivates and inspires powerfully. There is an emphasis that an ideal pedagogy, besides, four C’s, include another C that stands for *Caring*, the most effective, powerful, inspiring way of teaching

Other than all the factors discussed before, a well-organized, consistent, disciplined lesson plan is also significant. Along with it, the effective use of technology is equally crucial to keep pace with the students of the digital era. While doing so, the newly adopted skills with conventional

standards should not stifle the creativity of the pupils.

A teaching strategy, whether in current times or the remaining part of the 21st century, should be in a way that teacher-taught relationships last forever. What students are going to remember the most is how a teacher looks them in the eye and asks them about their extracurricular activities and their part-time recreational activities. How would it be when a teacher in the hall asks the pupils, “how they are doing?” Efforts of a teacher during the first few days of the session will be to learn the names of the kids. How a teacher appreciates and supports their pupils with their passion for athletic events, singing, arts, or entertainment? A teacher leading the class and loud off-key choruses of happy birthday are remembered by their students forever. There were times when a student made the newspaper; a teacher putting their newspaper clippings up on the wall in the classroom and asking students to autograph them. Just by telling them to do that, so that, someday when their autographs were worth lots of money, it would fund their retirement. Such motivation will be a life term memory of kids a teacher would teach ever. A feeling of empathy besides teaching is noteworthy and the pinnacle of teacher-taught relationships.

Conclusion

A teacher who is transparent and is real with their students is the apex of the teaching pyramid. To conclude, what is essential while transforming pedagogical skills in the 21st era is how a teacher motivates, inspires,

and allows kids to involve themselves in the classroom, where students have their choices. A student can practice real-life skills crucial for their success. They are *collaboration, communication, critical thinking, and creativity*, and the most important of these is *Care*.

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MISCONCEPTIONS IN SUBJECT-VERB AGREEMENT

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ABSTRACT

English occupies a seminal position in the academic or educational scenario of India. The school education in India, which follows English as a medium of instruction, aims to achieve the goal of making every student who completes his or her school education have a practical command over this language. Often, the students of India find quite a few difficulties in learning this not so foreign language. This is a result of certain inhibitions and misconceptions which have grabbed the learners over decades. One of them includes the misconceptions in subject-verb agreement prevalent among the learners of English in India. This paper attempts to identify the level of this misconception among the secondary school students by taking a small sample of 30 High school students of Kottayam district.

Keywords: *misconceptions, subject-verb agreement, secondary school students, three-tier multiple-choice test, etc*

Introduction

Subject-Verb Agreement refers to the grammatical concept that the subject of a sentence must align with the main verb of that same sentence. Singular subjects take singular verbs and plural subjects take plural verbs. Misconception is a conclusion that is wrong because it is based on faulty thinking or facts that are wrong. Writers for whom English is not their primary language find Subject-Verb Agreement a challenge when learning the language. Besides the

difficulties in reconciling agreement, depending on whether one is using singular or plural nouns and pronouns, and added complexities of person (first person, second person, and third person), and tense (past, present, and future). Errors and misconceptions in Subject-Verb Agreement occur in the cases of collective nouns, interruptive prepositional phrases, summation plurals, statistical proportions, use of neither and either, subjects with an or,

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and all, and so on. In the English language, a writer or speaker has mismatched the singular or plural of the verb with the number of the subject of the sentence. Mistakes in Subject-Verb Agreement are noticeable in written English. People tend to overlook mistakes in spoken conversational English, but in writing, Subject-Verb Agreement errors really jump out at the reader. The misconceptions in Subject-Verb Agreement are common among English as Second Language Learners.

Need and Significance of the Study

English is a widespread language across the world and is taught commonly in many countries. English has almost taken the position of a global language. English is the associate official language of India. It has a superior position in the academic scenario of India. It is the medium of instruction in many schools and higher education institutions in India. It is common knowledge that proficiency in English language could lead to high job profiles in India. Learning English is an inevitable part of school curriculum of India. The major aim of teaching English in India is to enable the learners to have a practical command over the language. It is a common issue that many school students make a lot of errors while using English language for speaking and writing. The reasons include many and one such is misconceptions related to grammar.

The need to identify misconceptions in subject-verb agreement among secondary school students arises from the crucial role that grammatical accuracy plays in effective communication. Subject-verb agreement is a fundamental aspect of English grammar and errors in its usage can lead to confusion and misinterpretation. Therefore, it is

essential to address misconceptions students may have regarding subject-verb agreement to ensure their language skills are developed accurately.

One significant aspect of this endeavour is its potential to inform language educators about the specific areas where students struggle with subject-verb agreement. By identifying the misconceptions and common errors made by secondary school students, teachers can adapt their teaching methods and curriculum to target these specific difficulties. This analysis will enable educators to design more effective lesson plans, instructional materials, and activities that provide targeted practice opportunities and enhance students' understanding of subject-verb agreement. Furthermore, the findings of this identification process will contribute to the existing body of research on language learning and pedagogy. Understanding the misconceptions and errors that students hold regarding subject-verb agreement helps researchers and educators gain insights into the underlying causes of these errors. The results can be used to develop evidence-based instructional strategies, teaching interventions, and remedial programs that specifically address the misconceptions secondary school students may have regarding the subject-verb agreement.

In India, it is expected that by the completion of class XII, the students should develop a practical command over language. As English is the second language in India, it is necessary that the learners should be able to speak and write without grammatical errors.

Statement of the Problem

The present study aims at finding the level of misconceptions in subject-

work agreement among secondary school students. Therefore, the study is entitled as misconceptions in subject-work agreement.

Operational Definition of the Key Terms

Misconception: A misconception is a conclusion that is wrong because it is based on faulty thinking or facts that are wrong. It is a view or opinion that is incorrect because it is based on faulty understanding. Here, it refers to misconception in the concept of subject -verb agreement among secondary school students.

Subject-Verb Agreement: The subject and verb in a sentence must agree with one another in number, singular or plural. Thus, if a subject is singular, its work must also be singular. If a subject is plural, its work must also be plural.

Secondary School Students: It refers to students studying in standard eight in secondary schools following the Kerala State Curriculum.

Objectives of the Study

1. To identify the various misconceptions in subject-work agreement among secondary school students
2. To find the level of misconceptions in subject-work agreement among secondary school students and the possible reasons
3. To suggest some measures to remove those misconceptions

Hypothesis

Secondary school students vary in their levels of misconceptions in Subject-Verb Agreement.

Methodology

The survey method was used to collect data from secondary school students

regarding misconceptions in subject-verb agreement.

The population of the study

The population of the study was secondary school students of Pala sub district of Kottayam district.

Sample

Thirty students of St. Joseph's High Secondary School, Vilakkumadom, were selected as a sample for the study.

Tool Used

A Three-tier questionnaire was prepared to assess the pupils' misconceptions in subject-verb agreement. The questionnaire involved 30 multiple-choice questions. Multiple-choice questions can be effectively administered to a sample of students. However, multiple-choice tests do not provide reasons for students holding a particular conception. A student can give a correct answer with a wrong reason or a wrong answer with a correct reason. Consequently, because of the above limitation of a simple multiple-choice test, and since the study is on misconceptions in subject-verb agreement, the researcher prepared and administered a three-tier questionnaire. The three-tier test involves a tier that requires students to state whether they are sure about their answers to the first two tiers. Thus, the questionnaire helped to differentiate misconceptions from the lack of knowledge. Every question involved three tiers giving a total of 30 questions.

Procedure of Data Collection

The three-tier questionnaire was administered to 30 pupils to assess their misconceptions in Subject-Verb Agreement. The pupils were given the necessary instructions to avoid errors due to lack of proper instructions.

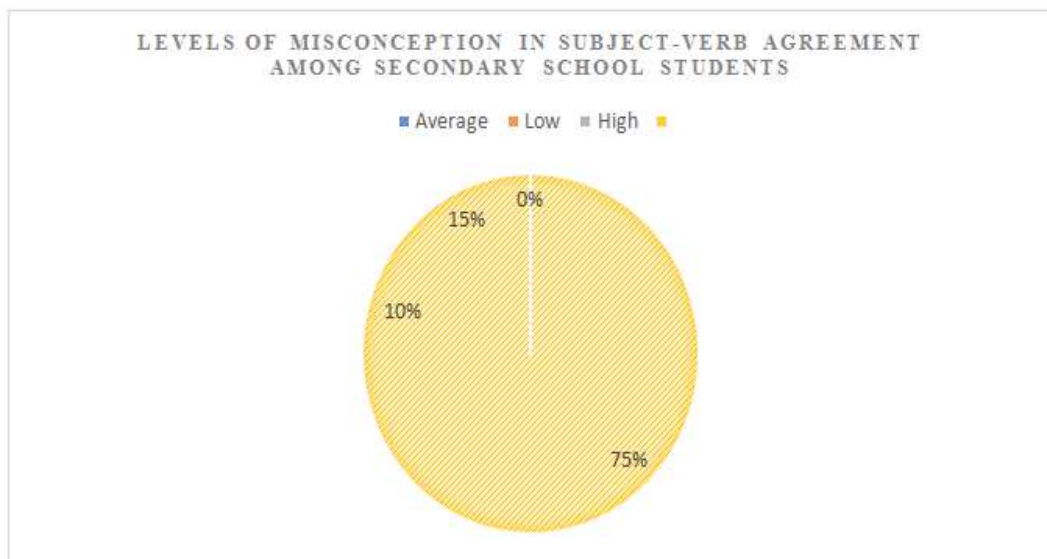
Analysis of Data

Data collected from a sample of 30 students were analysed to assess the level of misconceptions in Subject-Verb Agreement among secondary school students. Three variables were considered, namely, a) Misconception one-tier, b) Misconception two-tier, and c) Misconception three-tier. Misconception one-tier was created according to the student’s awareness to the first tier of items. When a student’s answer to the first tier was a misconception, it was coded as 1, otherwise 0. Misconception two-tier was based on the student’s answers to the first two tiers of items. When a student answers to both first and second tiers were misconception, it was coded as 1, otherwise 0. Misconception three-tier was produced by considering students’ answers to all the three tiers of items. When a student’s answers to the first two tiers were misconception, and when he or she selected, ‘I am sure,’ in the third tier, it was coded as 1, otherwise 0. The total Misconception Score of each student was calculated by adding the scores

of Misconception one-tier, Misconception two-tier, and Misconception three-tier. Thus, the maximum misconception score for a single student could be 30. After the analysis of data, the mean misconception score of the sample was calculated and standard deviation was found as well.

| Mean (M) | Standard Deviation (SD) |
|----------|-------------------------|
| 14.3 | 3.35 |

After calculating the standard deviation, the sample was categorized into pupils with high level of misconception in Subject-Verb Agreement, pupils with average level of misconception in Subject-Verb Agreement, and low level of Misconception in Subject-Verb Agreement. It was found that among the students who took the test, 75% of the students had an above average level of misconception in Subject-Verb Agreement. 10% of the students had low level of misconception in Subject-Verb Agreement. 15% of the students showed high level of misconceptions in Subject-Verb Agreement.



The pie chart above shows the levels of misconception in subject-verb agreement among secondary school students.

Findings of the study

1. There exists misconception in subject-verb agreement among secondary school students.
2. 15% of the students showed high level of misconception in subject-verb agreement.
3. 75% of the students have average or medium level of misconception in subject-verb agreement.
4. 10% of the students have only low level of misconception in subject-verb agreement.

Interpretation

Multiple choice tests are the common tools used in the survey method. They can be effectively administered to large samples of students. However, multiple choice tests do not provide reasons for students holding a particular conception. A student can give a correct answer with a wrong reason or wrong answer with a correct reason. Consequently, because of this limitation, two-tier multiple-choice questions emerged. The first part of each item includes a conventional multiple-choice question, and the second part of each item contains a set of reasons for the given answers in the first part. But it cannot distinguish misconceptions from the lack of knowledge. Three-tier tests enable researchers to address this limitation by adding an extra tier that requires students to state whether they are sure about their answers of the first two tiers. Three-tier tests help to differentiate the learner's lack of knowledge from misconceptions. The three-tier tests administered to find the learner's misconceptions in subject-verb

agreement help to differentiate the learner's misconceptions in subject-verb agreement from lack of knowledge.

A major misconception in subject-verb agreement found among the learners was that a singular subject follows a plural verb, or a plural subject takes a singular verb. This is a misconception and not merely a lack of knowledge. The reason for this kind of misconception could be many. The students may have developed this misconception from their intention to make the opposites attract. Another reason for the errors made by the students in subject-verb agreement is the students' inability to identify whether a subject or verb is plural or singular. The students' misconceptions in subject-verb agreement could also be because of their lack of exposure to English language. The LSRW skills in language learning could be most developed by the learner's exposure to the target language. Besides the difficulties in reconciling agreement, depending on whether one is using singular or plural nouns and pronouns, and the added complexities of person, misconceptions in subject-verb agreement occur in the case of introduction of collective nouns, interruptive prepositional phrase, summation plural, statistical proportion and so on.

The analysis of the data collected from the sample indicates that there exist misconceptions in subject-verb agreement among secondary school students of Pala sub district of Kottayam district. Students varied in their level of misconceptions in subject -verb agreement.

Implications or Suggestions of the Study

1. Three-tier test is an effective tool to identify the misconceptions in learning among the learners. These kinds of

tools are particularly useful in teaching and learning of grammar.

2. Since misconceptions in subject-verb agreement exist among the secondary school students, it should be taken seriously by the teachers. The teachers should promote contextual learning of grammar. The teachers should engage the learners in language games and activities, such as role-play, which suggests the actual use of English in Indian classrooms.
3. ICT-incorporated language in the classroom could bring a lot of changes in the learners' understanding of English grammar.
4. The study would have been more effective if the preparation of the three-tier test was preceded by an interview with the sample. The options or reasons or the misconceptions could have been collected from the sample itself if an interview had been held.

Conclusion

Subject-Verb Agreement is one of the central aspects of a language. English is a widespread language across the world and is being taught commonly in many countries. English is taught widely in Indian schools. English is the associate official language of India and is widely regarded as a second language as well. Subject-verb agreement is a basic principle of English language grammar. It simply denotes that a singular subject needs a singular verb, and a plural subject needs a plural verb.

The study focused on identifying the various misconceptions in subject-verb agreement among the secondary school students in Pala Sub district of Kottayam district. The levels of misconceptions

classified them into learners having high, average, and low levels of misconceptions in subject-verb agreement. This was identified using a three-tier test and the data was systematically analysed which was collected from a sample of 30 students. It was identified that students have misconceptions in subject-verb agreement. The study suggests some reasons for these misconceptions and a few techniques to tackle the issue.

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APPLICATION OF MATHEMATICAL CONCEPTS AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

Mathematics is a main matter of the real-life that can cover all aspects of real world. One of the aims of teaching mathematics is to develop ability to apply mathematical ideas among students. This study attempted to measure the application of Mathematical concepts among Standard Nine students of Kottayam District. Survey method is adopted for the study. The 'Mathematical Concepts Application Test' is used to collect the relevant data from the sample of 447 standard Nine students. The study revealed that only 16.11 % of the students possess High Application of Mathematical Concepts. There is no gender difference in Application of Mathematical Concepts. The students in the schools of Urban area are good in Application of Mathematical Concepts than that of Rural area. Aided and Government schools have equal level of ability in the Application of Mathematical Concepts.

Keywords: *Application of Mathematical concept, Mathematics*

Introduction

Education is a tool which provides people with knowledge, skill, technique, information, and enables them to know their rights and duties toward their family, society as well as the nation. It makes man the smartest creature on earth. It changes our perception of life and makes it better and expands vision and outlook to see the world. The skills like decision-making, mental agility, problem-solving, logical thinking and the ability to make rational and informed decisions help people to face problems in their professional as well as

personal lives. All these people acquired through proper education.

Mathematics has been with us for more than 5000 years; the subject has never been made as lively as it today. The pace of mathematical discovery and invention has accelerated amazingly during the last few decades. Mathematics, one of the compulsory subjects of school education is not a single entity. Computation, formal reasoning, problem solving, a way of solving problem, a creative medium and applications

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are the different faces of mathematics. The school mathematics is giving more attention on computation, formal reasoning problem solving and applications. Throughout our life, we experience the applications of Mathematics. Today, the world, which makes more development on science and technology, demands more mathematical knowledge in many fields. It has been said that Mathematics is the only branch of learning in which theories of two thousand years old are still valid.

Mathematics is wonderful device to define the nature and relations between natural phenomena. As Moellwald (1997) indicates that “the embedding of mathematics within the context of the learner is fundamental to the establishment of a meaningful association between personal beliefs and meaning making processes”. The most comprehensive characteristics of mathematics is the multipurpose application of mathematics in different parts of human life. We typically applied mathematics for every aspect of life unconsciously. Mathematics brings about popular use in everyday life of human - purchase, fare calculation of expenses etc. Ratios and Proportions, percentages, surface area and time and speed are essential mathematical concepts for our existence. These Mathematical Concepts find application in the fields of science, medicine, business, construction field, agriculture, weather, etc A man, who is educated or uneducated, directly or indirectly uses these concepts. This is the importance of these basic concepts. This importance leads the investigator to study the ability of students to apply these concepts.

The study of Mathematics requires the learners to apply the skills acquired to

new situations. The knowledge acquired by the students is greatly used for problem solving. The students can always verify the validity of Mathematical rules and relationships by applying them to novel situations. The knowledge and its applications, wherever possible should be related to daily life situations. Concepts and principles become more functional and meaningful only when they are related to actual practical applications. Grouws(1996) argued that learners know that mathematics plays critical role in their life. The new curriculum recommends building relations both in the field and among the fields with a similar approach. Costu et al (2009) indicated that students who were successful in mathematics turned out to fail in real problems in everyday life .In this sense revealing the conceptions of mathematical concepts and the ability of students to apply it in appropriate context was found to be significant. Therefore the investigator determined to measure students ability to use mathematical concepts find solutions for mathematical and real life problems.

Method

The research method is survey method to collect the data from students towards application of Mathematical concepts. A representative sample of 447 students of standard Nine of secondary schools in kottayam district is selected by convenience sampling technique giving due representation to factors like Gender and Type of management

Main Objectives

1. To find out the distribution of Scores on Application of Mathematical Concepts among the students of Standard Nine.

- To find out the difference in the Means of Scores on Application of Mathematical Concepts among the students of Standard Nine based on Gender, Locality and Type of Management

Tool used

Mathematical Concepts Application Test : Mathematical Concepts Application Test is prepared to measure the application of Mathematical concepts among the Ninth

Table 1

The Number, Maximum score, Minimum score, Mean and Standard Deviation of scores on Application of Mathematical Concepts

| Variable | Number | Maximum Score | Minimum Score | Mean | Standard Deviation |
|--------------------------------------|--------|---------------|---------------|-------|--------------------|
| Application of Mathematical Concepts | 447 | 100 | 12 | 41.14 | 16.34 |

Table 1 illustrates that the means of scores on Application of Mathematical Concepts among the students of Standard Nine is 41.14 which is less than 50% (50) and Standard deviation is 16.34. The minimum score obtained while administering the test was 12 and maximum score for the test was 100.

Application of Mathematical Concepts among the Students of Standard Nine based on Gender, Locality and Type of Management

The next objective of the study was to find out the difference in the Means of Scores of Application of Mathematical Concepts among the students of Standard Nine based on Gender, Locality and Type of Management. Test of significance of the large independent samples, two tailed (t-test) was used to analyze the objective. The Investigator formulated the null hypothesis

Standard students of kottayam District.

Statistical Techniques used

Descriptive Statistics- Mean, Standard Deviation and Inferential Statistics

Two tailed ‘t’- test were used.

Analysis and Findings

The result of Application of Mathematical concepts among secondary school students can be seen in table 1

for the analysis of these objectives.

Application of Mathematical Concepts among the Students of Standard Nine based on Gender

The investigator formulated the objective as to find out the difference in the Means of Scores of Application of Mathematical Concepts between males and females of Standard Nine.

The investigator formulated the null hypothesis as H_{01} . There is no significant difference between the Means of Scores on Application of Mathematical Concepts between males and females of Standard Nine. The investigator analyzed the data using test of significance for large independent sample, two tailed at 0.05 level and the results are given in the table 2

Table 2

The Number (N), Mean (M), Standard Deviation (SD) and critical ratio 't' of the scores on Application of Mathematical Concepts with regards to Gender

| Variable | Gender | N | M | SD | t value | Remarks |
|--------------------------------------|---------|-----|-------|-------|---------|------------------------------|
| Application of Mathematical concepts | Males | 257 | 41.07 | 17.57 | .03 | Not significant at .05 level |
| | Females | 190 | 41.03 | 15.08 | | |

From the table 2 it can be observed that the calculated 't' value .03 is less than the theoretical value of 't' 1.96 at .05 level. "There is no significant difference between the Means of Scores on Application of Mathematical Concepts among the students of Standard Nine based on Gender" is accepted and the Research hypothesis is not accepted.

Application of Mathematical Concepts among the Students of Standard Nine based on Locality

The investigator formulated the objective as to find out the difference in the Means of Scores on Application of

Mathematical Concepts among the students of Standard Nine based on Locality. Test of significance of the large independent samples, two tailed (t-test) was used to analyze the objective.

The investigator set 't' value as 1.96 at .05 levels of significance with degrees of freedom 445 for the test of significance for large independent sample two tailed. The investigator formulated the null hypothesis as H_{02} . There is no significant difference between the Means of Scores on Application of Mathematical Concepts among the students of Standard Nine based on Locality. The results are given in the table 3

Table 3

The Number (N), Mean (M), Standard Deviation (SD) and critical ratio 't' of the scores of Application of Mathematical Concepts with regards to Locality

| Variable | Locality | N | M | SD | t value | Remarks |
|--------------------------------------|----------|-----|-------|-------|---------|--------------------------|
| Application of Mathematical concepts | Rural | 238 | 38.25 | 16.27 | 3.89 | significant at .05 level |
| | Urban | 209 | 44.25 | 16.29 | | |

Table 3 shows that the calculated 't' value 3.89 is greater than theoretical value of 't' 1.96 at .05 level. "There is no significant difference between the Mean of Scores on Application of Mathematical Concepts among the students of Standard Nine based on Locality" is not accepted and the Research hypothesis is accepted.

Application of Mathematical Concepts among the students of Standard Nine based on Type of Management

The investigator formulated the objective as to find out the difference in the Means of Scores on Application

of Mathematical Concepts among the students of Standard Nine based on Type of Management.. Test of significance of the large independent samples, two tailed (t-test) was used to analyze the objective.

The investigator formulated the null hypothesis as H_{03} . There is no significant difference between the Means of Scores

on Application of Mathematical Concepts among the students of Standard Nine based on Type of Management and set 't' value as 1.96 at .05 levels of significance with degrees of freedom 445 for the test of significance for large independent sample two tailed. The results are given in the table 4

Table 4

The Number (N), Mean (M), Standard Deviation (SD) And Critical Ratio 't' of the Scores of Application of Mathematical Concepts with regards to Type of Management.

| Variable | Type of Management | N | M | SD | t value | Remarks |
|--------------------------------------|--------------------|-----|-------|-------|---------|------------------------------|
| Application of Mathematical concepts | Aided | 227 | 41.69 | 17.88 | .83 | Not significant at .05 level |
| | Government | 220 | 40.40 | 15.05 | | |

From the Table 4 it is clear that the calculated 't' value 0.83 is less than the theoretical value of t'1.96 at 0.05 level. "There is no significant difference between the Means of Scores on Application of Mathematical Concepts among the students of Standard Nine based on Type of Management" is accepted and the Research hypothesis is not accepted.

Discussion of the Results

The present study is about Application of Mathematical Concepts among the students of Standard Nine.

The distribution of the scores on Application of Mathematical Concepts among the students revealed that 16.11 % of the students possess High Application of Mathematical Concepts, 66% of the students possess Average Application of Mathematical Concepts, and 17.89% come under the level of Low Application of Mathematical Concepts

There is no significant difference between the means of scores on Application of Mathematical Concepts among the students of standard Nine with respect to the gender i.e., the investigator found that the students of Standard Nine, Males and Females have equal ability in the Application of Mathematical Concepts, in different situations.

The study showed that there is significant difference between the means of scores on Application of Mathematical Concepts among the students of Standard Nine with respect locality; this reveals that the students in the schools of Urban area are good in Application of Mathematical Concepts than that of Rural area.

The Difference in the means of scores on Application of Mathematical Concepts among the students of Standard Nine with respect to Type of Management, showed no significant difference. That is Investigator found that the students of Standard Nine,

belongs to Aided and Government schools have equal level of ability in the Application of Mathematical Concepts.

Conclusion

The present study is about Application of Mathematical Concepts of Secondary School Students. The results show that students should be encouraged to apply mathematics concepts to solve mathematical problems and real-life problems. They need to be freed from the fear of Mathematics and they need to be trained in the practical application without making them feel they are being taught. This is possible by encouraging students to involve the activities of Mathematics club in which members can be asked to solve many puzzles and questions related to real life situations. Parents and teachers must provide enough guidance and motivation to students to apply their mathematical knowledge in day to day life. Curriculum must include those content and real life activities that help to improve the Application of Mathematical Concepts. Students who are identified as having low Application of Mathematical Concepts should give special assistance to improve their Mathematical abilities

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