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EXPLORING LEARNING EFFICACY OF A TECHNOLOGY INFUSED CHEMISTRY CLASS: AN EXPERIMENT WITH FLIPPED CLASSROOM MODEL

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Abstract

Technology when aligned with active learning has the potential to catalyse change in a physical classroom and in this context, the latest buzzword in the educational arena is the flipped classroom approach. The flipped classroom is a new pedagogical method, which engages students in learning content out of class through video lectures and employing active, group-based problem-solving activities in the classroom. The study aimed at investigating the effectiveness of the flipped classroom approach in reinforcing chemistry learning efficacy among the First Year Junior College [FYJC] students and its impact on their achievement scores. For this mixed method research study based on Two Groups Pre-test-post-test Quasi Experimental Design, the experimental group [EG] and control group [CG] were intact classes of FYJC. The quantitative findings revealed a significant positive difference between EG and CG in the academic performance. The qualitative findings from the reflections of the observer and students' focus group interview responses validated that students were motivated by the video-recorded lectures, self-regulated learning environments, engagement in class activities and peer interaction.

Key words: *Flipped classroom, chemistry learning efficacy, self-regulated learning environment.*

Introduction

Studies related to probing students' attitudes toward chemistry, (Jegade, 2007, S Najdi,2009) points to various issues which could be indicators leading to low level of student motivation to engage in chemistry learning. They are listed as:

- The unpopular ways of teaching which does not promote higher order cognitive, lead to gaps between students' wishes and teachers' teaching.
- Difficulty of the chemistry course.
- Wide coverage of the syllabus in combination with little allocated teaching time.
- Use of unattractive teaching methods.
- Attitudes of peers towards science (chemistry)
- Enjoyment of science (chemistry)
- The nature of the classroom learning environment

One of the objectives of teaching Chemistry at Higher Secondary stage, as lay down by Maharashtra State Board of Secondary and Higher Secondary Education in the Revised Syllabi, 2012 was, to promote understanding of basic facts and concepts in chemistry while retaining the excitement of chemistry.

Most of the students presume that chemistry is a tough subject to comprehend leading to low interest and achievement. According to Levy, Nahum et.al (2004), students find difficulties and fail to understand chemical concepts which are abstract. Pendley, Pretz and Novak (1994), in their findings have stated that, the common problems in learning chemistry is because students learn by rote, they don't understand related concepts and teachers fail to give instructions of key concepts. Moreover, what they learn is not congruent with their prior knowledge which is deeply entrenched in their minds resulting in resistance to integrate new information. Thus, there is a snowball effect of recurring misconceptions in chemistry education at the higher secondary stage. The abstract nature of chemistry along with other content learning difficulties (e.g. the mathematical nature of much chemistry) means that chemistry classes require a high-level skill set (Fensham, 1988; Zoller, 1990; Taber, 2002). Researchers find evidence of misconceptions, rote learning, and of certain areas of basic chemistry which are still not understood even at degree-level (Johnstone, 1984; Bodner, 1991). All of these factors lead to low learning efficacy among students in the subject of chemistry.

Research studies show that teachers have not done enough to probe students' understanding in chemistry and there are critics calling it futile and meaningless as curriculum force teachers to focus on standardized assessment. Students need different strategies for different aspects of their learning (Selly, 2000). As a result, it is important for teachers to choose appropriate strategies which are effective and an efficient way to probe student's understanding.

There is need for a paradigm shift in teaching and learning chemistry.

The traditional lecture method is strictly based on textbooks and the teacher is believed to be a dispenser of knowledge. Although traditional lectures have been shown to be reasonably successful in imparting the facts and procedures, they are not effective for students to redefine and build on their ideas about scientific concepts because they do not encourage high levels of student meta-cognition (Dawn Rickey). Current views of learning and instruction challenge the wisdom of this traditional pedagogic practice by stressing the need for the learner to play an active role in constructing knowledge. Salomon Gavriel describes technology as a great tool to access information and to connect students to experts along with other students all over the world. However, technology alone is unable to transform the new information into knowledge. Instead, the active process must occur within the learner themselves. He also suggests that while a more traditional classroom is conducive to memorization of content, technology rich classrooms using a constructivist approach improve students' real-world skills including composing questions, producing hypothesis and tackling new problems intelligently (Salomon, 2002). In this context, Educators worldwide are increasingly turning to an alternative model of instruction called Flipped Learning Model, where teacher shifts direct learning out of classroom space and moves it to the individual learner space with the help of one of several technologies and focuses on active, face-to-face learning in the classroom. This transition of introduction and engagement of course content is a striking departure from the lecture-homework instructional cycle followed in traditional classrooms. **Researchers have come to tag this flipping of what is traditionally done inside and outside the classroom the “classroom flip” (Baker, 2000) or the “inverted classroom” (Lage & Platt, 2000).**

The flipped classroom model provides the instructor the opportunities to develop varying activities that can address a range of goals that students bring to the classroom and to motivate students in different ways. Flipped educators

are designers of their instructional model helping students explore topics in greater depth using student-centred pedagogies. They must continually think about how they can use the FLM to help students gain conceptual understanding, and concurrently maximize classroom time by adopting interactive instructional methods such as active learning strategies, peer instruction, problem-based learning etc.

Elements of The Flipped Classroom:

1. Flipped classroom provides an opportunity for students to gain first exposure prior to class.

Providing access to look at content material via reading a text or watching a video outside of the confines of time and space in a classroom will afford students time to think about what they already know and help them begin the process of assimilating content that may be foreign to them.

2. Flipped classroom provides incentive for students to prepare for class.

The flipped classroom model provides the instructor the opportunities to develop varying activities that can address a range of goals students bring to the classroom and to motivate students in different ways. Once students are properly motivated, and motivation is sustained, the focus moves to ensuring students are learning what they are expected to learn which leads to the third element of the flipped classroom.

3. Flipped classroom provides a mechanism to assess student understanding:

The pre-class assignments that students complete as evidence of their preparation can help both the instructor and the student to assess understanding. The class activities are designed to focus on the concepts with which students are struggling.

4. Flipped classroom provides in-class activities that focus on higher level cognitive activities:

Students use class time to deepen their understanding and increase their skills at using their new knowledge.

5. Flipped classroom provides a shift from teacher-centered classroom to a student-centered approach:

Flipped educators help students explore topics in greater depth using student-centered pedagogies and actively involving them in knowledge formation. Students move from being the product of teaching to the center of learning.

2. Review Of Related Literature

The body of literature reviewed on the research studies on meaningful learning of chemistry reiterates the fact that Chemistry is often regarded as a difficult subject, an observation that sometimes repel learners from continuing with studies in chemistry in secondary schools and colleges in different countries. One of the major deterrents towards a positive attitude to learning chemistry is the lack of adequate teacher approach to the learning material and poor non-formal instructional. Thus, while students show some evidence of learning and understanding in examination papers, researchers find evidence of misconceptions and rote learning. (Ghassan Sirhan1, 2007, Samir Najdi, 2009). Research provides evidence that the infusion of technology into teaching and learning has a remarkable influence on the instructional strategies of the educational institutions. A teacher who is adept at creating a course that raises the pedagogical benefits of that technology such as online quizzes, blogs and discussion boards can facilitate students to meet the desired learning outcomes (Heather Glynn Crawford-Ferre, Lynda R. Wiest, 2012, George R. Bradford, 2011, Wen-Shan Lin, Chun-Hsien Wang, 2011, HyeRan Park, et al, Andrina Granić, 2009).

The review of literature on flipped classroom approach brings to light the fact that there are no studies conducted on this topic in India. The literature reviewed included a wide variety of publication types including, books, blog

postings, newspaper and magazine articles, theses, white papers, as well as conference papers and peer reviewed journal articles. Most of these articles were published in the 2000s with a few number published in the late 1990s signifying the contemporary status of the concept.

All through the literature the terms *inverted classroom* and *classroom flip* are used interchangeably (Demetry, 2010; Houston & Lin, 2012; Hughes, 2012; Johnson & Renner, 2012; Strayer, 2007; Strayer, 2012; Talbert, 2012; Toto & Nguen, 2009; Warter-Perez & Dong, 2012; Zappe et al., 2009), suggesting that these two terms describe the same concept. The publications were then analysed through several thematic lenses:

Flipped class as an approach to remodel traditional lecture method by flipping the classwork/homework paradigm:

Research studies provide evidence to the proliferation of Internet technology, virtual communications, and learning management systems in education and a paradigm shift that has taken place in with the advent of a model of teaching known as the flipped classroom. In the flipped class, teachers create online videos, podcasts of their lectures, having students view them and take notes prior to attending class. Students then work in class on inquiry-based assignments, which includes what is traditionally thought of as homework, thus completely shifting the paradigm of teaching and learning ((Bergmann & Sams, 2007, 2012, Deslauriers L, et al, 2011, Gabriela C. Weaver, et al, 2015, Gerald Robert Overmyer, 2014, Gorman, M, 2012, Jack F. Eichler, Junelyn Peeples, 2015, Jamie L. Jensen, et al, 2014, Jason a. Willis, 2014, Kathleen S. Rein, 2015, Kathy Missildine, et al, 2013, Lisa W. Johnson, Jeremy D. Renner (2012), Paul Baepler, et al, 2014, Raymond Szparagowski (2014), Suazette R. et al, 2016). Several authors contended that when compared to the traditional lecture/homework approach, either the classroom flip appeals to a broader range of learning styles or the classroom flip more appropriately matches the prevalent learning style of their students (Houston & Lin, 2012; Lage et al., 2000; Toto & Nguen, 2009; Zappe et al., 2009).

Impact of flipped classroom on student performance:

Several of the selected publications reported gain in student performance over the traditional class. Chao, et al, 2015, Baepler P, et al, 2014, Deslauriers L, et al, 2011, Eichler J.F, et al, 2015 Fautch J.M, 2014, Hodge A, 2013, Jin Su Jeong, et al, 2016, Kaufman L.K, 2013, Lai, et al, 2015, Micheal K.Seery, 2015, Mooring S.R, et al, 2016, Overmyer G.R, 2014, Sang-Hong Kim, et al 2014, Schultz D et al, 2014 ThomasPoon, et al, 2015). Few studies however reported no marginal change in student performance on exams as compared to traditional lecture course (James Glynn Jr., 2013, Hodge A, 2013, Matthew R. Bell, 2015, Rein K.S, 2015).

Flipped class strategies to enhance student engagement:

Virtually 80% of the selected publications referred to collaborative learning activities as part of their implementation (Brenton McNally, et al, 2016, Cha J, et al, 2013, Eichler J.F, et al, 2015; Hughes, 2012; Johnson & Renner, 2012; Lage et al., 2000; Lara & Okhuysen, 2012; Lazareva V, 2015, McLaughlin J.E, et al, 2012, Michael K. Seery, 2015, Sang-Hong Kim, et al 2014; Strayer, 2007; Strayer, 2012; Toto & Nguen, 2009; Travis Roach, 2014, Zappe et al., 2009), suggesting that collaborative learning is a key component to the classroom flip.

Many teachers reported that student interaction and engagement increased in class with the classroom flip (Franciszowicz, 2008; Gannod et al., 2008; Houston & Lin, 2012; Hughes, 2012; Lage et al., 2000; Padadopoulos,

2010; Ronchetti, 2010). Increase in collaboration both in and out of classroom, students felt they received more personal attention, had more control over their learning, and were able to engage in critical thinking (Baker, 2000, Eichler J.F, et al, 2015, Hodge A , 2013, Kelly E. Snowden 2012, Lazareva V, 2015 Mazur A. D, et al, 2015, Mooring S.R, et al, 2016, Weaver G.C, et al, 2015, Zainuddin Z, et al,2016)

Flipped classroom learning environment:

Most of the publications identified skills such as creativity, innovation, critical thinking , problem solving ability and communication skills developed through active and collaborative learning activities contributing to a rich learning environment (Houston & Lin, 2012; Hughes, 2012; Johnson & Renner, 2012; Lage et al., 2000; Moravek et al., 2010; Padadopoulos, 2010; Ronchetti, 2010; Strayer, 2007; Strayer, 2012;; Toto & Nguen, 2009; Warter-Perez & Dong, 2012; Zappe et al., 2009).

Flipped classroom model to scaffold learning in chemistry:

The flipped format of the course provided students with increased access to course material thereby increasing time for in-class group learning and discussion and a reduction in cognitive load (Mooring S.R, et al, 2016). Exam scores in the flipped general chemistry class were significantly higher when compared with the students' previous scores in the traditional (Eichler J.F, et al,2015, Fautch J.M , 2014, Kaufman L.K, 2013, Michael K. Seery, 2015, ThomasPoon, et al, 2015, Weaver G.C, et al, 2015). Few studies however reported no marginal change in student performance in chemistry on exams as compared to a traditional lecture course (James Glynn Jr.,2013, A, 2013 Rein K.S, 2015)

3. CONCEPTUAL FRAMEWORK FOR THE STUDY

The conceptual framework to inform this study on the flipped classroom model [FLM] as a catalyst in enhancing learning efficacy in chemistry was derived from an analysis and synthesis of the research literature from the following fields:

1. Nature of Chemistry
2. Meaningful learning of chemistry
3. Traditional versus Flipped Class
4. Educational theory and the Flipped Classroom Model [FLM]
5. Flipped class design for Formative assessment.

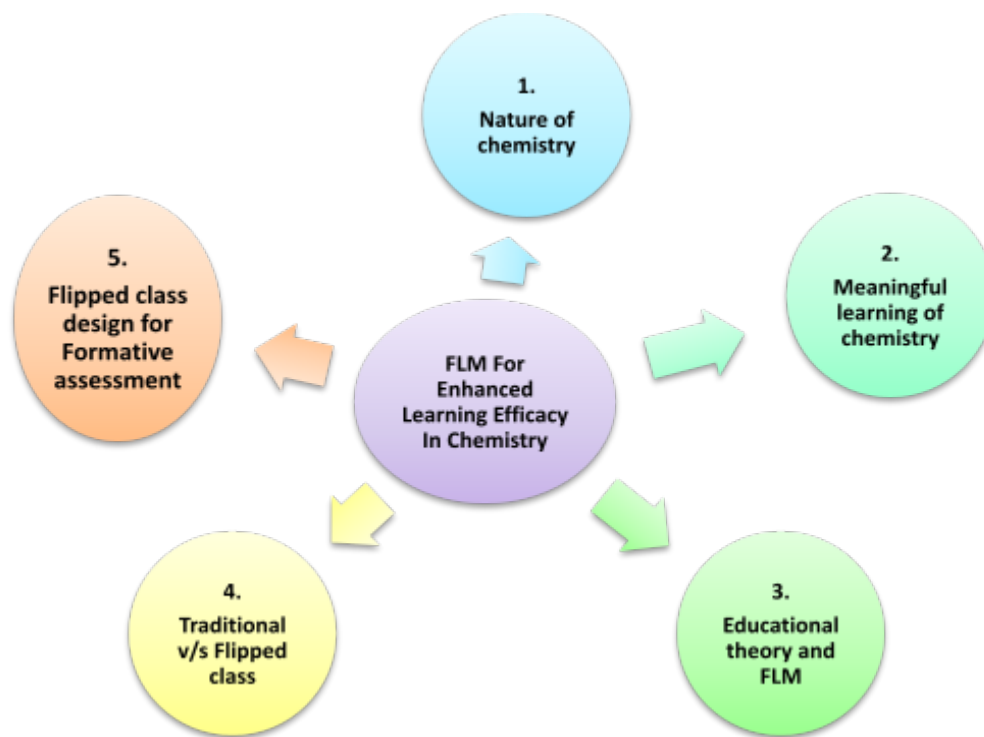


Figure 1: Conceptual framework

4. Research Method

4.1 Research design: The researcher used Embedded mixed method research design to include qualitative data to answer a research question within a large quantitative study.

The research questions for the present study were as follows:

For Quantitative Data :- Does the pedagogical strategy based on flipped learning approach to teaching chemistry have a positive effect on the students' achievement in chemistry?

For Qualitative Data: - What factors do the students perceive, that have influenced the learning environment of a flipped chemistry classroom?

4.2 Participants: The experimental group (EG) and control group (CG) were intact classes comprising of 100 students each of the science stream of FYJC. In this study the researcher followed the convenience sampling procedure defined by McMilan (2000), where a group of participants is selected because of availability.

4.3 Instruments:

For Quantitative Data: - Achievement Tests [developed by the researcher] was used to measure achievement in chemistry.

For Qualitative Data: - Observation schedule and Semi-Structured Focus Group Interview for assessing emerging and final learning environment of the flipped classroom

The development and theoretical underpinning each of these instruments and their purpose are discussed below:

Achievement Tests: The researcher constructed four achievement tests, one for the entire content and one each corresponding to a unit for each instructional cycle. The same test was used as the pre-test and post-test. The items of the test were formulated from Standard XI Organic chemistry content of the Mumbai Board FYJC Textbook. A

pre-pilot study was conducted for this tool to establish the validity of the entire tool and individual items

Observation schedule: Every cycle in the instructional phase was observed by an external non-participant observer. The observation tabulated the interactions occurring in the setting, researcher's behaviour, body language of the participants, culture of the classroom, comfortability of the students, classroom dynamics, unplanned events that may occur.

Semi-structured Focus Group Interview: The post-intervention interview of students of the experimental group formed the last leg of the qualitative data to be collected. The semi-structured focus group interview had questions developed by the researcher and was carried out with 15 students of the experimental group. The observer of the instructional phase was the moderator.

4.4 Procedure:

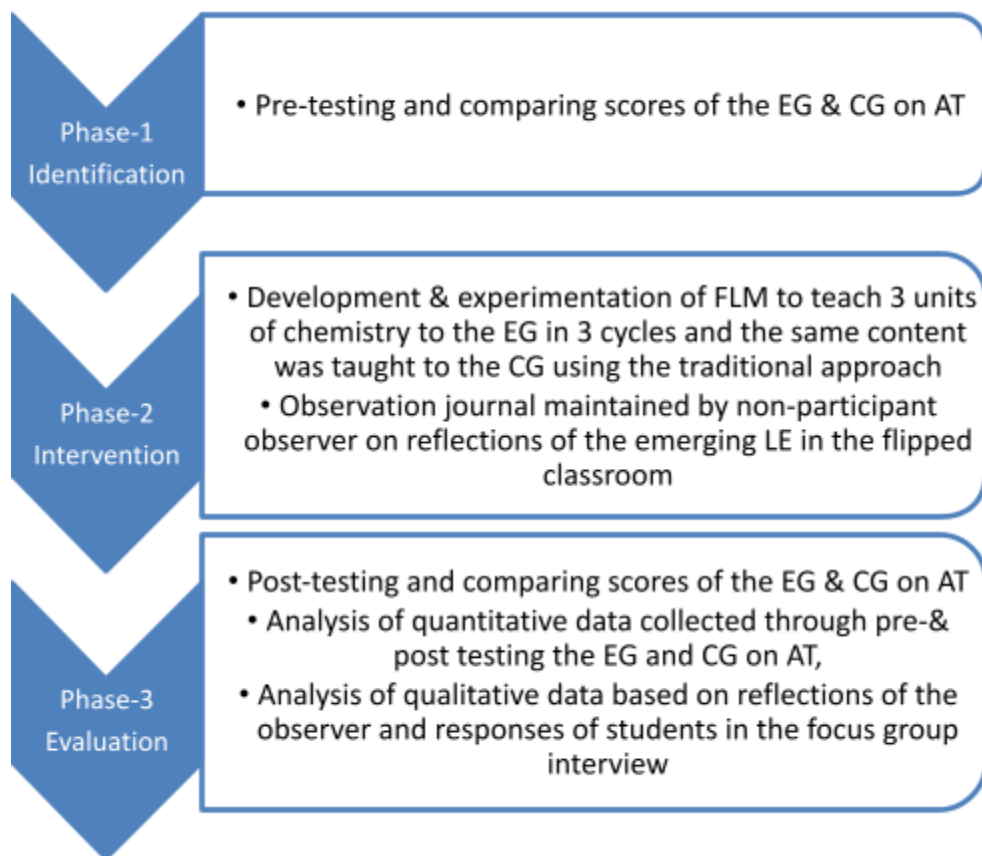


Figure 2: 3-phase design to investigate the effectiveness of the treatment based on FLM on the achievement in chemistry (AT)

Instructional Design

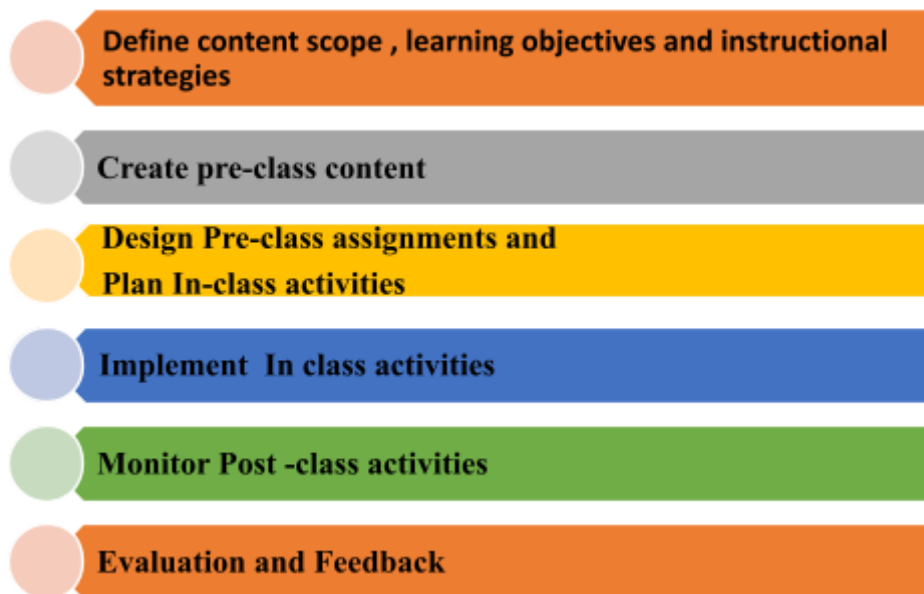


Figure 3: Steps for a flipped class lesson plan:

Flipped classroom instructional design used in this study:

The nerve-centre of successful flipped classroom learning is the instructional design. The researcher who is also the instructor analysed every step of the lesson planning and implementation activity to construct the Flipped Classroom Instructional design used in this study.

1. Scope of content: The overall content under instruction was divided into 3 topics under Units – 1, 2, & 3 which is further delineated into subtopics. The goals for the pedagogy were determined in lieu of the scope of content and the learning objectives were listed in consonance with the Blooms' revised taxonomy.

2. Pre-class content: Videos of transcripts of the weekly content were created in Power point slides with the voice recorded by the researcher were posted for viewing in Google classroom, Edmodo, Whatsapp on mobiles and also as unlisted You-Tube video links.

3. Pre-class Assignments and In-class activity: Assignments based on the weekly learning content were constructed formed on the learning objectives and was graded between 15 to 25 marks. The embedded questions had objective and short answer questions to evaluate the understanding and higher order thinking skills of the students. The assignments were reviewed, graded and re-posted to the students' ahead of the in-class instruction day. Thus, gauging the level of assimilation of the content and detecting common errors among the students, the instructor was informed and geared to clarify the doubts before the commencement of the in-class activity. Announcements in regard to the in-class activity were posted in the digital classrooms.

The **in-class** learning activities were conducted in consonance with the instructional design and in the presence of a non-participant External Observer. Students of the experimental group were randomly divided into 15 groups of 5-7 students each and were allotted topics for power point presentation and other team activities. The instructor reviewed the class progress at the end of every session to address common errors and doubts.

4. Post-class activities: The instructor engaged students in private conversation outside of class to make them feel comfortable in this innovative learning environment. Supplementary learning materials were posted to further augment the conceptual understanding of the topics. The students were encouraged to post private comments for the instructor to innovate and to seek timely redressal of their problems.

5. Evaluation and feedback: Formative assessment of the students was done using classroom assessment technologies incorporated in the digital classrooms. In addition to posting grades, the instructor posted additional resources and guidelines as private feedback to the students for raising their cognitive abilities. The instructor solicited consistent feedback from the students regarding the quality of the videos and its content, the mode of transmission of the lessons and the in-class active learning strategies.

5. Data Analysis

To analyse the quantitative data descriptively, the researcher used measures of central tendency, variability and divergence from normality. For inferential analysis ‘t- test’ was used.

6.1 Results and Findings:

Based on the **quantitative analysis** of the achievement scores and the t-test results the researcher has tried to answer the following research questions: -

Does the pedagogical strategy based on flipped learning approach to teaching chemistry have a positive effect on the students’ achievement in chemistry?

The findings of the analysed quantitative data are tabled as follows: -

Table 1 depicts the Pre-test Mean, Standard deviation & t-ratio of AT scores of EG & CG:

| Variable | Scores | N | Mean | SD | t- ratio | Table value | | I.o.s. |
|--------------------------------|----------------|----|------|------|----------|-------------|------|--------------------|
| Achievement In chemistry | Pre-test EG | 78 | 9.12 | 2.60 | 0.03 | 0.05 | 1.98 | Not significant |
| | Pre-test CG | 78 | 9.10 | 3.21 | | 0.01 | 2.61 | Not significant |

Table 2 depicts the Post-test Mean, Standard deviation & t-ratio of AT scores of EG & CG:

| Variable | Scores | N | Mean | SD | t- ratio | Table value | | I.o.s. |
|--------------------------------|-----------------|----|-------|------|----------|-------------|------|-------------|
| Achievement In chemistry | Post-test EG | 78 | 16.22 | 3.31 | 11.80 | 0.05 | 1.98 | Significant |
| | Post-test CG | 78 | 9.14 | 4.13 | | 0.01 | 2.61 | Significant |

Table 3 depicts the Post-test -Pre-test Mean, Standard deviation & t-ratio of AT scores of EG:

| Variable | Scores | N | Mean | SD | t- ratio | Table value | | I.o.s. |
|---|-----------------|----|-------|------|----------|-------------|------|-------------|
| Achievement In chemistry | Post-test EG | 78 | 16.22 | 3.31 | 22.95 | 0.05 | 1.99 | Significant |
| | Pre-test EG | 78 | 9.12 | 2.60 | | 0.01 | 2.64 | Significant |

Table 4 depicts the Post-test -Pre-test Mean, Standard deviation & t-ratio of AT scores of CG:

| Variable | Scores | N | Mean | SD | t- ratio | Table value | | I.o.s. |
|---|-----------------|----|------|------|----------|-------------|------|--------------------|
| Achievement In chemistry | Post-test CG | 78 | 9.14 | 4.13 | 0.21 | 0.05 | 1.99 | Not Significant |
| | Pre-test CG | 78 | 9.10 | 3.21 | | 0.01 | 2.64 | Not Significant |

Discussion: The findings of the ‘t’ test statistics suggest a significant difference between the experimental and control group on Achievement in chemistry, pre and post treatment. The students of the experimental group who were exposed to the flipped learning model experienced a higher level of academic achievement. The findings of the analyses are further supported by previous research on flipped classroom learning model which showed there was an increase in academic achievement after implementation of the flipped classroom (Steinmatz, 2013; Fulton, 2012; Green, 2012). Approximately 66% of the educators who implemented the flipped classroom model reported increased standardized test scores among their students after flipping the classroom (Hamdan et al., 2013).

Based on the **qualitative analysis** of the observation journal and semi-structured interview the researcher has tried to answer the following research question: -

” What factors do students perceive, have influenced the learning environment of a flipped chemistry classroom?”

The following themes surface from the reflections of the non-participant observer which provide an insight to the perceptions of the students on the chemistry flipped classroom environment.

Innovative and Flexible learning: The chemistry flipped classroom teacher did not follow a fixed pattern for conducting class as observed in a traditional class. The flexibility of teaching content through videos prior to the class allowed the teacher to have doubt solving sessions at the beginning of each lecture the flipped classroom teacher provided the students with different ways of learning the content. Students were found to adjust their learning approaches in various ways to learn. The group was unanimous in endorsing the lesson plan of the flipped classroom model as an interesting pattern. They felt the sequence of uploading modules of weekly content on Google classroom to be viewed at home followed by assignments and doubt solving in class to be very effective. They were provided 2-3 days for working on the assignments which they felt was sufficient.

Constructive learning: The instructor allowed a variety of teaching –learning modes to establish the understanding of a concept or a theory in chemistry. The exercises made the students more responsible of their learning. The students were transformed into active members of the learning process building knowledge instead of passively receiving it from the teacher. Teacher had rearranged classroom space to fit the lesson plan accommodate the learning concept.

Student engagement: Task oriented activities engaged the students were engage in meaningful learning without the teacher being central. Students in the flip class were more willing to work together and engage activity in the classroom on some level than the students in the traditional classroom. The inputs by the teacher facilitated the students to be engaged at a deeper level by understanding the purpose behind their learning activity. Activities involved with each instructional strategy engaged the students in the learning process and made them responsible for their learning.

7 Conclusions From The Study

The present research study based embedded variant of mixed method design investigated the effect of FLM on a chemistry FYJC class, and could arrive at the following conclusions: -

1. The analyzed quantitative data on EG & CG students 'achievement in chemistry revealed significant increase in the scores of EG over the CG. Thus, it could be concluded that this new innovative digital learning approach of teaching content outside of classroom with videos benefitted the students in comprehending the concepts in chemistry. The regular assignments with assessment which is another pillar of the FLM and instant feedback with doubt clearing sessions, sustained the learning process. Previous research studies proposed that a positive correlation exists between motivation and achievement which has a linear effect on the learning environment. The CG subjected to traditional face to face teaching -learning process was less engaged being only passive listeners in the classroom. The dipping motivation reflected in low achievement scores of the traditional classroom
2. These findings were backed by the results that emanated from the qualitative data gathered through observations and focus group interview. Students responses seemed to welcome and prefer the new learning approach based on the FLM. Their appreciation of the varied learning activities promoting collaborative work reflected in the vibrancy of the flipped classroom. The reflections by the observer echoed the same positive effect the flipped class had on the students' motivation level to learn chemistry. The involvement of the teacher could be sensed at every stage of the learning process in the classroom. They cleared doubts regarding content, activities and gave the impression of being responsible for their learning.

7.1 Limitations:

This study was limited by the short period of time allotted for this research study due to the course structure of FYJC class. The researcher followed the convenience sampling procedure thereby limiting the findings of the study.

7.2 Implications:

The result of this study implies that technology infused flipped learning model may result in enhancement in the chemistry learning efficacy of students and has several possible implications for teachers and students Teachers can simplify content in chemistry through illustrative videos and spend more time in class for doubt solving and activity-based learning, structure and catalyse interactive student-centred classroom through various activities

making learning of chemistry enjoyable and interesting and boost student engagement in learning chemistry through continuous formative assessment and feedback. Students can take more control of their learning by watching instruction at home or outside the classroom and be more comfortable in the learning process due to constant assessment of their learning and doubt solving.

The flipped classroom approach is a relatively novel learning approach and need to pass the test of time. Although, it has been heralded as a unique and cutting-edge learning approach, it still lacks implementation in India. Clearly, there is need for further research and development of variants based on FLM to suit domestic learning classrooms and students.

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COMPARISON OF EFFECTIVENESS OF STRESS REDUCTION MODEL AND TRADITIONAL METHOD IN ENHANCING CREATIVITY OF HIGH SCHOOL STUDENTS

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Abstract

The present study entitled “Comparison of Stress Reduction Model and Traditional Method in enhancing Creativity of Higher Secondary Students”, belongs to the area of Models of Teaching. The Models of Teaching have been classified into four families. The Stress Reduction Model belongs to the family of Behaviour Modification Model. This was an Experimental Study pertaining to Stress Reduction and modification of behavior, which were used as an agent of change among students of class IX. The study is an attempt to prepare students to face the day-to-day problems and queries about living life with sound mind and healthy body i.e. setting equilibrium among Affective, Cognitive and Conative domains by coping the day to day anxieties and other negative emotional states with the help of Stress Reduction Model and enhancing their creativity.

After going through related literature it was found that most of the studies have been conducted abroad and very few studies in this area have been conducted in India. Further, from the available therapies Moving Focus Relaxation (which include let go, Progressive Muscle Relaxation and Deep Muscle Relaxation) was not experimented in India. Moreover, most of the studies on stress have been focused on clinical sample or hospitalized patients. The findings so obtained may or may not be applicable to general population. Keeping this in view, an attempt has been made to undertake the present study.

Key words: *Behaviour Modification, Stress Reduction, Moving Focus Relaxation, creativity*

Introduction

In this fastest Information Technology (IT) era, the expectation from everybody and from one's self is very high, but the achievements couldn't touch that limit of expectation. This result in wide difference in the input used and output achieved and this leads to stress. Stress can be one of the fastest things to damper our creativity. Whether it's a troubled relationship, financial crisis, illness or a stressful job, these situations tend to zap our emotional and mental energy hindering our creative flow.

Stress causes impairment in the functioning of brain. The experimental research of Glass and Singer (1972) suggests that continuous efforts on adaptation to stress may result in negative after effects. Domination of all such states leads to all sorts of physical and psychological disabilities, which results in behavioural problems. These disabilities being seen in many clients include: acute anxiety, preservative speech, hyper kinesis, low frustration tolerance, poor concentration skill, low sensory arousal thresholds, muscle spasm related to neurological functioning, shallow, rapid

breathing (art - therapy.Concordia.ca). When an individual is grasped in all such diseases he used to show some of the behavioural abnormalities. Such behavioural abnormalities if not checked or modified can ruin the creative side of an individual. Keeping this in view, an attempt has been made to provide awareness towards stress and behavioural problems faced by students because of stress and teaching students how to cope up with different types of stress with the help of relaxation therapy which acted as an agent for positive change.

Objectives

1. To study the effect of Stress Reduction Model on Creativity of students.
2. To compare adjusted mean scores of Creativity of students belonging to Stress Reduction Model and Traditional Approach Groups by taking pre- Creativity as covariate.

Hypotheses

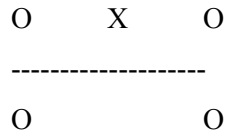
1. a. There is no significant difference in mean scores of Fluency before and after the Treatment through Stress Reduction Model.
b. There is no significant difference in mean scores of Flexibility before and after the Treatment through Stress Reduction Model.
c. There is no significant difference in mean scores of Originality before and after the Treatment through Stress Reduction Model.
d. There is no significant difference in mean scores of Creativity before and after the Treatment through Stress Reduction Model.
2. a. The adjusted mean score of Fluency of Stress Reduction Model Group is not significantly different from Traditional Approach Group by taking Pre Fluency as covariate
b. The adjusted mean score of Flexibility of Stress Reduction Model Group is not significantly different from Traditional Approach Group by taking Pre Flexibility as covariate.
c. The adjusted mean score of Originality of Stress Reduction Model Group is not significantly different from Traditional Approach Group by taking Pre Originality as covariate.
d. The adjusted mean score of Creativity of Stress Reduction Model Group is not significantly different from Traditional Approach Group by taking Pre Creativity as covariate.

Sample

The study was conducted in six schools situated in Indore. The schools were selected so that they were having Higher Secondary Classes. For this study, 256 class IX students were selected through Random Sampling Technique. There were two groups. One group was designated as Experimental Group and the other as Control Group. The Experimental Group was assigned the treatment. In all there were 256 students. Of these, 128 students were in the Experimental Group while remaining in the Control Group. The sample represented sex. Their age ranged from 13-15 years. The medium of instruction was English and the sample belonged to Above Average and Below Average Socio- Economic Status.

Design

The present study was experimental in nature. It was designed on the lines of Non- Equivalent Control Group Design. As per Campbell and Stenly (1963), the layout of Non- Equivalent Control Group Design is as follows:



There were two groups: one was designated as Experimental Group and the other as Control Group. The students in both the groups were as existed in the field. It was only the sections, which were randomly selected but not the subjects within each section. Both the groups were pre-tested by Verbal Test of Creative Thinking. The subjects of Experimental Group were treated through Stress Reduction Model. The Treatment consists of five phases viz. Setting the stage, Warm up and Transition, Moving Focus Relaxation, Wind up, and Debriefing and Transfer. Every day the treatment was given to the Experimental Group for 35 min. The total treatment duration was five months. On the other hand, the Control Group continued with routine activities. At the end of the treatment both the groups were post-tested with the help of same tool which was used for pre-testing.

Tools

The Verbal Test of Creative Thinking developed by Baqer Mehdi was the most appropriate tool to be used in the present study. The Verbal Test of Creative Thinking consists of four different types of activities viz. Consequences, Unusual Uses, New Relationships and Product Improvement. The total time required for administering the test was 48 min. In addition to the time required for giving instructions, and distributing and collecting the test booklets. Through these tests, Fluency, Flexibility and Originality components of Verbal Creativity were assessed. The scoring was done as per instructions given in the manual. The test-retest reliability coefficients for all the factor scores and the total creativity score ranged from 0.89 to 0.95. Factor validity was established. The factor loadings were found to be quite high. Thus, the creativity test was considered to be valid. Apart from it, the test had content validity.

Procedure of Data Collection

The present study was experimental in nature. The study was conducted in six schools situated in Indore. For this the permission from the school principals was taken. The schools were selected so that they were having Higher Secondary classes. For this study, IX class students were selected. There were two groups. Out of two groups, one was treated as Experimental Group and the other as Control Group. Both the groups were pre-tested by administering Verbal Test of Creative Thinking. After this the Experimental Group was treated through Stress Reduction Model. The Treatment consisted of five phases. The transcript of Stress Reduction Model was presented in the form of audiotape instructions. In phase I students were allowed to find a comfortable position and close their eyes. They have done this by taking out their specks, ties, loosening their belts, removing their shoes etc. After that

in phase II, general orientation and instructions were given to the students. In phase III, Moving Focus Relaxation, relaxed atmosphere was established through voice, tone, and tempo. Also students were instructed to focus on individual parts of body from feet to face. The instructions were as follows:

- Allow your focus to fall on your feet. Be aware of how they are becoming relaxed, how those muscles in the top of your feet, in your arches, around your ankles, all the way down to the tips of your toes are smoothing out and becoming very relaxed. Good
- Now allow your attention up to your calves. Notice how as you focus on these muscles gently, they begin to stretch out and become more and more relaxed, those long muscles in your calves are smoothing out and become more and more relaxed. Good

In this way the instructions were delivered so as to shift up the focus to all the important muscles. The important muscle groups include large muscles in their thighs that extend up to their hips, waist muscles, abdomen muscles, lungs and breathing muscles, muscles of neck, hands, arms and waist, face muscles, muscles associated with mouth and tongue. In this way simply by letting their muscles stretch out and let go they become calm and relaxed. In phase IV, wind up phase, students practiced rest, and tension and release. This they have done by first noticing where the tension is still remaining and then they have tensed that muscle, observed the tension in that muscle and then slowly released the tension of that muscle. In this way remaining tension in the muscle ends and this way the subjects were aroused from relaxation. In phase V of Debriefing and Transfer experimenter obtained feedback from students based on their reactions, feelings and sensations. They were also motivated to interact about their new experiences after doing this therapy. The experimenter also discussed ways and times students can use relaxation therapy during their day. Along with this the experimenter responded to their questions or problems faced during or after the relaxation therapy. The treatment continued for five months at the rate of 35 min. per working day. The Control Group continued through routine activities. At the end of the treatment both the groups were post-tested by the same tool, which was used for pre-testing.

Data Analysis

1. In order to study the effectiveness of Stress Reduction Model on the basis of Creativity of students, the data were analysed using correlated t-test.
2. In order to compare adjusted mean scores of Creativity of students belonging to Stress Reduction Model and Traditional Approach Groups by taking respective variables at pre-stage as covariate, the data were analysed with the help of Analysis of Co- variance.

Result and Discussion

Effectiveness of Stress Reduction Model on the Basis of Creativity

The last criterion of assessing the effectiveness of Stress Reduction Model was Creativity. It was assessed through Baquer Mehdi Verbal measure of Creative Thinking Test both before and after the Treatment. The treatment was through Stress Reduction Model. The Baquer Mehdi Verbal measure of Creative Thinking assessed three

dimensions of Creativity i.e. Fluency, Flexibility and Originality. The data related to these three dimensions as well as creativity were analyzed with the help of correlated t-test. The results in respect of each dimension and Creativity are given in Tables 1, 2, 3 and 4 respectively.

Table 1: Testing-wise Mean, SD, r and t-values of Fluency

| Testing | Mean | SD | r | t-value |
|-------------|-------|-------|------|---------|
| Post – test | 36.90 | 15.38 | 0.83 | 7.55** |
| Pre-test | 31.16 | 12.18 | | |

** Significant at 0.01 level.

Table 2: Testing-wise Mean, SD, r and t-values of Flexibility

| Testing | Mean | SD | r | t-value |
|-------------|-------|-------|------|---------|
| Post – test | 33.96 | 14.96 | 0.87 | 10.19** |
| Pre-test | 27.14 | 11.48 | | |

** Significant at 0.01 level.

Table 3: Testing-wise Mean, SD, r and t-values of Originality

| Testing | Mean | SD | r | t-value |
|-------------|-------|-------|------|---------|
| Post – test | 92.18 | 49.99 | 0.78 | 8.05** |
| Pre-test | 69.76 | 35.59 | | |

** Significant at 0.01 level.

Table 4: Testing-wise Mean, SD, r and t-values of Creativity

| Testing | Mean | SD | r | t-value |
|-------------|--------|-------|------|---------|
| Post – test | 163.62 | 78.66 | 0.84 | 9.19** |
| Pre-test | 127.94 | 57.41 | | |

** Significant at 0.01 level.

It is evident from Tables 1, 2, 3 and 4 that the correlated t-values for Fluency, Flexibility, Originality and Creativity are 7.55, 10.19, 8.05 and 9.19 respectively, which are significant at 0.01 level with $df = 127$. It shows that mean scores of Fluency, Flexibility and Originality and Creativity separately before and after the Treatment differ significantly. In this context, the null hypothesis that “there is no significant difference between mean scores of Fluency, Flexibility, Originality and Creativity separately before and after the Treatment through Stress Reduction Model” is rejected. Further, from tables 1, 2, 3 and 4 it is evident that mean scores of Fluency, Flexibility, Originality and Creativity separately after the Treatment through Stress Reduction Model are significantly higher than before treatment. It may, therefore, be concluded that Stress Reduction Model could significantly improve

Fluency, Flexibility, Originality and Creativity of students. Hence, Stress Reduction Model was found to be effective on the basis of Creativity.

Comparison of Adjusted Mean Scores of Creativity of Students Belonging to Stress Reduction Model and Traditional Approach Groups by Taking Pre Creativity as Covariate

The creativity was assessed through Baquer Mehdi Verbal Measure of Creative Thinking Test before and after the Treatment of students belonging to Stress Reduction Model and Traditional Approach Groups. As mentioned earlier the Baquer Mehdi Verbal Measure of Creative Thinking assessed three dimensions of Creativity i.e., Fluency, Flexibility and Originality. The data related to these three dimensions as well as creativity were analyzed with the help of ANCOVA. The results in respect of each dimension and Creativity are given in Tables 5, 6, 7 and 8.

Table 5: Summary of ANCOVA for Fluency by considering pre-Fluency as covariate

| Sources of variance | df | SS y.x. | MSS y.x | F y.x |
|---------------------|-----|----------|---------|---------|
| Treatment | 1 | 2704.75 | 2704.75 | 46.95** |
| Error | 253 | 14574.44 | 57.61 | |
| Total | 255 | | | |

** Significant at 0.01 level.

Table 6: Summary of ANCOVA for Flexibility by considering pre- Flexibility as covariate

| Sources of variance | df | SS y.x. | MSS y.x | F y.x |
|---------------------|-----|----------|---------|---------|
| Treatment | 1 | 4410.78 | 4410.78 | 86.06** |
| Error | 253 | 12967.17 | 51.25 | |
| Total | 255 | | | |

** Significant at 0.01 level.

Table 7: Summary of ANCOVA for Originality by considering pre-Originality as covariate

| Sources of variance | df | SS y.x. | MSS y.x | F y.x |
|---------------------|-----|----------|---------|---------|
| Treatment | 1 | 5338.82 | 5338.82 | 80.77** |
| Error | 253 | 167221.8 | 66.86 | |
| Total | 255 | | | |

** Significant at 0.01 level.

Table 8: Summary of ANCOVA for Creativity by considering pre-Creativity as covariate

| Sources of variance | df | SS y.x. | MSS y.x | F y.x |
|---------------------|-----|----------|----------|---------|
| Treatment | 1 | 140379.2 | 140379.2 | 99.39** |
| Error | 253 | 357339.9 | 1412.41 | |
| Total | 255 | | | |

** Significant at 0.01 level.

From Tables 5, 6, 7 and 8 it is evident that the adjusted F-values for Fluency, Flexibility, Originality and Creativity are 46.95, 86.06, 80.77 and 99.39 respectively which are significant at 0.01 level with $df = 1/253$. It indicates that the adjusted mean scores of Fluency, Flexibility, Originality and Creativity separately of Stress Reduction Model Group differ significantly from Traditional Approach Group when pre Fluency, Flexibility, Originality and Creativity were taken as covariate. In this context, the null hypothesis that “the adjusted mean scores of Fluency, Flexibility, Originality and Creativity of Stress Reduction Model Group is not significantly different from Traditional Approach Group by taking pre Fluency, Flexibility, Originality and Creativity as covariate” is rejected. Further, the adjusted mean scores of Fluency, Flexibility, Originality and Creativity are 36.90, 33.96, 92.18 and 163.52 respectively which are significantly higher than the Traditional Approach Group whose adjusted mean scores of Fluency, Flexibility, Originality and Creativity are 32.94, 28.70, 77.26 and 138.34 respectively. It may, therefore, be concluded that Stress Reduction Model was found to be significantly superior to Traditional Approach in facilitating Fluency, Flexibility, and Originality dimension of Creativity as well as Creativity when pre Fluency, Flexibility, Originality and Creativity separately were taken as covariate.

Findings

1. Stress Reduction Model has the potentiality in Enhancing Fluency, Flexibility, Originality and Creativity of students significantly.
2. Stress Reduction Model was found significantly superior to Traditional Approach in enhancing Fluency, Flexibility, Originality and Creativity of students by considering separately respective variable at pre stage as covariate.

Discussion

There were two groups. One group was given exercises for managing Stress through Stress Reduction Model and another group continued through routine activities. By practicing Stress Reduction Model students were able to relax, control their breathing and intake of oxygen, improve general awareness and concentration, enhance mental functioning, etc. On the whole it helped students in modification of behaviour in the most desirable direction. The excitement and aggression was brought to the normal level. This might have gone a long way in improving the thinking capability of this group because the Stress was reduced which acted as a barrier. Consequently, it resulted in the improvement of Fluency, Flexibility, Originality, and Creativity.

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ASSESSMENT OF EMOTIONAL INTELLIGENCE OF ADOLESCENT STUDENTS AND SUGGESTING INTERVENTIONAL STRATEGIES FOR LEVERAGING THEIR WEAKER SKILLS

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Abstract:

Emotional Intelligence is the ability to identify and manage one's own emotions. It can be defined as the dimensions to distinguish one's own feelings and managing emotions well in social interactions. It is also the foundation for many skills viz. Social-Emotional Awareness, Relationship Management, Emotional Management and Emotional Awareness. It impacts almost everything one says or does. Usually, individuals with higher Emotional Intelligence find it easier to form and maintain interpersonal relationships and are better at understanding their own psychological state. This can include managing stress effectively and being less likely to suffer from depression. In the present age, many schools are witnessing aggression in the behaviour of teenagers which include back answering teachers, disregard for school rules, unwillingness to cooperate with teachers and peers during activities and so on. With some teenagers on the other extreme showing depression, constant anxiety and detachment from surroundings and people. Hence, this study was undertaken to determine if low Emotional Intelligence is an aspect that affects the students' behaviour. Through this study, the researchers are also proposing means to leverage the weaker skills observed amongst the adolescents that are associated with Emotional Intelligence.

Key Words: *Emotional Intelligence, Social-Emotional Awareness, Relationship Management, Emotional Management, Emotional Awareness, Adolescents*

Introduction

Emotional intelligence (EQ) is the ability to identify and manage one's own emotions and the emotions of others [Nelis D., 2009]. EQ can also be defined as the capacity to recognize our own feelings and those of others for motivating ourselves and managing emotions well in our social interactions.

Goleman [2011] in his research had identified a set of competencies that differentiate children with emotional intelligence. The competencies fall into four clusters such as Emotional Awareness (EA) is to understand one's own emotions, powers, weaknesses, needs and awareness of self-existence. Emotional Management (EM) is to manage one's own emotional behaviour. In this theory, Social Emotional Awareness (SE) is the ability to understand emotions and needs of others and thus putting oneself into others' shoes and Relationship Management (RM) is the ability to establish relationships with other individuals and to ensure sustainability of such relationships, creating and managing a team.

All children need to have their EQ nurtured and be supported through the minefield of emotional experiences as they grow [Manghirmalani P., et al, 2012]. Since its inception, the education system has strongly focused on developing Intelligence Quotient (IQ) and improving children's intellectual ability. Students with low emotional intelligence are associated with bad stress management, poor or average problem-solving skills, have low self-esteem and self-respect as compared to those with a high emotional intelligence [Mishra P.M., et al, 2013]. Those with low EQ may often show disruptive classroom behaviour, poor attendance records, etc [Goleman D., 1995]. Those individuals with a high EQ have an ability to stress, involve in a healthy social interaction with others, recognising one's own strengths and weaknesses, have better interpersonal skills, have higher self-esteem and self-respect. They know how to identify and manage their own emotions and that of others' [Jain K., et al, 2009]. They are able to adapt to changes in their environment more easily and modify their behaviour accordingly. Bringing awareness to the emotions and moods that are felt or perceived in different situations will help students assess the EQ of each place [Manghirmalani P., et al, 2011]. If they have just started at a new school, they will know what the mood is or if something changes for the day at school, they will be able to deal with it much more easily after knowing what they feel and how it affects them [Maizatun A., 2013]. They will also be aware of how they pick up the moods of others in their day. Building EQ will help students to be able to contribute to a team personally and professionally.

Taxonomy

The literature review here is a critical and in depth evaluation of previous research. It is a summary and synopsis of the present area of research, allowing the researchers to establish the basis and need of the particular research.

According to Joshua Freedman [2007], also claims that in an era when children frequently feel disconnected from friends and family, where rapid social change is the norm, when media and sports stars demonstrate poor behaviour, educators recognize the human need for developing social and emotional skills. They go through a severe pressure to improve test scores – leaving many educators with a perceived dichotomy. Their EQ has substantially decrease anti-social behaviour and aggression, school suspensions, and discipline problems while increasing personal and social competency, school attendance, satisfaction, and academic achievement.

As per the studies conducted by Don Jordan [2000]; even when limited to the classroom, a non-confrontational approach, which focuses on students' emotional as well as academic intelligence, has resulted in better task and person-related behaviour. The more positive interpersonal relationships in the classroom have also carried over into the playground and resulted in a more relaxed and productive environment for all.

Shamira Soren Malekar 's [2009] empirical study states that education, training, and counselling approaches aimed at developing personal excellence in individuals will provide a widely applicable model for making the world a better place as Maslow [2011] put it, by improving individual health emotionally. In efforts to create institutional success it seems that outstanding leaders remain mindful that healthy, successful organizations and cultures are not possible without the individual health of the people who comprise them.

Dhiman Kar [2014] in his study does through investigation in understanding the deeper interrelations between human emotion and intelligence. The focus is on the emotional intelligence of secondary school students in relation to their gender and residential background. This study claims that residential place plays a significant role for the enlargement of emotional development whereas gender does not affect the level of EQ. In a similar study by Ratnaprabha [2013], Boys showed less EI compared to girls.

None of the studies reviewed for this research propose means to leverage the weaker skills seen amongst the adolescents. Hence, this study is evolving on initially identifying the weaker skill (if any) and then proposing means to leverage them.

Need for the Study

Many schools are witnessing the rise of problem behaviours in students like back answering teachers, disregard for school rules, unwillingness to cooperate with teachers and peers during activities, etc. This study was undertaken to determine if emotional intelligence was an aspect that affected student behaviour. EQ is the foundation for many skills it impacts almost everything we say or do each day. Individuals with higher emotional intelligence find it easier to form and maintain interpersonal relationships and to '*fit in*' to group situations. Individuals with higher emotional intelligence are also better at understanding their own psychological state, which can include managing stress effectively and being less likely to suffer from depression. EQ is an important aspect of life that will help students to not only manage school stress and activities but all areas of life outside the school too.

Assessing Eq Of Adolscents

This Manuscript Aims To Study The EQ level of students of secondary school. It is also aiming to study the difference in levels of EQ between Male and Female students of the same secondary school. Further, this manuscript aims to find out the weakest skills of the students of Secondary school and proposes methods.

A. Tool Adapted

To conduct study, tool devised by Prof. Paul Mohapel was adopted. Through this tool, the four components of EQ, which are EA, EM, RM and SE Awareness were calculated. The students had to attempt 40 questions (10 under each skill). The Analysis was done using five-point Likert scale where the student could score a minimum of 40/200 and a maximum of 200/200.

B. Methodology Adapted

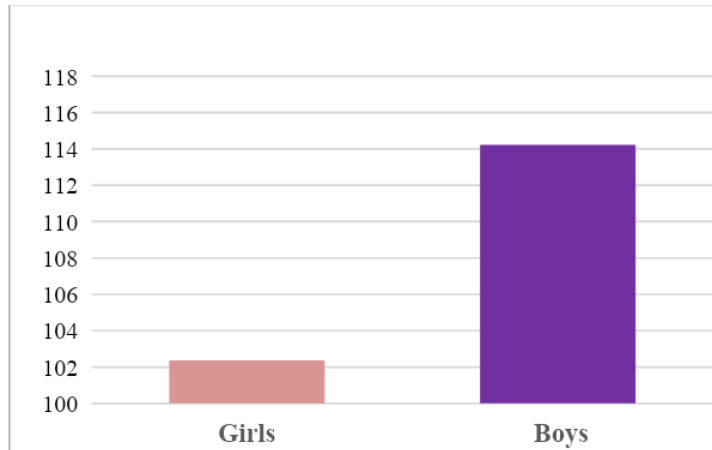
The methodology adapted for this study was the descriptive method. The researcher collected data from class VIII and IX students S.S.C school. Sample size for the study was 100.

C. Data Analysis

Hypothesis I

There is no significant difference between the EQ of boys and girls.

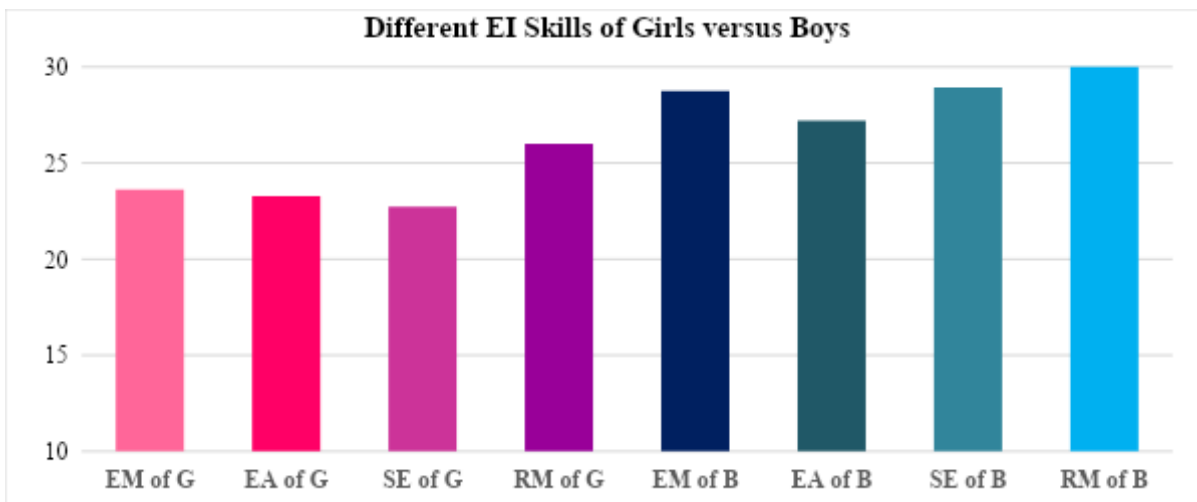
As there is a significant difference between EQ of boys and girls of hence null hypothesis I is rejected.



Graph 1: EQ levels based on Gender

Hypothesis II

There is no significance difference in the Emotional Management, Emotional Awareness, Social-Emotional Awareness and Relationship Management skills levels of girls (G) and boys (B) of secondary school



Graph 5: EQ levels based on gender and skill

There is a significant difference between the four dimensions of boys and girls of adolescent age, hence null hypothesis II is rejected.

D. Interpretation of the Results

For individual sub-skill’s scoring, following are the range levels and their interpretations.

- i) *Level I (range- 1 to 24): Area for Enrichment*
Skill/s belonging to this level requires attention and development
- ii) *Level II: (range- 25 to 34): Effective functioning*
Skill/s belonging to this level should be considered for strengthening
- iii) *Level III (range- 35 to 40): Enhanced Skills:*

This is the highest range. The skill/s belonging to this level could be used as a leverage to develop weaker skills

E. Discussions of Assessment of EQ

The female students of secondary schools belong to the Level I. Their scores in EA and SE is particularly low. RM skill of female students is reasonably better than the other three skills. For Male students, three of their skills are belonging to Level III and their RM skill is their most enhanced skill.

Suggestions For Leveraging The Weaker Skills

As defined by Daniel Goleman [2011], RM is all about one's interpersonal communications. It's all about one's own ability to get the best out of other, one's ability to inspire and influence others, one's ability to communicate and build bonds with others, and one's ability to help them change, grow, develop, and resolve conflict. When an adolescent has an enhanced RM skill, he/she (along with the encouragement of teachers) can use this skill to leverage the weaker skills in the following ways:

A. From RM to EM

Low EM skills leads to less emotive self-control, poor trust worthiness, low flexibility, absence of optimistic thinking, low achievement and lack of ability to take initiatives. To leverage these skills through the RM skills, following activities could be conducted by the teachers in school:

- ✓ *It's all in your brain:* In a picture of the brain, blocks are pre-drawn. Students are encouraged to write about what they often think. Then next, using a different coloured pen, they are encouraged to fill the brain with positive thoughts. Such activity will enhance optimism in the student which is the major component of EM skill.

B. From RM to EA

Low EA skills lead to less emotional self-awareness, poor EA and low self-confidence. To enhance these using RM skills, following activities could be conducted:

- ✓ *I am:* in this activity the student is given half statements like "I feel__ when.."; "I am most happy with__"; etc. this way the adolescent is made to generate self-awareness. This will also help develop self-confidence.

C. From RM to SE

Poor SE means low empathy, less organisational awareness and low on service. Psychological interventions can be given and most preferred for it is student-centred therapy (empathy/sympathy). Activities that could be inculcated here include:

- ✓ *To my responsible friend*: here the student can write a letter seeking advice on a real problem to a person he/she trusts the most. Letters are exchanged and each student is to give advice and try their best to solve the other's problem. This will enhance empathy, sympathy and other SE skills of the students.

Summary and Conclusion

Though this study, the researchers have summarised that in this era or social media, one-to-one interactions are less. People perceive others through their typed words than their talk, expressions, emotions and body language. Hence skills like SE, EM and EA are affected more severely than the RM skill. This has led to an overall impact on the adolescent's EQ which in turn has made them detached and aggressive with a very negative attitude. They are getting exposure to too many things and hence concentration on basic life skills needed for their EQ development at the adolescent stage is diminishing. For teachers, there is huge responsibility on their shoulders to mould and shape their attitude and behaviour and encourage them to face the world in real and not just through a social media interface.

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EVALUATING TEACHING PERFORMANCE

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Abstract

The purpose of this research was to study the effectiveness of evaluation of teaching performance to enhance individual and institutional performance. It refers to the formal process a college uses to review and rate teachers' performance and effectiveness in the classroom. Ideally, the findings from these evaluations are used to provide feedback to teachers and guide their professional development. Teacher evaluation is a vital element in improving student learning outcomes. Also, it focuses on providing accurate evidence of practice and supports improvement. A good teacher evaluation system helps colleges improve, identify opportunities for teachers of all levels to develop further, deliver accountability for learner progress.

Some analysts think that this kind of evaluation does not necessarily provide a good measurement of teaching effectiveness, there is a growing agreement among researchers about the reliability of the evaluation. The paper discusses following topics:

- 1) Purpose of evaluation*
 - 2) Frequency of evaluation*
 - 3) Evaluators*
 - 4) Evaluation scheme*
 - 5) Teachers' response to evaluation system*
 - 6) How 'Goal Setting' helps teachers improve their performance?*
 - 7) Example of teacher evaluation form*
-

Introduction

Teacher evaluation is a vital element in improving student learning outcomes. It is concerned with gathering evidence from a range of sources that inform on teacher performance and using this to support improvements in practice. There is an obvious need for teacher evaluation systems that include a spread of verifiable and comparable teacher evaluations that distinguish teacher effectiveness. The evaluation of teachers based on the contribution they make to the learning of their students, value-added, is an increasingly popular but controversial education reform policy. This study focuses on purpose of evaluation system, evaluation process and how we can improve the same by implementing “Goal Setting” process.

Purpose of evaluation:

High quality teaching instruction is one of the most impactful elements on students' levels of achievement. Teacher evaluations help teachers understand their strengths and identify areas that they needed to grow in. It helps teachers reflect on their practice, showcase areas of excellence, and get support on areas they wanted help in. The primary purpose of teacher evaluation is personal and professional growth that leads to improved performance. The sole purpose of teacher evaluation system must be development as well as measurement. This process is needed to tell whether teacher education graduates have developed the classroom teaching skills to be effective with their students. Performance assessments that measure what teachers actually do in the classroom, and which have been found to be related to later teacher effectiveness, are a much more potent tool for evaluating teachers' competence and readiness, as well as for supporting needed changes in teacher education. The development of new systems of teaching and learning that align student and teacher assessment with the ultimate goal of improving both needs to be advocated. The following concept map shows how student learning standards can have a systemic connection with teacher education and assessment.

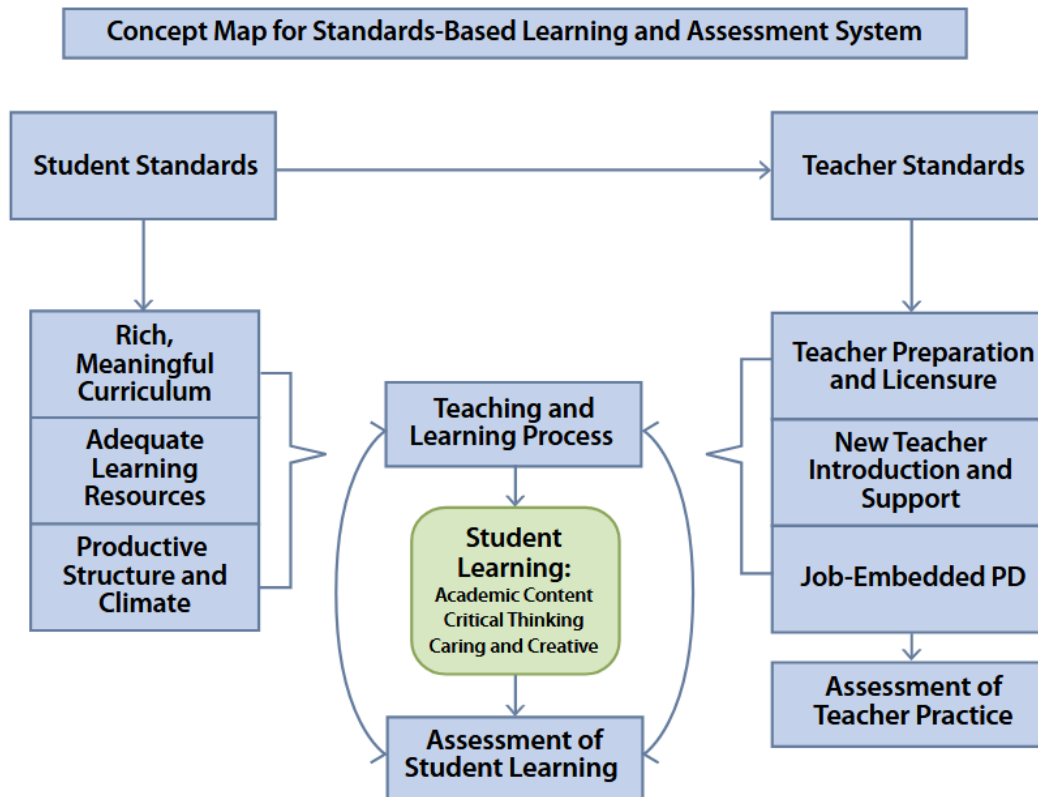


Figure 2.1 Concept Map for Standard-Based Learning and Assessment System

The core purpose of teacher assessment and evaluation should be to strengthen the knowledge, skills, dispositions, and classroom practices of professional educators. This goal serves to promote student growth and learning while also inspiring great teachers to remain in the classroom. Comprehensive systems of continuous teacher education and professional growth help teachers master content, refine their teaching skills, critically analyze their own

performance and their students' performance, and implement the changes needed to improve teaching and learning. Comprehensive performance assessment systems provide targeted support, assistance, and professional growth opportunities based on teachers' individual needs as well as the needs of their students, schools, and districts.

Frequency of evaluation:

Teacher evaluation can be carried out at regular intervals (e.g. every year), at key stages of the career (e.g. for promotion within the career), or on specific occasions such as at the end of the probationary period or for contract renewal for contract teachers.

Evaluators:

The role of evaluator is typically played by:

-- **Teachers:** either internal or external.

-- **External inspectors:** These can take responsibility for the evaluation of individual teachers, the evaluation of teachers playing the role of evaluators, or school leaders.

-- **School leaders:** In some instances school leaders evaluate both pedagogic competencies and skills for other duties within the school. In others, school leaders evaluate non-pedagogical competencies only.

-- **Students as learning evaluators:** By involving students as evaluators, schools/colleges can develop purposeful, impacting, and authentic assessments of classes, schools, teachers, and enact accountability and ownership for all participants in the learning process. Meaningful Student Involvement in education evaluation gives students and educators the impetus to establish constructive, critical dialogues that place common purpose and interdependence at the center of the discussion.

The participation of multiple evaluators is often seen as a key to successful practices; at least more than one person should be involved in judging teacher quality and performance (Peterson, 2000; Stronge and Tucker, 2003). Danielson and McGreal (2000) explain that the „360 - degree evaluation systems“, which incorporate the participation of many kinds of evaluators, support the idea that a teacher's competence may be seen from several different perspectives and that it should be exemplary (or at least adequate) from all those different angles. The case for involving more than one evaluator strengthens with high stakes evaluation (with a dominance of the accountability function).

Evaluators are most likely to be “accomplished“ current teachers who are recognized as having in-depth subject knowledge and pedagogical expertise, as highly proficient and successful practitioners, able to guide and support others in the teaching process. Peer evaluators are typically compensated for carrying out their role (with teaching duties reduced or extra pay) and are themselves evaluated. They also normally have experience of being evaluated as a teacher and complete a dedicated training programme.

Evaluation scheme/procedure:

Establishing effective teacher evaluation procedures is challenging at several levels: accuracy of the measurement, inclusion of all the dimensions of what is meant to be measured, consistency with the goals of the feedback

exercise, adaptation to the needs of those who will use the results (teachers, school leaders, educational authorities), cost-effectiveness, and practical feasibility. Teachers have specific needs for feedback, and therefore evaluation procedures need to be designed to meet those needs. Improving teacher evaluation effectiveness implies choosing adequate procedures for given objectives (e.g. internal vs. external process; formative vs. summative process). The following three key aspects are analyzed in turn:

- Character and nature of teacher evaluation;
- Reference standards, aspects evaluated and evaluation criteria; and
- Instruments and information sources.

Character and nature of teacher evaluation

Features of teacher evaluation procedures include:

- Teachers assessed: A particular teacher evaluation model might cover the totality of teachers in the system or a subset of teachers depending on the contract type, stage of the career (e.g. beginner vs. experienced), level of education and type of education.
- Character of evaluation: Teacher evaluation may be mandatory or voluntary. The latter might however be linked to promotion within the career.
- Nature of evaluation: It can be mostly externally-driven or primarily internally-based. In the former case, aspects assessed, instruments used as well as evaluation criteria are common across schools and evaluators are predominantly external to the school of the assessed teacher.
- Frequency: As discussed above, teacher evaluation can be carried out at regular intervals (e.g. every year), at key stages of the career (e.g. for promotion within the career), or on specific occasions such as at the end of the probationary period or for contract renewal for contract teachers.

Reference standards, aspects evaluated and evaluation criteria

Reference standards:

These are needed to evaluate teachers relatively to what is considered as “good” teaching. Teaching competences and responsibilities should be listed in order to build a comprehensive definition of what teachers should know and be able to do in the exercise of their profession. The main reference standards for teacher evaluation typically are:

- Teacher professional profiles
- Set of general and professional duties of teachers, including job descriptions.
- Academic calendar (annual activity plan)

Aspects evaluated:

Teachers’ responsibilities can be grouped into following areas which are further divided into components:

Planning and Preparation: demonstrating knowledge of content and pedagogy, demonstrating knowledge of students, selecting instructional goals, designing coherent instruction, assessing student learning;

Classroom Environment: creating an environment of respect and rapport, establishing a culture for learning, managing classroom procedures, managing student behaviour and organizing physical space;

Instruction: communicating clearly and accurately, using questioning and discussion techniques, engaging students in learning, providing feedback to students, demonstrating flexibility and responsiveness;

Professional Responsibilities: reflecting on teaching, maintaining accurate records, communicating with families, growing and developing professionally, timely mentoring, showing professionalism.

Evaluation criteria:

Teacher evaluation procedures require setting up evaluation criteria to determine the level of performance of individual teachers for each of the aspects assessed. This typically implies the development of indicators and/or standardized forms to record teacher performance. Rubrics need to be used in order to evaluate teacher performance. Following is the sample rubric format for self assessment of teachers, designed by St. John Technical Campus, Palghar(East):

Table 1: Rubric for Self Assessment of Teachers

| No. | Attributes | Criteria for Assessment | Descriptors | Marks |
|-----|---|--|-------------|-------|
| 1 | Self-discipline | Punctuality and Regularity, syllabus completion, assessment, Submission of reports, Timesheet Analysis, Observing and abiding by campus norms – policies | | |
| 2 | Organized and Meticulous /Creative and Analytical thinking | Course Content Development, Use of Library/ Reading material other than text books | | |
| 3 | Use of ICT /Modern Tools | Use of MOODLE Online study material / PPTs /Videos etc, use of MIS | | |
| 4 | Motivated / Initiative and Drive for results / Problem Solving (academic related) | Teaching methods, No. of Lectures/ Tutorials/ Remedial Classes, Question Bank / Answer Keys | | |
| 5 | Respect for students/parents | Student-Teacher Interaction, Class control, Mentoring, Interaction with parents | | |
| 6 | Student Feedback | Assessment from students (Out of 60), Assessment from HOD (Out of 40) | | |
| 7 | Teamwork /Team effectiveness/ Respect for colleagues and other staff | Organization of Co-curricular/ Extra-curricular/ CREPT/CSSPD/ STEP/ BYB /Chanakya /Any other Activities, Contributions to Administrative Committees/ NBA/ NAAC | | |
| 8 | Life-Long Learning Creative thinking Analytical thinking | Papers/Posters/Publication /Patents, Participation & Learning from FDPs, Memberships/Fellowships of Professional Bodies and Participation in their activities | | |

Instruments and information sources:

A range of instruments and information sources are typically used to evaluate teachers, such as:

- Classroom observation
- Objective setting and individual interviews
- Teacher self-evaluation
- Teacher portfolio
- Standardized form to record teacher performance across a range of dimensions
- Teacher testing: Access to a permanent position or entry into the profession, teachers are the subject of testing to assess their general and subject-matter competencies.
- Surveys of students and parents (feedback process)

A conceptual framework for teacher evaluation was proposed at OECD-Mexico workshop “Towards a Teacher Evaluation Framework” in Mexico in December 2009.

Teachers’ response to evaluation system:

At earlier stage, the teachers’ unions highlighted the potential of better evaluations to provide valuable feedback on teachers’ skills. But they remain wary about connecting the systems to teacher pay and tenure, and adamantly oppose the inclusion of students’ standardized-test scores in the systems. They also argue that it is unfair for teachers in non-tested subjects to be judged by the scores of students they don’t even teach, as some states’ evaluation systems require. Keeping these points into consideration, later changes were made into teacher evaluation system.

National Center for Education Evaluation and Regional Assistance, U.S. conducted a survey on “Teachers’ responses to feedback from evaluators” in 2016. The study found that most teachers agreed that the feedback they received was useful and accurate and that their evaluator was credible. Teachers indicated that evaluator credibility was the most important characteristic affecting their response to feedback.

How ‘Goal Setting’ helps teachers improve their performance?

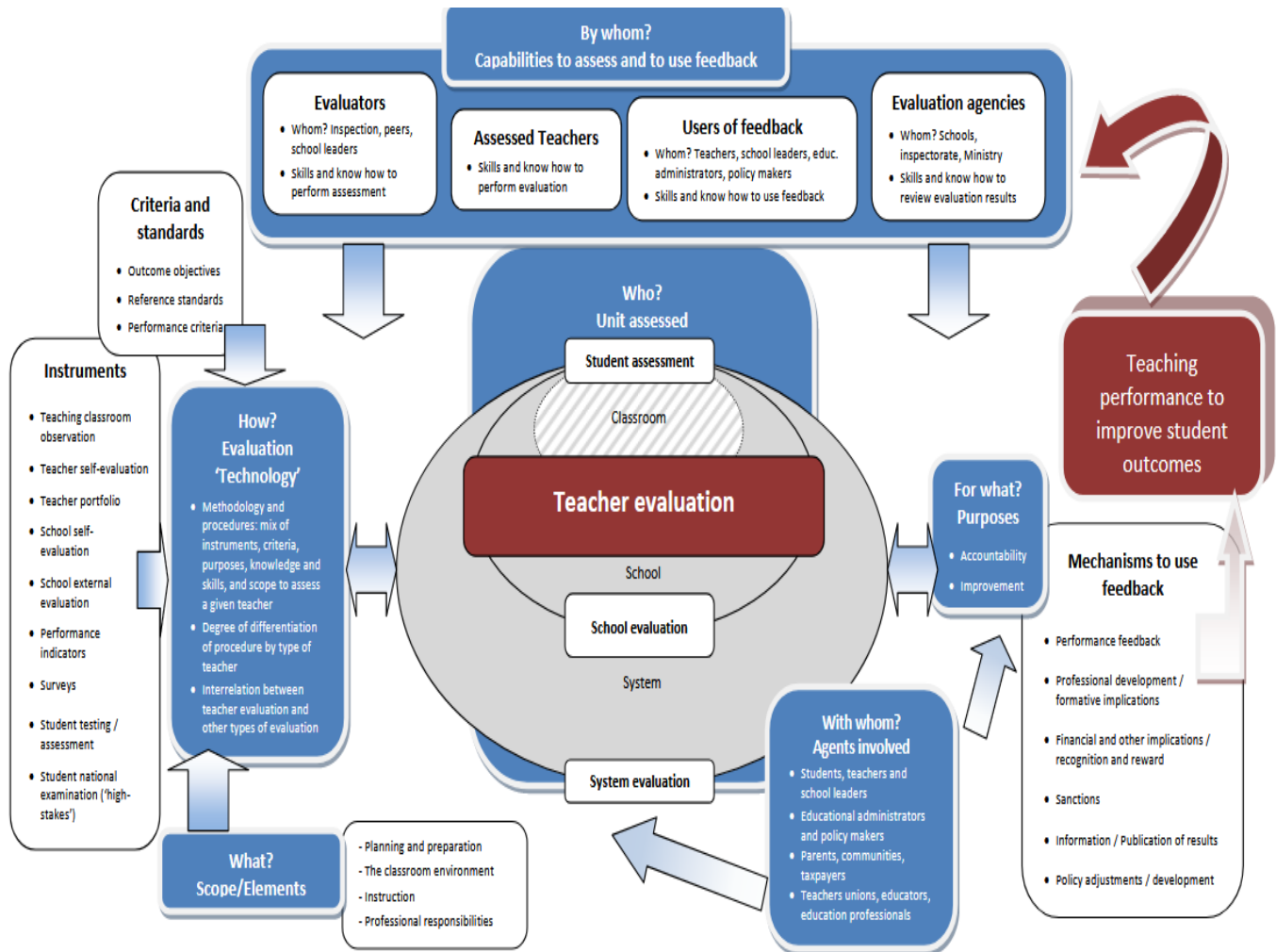


Figure 5.1 a conceptual framework for Teacher Evaluation: Suggested by OECD, Mexico.

Goal setting is a widely embraced practice in corporate settings and a highly regarded subject in literature on the workplace. The same needs to be implemented in education system. A teacher’s “goal orientation” appears to impact his/her likelihood of seeking help in the face of teaching challenges (Butler, 2007), effort at creating classroom environments that emphasize growth over competition (Shim, Cho, & Cassady, 2013), commitment to serving as a socio-emotional support for students (Butler, 2012), and resistance to teacher burnout (Retelsdorf, Butler, Streblov, & Schiefele, 2011). The potential impact of teachers’ goals on student experience makes teacher goal setting an important area. It is important as teacher development practice. There are various benefits of Goal setting such as: Active involvement, Decision making and Problem solving, Accomplishment, Self-esteem. Individual goal setting frees a teacher from restricted thinking, broadens the scope of education and opens up numerous possibilities of them excelling. Following is the handout on goal setting template:

DEPARTMENTAL GOALS

SMART Goal:

Table 2: Proposed Outcome:

| No. | Action Steps | Resources | Deadline | Outcome | Role of a Faculty |
|-----|--------------|-----------|----------|---------|-------------------|
| 1 | | | | | |
| 2 | | | | | |

Same template can be used for Institutional and Individual goal setting.

Conclusion:

Promoting teacher evaluation is clearly in the national interest as well as serving students and their families and communities. Teachers need feedback on their performance to help them identify how to better shape and improve their teaching practice and, with the support of effective school leadership, to develop schools as professional learning communities. At the same time, teachers should be accountable for their performance and progress in their careers on the basis of demonstrated effective teaching practice.

The findings from this study provide important information about how meaningful teacher evaluation involves an accurate appraisal of the effectiveness of teaching, its strengths and areas for development, followed by feedback, coaching, support and opportunities for professional development.

When conducted purposefully and with the ultimate goal of student achievement in mind, teacher evaluations are a powerful tool.

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ELEVATION OF MEDITATION (SAMADHI) AS A COMPONENT OF INDIAN PSYCHOTHERAPY AND IT'S AMELIORATIVE UTILITY WITH SPECIAL REFERENCE TO GENERALIZED ANXIETY DISORDER IN SCHOOLS

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Abstract

The broad objective of the paper is to understand the prevalence of generalized anxiety disorder and how teachers can use the knowledge of Indian psychotherapy to uplift the mental health of students. Indian Psychotherapy is based on knowledge of principles of functioning of mind described in Indian scriptures, like Upanishad, Bhagwat Geeta, Ayurveda etc. Anxiety as a disorder is seen in about 8% of children and adolescents worldwide. There are still a large percentage of children and adolescents in whom anxiety goes undiagnosed owing to the internalized nature of the symptoms. Anxiety has substantial negative effects on children's social, emotional and academic success. Although in many ways, we have greater opportunities for a rich and fulfilling life than ever before, it is clear that we need to evolve new strategies if we are to survive and thrive as individuals and as a species.

Keywords: *Indian Psychotherapy, Meditation, Generalized Anxiety Disorder*

Introduction

Children with generalized anxiety disorder (GAD) experience excessive and uncontrollable worry about future events and minor matters. They worry about their health and others, financial conditions, academic or athletic performance, perfectionism, punctuality, and more irrationally. Worry is considered excessive and uncontrollable when the student is worrying more than others would, and if he or she cannot stop worrying once it has started. This worry occurs most days and is accompanied by at least three or more physical symptoms such as fatigue, feeling tired, trouble concentrating, irritability, muscle tension, and sleep difficulties.

Although all youth sometimes experience worry about a range of events and activities, for students with GAD this worry is excessive, ongoing, uncontrollable, physically draining, and significantly negatively impacts his/her quality of life. Young students worry about straightforward and immediate matters such as their academic performance, safety of the classroom, and fitting in or being liked. In addition, they are more likely to complain about physical symptoms instead of specific worries: sore muscles, sleep problems, or stomach or headaches.

Prevalence

The world is home to 1.2 billion individuals aged 10–19 years. Adolescents aged between 10 to 19 years account for more than one-fifth of the world's population. India has the largest national population of adolescents (243 million),

followed by China (207 million), United States (44 million), Indonesia and Pakistan (both 41 million). In India, this age group forms 21.4% of the total population. Adolescents are also entitled to enjoy basic human rights- economic, political, social and cultural- but their inability to exercise these rights places the onus on the policy makers and adults to implement separate measures to ensure their rights. Moreover it is necessary to invest in adolescents as the future leaders and guardians of nation's development. Adolescents are generally perceived as a healthy age group, and yet 20% of them, in any given period, experience a mental health problem, most commonly depression or anxiety. In many settings, suicide is among the leading cause of death in young people. Mental well-being is fundamental to good quality of life. Happy and confident adolescents are most likely to grow into happy and confident adults, who in turn contribute to the health and well-being of nations..

Sattvavajaya or Indian Psychotherapy

Sattvavajaya is full-fledged Psychotherapy has been described in Ayurvedic literature (Charaksamhita). Charak was the first person to use the word "sattvavajaya". His definition give lot of scope for expansion

"SattvavajayaPunahAhitebhyoArthebhyoManognigrah" (ch.su. 11/54)

“ManasoGyana, Vigyana, Dhairya (ch. Su1/.58)

“Dhi.DhairyatmadiVigyanamManodoshaushadhamParam (As.Hr.sa.a.1).

The term Sattvavajaya implies to therapeutic for mental or emotional stresses disturbances. This is secured best by restraining the mind from desire for unwholesome objects and the cultivation of Gyana, Vigyana, Dhairya, Smriti and Samadhi. All these measures help in having the control over the manas or mind which is always unstable.

The body is like a chariot, the senses are like horses, and mind is like the reins only by helping firmly to the reins one can keep control. If we do not control these senses, horses will drag us away. Sattvavajaya therapy (is directed towards these) enables one to have control over himself. "CittamIndriyaSarathi".

If something favorable happens, we feel pleasure; if something unwanted comes, we feel pain. But these pleasure and pain are only momentary. When in both we can keep the mind steady and stable, we gain lasting concentration, which is a barrier to Psychogenic on slaught as well as somatic disturbances. In the modern world, where all non issues and there by over straining the mind and body, the Sattvavajaya measures are the only way to protect ourselves from the stress related disorders of modern day living conditions.

We can explain the term Sattvavajaya by following model-

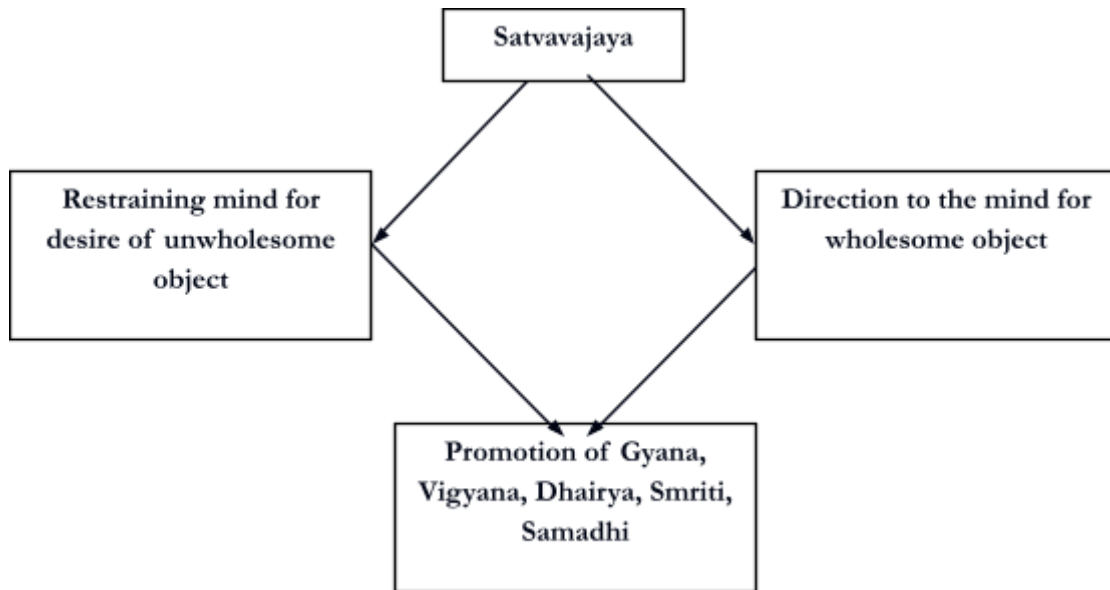


Figure 1: Model of Indian Psychotherapy

Samadhi or Meditation and its ameliorative utility with Generalized Anxiety Disorder in Schools

Samadhi means Perfect union of the individualized soul with infinite spirit. A state of oneness; complete absorption. Meditation, in its simplest terms, refers to learning how to pay attention. When used properly, meditation allows students to slow down and observe the world without judgment. If they live with generalized anxiety disorder it can also help them to reduce worrying thoughts and bring about a feeling of balance, calm and focus.

In other words, human consciousness becomes one with cosmic consciousness. The soul realizes that it is much more than the conditioned body. Meditation helps students to enter a deep state of relaxation or a state of restful alertness. It also helps to reduce stress and fatigue. While meditation typically involves trying to enter a different state of consciousness, it means students are slowly becoming aware of the present moment Samadhi practices may be helpful in anxiety, because they enable you to reduce worry and be aware without being fearful.

1) Promotion of Samadhi or meditation for Prevention of the cause of Disease Ahita–ArthaParivarjana

There are some type of Ahita-Artha (cause) which are responsible for GAD . In this level with the help of Meditation students can identify and avoid the etiological or triggering factors of anxiety disorders. To reach this stage they must consider their life style, environment, work and psychological condition. They must identify what is good and what is bad for them and cut off the erroneous factor from their daily lives that make them vulnerable to different disease.

2) Replacement of emotions while Samadhi or meditation

A psychological imbalance is treated with opposite qualities to restore balance. This method for the mind is called "*Pratipaksha-Bhavana*" in sanskrit". It has been understood as "thinking thoughts of an opposite nature." However its implications go beyond our surface thinking patterns. It refers to "cultivate a balanced state of consciousness."

For example, if our minds are disturbed by anger, we must cultivate peace. This requires not only thinking peaceful thoughts but taking in peaceful sensory impressions, visualizing peace between ourselves and others, doing prayers for peace, and intentionally acting toward others (even our enemies) in peaceful manners. It requires a complete lifestyle discipline.

According to the famous orient list Dr David Frawley, our consciousness is the result of the food, impressions, and associations to which we have become accustomed. It is reinforced by our actions and expressions. Whatever external force conditions us, we make it our own by expressing it : For example, If one is surrounded by anger as a child, he is likely to become an angry person. When ones acts in an angry manner then this anger, whose original itemise was external, becomes part of his own nature and automatic responses.

To change harmful mental conditions of students, we must cultivate an opposite way of consciousness, meditation elevates positive emotions and decreased opposite and negative feelings of students. For example, during replacement of emotions students can open their inner eyes to see and feel the vital impressions of nature: The trees, flowers, and sunshine. They can associate their consciousness with creative and spiritual thinking. They should not cultivate the thought that they are depressed. Rather they should cultivate the thought that they have energy, and they are not dependent upon anyone or anything else to make them happy. This requires understanding the part of our nature that inherently free from psychological problems, our deeper self.

3. Meditation and our Sensory Impressions (Indriyārtha) as a diet of mind

Just as there are rules for creating physical health, so there are rules for creating mental health. Most importantly, Just as the body needs the right nutrition for health, so does the mind .the famous orient list David Frawley argues in his book “Ayurveda and Mind” that, the mind is an organic entity, a part of nature, and has its cycle of nutrition that involves taking in substances to build it up, like impressions, and releasing waste materials that can become toxins, like negative emotions. Food for the mind like that for the body creates the energy that allows it to work. Like the body, the mind has its proper exercise and expressions, which requires the right food to sustain it. With the help of meditation and positive thinking students suffering from any kind of GAD can overcome from it, because while meditating they visualize only positive impression and our impression serves as vehicles for the feelings, emotion, beliefs, value and attitudes that nourish our intelligence and deeper consciounes.

Students who are living with generalized anxiety, practicing daily meditation may help them to overcome anxiety and reduce tension from their body.

Students need not a lot of time to meditate—initially, try to carve out a few minutes each day. They can gradually increase that time as they learn how to relax and what it feels like to be calm. Below are easy steps to follow to get started meditation.

- Sit properly and comfortably in chair and place your feet flat on the floor.
- Need to pay attention to your breath. Don't try to change how you are breathing; simply observe your body as you inhale and exhale.

- You might feel compelled to shift your focus elsewhere. Resist this urge and continue to focus on your breathing.
- Anxious thoughts may pass through your mind. Acknowledge them, but then bring yourself back to awareness of your breathing.
- Continue this quiet, non-judgmental observation for about 10 minutes.
- Open your eyes and notice how you feel. Don't evaluate, just observe.
- The key to learning to practice meditation is to accept the world around you from a place of curious observation. This meditative practice may soon spill into other areas of your life, as you notice yourself observing rather than reacting during difficult situations or times of worry. GAD primarily involves unrelenting worry—if you can learn to accept those worries without letting them upset you, then your distress is likely to diminish.

Conclusion

The utility of the present study lies in pointing out that there is quite a high prevalence of undiagnosed mental disorders, among the adolescent students, even among those from relatively affluent family backgrounds. Pediatricians and other health professionals working with adolescents and the educational institutions need to be aware of and responsive to the presence of these negative mental health states among the students so that early amelioration may be offered to the adolescents. There is a need for special focus on the adolescent population and their mental health. Educational institutions need to identify the prevalence of negative mental health states among the students, and especially those at high risk. These issues are even more relevant in India, where the proportion of children and adolescents in the population is high and the resources are scarce. India is currently going through a demographic transition, and intervention today is likely to result in a decreased burden in future.

With the help of Sattvavajaya we understand that physical diseases occur mainly owing to external factors like wrong diet or exposure to pathogens. Mental diseases arise mainly from internal factors, like wrong use of the senses and the accumulation of negative emotions. Both these types of diseases follow our Karma, the results of our past actions that come from previous lives. However, both physical and psychological diseases are usually mixed and one seldom occurs without the other.

Student's very way of life breeds unhappiness. They have an active and turbulent culture in which there is little peace or contentment. They have disturbed the organic roots of life, which are good food, water and air and happy family life. They live in an artificial world dominated by an urban landscape and mass media in which there is little to nourish the mind and soul. They run from one stimulation to another, rarely observing the process of their lives that is really leading nowhere. Their lives are patterns of accumulation in which we are never still or at rest. Our medicine is more a quick fix to keep us going in our wrong lifestyles and seldom addresses the behavioural root of our problems. They take quick pill hoping that our problem will go away, not recognizing that it may only be a symptom of an imbalanced life.

With the help of meditation(samadhi) we understand that GAD arise mainly from internal factors, like wrong use of the senses and the accumulation of negative emotions. Meditation teaches harmony with nature, simplicity and contentment as keys to well-being. It shows us how to live in a state of balance in which fulfilment is a matter of being, not becoming. It connects us with the wellsprings of creativity and happiness within our own consciousness, so that we can permanently overcome our psychological problems, meditation provides a real solution to GAD problems, this requires changing how students live, think and perceive, so as a teacher we can prevent those students who have suffering from various GAD related problems with the help of Indian psychotherapy specially meditation.

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INTERACTION EFFECT OF LIFE SKILLS EDUCATION PROGRAM AND PSYCHOLOGICAL WELL-BEING ON STUDENTS’ CRITICAL THINKING

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Abstract

The ultimate goal of human life is living in the society as responsible social individuals. Education plays an important role in shaping and molding the human behavior and helps nurture their potentialities, thus helping an individual to be an independent social creature. Education should not prepare individuals for the present but also for the future so that they can bring about a positive change in the society. This includes going on to further studies, joining the world for a cause and becoming an engaged member of the society. The society has changed over the times where an individual can capture the phenomena such as crime, divorce, harassment, gender inequality, etc. which are proven to be affecting the psychological well-being of students. Adolescents is a transition period of development of individual which is characterized not only by rapid physiological changes but also psychological maturation during which it is important for them to face these challenges.

Life skills leads an individual to manage and live a better quality of life by helping them to accomplish their ambitions and live life to the fullest by making correct decisions, facing problems with courage and critically solving them. Critical thinking is a higher order thinking skill which helps a person to live rationally, reasonably and empathically. As students mature cognitively, their mental processes become more logical and analytical, which makes them capable of abstract thinking, better articulation and of developing an independent thought process.

The present study was to ascertain the interactive effect of life skills education program and psychological well-being on critical thinking among standard eighth students. For this purpose, an intervention program based on life skills education of 29 hours 30 mins was developed for students spreading over eight weeks. The aim of the research was to ascertain whether life skills education facilitates the critical thinking of students and if so, for which level of psychological well-being of students. The participants of the study included 55 and 48 students in the experimental and control groups respectively. The critical thinking was significantly affected by the life skills education program whereas psychological well-being had no effect on the critical thinking of students.

Keywords: *Life Skills, Life Skills Education Program, Psychological Well-Being, Critical Thinking*

Introduction

Man is a social animal not only a biological one. Education is preparing a child for the future so that the child lives effectively in the contemporary society. The society that we live in is not static but is constantly changing and evolving. Similarly, the education system must not be static but needs to change in order to meet the increasing demands of the society. In other words, the traditional system of education can no more meet the demands of the today's world which is full of complexities due to various arising problems. The ultimate goal of human life is to live in the society as a responsible and independent social individual. Education helps in shaping and moulding human behaviour and potentials that will enable them to become effective and efficient members of the society where they live in. The society is changing as the demands are increasing, on the similar basis education should also change in order to meet the changing society. Traditional method of education cannot help in solving the present problems, hence, the evolution of education is also equally important so that the individuals can take their place in society as effective learners, as effective professionals and as effective citizens. There is often a mismatch between what students acquire in the classroom and the demands placed on them outside the school world. An education system should be such which involves learning skills that a person will carry with them even after school or college in order to navigate relationships and careers and be a well-rounded, successful person. Life skills are in existence from the period when man started living in the society, but there were only a handful of them with such skills. As the time evolved and societies began to expand the problems started increasing, thus people started developing skills required to solve them and this is how the number of persons with life skills increased and the quality of the skill of the people improved over a period of time.

Life skills education is suggested by many as a prevention and development approach to cope with this present complex scenario of life. Education, health, youth and community development sectors all use the term 'life skills' to describe a range of different skills and approaches. Life skills are the kind of personal skills, which enables students to solve problems in a social context as well in personal life by critically thinking over them and creatively finding solutions. The clear and concrete definition of life skills training is given by World Health Organization (WHO). According to WHO life skills are the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life. Life skills support psycho-social well-being, promoting good communication, positive thinking, analytical skills and goal setting, cooperation and coping. Strengthening life skills helps individuals and communities to manage challenges and risks, maximize opportunities and solve problems in co-operative, non-violent ways. They also help the students to manage and live a better quality of life in order to help them accomplish their ambitions and live the life to the fullest potentials.

Any skill that is useful in day to day life is considered as life skill. There are many different understandings of life skills but no definition is universally accepted. Different organizations attach different meanings to the term. The International Bureau of Education (IBE) derives its understanding from the Delors four pillars of learning - learning to know, learning to do, learning to be and learning to live together and defines life skills as personal management

and social skills which are necessary for adequate functioning on an independent basis. The Mental Health Promotion and Policy (MHP) team in World Health Organization's (WHO)-Department of Mental Health has produced this definition of life skills education, "Life skills education is designed to facilitate the practice and reinforcement of psychosocial skills in a culturally and developmentally appropriate way; it contributes to the promotion of personal and social development, the prevention of health and social problems, and the protection of human rights". Life skill education is a basic learning need for all individuals which should be fulfilled during the school period where the students are trained for the society. In current context, where much emphasis is given to academics, life skill education needs to be stressed heavily upon and consciously followed in the delivery of the school curriculum.

Psychological well-being refers to how people evaluate their lives, these evaluations may be in the form of cognitions or in the form of affect. Psychological well-being leads to desirable outcomes and it is important for the individual to be psychologically fit. Current social indicators capture phenomena such as crime, divorce, environmental problems, infant mortality, gender inequality, etc. These social indicators affect the students' psychological well-being, thus our education system should be such that it prepares the students to face these with ease and in a positive manner irrespective of the circumstances that they are facing. Life skills education program will enable the students to develop such potentials that will help them to move with the flow of the society even beyond school. Critical thinking is a term that is given much discussion without much action. Critical thinking enables the students to become active thinkers of the society not only for their personal and professional problems but also for the problems that the youth is facing. Critical thinking is a higher order thinking skill which is not focused on, and the need to have better scores on assessments is just one of them. The critical thinking process prevents the mind from jumping directly to conclusions, instead, it guides the mind through logical steps that tend to widen the range of perspectives and opinions, accept findings and results, put aside personal biases and consider reasonable possibilities. Life skills education program can help in promoting higher order thinking among students within the school system which plays an essential tool of inquiry.

Review of Literature

Prior studies on life skills program included outcome variables such as self-esteem, adjustment and empathy among adolescents (Yadav & Iqbal, 2009), self-esteem, perceived adequate coping, better adjustment generally, specifically with teachers, in school and prosocial behaviour (Srikala & Kishore, 2010), emotional intelligence (Kaur, 2011), health and positive social relationships (Aparna & Rakhee, 2011), self-concept (Khera and Khosla, 2012), social and emotional skills of student-teachers (Sandhu, 2014), perception on life skill education among teachers various according to their interest and attitude towards teaching process (Suresh, 2015) and analyse the knowledge of life skills among adolescents and the impact of life skills education training on their knowledge level (Parvathy & Pillai, 2015). Mansuri in an on-going study found that life skills development program was effective in enhancing critical

thinking skills, decision-making skills and problem-solving skills in marginalized students. Subasree and Nair (2014) developed a valid, reliable scale to measure life skills in their study.

Operational Definitions of the Terms

Psychological Well-Being: Psychological well-being refers to wellness physically and psychologically with an absence of mental problems.

Life Skills Education Program: Life skills education program is a structured program pre-designed by the researcher to bring about a change in attitude and behaviour in relation to knowledge and skills which includes the preaching of life skills required in day to day life to face the challenges of the developing society. Life skills may include communication skills, stress and conflict management, decision making, problem solving, creative and critical thinking.

Critical Thinking: Critical thinking is higher order thinking skill about any subject, content, or problem in which the thinker improves the quality of his or her thinking by skilfully analysing, assessing, and reconstructing it.

Statement of the Problem: Interactive Effect of Life Skills Education Program and Psychological Well-Being of Students on their Critical Thinking

Scope and Delimitations of the Study: In the present study, English medium schools from South Mumbai affiliated to the SSC board have been included. It excludes schools with other medium of instruction such as Marathi, Hindi, Urdu, Gujarati etc. Students from standard eighth were included for the study, other primary and secondary classes have been excluded. It also excludes schools affiliated to ICSE or CBSE boards. The present research studied the interactive effect of life skills education program and psychological well-being on decision making of students. It has excluded other student-background variables such as religion, mother tongue, etc. from its purview. The study has adopted the quantitative approach to the study rather than the qualitative approach.

Aim of the Study : To ascertain the interactive effect of the intervention program and psychological well-being of students on their critical thinking

Objectives of the Study

Following are the objectives of the study:

1. To ascertain the interaction effect of the intervention program and psychological well-being on critical thinking of students after partialling out the effect of pre-test scores of students on critical thinking.
2. To compute the effect size of the intervention program and psychological well-being on critical thinking of students.

Null Hypothesis of the Study

1. There is no significant the interaction effect of the intervention program and psychological well-being on critical thinking of students after partialling out the effect of pre-test scores of students on critical thinking.

Methodology of the Present Study : The study adopted the quasi- experimental method. In the present research, quasi -experimental design of the pre- test post-test, non-equivalent group's type was used. It can be described as follows:

The pre-test-post-test non-equivalent groups design.

$O_1 X O_2$ $O_3 C O_4$

Where,

O_1 and O_3 = Pre-test Scores

O_2 and O_4 = Post- test Scores

X : Experimental Group

C : Control Group

The duration of the treatment was for 29 hours 30 mins in the experimental group. There was no treatment given in the control group.

Sample of the Study : In the present study, the sample has been selected consisting of one intact class each of standard eighth from two different schools situated in the South Mumbai. The experimental and the control groups included 55 and 48 students respectively.

Tools of the Study : In the present study the following tools were used by the researcher to collect data:

1. Critical Thinking rating scale prepared by Mincemoyer, Perkins and Munyua (2001)
2. Ryff Scales of Psychological Well-Being (1995)

Intervention Program : The duration of the intervention program was 29 hours 30 mins. The experimental group was taught about life skills education through the intervention program where as no treatment was given to the control group. The life skills education program mainly highlighted the cognitive skill of critical thinking. Various activities were designed to develop critical thinking among the students which included case studies, role play, stories, moral dilemma, situations and scenarios, etc.

Data Analysis

Null hypothesis 1 : There is no significant difference in the interactive effect of the intervention program (IP) and psychological well-being (PWB) on critical thinking (CT) of students.

This hypothesis was tested using two-way ANCOVA in which the pre-test scores of students is controlled. The following table shows the relevant statistics of critical thinking of students by treatment and psychological well-being.

Table 1: Relevant statistics for ANCOVA

| Psychological Well-Being | | | | |
|--------------------------|---------|-------------|----------|---------|
| | Low SES | Average SES | High SES | Total |
| CG | 12 | 24 | 12 | 48 |
| EG | 14 | 27 | 14 | 55 |
| Total | 26 | 51 | 26 | 103 |
| Mean scores | | | | |
| CG | 65.6049 | 66.5438 | 69.5438 | 67.0591 |
| EG | 79.9956 | 81.2673 | 82.1434 | 81.1666 |
| Total | 73.3537 | 74.3386 | 76.3282 | 74.5922 |

It was found that the F-ratio for intervention program ($F= 72.67$) is significant at < 0.0001 , for psychological well-being ($F=0.86$) is not significant at 0.05 level and for interaction effect of intervention program and psychological well-being ($F=0.12$) is not significant at 0.05 level. Hence it may be concluded that the Mean CT of the experimental group is significantly greater than that of the control group, the Mean CT does not differ significantly on the basis of psychological well-being of students and the Mean CT of students do not differ on the basis of the interaction between intervention program and psychological well-being of students. The following figure shows the differences in the Mean CT of students on the basis of treatment and PWB of students

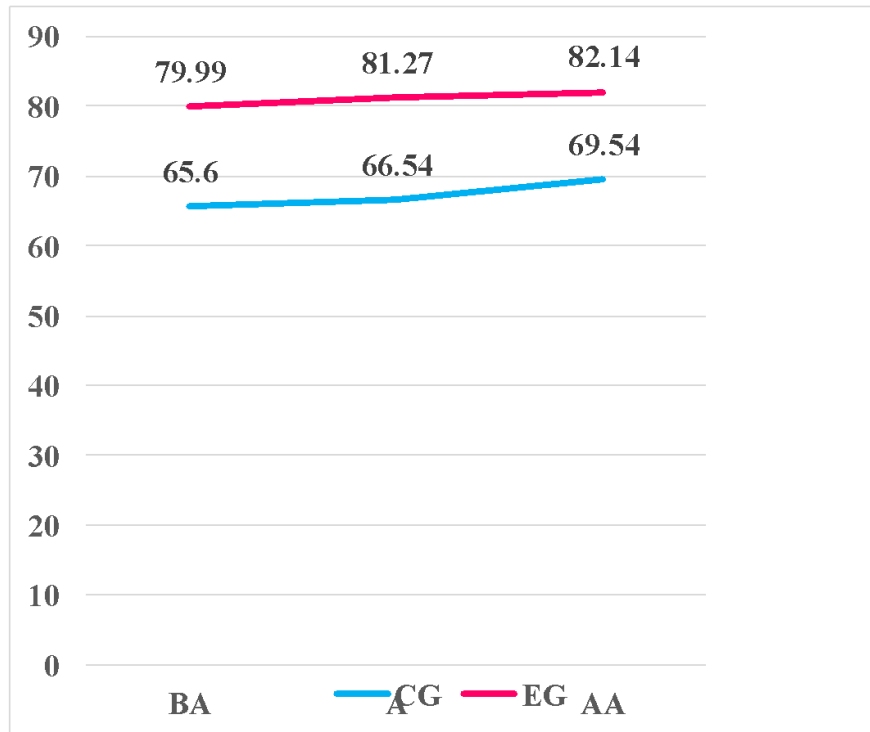


Figure 1: Interactive effect of treatment and PWB on CT

The effect size of the independent variables was computed using Wolf's formula and was found to be 1.683 which was high for the intervention program.

Conclusion

It may be concluded that the critical thinking skills of students of the experimental group is significantly greater than that of the control group. Thus, the life skills education program was found to be effective in enhancing critical thinking of students with high, moderate and low psychological well-being. The psychological well-being of students was not found to influence the critical thinking of students.

Discussion

The treatment i.e. the intervention program developed by the researcher is found to be effective for enhancing critical thinking of students. The literature review indicated that the roles that teachers play in the critical thinking are paramount in student success. This study could serve as a contribution to educational research that will help to enrich the teaching and learning practices with the help life skills education program. Making choices and decisions are a part of life. Simply put, the way life unfolds, with its twists and turns, starts and stops, requires us to make choices and decisions every step of the way which requires them to think critically. By encouraging the children and adolescents in house hold activities, they are enabled to strengthen their life skills. If such activities are accompanied by suitable classroom activities by teachers, the children and adolescents would acquire skills required for happy and healthy life. Classroom activities like moral dilemma helped the students to think critically about the situation considering the ethics of life which usually is neglected when it comes to use situations which cannot be handled effectively. Outdoor activities like walk in the garden helped the students to deal with the obstacles as the number of them kept increasing in the process by critically thinking about the methods to overcome them. Also, fun loving activities like scrambled sentences, puzzles, etc. helped students to develop higher order thinking skills thus improving not only the critical thinking abilities but also helping them wisely solving problems. Psychological well-being and education are, properly, intimately connected. Psychological well-being should be an aim of education and a good education should contribute significantly to a child's well-being and cognition.

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REDEFINING REMEDIAL TEACHING FOR THE LEARNING DISABLED STUDENTS USING INTELLIGENT AGENTS

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Abstract

The endeavour of this work is to support the special education community in their quest to be with the mainstream within our Indian education system. Learning Disability is a neurological disorder and Artificial Intelligence is a study to replicate the human neurons which when combined with a knowledge base can lead to prediction agents that would evolve according to the need and level of the learning disabled child. This work proposes intelligent agents that would evolve from empirical knowledge engineering whose aim is learning disabled remediation. The growing number of individuals diagnosed with learning disabled need enhanced psycho-educational materials to overcome the educational difficulties associated with inferring reading, writing and doing mathematics. One approach to this problem is to build an Artificial intelligent based self-tutoring system that would teach these need based skills. The outcomes of this work will be useful not only in learning disabled remediation but also in the construction of Intelligent Agents.

Keywords: *learning disability, intelligent agents, remedials, knowledge base*

Introduction

An intelligent agent (IA) is an independent object which learns about the environment through its artificial neurons and acts upon an environment using sensors and directs its activity towards achieving goals. The concept of came into existence from the field of gaming where the second player is the computer.

For the successful implementation of IA, cognitive functions are required in the capacity to reason about the understanding, computing and intentions of other IAs – especially humans [Lerner J.W, 1993]. Thus, IA designed to function in cognitive contexts will require a theory of cognitive capability. Learning Disability (LD) is a type of neurological disorder which affects a person's ability to read, write and do mathematics [S.A.Kirk, 2014]. LD is generally believed to be incurable. A wide variety of treatment strategies including pharmacological and remediation, address the symptoms [Manghirmalani et al, 2012]. There is no commonly agreed upon preferred treatment [Kalpan R.M, 2009]. As children are born with this neurological disorder, their ability to cope up in the classroom becomes difficult and the problem seems to increase as they cannot progress if they are not given remedial education from the right age. Hence it becomes absolutely necessary to diagnose LD at the earliest age. However, the problem of their being unable to cope up with the education system is prevailed more prominently when they indulge into full-fledged education syllabus, wiz, grade III and IV.

Their cognitive capability is poor and hence there is a parallel need for cognitive capability for the LD students and IA alike. The work described in this manuscript addresses these parallel needs. Building a knowledge-based system capable of performing theory of reasoning to support LD remediation is a stepping-stone toward the larger goal of creating general-purpose intelligent agents. Hence, remediation treatments are discussed in the present paper.

Background

Weyandt L. [Weyandt et al, 2005] states that people with LD respond better to computer aided learning and that it is of great potential benefit. However, the article indicates that this application remains largely unexplored [Jain et al, 2009]. The present article takes the position that these remedies suffer from the fact that they are essentially static. Even though remedial education is workbook-based, it contains a fixed number of pre-specified training items. Because of their static nature, they are incapable of generating training items on the fly using arbitrary characters, objects, situations and goals. The community needs interventions that are more flexible, customizable, and dynamic than current learning and training material. Hence, the previously mentioned issues associate with limited generalization can be addressed if a near-limitless set of exercises could be generated in this way.

The present article also takes the position that the challenge of building such a system is one that would be beneficial to the field of IA. One of the difficulties with building a general purpose IA is that the requirements are not very well defined. The LD treatment community has designed a large number of exercises that define many of the requirements of cognitive competence. Thus, by implementing a system that is responsive to this requirement, one is not only building a system that can be put to use in the context of a larger psycho-educational training system for people with LD, one is also building a useful foundation for an IA. In this way, the work described here is of relevance to the IAs' community.

Approach

AI technology can help in remedial studies for children with LD [Chen Z., 2009]. Rather than handcraft each workbook item as one does with a non-AI based approach, the approach is to build a rule-based system containing general abstract rules of theory of mind. This rule-based knowledge can be used as an intelligent back end to a system that dynamically generates workbook items [Mishra P.M. et al, 2015]. Automated inference should allow the generation of items that can be custom tailored to the interests and background of an individual student.

The first step was to characterize the requirements with a small set of pre-existing clinical workbook items for children with LD. The intent was to induce rules that typical individuals use in affective reading, writing and doing mathematics [Kulkarni S. et al, 2017]. Thus research participants were sampled from a population presumed to have acquired the essentials. It was assumed that members of the sample did not suffer from LD. Three studies were done to acquire the essential features for the IAs.

In Study 1 the set of items was administered to research participants, the resulting data was analysed, and a simple theory was induced. In Study 2, predictions made by the theory induced in Study 1 were tested. In Study 3, a knowledge base that was capable of developing the complexity of the questions based on the previous answer of the

participant was built. The ability of this knowledge base to produce believable appraisals was compared to human ability.

The focal problem was to formulate and test a machine- encodable theory of goal appraisal. Such a theory should exhibit enough generativity so as to approximate the types of variability that can be seen in human cognition about catering to the domains of reading, writing and doing mathematics [Jarrold W., 2007], yet the theory should also be restrictive in that it should predict that certain types of appraisal are inappropriate in certain situations.

Development of Intelligent Agents

IA approach is to build a rule-based system containing general abstract rules of theory of cognitive development. IA used for gaming purpose, which is also its origin, has a few set of rules. The famous game Wumpus World [REF], where the concept of IA came into existence states that an agent (Wumpus) can move Left or Right to achieve its target. It senses the target using its sense of smell and vision. It initialises itself to move ahead and stops when the target is achieved. Keeping this ideology in mind, IA is redefined to work for the remediation system for the LD students. To implement IA in a remedial based environment, following steps were followed:

Step I The set of items was administered to research participants, the resulting data was analysed, and a learning theory was induced.

Step II Predictions made by the theory induced in Step 1 were tested.

Step III A knowledge base that was capable of reasoning about the answers to particular instantiations of these parameterized items is built.

The ability of this knowledge base to produce believable appraisals was compared to human ability. The application was made to include images and audio to grab attention of the LD students. Assumptions were made that any one participant evaluated an item by thinking about it from several different perspectives and integrating these different perspectives. The result was an integrated perspective, or compound appraisal, that took into account all the factors contained in the mini-appraisals. If a mini-appraisal had no sub-appraisals inside of it, it would be considered to be something that stood on its own. The goal was to develop a model that, when implemented, would strive to replicate human ability at generating mini-appraisals.

Breaking the modeling problem down into (Step 1) generating mini- appraisals and (Step 2) forming compound appraisals out of mini ones is done. Compound appraisal creation was modeled as a two- step process where initially the simple appraisals would be generated and then the compound appraisals were modeled by averaging the valences of the mini-appraisals.

Post analysis of the patterns in the auto-generated data, the following types of appraisal seemed to be capable of producing a substantial data of relevance

- a) Type I: Inferable Current Success- those in which a goal is directly satisfied
- b) Type II: Goal Substitution- those where the situation is appraised with a reasonable substitute for the focal goal

c) Type III: Inferable Goal Blockage- those in which the focus is on the goal of not being met

In some cases, the total of a participant's response comprised of a single appraisal. In other cases, a research participant would produce a complex appraisal that was formed via combinations of the appraisal types that applied to a given scenario cue. Given below is one such scenario:

(LD1LD3 (goalAgent ((Compute the following (goalEventType (Level 3)) (goalAgentRole (retrieve)) (goalObjectInstanceRole (if c=a then Level 4 else Level 3)) (goalObjectInstance ((showOutput))))))

Procedure and Implementation

Items were administered to participants via a paper-and-pencil survey. Each survey contained ten items. Surveys were constructed out of items by grouping them according to specific constraints and manipulations. Reversal was an important manipulation performed on items in this study. To test the hypothesis that there is some restrictiveness in what counts as a believable appraisal, half of the items subjects saw were subjected to a valence reversal [O Golan, 2008]. In other words, if the valence associated with an appraisal was positive then in the reversed condition it would appear as negative. No participant saw more than one appraisal for a given scenario cue.

For example, if a participant saw a stimulus item that contained a reversed appraisal for a given scenario cue, that participant did not also see another stimulus containing that same scenario cue with that same appraisal with the emotion unreversed. This system was implemented using the programming language of Java. The basic RAM requirement for the smooth functioning of the application is 2GB due to the size of the knowledge base. The knowledge base was designed and developed using MS Excel.

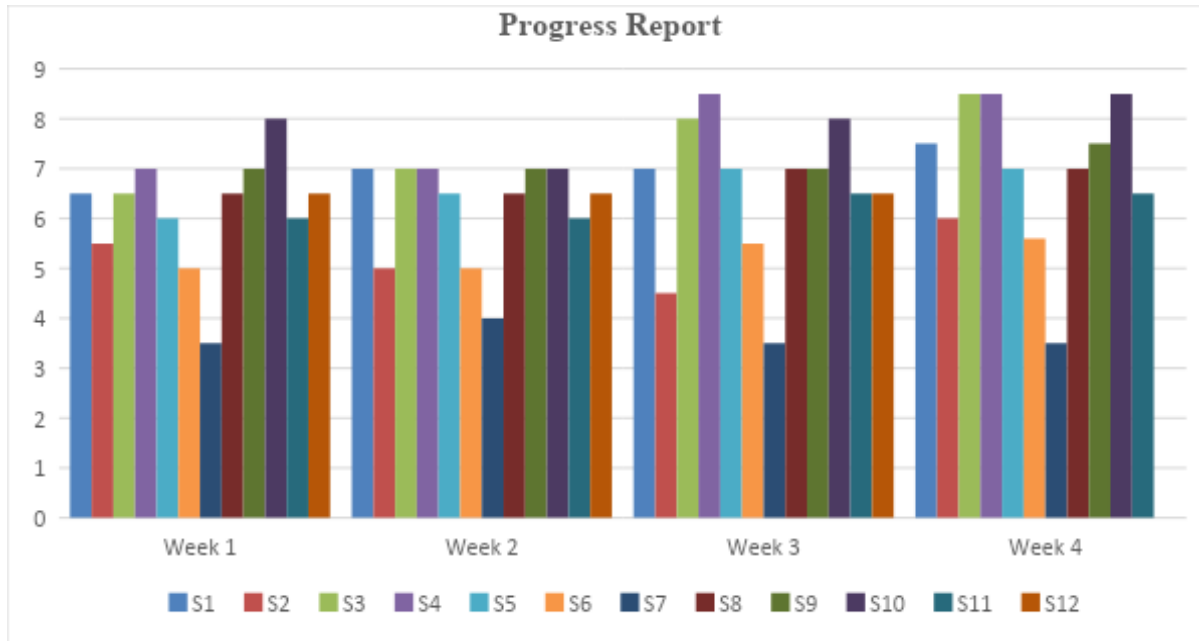
Results

The stages of progress are determined on the basis of a 4-point rating scale where No Progress being the lowest to Excellent being the highest. The system is presently tried on primary-level school going children of the region of Mumbai belonging to state board school [Saboowala et al, 2016]. Due to time constraints, the system is presently tested over a period of 4 weeks on 12 LD children. Below is their progress status.

Table 1- Progress Status

| Student | Age | Progress |
|---------|-----|-------------|
| 1 | 8 | Good |
| 2 | 9 | Average |
| 3 | 9 | Excellent |
| 4 | 9 | Excellent |
| 5 | 8 | Good |
| 6 | 10 | Average |
| 7 | 9 | No Progress |
| 8 | 8 | Good |

| | | |
|----|----|-----------|
| 9 | 8 | Excellent |
| 10 | 9 | Excellent |
| 11 | 10 | Good |
| 12 | 9 | Good |



Graph1- Progress report of 8 students over the period of 4 weeks

It is seen that there is a steady response in the growth of the students. Except 1 case, all others have shown average to excellent progress. Though the knowledge base contains information with respect to the age of the student, that parameter is not considered for this study. For future implementation, the knowledge base would be updated to accommodate students of more standards and the knowledge base would be reinitiated using MySQL.

Conclusion

More interactive psycho-educational applications are needed for people with LD. This paper outlines an approach to building a knowledge-based system that can serve as the tutor. A sequence of studies relevant to the construction and evaluation of such a knowledge base was described. These steps were characterized as empirical and test focused. If the methodology followed in the above three studies is pursued farther on a larger set of exercises it can serve as the affective cognitive development submodule of an intelligent tutoring system for people with LD. It can also serve as an important component of the theory of cognitive apparatus of an intelligent agent. This basic reasoning engine has several potential benefits. A knowledge-based system that is capable of reasoning about workbook items for people with LD can be installed in the back end of a tutoring system. For the treatment of LD, the system could provide benefit in terms of the number and cost of training items presented to a child.

For LD remedial education, extensive one-to-one contact between the LD student and a specially trained caregiver. The process is not always effective as it often becomes tedious for the caregiver to guide the child over the same process over and over again. Although, this software cannot always replace humans, it can free them from some of the repetitive nature of their work.

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शिक्षा और महर्षि दयानन्द

प्रो. ज्ञानप्रकाश आर्य

सहैयक प्रोफेसर

रिज़वी कॉलेज ऑफ़ एजुकेशन

शिक्षा के अर्थ को स्पष्ट करने से पूर्व यह जान लेना बहुत आवश्यक है कि विभिन्न विचारकों, चिंतकों, विद्वानों, दार्शनिकों आदि ने अपने-अपने दर्शन तथा समाज की स्थिति के सन्दर्भ में अपने विचार रखे हैं। अतः स्वाभाविक है कि शिक्षा के अर्थ के सम्बन्ध में विभिन्न मत हों। शिक्षा शब्द की उत्पत्ति संस्कृत के शब्द 'शिक्ष्' धातु से हुई है। इसका अर्थ है 'सीखना' तथा 'ज्ञान प्राप्त करना' अथवा अध्ययन करना।

भारतीय भाषा के सन्दर्भ में शिक्षा का शाब्दिक अर्थ : शिक्षा के अनुरूप अथवा समान अर्थ वाला एक और शब्द 'विद्या' है जो संस्कृत के 'विद्' धातु से बना है जिसका अर्थ है 'जानना' या 'ज्ञान प्राप्त करना'। अतः शिक्षा से अभिप्रायः ज्ञान प्राप्त करना है। चूँकि ज्ञान भी अनेक प्रकार का होता है और ज्ञान प्राप्ति के लक्ष्य तथा साधन भी अनेक प्रकार के, इस कारण शिक्षा का अर्थ एवं परिभाषा भी भिन्न हो जाती है।

संस्कृत के अन्य धातु : शिक्षा शब्दः शिक्ष से निकला है, जिसका अर्थ है सीखना अथवा शिक्षा देना। संस्कृत में और धातु 'शास' है जिसका अर्थ 'अनुशासन में रखना', 'नियंत्रण में रखना', 'निर्देश देना'

शिक्षा का संकुचित अर्थः कुछ विद्वानों का विचार है कि शिक्षा केवल शिक्षा संस्थाओं में ही दी जाती है। यह शिक्षा एक निश्चित समय या उम्र से प्रारम्भ होती है और एक निश्चित उम्र पर जाकर समाप्त हो जाती है। शिक्षा का एक विशेष प्रकार का पाठ्यक्रम होता है।

शिक्षा का व्यापक अर्थः शिक्षा के व्यापक अर्थ के अनुसार यह सारा संसार शिक्षा क्षेत्र है। प्रत्येक व्यक्ती-बाल, युवा, वृद्ध, स्त्री-पुरुष सभी शिक्षार्थी हैं। वे सब जीवनपर्यन्त कुछ न कुछ सीखते हैं। अतः व्यक्ती का सारा जीवन उसका शिक्षा काल है। साथ ही प्रत्येक व्यक्ती जहाँ स्वयं दूसरों से कुछ सीखता है वह दूसरों को भी कुछ न कुछ शिक्षा देता है। जीवन की छोटी-छोटी घटनाएँ भी हमें शिक्षा देती रहती हैं। इसी प्रकार शिक्षा प्राप्त करने तथा प्रदान करने का कोई निश्चित स्थान नहीं है। शिक्षा व्यापक अर्थ में घर, बाजार, स्कूल तथा खेल-कूद के मैदान आदि समस्त स्थानों पर प्राप्त होती रहती है। जड़ प्रकृति भी मानव को शिक्षा प्रदान करती है।

महर्षि दयानन्द सरस्वती के शिक्षा विषयक मौलिक विचार सत्यार्थ प्रकाश के द्वितीय समुल्लास में संकलित हैं। स्वामीजी ने इस विषय में अपनी विचार सम्बन्धी स्पष्टता का प्रशंसनीय परिचय दिया है। उनके विचार उलझे हुए नहीं हैं, सभी मन्तव्य स्पष्ट रूप में प्रस्तुत किये गये हैं। प्रत्येक मन्तव्य अपने आप में पूर्ण है। स्वामीजी ने इस समुल्लास में शिक्षा के मूलभूत सिद्धांतों पर ही अपना मत प्रकट किया है।

स्वामीजी के विचार से ज्ञानवान बनने के लिए निम्नलिखित तीन उत्तम शिक्षक अपेक्षित होते हैं- माता, पिता और आचार्य। शतपथ ब्राह्मण का निम्नलिखित वचन उनके उक्त विचार का आधार है।

'मातृवान पितृवान आचार्यवान पुरुषो वेद।'

अर्थात् वही पुरुष ज्ञानी बनता है, जिसे शिक्षक के रूप में प्रशस्त माता, प्रशस्त पिता तथा प्रशस्त आचार्य प्राप्त हों। बालकों की शिक्षा में तीनों में से किस-किसको कितने समय तक अपना कर्तव्य निभाना है, इस विषय में स्वामीजी

ने स्पष्ट निर्देश दिया है- "जन्म से ५वें वर्ष तक बालकों को माता, ६वें से ८वें वर्ष तक पिता शिक्षा करे और ९वें वर्ष के आरम्भ में द्विज अपनी संतानों का उपनयन करके विद्याभ्यास के लिए गुरुकुल में भेज दें।"

स्वामीजी ने बालक की शिक्षा में माता का भाग और दायित्व सबसे अधिक बताया है और यह उचित भी है। क्योंकि माता ही बालक को गर्भ में धारण करती है, अतः गर्भकाल में माता के आचार-विचार का बालक पर गहरा प्रभाव पड़ता है। अभिमन्यू द्वारा गर्भ निवासकाल में माता के सुने चक्रव्यूह-भेदन का रहस्य सीख जाना, महाभारत की प्रसिद्ध कथा है। जन्म प्राप्त करने के बाद भी काफी समय तक बालक माता के संपर्क में ही अधिक रहता है। स्वामीजी ने इस समय की सीमा ५वर्ष निर्धारित की है। यह काल बालक के जीवन रूपी वृक्ष का अंकुर काल है। इसमें जो गुण, उसके अंदर पड़ जायेंगे, वे बहुत गहरे होंगे, इसलिए माता का श्रेष्ठ होना अत्यंत आवश्यक है। स्वामीजी लिखते हैं, "वह कुल धन्य, वह संतान बड़ा भाग्यवान। जिसके माता और पिता धार्मिक विद्वान हों। जितना माता से संतानों को उपदेश और उपकार पहुँचता है, उतना किसी से नहीं। जैसे माता संतानों पर प्रेम (और) उनका हित करना चाहती है, उतना अन्य कोई नहीं करता; इसलिए मातृवान अर्थात् 'प्रशस्ता धार्मिकी माता विद्यते यस्य स मातृवान' धन्य वह माता है की जो गर्भाधान से लेकर जब तक विद्या पूरी न हो, तब तक सुशीलता का उपदेश करे।"

स्वामीजी ने पिता के दायित्व का स्पष्ट शब्दों में पृथक उल्लेख नहीं किया, परन्तु उनके इस निर्देश से कि ५ से ८ वर्ष तक की आयु तक का संतान पिता से शिक्षण प्राप्त करे, पिता कर्तव्य भी स्पष्ट हो जाता है। वस्तुतः अंधविश्वास-विरोधी संस्कारों का निराकरण तथा ब्रह्मचर्य - महिमा का प्रतिपादन पिता अधिक सुचारु रूप से कर सकता है, अतः स्वामीजी ने अंत में माता के साथ पिता का भी उल्लेख कर दिया है।

स्वामीजी कहते हैं की अध्ययन के विषय में लालन का कोई स्थान नहीं, वहां ताड़ना ही अभीष्ट है। "उन्ही की संतान विद्वान, सभ्य और सुशिक्षित होती है जो पढ़ाने में संतानों का लाड़ना कभी नहीं करते, किन्तु ताड़ना ही करते रहते हैं।" इस प्रकार स्वामीजी Spare the rod and spoil the child के सिद्धांत में विश्वास रखते थे। उन्होंने महाभाष्य का प्रमाण भी दिया है

सामृतैः पाणिभिर्घृन्ति गुरवो न विषोक्षितैः।

लालनाश्रयिणो दोषास्ताडनाश्रयिणो गुणाः॥

अर्थात् गुरुजन अमृतमय हाथों से ताड़ना करते हैं, विषाक्त हाथों से नहीं। भाव यह है कि गुरु की ताड़ना अमृत का प्रभाव करनेवाली होती है, न कि विष का। लालन, प्रेम आदि से दुर्गुण पैदा होते हैं और शुभगुणों की प्रतिष्ठा होती है। ताड़ना का वस्तुतः अपना महत्व होता है। आजकल हम पब्लिक स्कूलों की पढ़ाई को अच्छा समझते हैं। वहां ताड़ना निषिद्ध नहीं है। स्वामीजी के इस विचार को अशुद्ध नहीं कहा जा सकता। परन्तु स्वामीजी यह लिखना नहीं भूलें की "माता, पिता तथा अध्यापक लोग, ईर्ष्या, द्वेष से ताड़ना न करें, किन्तु ऊपर से भय प्रदान तथा भीतर से कृपा दृष्टि रखें।" कबीर का निम्नलिखित दोहा इसी तथ्य को स्पष्ट करता है -

गुरु कुम्हार सिष कुम्भ है, गढ़ि काढ़े खोट ।

अंतर हाथ सहार दें, बाहर बाहें चोट ॥

इसके बाद स्वामीजी ने लिखा है कि आचार्य सत्याचरण की शिक्षा शिष्य को दे । सत्याचरण बहुत व्यापक शब्द है । इस शब्द में समस्त नैतिक तथा सामाजिक व्यवहार की मर्यादाएं अंतर्भूत हो जाती हैं । शिष्य को सच्चे अर्थों में सामाजिक व्यवहार की शिक्षा देने का दायित्व आचार्य पर है । आचार्य ही उसे सामाजिक दृष्टि से उपयोगी बना सकता है । इसके अतिरिक्त शिष्य को गंभीर ज्ञान की प्राप्ति तो आचार्य कराएगा ही, साथ ही परा विद्या तथा अपरा विद्या में भी शिष्य को पारंगत करना, उसका कर्तव्य है ।

एक और महत्वपूर्ण बात की ओर संकेत करते हुए स्वामीजी ने तैत्तिरीय उपनिषद् का निम्नलिखित वचन उद्धृत किया है -

यान्यस्माकं सुचरितानि तानि त्वयोपास्यानि नो इतराणि ।

अर्थात् शिष्य को उचित है कि वह माता, पिता तथा आचार्य के शुभ कार्यों का अनुकरण करे, अन्यो का नहीं। उक्त तीनों शिक्षक भी उसे यही उपदेश करें। मानव सुलभ त्रुटियाँ सभी में होती हैं। माता, पिता तथा आचार्य भी इसके अपवाद नहीं हो सकते, अतः शिष्य को अपने विकास में उपयोगी सब गुणों को अपने तीनों शिक्षकों से ग्रहण कर लेना चाहिए।

स्वामीजी ने यह भी लिखा है कि सामान्य व्यवहार कि छोटी-छोटी बातें भी यह शिक्षकत्रय शिष्य को बताएं। इन छोटी-छोटी बातों का सुन्दर संकलन मनु के निम्नलिखित श्लोक में है –

दृष्टिपूतं न्यसेत्पादं, वस्त्रपूतं जलं पिबेत।
सत्यपूतां वदेद्वाचं, मनःपूतं समाचरेत् ॥

अंत में स्वामीजी लिखते हैं कि अपनी संतान को तन, मन, धन से विद्या, धर्म, सभ्यता और उत्तम शिक्षायुक्त करना माता-पिता का कर्तव्य कर्म, परम धर्म तथा कीर्ति का काम है।

चाणक्य नीति के निम्नलिखित श्लोक में माता-पिता के उक्त दायित्व का वर्णन किया गया है –

माता शत्रुः पिता वैरी येन बालो न पाठितः।
न शोभते सभामध्ये हंसमध्ये बको यथा ॥

इस प्रकार सत्यार्थ प्रकाश के द्वितीय समुल्लास में स्वामीजी ने शिक्षा सम्बन्धी मौलिक बातों पर संक्षेप में प्रकाश डाला है। उनकी स्थापनायें शास्त्रानुमोदित होने के साथ-साथ उपयोगितावादी, व्यवहारिक कसौटी पर खरी उतरती हैं।

सन्दर्भ ग्रन्थ :-

"सत्यार्थ प्रकाश" - महर्षि दयानन्द सरस्वती

"उदीयमान भारतीय समाज में शिक्षा" - एस. गुप्ता और जे. सी अग्रवाल

UNDERSTANDING RESILIENCE AND MENTAL HEALTH

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Abstract:

Mental health is a serious concern worldwide and India is not far behind. A mental health epidemic is enveloping India. Today, people are facing huge amount of challenges, fears and rapid changes on a daily basis which is very stressful and traumatic. Coping with such unpleasant emotions and experiences is a struggle for them. The ability to cope effectively with these emotions is termed as resilience. The purpose of this paper is to identify important elements of resilience based on literature review. The paper also highlights the importance of resilience in today's world. Further, the role of resilience in promoting mental health of an individual is also discussed.

Introduction:

- Caught copying during exams, minor commits suicide in Kalyan. (Kalyan, 4th September, 2016, Mid-Day)
- A 12-year old girl commits suicide after teacher scolds her over period blood stains on uniform. (Tamil Nadu, 30th August, 2017, India Times)
- An e-rickshaw driver was beaten to death after he stopped two people from urinating in public. (New Delhi, 29th May, 2017, The Indian Express)
- A 24-year-old management student committed suicide by jumping out of a 19th-floor hotel room in Mumbai because he was depressed about failure in exams. (New Delhi, 8th May, 2017, Hindustan Times)

These instances are a harsh reminder of how India is still far away from effectively managing stress and combating mental illnesses. Mental health is an invisible problem that plagues our society today. Today, people are experiencing a great deal of stress in their lives which stems from various situations like fights at home, arguments, puberty, divorce, relationship issues, injury, etc. Thus, people are at a higher risk of developing mental health problems like depression, anxiety disorders, helplessness, suicidal ideation, and other mental illnesses. However this can be prevented if the people are equipped with the ability to manage their stress. Maintaining good mental health is vital for living a long and healthy life. Therefore, mental health is the foundation for well-being and effective functioning for an individual and for a community.

The first part of this paper focuses on the concept of mental health and resilience. In the second part, the relationship between mental health and resilience is highlighted. With the help of literature review, the third part discusses about the components of resilience which enhance mental health.

Concept of Mental Health & Resilience:

When speaking of health, one almost always ignores the spectrum of mental health of a person. When a person has fever or a toothache, he/she immediately consults a physician for fast recovery. But what happens when one is faced with depression or anxiety? Why does one hesitate to visit a mental health professional to cater to mental illness concerns? This is because, for many, fitness has always been equated with physical health. However, we forget that mental health is a state of complete physical, mental and social well-being and not merely the absence of disease. World Health Organisation (WHO) defines mental health as “a state of well-being in which every individual realizes his/her potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his/her society”. (WHO Report 2003)

Mental health improves the quality of life as the individuals can live their lives to the fullest. It helps to maintain healthy relationships and handle ups and downs in life. Therefore, currently, research is moving its focus from the factors that determine vulnerability to mental ill health, to the factors that stimulate individuals to remain healthy or to recover swiftly when facing severe adversities over the course of life. Throughout the lifespan, maintaining good health and well-being depends on the ability to effectively manage stress arising from daily hassles and adversities. The key to successfully managing these stressors and challenges is resilience.

Resilience refers to the ability of a person to successfully manage his/her life and to successfully adapt to change and stressful events in healthy and constructive ways. It is the ability to use the social-emotional skills to overcome or bounce back from the effects of stress (Chung, 2008). The concept of resilience has evolved over the years. Definitions of resilience emphasize that resilience is the capacity to face challenges and become more capable despite adverse experiences (Rosenberg 2016; Neenan, 2009; Luthar, 2006; Rutter, 1999). One thing that is fascinating about these definitions is the assumption that we all will face adversity and go through stressful experiences. Life will continue to throw storms our way. Resilience isn't one's ability to avoid these storms but rather to recover from them and move ahead in life. Otherwise these storms will harm an individual and affect their mental health. Thus it is rightly said, *“Life is thickly sown with thorns and I know no other remedy than to pass quickly through them. The longer we dwell on our misfortunes, the greater is the power to harm us”* – Voltaire. Resilience, thus, helps a person to excel in all areas of life – friends, relationships, family. Contrary to the belief, resilience is not an extraordinary quality. Every individual is born with it which can be further developed through life experiences (Headquarters Regional Command, 2017). Various researchers have identified a list of protective factors that are needed to promote resilience (Garmezy, N., 1991; Werner, Emmy, 1982; Masten, A. et al, 2009). The different components of resilience are self-confidence, optimism, empathy, self-efficacy, self-esteem, stress management, communication skills, understanding and managing emotions, problem solving, interpersonal relationships and locus of control. These factors cannot stand alone and are interdependent.

Relationship between Resilience and Mental Health:

Resilience enhances physical and psychological well-being. It leads to greater self-awareness and understanding of self and others. Building one's resilience can buffer him/her from developing mental illnesses such as depression, anxiety disorders, suicidal ideation, etc and lessening the severity of these problems (Kamble, R. 2015). Resilience can also help someone with mental illness to manage their recovery and to focus on strengths. Resilience helps in developing various skills which also promote good mental health. Various researchers have empirically proved that resilience is a strong predictor of mental well-being (Nabi, A., 2017; Karamipour, M. et al, 2015; Sood, S. et al, 2013; Hjmedal, O. et al ,2011).

Components of Resilience promoting Mental Health:

There are many components of resilience which help to foster mental health of an individual. The first component is locus of control which refers to how strongly people believe that they have control over the situations and experiences that affect their lives. It can be external or internal. An external locus of control may make an individual feel helpless, hopeless and make them resistant. An internal locus of control leads to higher level of resilience in an individual and thus acts as a promoting factor for resilience (Rajan, A. et al, 2018; Cazan, A. & Stefania, A., 2016; Hidalgo, M. & Sababdo, T., 2016). An individual with an internal locus of control showed better mental health (Krishnakar, M. et al, 2016; Shojaee, M., 2014; Jain, M. & Singh, S., 2015). Thus, locus of control plays a significant role in promoting both resilience and mental health. People cannot control what happens to them, but they can control their attitude to what happens to them. Therefore, this component of resilience should be developed for healthy living.

Secondly, we will see how self-esteem helps in promoting resilience and mental health. A study conducted by Cazan, A. & Stefania, A. (2016) showed that highly resilient adolescents had higher self-esteem. Karatas, Z. et al (2011) proved that there is a significant relationship between self-esteem and resilience and showed that self-esteem is a significant predictor of resilience among adolescents. Self-esteem and mental health also show a significantly positive correlation. This can be empirically supported through the various researches conducted by Parthi, K. & Rohilla, S. (2017); Rezaee, A. (2016); and Farshi, M. et al (2013); Jung, J & Kyung, J. (2015). Thus, it can be concluded that higher the self-esteem, better mental health maintained.

The third component is optimism, which is a tendency to look at more favourable side of the events. There were various studies on optimism in relation to resilience and mental health. There is a positive relationship between resilience and optimism and optimism is one of the strongest predictors of resilience (Thorne, R. (2015); Saboripour, F. & Roslan, S. (2015); Souri, H. & Hasanirad, T., 2011; and Baldwin, D. et al, 2010). Optimism also has a significant influence on mental health of individuals (Ghalibaf, M., 2017; Jahanara, M., 2017; Klimusova, H. et al, 2016; Conversano, C. et al (2010). Thus, when optimism is nurtured, it bolsters our resilience and act as powerful antidote to depression and anxiety.

Conclusion:

India has one of the world's highest suicide rates for youth aged 15 to 29, according to a 2012 Lancet report. Thus, mental health statistics for children worldwide is quite alarming. It is difficult to reach each individual to assess how they are coping with various adversities. Thus, there is a dire need to develop resilience programs focusing on its components. Components of Resilience like locus of control, self-esteem and optimism are directly related to mental health. They help in preventing mental illnesses and promoting mental health. So, in order to make the lives of young people valuable and to convert them to individuals with high potential, due importance should be given to proper training of a set of skills to develop resilience among them to overcome the challenges, frustration and stress.

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EARLY INTERVENTION –IMPACT ON CHILD WITH COGNITIVE AND DEVELOPMENTAL DELAYS

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Abstract:

The broad objective of this paper is to understand the learning needs and behavioural deviations present in children with cognitive and developmental delays. Research says that learning and development happens at its highest pace during the first 6 years of life. Some children who show delay in achieving milestones (speech & communication, developmental) or some conditions present during pre-natal, natal and post-natal are at high risk of learning and developmental lag. Screening and identification at an early stage paves the path for early intervention. Early intervention plays a vital role in bridging the gap between the chronological age of the child and social, emotional, cognitive and behavioural maturity of the child. Few pre-requisite learning behaviour covered as part of early intervention are eye-contact, joint attention, sustained attention, sitting tolerance etc. As part of early intervention, it is significant to work on child's communication (expressive and receptive), fine & gross motor skills and social & emotional growth. However the areas to be worked upon are decided based on Individualised education plan designed post assessment.

Keywords: - *Learning delay, Developmental delay, Early Intervention*

Introduction

Early Intervention –Impact on Child with Cognitive and Developmental Delays

Early intervention means doing things as early as possible to work on your child's developmental, health and support needs. Early intervention services give specialised support to children and families in the early years (from birth to school entry).

Early Childhood Intervention Services (ECIS) support children with a disability or developmental delay from birth to school entry and their families. It provides special education, therapy, counselling, service planning and coordination, assistance and support.

The purpose of early intervention is to lessen the effects of the disability or delay. Services are designed to identify and meet a child's needs in five developmental areas, including: physical development, cognitive development, communication, social or emotional development, and adaptive development.

There are many different types of developmental delays in infants and young children. They include problems with:

- language or speech
- vision

- movement -- motor skills
- social and emotional skills
- thinking -- cognitive skills

Cognitive Delays

- Cognitive delays may affect a child's intellectual functioning, interfering with awareness and causing difficulties that often become apparent after a child begins school. Children with cognitive delays may also have difficulty communicating and playing with others.
- This type of delay may occur in children who have experienced a brain injury due to an infection, such as meningitis, which can cause swelling in the brain known as encephalitis. Shaken baby syndrome, seizure disorders, and chromosomal disorders that affect intellectual development, such as Down syndrome, may also increase the risk of a cognitive delay. In most cases, however, it is not possible to identify a clear reason for this type of delay.

Social, Emotional, and Behavioural Delays

- Children with developmental delays, including those with related neurobehavioral disorders such as ASD and ADHD, often also have social, emotional, or behavioural delays. Due to differences in brain development, they may process information or react to their environment differently than children of the same age. These delays can have an impact on a child's ability to learn, communicate, and interact with others.

Speech Delays

- Some speech delays are receptive language disorders, in which a child has difficulty understanding words or concepts. Children with this type of speech delay may have trouble identifying colors, body parts, or shapes. Others are expressive language disorders, in which a child has a reduced vocabulary of words and complex sentences for his or her age. A child with this type of speech delay may be slow to babble, talk, and create sentences. Often, a child with a speech delay has a combination of receptive and expressive delays.
- Children with an oral motor problem—such as weakness in the muscles of the mouth or difficulty moving the tongue or jaw—that interferes with speech production have what is known as a speech production disorder.

Common background shared by children with cognitive, behavioural and developmental delay. The case intake /interview revealed presence of one or more than one of these situations:

- Both the parents are working
- Child is either looked after by grandparents or domestic helper
- Not major step taken until the age of 3 years
- Lack of social and emotional skills
- Communication skills are effected

- Uses pointing or indication
- Inadequate sitting tolerance
- Inadequate eye-contact
- Children are first generation learners in the family
- Denial in parents
- Fear of social stigma
- Premature birth
- Consanguineous marriage

Areas of intervention:

Major areas are related to pre-requisite learning behaviour (PLB'S)

- Eye-contact-

If a baby can't hold eye contact with his/her parent for at least a few seconds by 3-4 months that is a red flag. If that describes your child, you should certainly speak to your paediatrician. Non-verbal communication as well as verbal communication functions powerfully in the realization of an effective teaching-learning environment in the classroom (Lemmer, Meier & Van Wyk, 2012). Miller (2005) maintains that as little as 7% of communication takes place through the spoken word; most communication takes place through non-verbal and by means of paralinguistic cues. Under the rubric of non-verbal communication, Miller (2005) includes facial expressions, proximity and closeness, hand gestures, body language and, of great importance to this study, eye contact or the lack of eye contact. Some activities which quickly enhances eye contact in toddlers and kids

- Mask activity- The specialist/parent wearing a mask and so does the child. Pick a topic to elaborate on like favourite fruit, colour, dress etc of the child. Wearing a mask keep the child's focus at one point
- Blowing Bubbles- Bubbles blowing is very attractive for any child. Wherever bubbles go, ask child to burst it. It also develops eye-gaze and eye to object contact
- On Face Sticking- Ask your child to stick bindis and colourful stickers on your face. While he does that, talk to your child about what is it, what is he doing, how many did he stick. Afterwards ask him to take off all bindis. Continue the talk with your child. Repeat this activity on your child's face if he is comfortable.
- Look through- Make a pipe and ask your child to look through it by closing one eye. One side of it, child will look through and the other side of it, parent looks through it. Keep talking to child, keep showing different objects to your child through the hole. Child will enjoy this activity a lot and it makes him look into your eye for a longer span of time.
- Peek-a –boo:- - This is very interesting for any child. Hide your face and Close your eyes and suddenly take your hands away saying Peek-a boo. Child laughs and looks at you. He/she waits for the same to be repeated
 - Sustained attention: - Sustained concentration, is defined as the ability to maintain concentrated attention over prolonged periods of time. Most educators and psychologists agree that the

ability to focus and sustain attention on a task is crucial for the achievement of one's goals. Some activities proved to have great effect in developing sustained attention in children:

- Building blocks
 - Beading
 - Segregation of grains
 - Sand pouring , sand funnel activity
 - Peeling- peeling beans, oranges, green peas
 - Grating
 - Puzzles
 - Lego activities
 - Sticking
 - Colouring
- Joint attention

Joint attention is an early-developing social-communicative skill in which two people (usually a young child and an adult) use gestures and gaze to share attention with respect to interesting objects or events. This skill plays a critical role in social and language development. Impaired development of joint attention is observed in children with autism, and thus it is important to develop this skill in early intervention efforts.

 - Reinforce Proximity: Take boxes in which child's favourite things are kept. If it's a toy, Take it out, show it to the child. Child will automatically come near you. Reinforce the child coming to you by giving that toy to him. Play turn by turn with that toy. If he/she loses interest, switch to a different reinforce. With some children, you'll need to switch each time.
 - Pointing objects spread on a table: Spread out few things on table like a car, fruits, vegetables, animal, etc. Name anything which is kept on the table and reinforce by giving that thing if child indicates /points or pick that thing up.
 - Gradually Increase the Variety of Activities that the Child will Share Attention During:

If your child loves looking at pictures, take a picture story book and read out the story book for your child. This will prolong the duration for which child pays attention to you and to the picture book. Try to do role play and add humour to the story telling process.
 - Bring objects close to eyes and ask your child what it is. Keep showing different toys, colours, pictures, flash cards and ask child to name it.
 - Fine motor skills: - Fine Motor Skills are the coordinated muscle movements we make using our hands. Fine motor skills develop as your child's whole body gains mobility, stability, cognitive, and emotional/social development. Some activities that facilitates fine motor skills :
 - Shoe lace tying

- Buttoning
- Paper cutting
- Piercing paper
- Stapling
- Joining dots
- Stacking
- Horizontal and vertical strokes with water or paint
- Hammering blocks
- Paper tearing
- Sticking
- Scribbling

- Gross motor skills

Gross motor (physical) skills are those which require whole body movement and which involve the large (core stabilising) muscles of the body to perform everyday functions, such as standing and walking, running and jumping, and sitting upright at the table. Without fair gross motor skills, a child will struggle with many day to day tasks such as a eating, packing away their toys, and getting onto and off the toilet or potty.

Activities that facilitate gross motor skills in toddlers and young children are:

- Throw and catch ball
 - Jumping
 - Climbing stairs
 - Swinging
 - Sliding
 - Hopping
 - Sea-Saw Balance
- Receptive language&-Expressive language:

The ability to understand commands and instructions is called receptive language. The ability to express one's needs, emotions etc is called expressive language.

Some facts about early intervention:

- It must begin as early as pre primary years (12 months)
- It is individualised and need based.
- Individualised education plan has to be formulated post assessment
- Most of the intervention has to be done by parents after a substantial amount of training given by professional

- Seek professional and specialist help depends on the need of the child. Example take SLP's intervention to deal with Speech and Language delay, taking Special educator's help to deal with child's cognitive and learning needs, taking Occupational therapist help to deal with child's Sensor's needs.
- It has to be continuous, regular and intense.
- It involves a multidisciplinary team.
- Its not a one day process. It is a long term process.

Table 1: Process of early intervention:

| | |
|--------|--|
| Step 1 | Identification by observation by primary care giver <ul style="list-style-type: none"> ● Child's developmental milestones ● Child's behaviour and social growth ● Childs' Cognitive Skills & learning |
| Step 2 | Referral by parent/ teacher/ paediatrician |
| Step 3 | Seeking professional/specialist help |
| Step 4 | Assessment/Screening to understand child's present functioning level <ul style="list-style-type: none"> ● Observation ● Parental Inetrveiw ● Case inatke |
| Step 5 | Referral to other professional if the need be <ul style="list-style-type: none"> ● Speech & language pathologist ● Psychologist ● Special Educator ● Occupational Therapist |
| Step 6 | Plan IEP – Individualised education Plan |
| Step 7 | IEP Meeting <ul style="list-style-type: none"> ● Current functioning level ● Goals and objectives ● Duration of Intervention ● Short-term and long Term Goals |
| Step 8 | Intervention begins |

Identification is the most important stage of the early intervention programme. The delay happens in intervention primarily because of late identification and denial from the family. The role of IEP is huge as far as success of intervention is concerned. Many a time IEP is formulated but it is not reviewed or is it not followed appropriately.

Sometimes identification happens on time, Intervention begins on time but due to lack of consistency in sessions the Intervention is incomplete.

Case Study

Date of Reference: 9/6/2016

Reference by- Teachers

Date of Feedback: 18/9/2017

Feedback shared by: class teachers

Table 2: Progress of the child from June 2016 to Feb 2017

| Concern areas | Then (24-th may-1 st week of June) | Now (25 th Sept) | From Sept to Feb | How often (1, 2 3 or any number of times) | From June to Sept (18/9/17) |
|-----------------------------|---|---|--|---|--|
| Pre-requisite social skills | No response to name call | Sometimes he will respond sometimes he will not respond | He will respond | Always | He will respond nicely |
| | No exchange of greetings | He will great everyone in the class | He will great everyone in the class. Voluntarily he comes to teachers and greets. | Always | He will great everyone in the class |
| | Hitting everyone whoever comes in his way | Hitting has reduced to some extent | He will hit but not everyone. Mostly observed he hits younger ones. | Some times | Whenever sessions are going on properly he will not hit otherwise he will be hitting everyone in the class |
| | No sense of respect for elders | He will hit elders also like he was hitting Ramla | He respects elders. Observed when he speaks with helping staff, he speaks softly and no hitting. | Many times, | He respects elders. |

| | | | | | |
|--|--|---|--|-----------|--|
| | No homesickness even on first day of school | No | No | No | No |
| Pre-requisite learning & communication | No eye contact | Eye contact is there for a fraction and seconds and diverts | Eye contact has increased comparatively. Eye contact is good, observed while speaking to adults as well as children. | Always | Eye contact has increased comparatively. Whenever adult is talking to him he keeps an eye contact. |
| | No compliance | No | No | No | No |
| | Not following the instructions | Sometimes once in a while he will follow | Sometimes once in a while he will follow | Sometimes | Most of the time he follows the instructions. Very rarely he will disobey. |
| | Inadequate expressive and receptive language. Repetition of what others say. Mostly uses one words to communicate. | He always repeats whatever adult says to him or any other child | He always repeats whatever adult says to him or any other child. Able to answer in small sentences. | Always | He is able to express his views in proper sentences and speaks only in English. |
| | Unclear speech | yes | Little bit better now. Better. | Always | He has improved a lot. |
| Sitting tolerance | Less than a minute on any task | He cannot sit for more than a minute working with any material | He can sit for 5 to 10 min with any material when an adult is next to him. Only with adult he is able to sit for activities. | Always | He is able to sit for an hour but with the help of an adult. |
| | Keeps roaming | Yes | Yes | Always | Some times |

| | | | | | |
|-------------|--|-----------------------------|---|------------------|---|
| | around the class | | | | |
| | Not taking any material | Yes | He will take only 1 preliminary material. With regards to choosing materials, only with persuasion and always teacher directed. | Always | He chooses material on his own but works with the help of adult. |
| Behavioural | Hitting and pushing kids | Yes | Yes | Most of the time | Yes |
| | Throwing objects | Yes | Yes | Most of the time | Yes. He used to throw specs of one child in the month of June, July later he has stopped it but throwing the materials like beads to the ground and bags is on daily bases. |
| | Non-compliance | Yes | Yes | Most of the time | Yes |
| Cognitive | Does not respond to what is your name, what is this, where do you want to go, who is this? | He will respond | He will respond | Most of the time | He will respond |
| | Knows fruits, vegetables | Yes | Yes | Always | Yes |
| | Does puzzles (with adult supervision) | Yes, with the help of adult | Yes, with the help of adult | Always | Does on his own |

| | | | | | |
|--|--|---|---|-----------|---|
| Pre-requisite learning and communication | No eye contact | Whenever adult calls his name he will have eye contact for fraction of seconds | Whenever adult calls his name he will have eye contact for fraction of seconds | Always | He has gained eye contact |
| | No compliance | Sometimes once in a while he will follow | Sometimes he will follow | Sometimes | Sometimes he will follow |
| | Inadequate expressive (He will pull the adult if he wants something e.g. for going to slide) | E.G. if adult says to take mat he will repeat the same for more than 10 to 20 times | He will pull the adult to that particular place if he wants something | Always | He expresses his views |
| | Not following the instructions | If adult asks him to take any material he will not listen and just runs away | Sometimes he will take sometimes he will not take depending on his mood but if adult is with him he will take | Always | Sometimes he will take sometimes he will not take depending on his mood but if adult is with him he will take |

Observation Report of case R for the year 2017-18

Areas Improved:

- 1 Child expresses his views and thoughts very clearly and also improved in his spoken language.
- 2 He is able to form words with the help of movable alphabet.
- 3 He is able to write numbers , add
- 4 He is able to do quantity-symbol association
- 5 Eye hand co ordination has gained a little.
- 6 Initially child was not mingling with his peers in a group, but he has increased it to a greater extent
- 7 Eye contact-Adequate.

Conclusion:-

Early intervention has become a hot topic, attracting widespread international, national and local interest from policy-makers, practitioners, academics, think tanks and others from around the globe, as is illustrated throughout this publication. In short, the case for early intervention rests on the growing body of evidence demonstrating what happens when children and young people's emerging difficulties are not spotted and addressed, coupled with promising evidence about the difference that programmes and approaches can make if delivered well. Early interventions, according to the **Nobel Prize winning economist Professor James Heckman of the University of Chicago**, “promote schooling, raise the quality of the workforce, enhance the productivity of schools and reduce crime, teenage pregnancy and welfare dependency. They raise earnings and promote social attachment. Focusing solely on earnings gains, returns to dollars invested are as high as 15- 17%... a rare public policy initiative that promotes fairness and social justice and at the same time promotes productivity in the economy and in society at large” (Heckman 2006). It is clear that in cases without identification, assessment and help, children's problems become entrenched and then spiral and multiply, causing significant long term damage for them and for others around them, and creating major financial costs for a wide range of public services far into the future. Therefore it is highly important not to overlook the red flags and tell-tell signs if suspected or observed. It is the responsibility of the community (parent, paediatrician, relative, friends, anyone who is observing the child) to speak and express if any lag is observed in the child so that timely intervention can be ensured.

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AN ETHNOGRAPHIC STUDY OF CULTURE OF PROCRASTINATION AMONG COLLEGE STUDENTS

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Abstract

Procrastination refers to the unusual delay in completion of activities, projects or assignments. It places undue stress or anxiety upon students as they hasten to meet deadlines and complete the task. The author in the present study employed a narrative ethnographic research approach to explore the culture of procrastination in students. However, the research is somewhat mixed on the effects of procrastination. The study took place at the Rizvi College of Education. Procrastination involves failure in self-regulation and volition processes commonly regarded as executive functions. The study focuses on aspects of procrastination including behavioral delay, task capability, perfectionism, evaluation anxiety, low self-esteem, aversiveness of task, laziness, time management, difficulty making decisions, peer pressure, dependency, lack of assertion, risk taking, fear of success, rebellion against control in addition to depression and anxiety. The present study also investigates subcomponents associated with procrastination like distraction of attention, social factors, personal initiative and motivation, in a demographically diverse sample of B.Ed. students aged between 22- 40 years. The study offers a detailed understanding of procrastination behavior and indicates a need to design coping strategies for learning outcomes in students.

Keywords: *Procrastination, behavioral delay, task capability, time management.*

Introduction

Procrastination is an acute problem amongst college and university students. College life is regarded as a context wherein students learn healthy habits of managing and organizing their task at a limited time. On the contrary, students intentionally delay things as they like to enjoy their college time with their peers. They avoid long term deadlines and extracurricular activities which ultimately lead to their academic incompetence. It not only affects student grades, but also academic performance, thereby creating academic and career problems. It is a phenomenon that can affect all areas of a person's life. It was noted before the dawn of industrial civilization. This topic is less studied in education but deserves much more attention. It is detrimental in cultures where performance and results are given due importance.

Conceptualizing Procrastination

Procrastination comes from the Latin “pro,” which means forward, and “crastinus,” which means of tomorrow (Mish, 1994). It is a tendency to put off, avoid or delay activities. It has also been characterized as “delaying task completion to the point of experiencing subjective discomfort” (Ferrari, 1992, p. 315), an “intentional delay of an

intended course of action” (Klassen, Krawchuk & Rajani, 2008, p. 916) or as a stable personality trait with negative consequences (Choi & Moran, 2009). "to voluntarily delay an intended course of action despite expecting to be worse off for the delay” (Steel, 2007, p. 66). Hoover(2005) defines procrastination as not being able to set goal priorities and hence not being able to complete assignments on time. According to Lay (1986) procrastination means putting off something which is central to reach some goal. According to Burka and Yuen (1983) procrastination is a self induced strategy that guards against a susceptible sense of self-esteem.

Above definitions indicates that procrastination is not solely a deficit in study habits or time management, but involves a complex interaction of behavioral, cognitive, and affective components.

Types:

The author differentiated two types of procrastinators: Passive procrastinators versus Active procrastinators. *Passive procrastinators* are procrastinators in the traditional sense. They are paralyzed by their indecision to act and fail to complete tasks on time. In contrast, *active procrastinators* are a "positive" type of procrastinator. They prefer to work under pressure, and they make deliberate decisions to procrastinate.

General Characteristics:

Procrastination is identified as a negative trait in individuals of all ages. Even an academically strong individual may possess following characteristics of procrastination:

1. Procrastinators get lower scores than the non-procrastinators as they underestimate the amount of time needed to perform tasks and are easily distracted by fun activities.
2. They work on less important responsibility, rather than fulfilling the more important obligations, or may use their time extravagantly in some minor activity or pleasure.
3. Procrastinators keep themselves ready to work, but end up avoiding the activity that needs to be accomplished on precedence (Yaakub, 2000).
4. Procrastination considerably wastes significant time, if there is something supposed to be performed (Hobbs, 2008)
5. They have found to carry a heavy cost due to inability to abide by these values, whereby affecting all domains of life as it creates anxiety and affects attention, concentration, quality of performance and work.
6. Low self esteem and unsteady feelings of self-worth is a central constituent of procrastination. (Burka and Yuens,1983).
7. Procrastinators feel powerless and hopeless, less confidence and future seems dark.
8. Procrastinators usually avoid revealing information about their abilities, prefer menial tasks, tend to focus on the past, and do not act on their intentions.
9. Procrastinators report feelings of dependency and self-defeating acts and greater social anxiety. (Ferrari 1991)

10. Procrastinators were high on the neurotic disorganization scale and also on the rebelliousness scale and had personal projects which, overall, were characterized by high stress, high difficulty, low progress. (Lay 1987)
11. High procrastinators and women perceived themselves to have less delay of gratification, lower self-efficacy, and less control over emotional reactions.
12. Procrastination is associated with low conscientiousness and self-regulatory failure.
13. Procrastinators feel fear of failure and aversiveness of the task, with no difference in study habits and week anxiety-related physical symptoms.
14. Individuals with an internal locus of control were found to procrastinate less and complete their homework earlier than those with an external locus of control.
15. Procrastination can negatively impact learning, achievement, academic self-efficacy, and quality of life.

Prevalence of Culture Of Procrastination

The study of procrastination and its effects have been getting attention in the field of psychology. Procrastination is extremely common among college students (Schraw et al., 2007) with 95% to 99% of students identifying themselves as procrastinators, between 32% and 46% of students procrastinating in a chronic manner. Procrastination has been found to be negatively related to examination scores and grades, and positively related to symptoms of stress, depression, visits to medical professionals, course withdrawal, and course failure (Solomon & Rothblum, 1984). Given both the prevalence of procrastination among college students and its potential adverse effects, having psychometrically sound measures of procrastination is critical. Ferrari, 1994 labeled procrastination as “one of the least understood minor human miseries” and has even stated that nearly one-quarter of the adult population is affected by procrastination.

Method of Study

The Procrastination Assessment Scale-Students (PASS) developed by Solomon and Rothblum (1984) is a widely used scale to assess procrastination. In the current study, a total of 50 participants responded to the scale from Rizvi College of Education. Participants were under graduate college students, on an average, 25-40 years of age and came from diverse academic majors and demographic backgrounds. The sample was both diverse in regards to ethnicity and academic major and status. Pass is a 44 item instrument designed to measure the frequency of cognitive-behavioral antecedents of procrastination. The PASS was developed to measure three areas of procrastination: a) prevalence b) reasons c) behavioral indices. Reason part of the PASS refers to items 19-44. PASS has 13 possible reasons for procrastination: perfectionism, evaluation anxiety, low self-esteem, aversiveness of task, laziness, time management, difficulty making decisions, peer pressure, dependency, lack of assertion, risk taking, fear of success, and rebellion against control. Two items are made for each of these reasons, for a total of 26 items. PASS is useful in both identifying the potential focal areas for intervention and in tracking changes in procrastination over the time. It has been shown to possess fairly good estimates of reliability and validity.

It consists of measuring procrastination tendencies in only six areas of academic performance: writing term papers, studying, weekly readings, administrative tasks, attending meetings and general academic tasks. Students are asked to indicate both their 1) level of procrastination and 2) degree to which procrastination is a problem on each task individually. The scale is scored on a 5-point Likert scale where 1 indicates that the student never procrastinates in that area, 2 indicates almost never, 3 indicates sometimes, 4 indicates nearly always and 5 indicates always procrastinates in that area. Likewise, on the degree to which procrastination is a problem, 1 indicates not at all a problem and the fifth anchor indicates always a problem while the middle three anchors are similar

Discussion And Reflection On Procrastination

Students procrastinate on a wide variety of activities and in a wide variety of circumstances, whether it is putting off completing a project, grading papers or assignments. Students do not typically procrastinate in their everyday lives but procrastinate in their academic endeavours because of a lack of understanding of the complexities of meeting numerous deadlines, inadequate beliefs regarding studying habits or because of a false belief that their high abilities allow them to perform such negative behaviours. Tasks that require students to use a greater variety of skills to complete an assignment may also be perceived as being interesting, which may motivate students to start earlier. It was found that over 70% of students admit that they procrastinate regularly. 46% of college students reported that they nearly always or always procrastinate on writing a term paper, 27.6% on studying for exams, and 30.1% on weekly reading assignments. Students needlessly delay completing activities, projects or assignments due to stress or anxiety upon individuals as they hasten to meet deadlines and complete assignments. Individuals fail to meet deadlines and commitments and destroy relationships with their school personnel eventually leading to more complex situations.

Interest was found to be an important motivator and that if instructors developed and used assignments perceived by students as being interesting, procrastination could possibly decrease. The researchers also found that clear instructions that enabled students to understand exactly what was expected and required to succeed on an assignment could reduce the fear of starting. Students also lack initiative and they will not have a certain drive to complete a task or assignment on time. Procrastination was also found to decrease when there were rewards or incentives attached to the task.

Students had an inability to manage their time and there was a wide discrepancy between their actual intent and their realized behaviours. They must also complete assignments and tests by predetermined dates in addition to large course load, homework and projects. Poor time management could result in forgetting to turn in an assignment, unintentionally putting off studying until the last minute or working on other less important activities instead of academic work. Thus, failing to manage time effectively could be a defining characteristic of procrastinators.

Fear of failure/ success could also be a potential reason behind some forms of procrastination. They lack initiative and have an absence of motivation and enthusiasm to complete the work because they fear failing at those tasks. Students are physically avoiding work and are merely putting off all the work until the end of the semester.

Sometimes, they become more dependent on their peers for all their regular tasks. They develop rebellious attitude against the authority who continuously demand good work from the. Since they are afraid of taking risks in their life and are a poor decision maker, they try to run away from the responsibilities. Some of the students are found to be too perfect to develop task aversiveness.

Future Interventions

Students who exhibit higher levels of academic procrastinatory tendencies could be given lessons in studying effectively and keeping deadlines and goals. If identified early enough, students can be given the right tools for overcoming procrastination and succeeding in college. Timely intervention can help students improve their skills like time management, study habits 2

and reducing anxiety levels. Researchers have been done to understand the factors that produce and maintain this troublesome behaviour. Regular procrastinators could be placed in instructive settings where they are educated on study tactics and other factors which could possibly improve the effects.

Improving self-esteem is a better way to cure procrastination in students. Self-appraisal and self-worth leads students to do their tasks and make important decisions on time. Student counselling and assessment centers should be set up in the universities to help students for those in the habit of procrastination.

Conclusion

Procrastination can be a vital predictor of success in college and should be the focus of future researches. In modern industrial society, time and punctuality are considered important standards. Procrastination prevents students from reaching their objectives and goals inculcating a sense of discomfort in them. It also prevents them from moving ahead in life; students find it difficult to focus on performing other tasks till they have completed the one in hand, which further effects quality of work in other spheres of life. Psychological interventions designed for enhancement of self-esteem and time management need to be incorporated within the academic structure of colleges and universities. The implications are important for recruiters and those in education for selection purposes. Administrators could gain better insight into student actual behavioral tendencies. The obtained results may enhance understanding of the neuropsychological correlates of procrastination and may lead to practical suggestions or interventions to reduce its harmful effects on students' academic performance and well-being.

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ROLE OF AESTHETIC EDUCATION IN SCHOOLING FOR ALL ROUND DEVELOPMENT

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Abstract

Since aesthetic quality is an aspect of all activity, perception, and intelligent thought, aesthetic education helps students discover new ways of looking at, listening to, moving in and speaking of their everyday experiences. And since aesthetic quality is concentrated in the arts, the study of music, dance, drama and the visual arts most directly develops aesthetic awareness. Aesthetic education opens areas of learning too seldom experienced in school: The experience the student has with art in the classroom has to be enjoyable for both the student and the teacher. If the atmosphere in the classroom is too serious or stressing it will not serve any useful purpose. In fact, if there had been any of even a slight chance of getting the student involved with art (even if superficially) it might disappear completely if not approached with care. Aesthetics is the branch of philosophy dealing with such notions as the beautiful, the ugly, the sublime, the comic. The root of the word aesthetic is the Greek aisthetike, which means perception through the senses. This paper deal with Aesthetic Education that is a way of regaining touch with the process of learning something new, of being introduced to a medium never known in a way before. It is the incorporation of the arts across the curriculum in a way that fosters a heightened awareness of and appreciation for all that touches teachers and students lives.

Key Words: *aesthetics, development, arts, teaching learning*

Introduction

All round development means that teacher focus and emphasize more than the scholastic development of the child. It includes all qualities in the student i.e. Social, Moral & Educational development to ensure that we are equipping them with the necessary skills to leave us as well-rounded, successful and competitive citizens of tomorrow. Every child has different ways of learning and to bring children's potential to the maximum, they must be given the opportunities to explore and experiment in the different areas of learning and aesthetic learning is one of them. Aesthetic relates to beauty and the study of beauty. It can stimulate children's senses in the form of art, music, dance and drama. A stimulating environment created for such activities will enhance children's learning and thinking. Development of children creativity within a rich learning environment is further enhanced if they are supported by responsive and observant teachers. Providing opportunities to express their thoughts, ideas and feeling freely through art, music and drama not only enable the children to express things creatively, it also fosters the

development of other domains such as physical, cognitive, language and social. These developments underpin the strategies used by the teachers in their planning and teaching in class.

Defining aesthetic can be quite difficult as the term used can result in different definition. To put it simple, aesthetic involves the love and pursuit of beauty as found in art, movement, music and life as defined by Schirmmacher, (1998, p.222). Feeney and Moravcik (1987, p217) define aesthetic as 'the awareness and appreciation of pleasant sensory experiences' and they further refine it by stating it as 'the ability to critically evaluate works of art according to criteria that are defined by the culture'.

It is found that learning in other domains also take place through art activities. Through art education, children acquire knowledge, understanding and skills that help them in the development of physical, intellectual, emotional and social domains.

Means To Make Education Aesthetic

The importance is viewed as a necessary component to be included in developing a student's holistically in child development. Pupil who are exposed to beauty experiences will develop the skill to appreciate things that are taught to them in their early childhood setting. This development will ultimately lead to the appreciation and valuing of good design in their adulthood. At the same time, the concept development they acquire during the process enable them to have the ability to problem solve that involves thinking and imagining.

As mentioned by Jalongo & Stamp, 1997 (p. 223), aesthetic education in early childhood is to create opportunities to experience and promote interest to learn to appreciate and develop the skill to evaluate art forms. Art helps people to understand about other cultures and examples has evidently shown that some of the information and knowledge we acquire about people from the past centuries were not recorded in the form of written words but rather in the form of drawing. The National Art Education Association (NAEA) (P.15) also supported that arts are the richest sources for understanding culture as it reveals the human activities most of the time.

i. Strategies for enhancing aesthetic qualities among students

It is important to expose students to beauty and to help them develop *an appreciation for fine art and philosophical theory as to what is beautiful*. To enhance aesthetic qualities among students, include:

- ✓ explore line, color, shape, and texture through art activities
- ✓ experiment with various art materials and tools
- ✓ express ideas and feelings through art
- ✓ develop awareness and appreciation of art culture
- ✓ sing songs
- ✓ listen to music
- ✓ respond to music through body movements
- ✓ explore various rhythm and melody instruments
- ✓ listen to music that tells a story

- ✓ develop awareness and appreciation of music culture
- ✓ dramatize stories
- ✓ imitate sounds
- ✓ use body movements to express feelings and ideas
- ✓ use puppets

ii. **Role of music in aesthetic development**

A recent study from the University of California found that music trains the brain for higher forms of thinking. Second graders who were given music lessons scored 27% higher on proportional math and fractions tests than children who received no special instruction. Research indicates that musical training permanently wires a young mind for enhanced performance.

Music is physical. Music can be described as a sport. Learning to sing and keep rhythm develops coordination. The air and wind power necessary to blow a flute, trumpet or saxophone promotes a healthy body. **Music is emotional.** Music is an art form. We are emotional beings and every child requires an artistic outlet. Music may be your child's vehicle of expression. **Music is for life.** Most people can't play soccer, or football at 70 or 80 years of age but they can sing. And they can play piano or some other instrument. Music is a gift you can give your child that will last their entire lives.

iii. **Role of dance in aesthetic development**

The average human has 642 muscles in their body. Young children are naturally active; however dancing makes use of more of these muscles and in turn develops the use of their bodies fully. Through the process of learning movement, children become more aware of their bodies and what they are capable of. They develop an understanding of what each muscle and limb can do; also building up the courage to experiment with movement and to push themselves to see what they can achieve with their own bodies. This personal sense of adventure is an important life trait for children to develop and a skill they can apply in all aspects of life. It contributes to the development of a child's confidence and bravery and encourages them to search for new challenges to conquer.

iv. **Role of drama in aesthetic development**

Let's first discuss how to use drama in the classroom to help develop speaking and listening skills. Having highly developed speaking skills means one has the ability to verbally express one's thoughts in a clear manner. Listening skills are those needed to be able to hear speech and process the meaning. Using activities centered on some sort of performance will directly impact the development of both of these types of skills.

For example, a high school teacher covering a unit of Shakespeare's *Hamlet* could have students act out specific scenes from the play. The fact that the language in such a play is difficult will actually help promote the importance of clear expression and sharp listening. But what about an elementary teacher who will not cover such a complex play? This teacher could have a reader's theatre activity where students read different roles for short skits.

v. **Role of visual arts in aesthetic development**

Whether it was making a pinch pot, performing in a play or dance recital, or singing in the choir, most of us can remember participating in the arts during our school years. Recent research by James Catterall found that we were not just learning dance, music, theatre, and visual arts—he discovered that students with access to in-school arts instruction performed better academically, participated more actively in extracurricular activities, and were more likely to pursue higher education. In other words, arts education doesn't just teach skills to future practitioners of the arts. It teaches children the creativity, collaboration, and critical thinking skills needed to succeed in the 21st century.

Aesthetic Curriculum Design And Development

The most important goal of aesthetic education is to develop a sense of proportion; develop aesthetic perception; produce experiences, create conducive environment for leaning, evaluating the idea and not judging the intellectual levels, expressing the beautiful; developing a relationship toward nature and toward the beautiful in interpersonal relationships. The pedagogy of teaching and learning process states that each student should have the opportunity to develop his/her abilities to observe, experience, evaluate and create that which is beautiful. This can only be achieved if we offer students a healthy living environment and an active artistic education; in other words, curricula designed to include all of the above mentioned. Following are the ideas of inculcating aesthetics in the school curriculum.

i. Aesthetics and Language

Inculcation of aesthetics in language education could be brought in by bringing art as art and language can complement and complete each other. Unclear concepts available in written form could be dealt using visual forms. It becomes easier to grasp concepts and mind can correlate the same by remembering the sequence of occurrence or sometimes just the colour combinations in it.

Through the ages aesthetics has been associated with the beauty of visual expression used to convey a wide spectrum of tangible and intangible ideas. Using visual aids can facilitate the spectator into different times and into different worlds. It can also be used to introduce different levels of vocabulary to learners of a second language. Language learning could also be facilitated using poems, rhymes, songs and even comic cons.

- ✓ Example: teaching figures of speech using comic cons of action heroes where the action sequence involves a lot of sounds which can be used to enhance the understanding of concepts like onomatopoeia.
- ✓ Example: using aesthetic arts forms like painting, which is like a story; could be used where the student can write a composition or tell a story on what he or she sees in it, or draw what s/he “sees” in a story or composition. Before s/he can do this, a sizeable vocabulary (depending on the group's ability and familiarity with the language) has to be built. Learners face an overwhelming number of words, which known or unknown to them, are the building blocks of the language.

ii. Aesthetics and Social Science

Bringing out aesthetics in Social Studies is a way to provide an opportunity for students to learn about world history, cultures, and geography while engaging creativity. The symbiotic relationship between aesthetics and social studies suggests them for compatible pairing in an integrated curriculum. This could be done by integrating various art forms in teaching learning process followed for subjects under the umbrella of social studies.

Students should be given an opportunity to study artworks from the past. Through this, they can understand how art reflects the values of society and how the arts have been influenced by social, political, and economic beliefs of a society. An art object reflects the historic time and cultural context of its origin. The summary of ancient cultures comes from art and architectural evidence. Artworks may record how people, places, and things looked. Materials and production techniques of past eras may give indications of geographic environment and societal structure. Aesthetic choices made in form and decoration may reveal philosophic or religious beliefs.

Given a right platform, students can identify the supremacy and potential of art for shaping attitudes and values. Professionals like advertisers, entertainers, politicians, and private interest groups bombard public audiences daily with visual messages that persuade, cajole, direct, entice, and seduce viewers to think and act in predetermined ways. The professionals understand and appreciate the aesthetics of symbols which are powerfully used to convey feelings and ideas that speak to the deepest human emotions. Utilising the true aesthetics of social studies can help the teachers make the students relive the expression, empowered and influences of that era in today's classroom. This will not just bring back that era in the present classroom but will also help the teachers to make students reflect upon ideologies and actions.

iii. Aesthetics and Mathematics

There is a prejudiced saying that a mathematics classroom simply drives the aesthetic sensitivities of teachers and students away. Perhaps those sensibilities are engaged but in ways that never become explicit or overt enough to be shared and communicated. Even when our ideas of the mathematical aesthetic are attentive to process – and not just the final published work of art – they draw on the practices of research mathematicians who pose their own problems, try to solve problems that may have no solutions, and have to communicate their solutions according to certain disciplinary styles. While mathematical creation may well constitute the primary activity of a research mathematician, it certainly does not constitute the primary work of teachers and students of school mathematics.

- ✓ *Example:* Teachers explain ideas, work through examples and offer tasks or exercises; they assign homework, interpret textbooks, and evaluate students' responses to questions and problems. Students try to answer questions or work on exercises. What might the aesthetic dimension of this sort of classroom activity have to do with the aesthetics of research mathematics? Indeed, one could hardly count the simplifying of algebraic equations among the canonically beautiful ideas of mathematics.
- ✓ *Example,* deriving poems to teach theorems; using the form of digital storytelling to teaching about shapes and angles and so on. Aesthetics in mathematics could also be brought about through paintings and dramatization. Using stage shows and dances like Bharatanatyam and Kathakali, excellent concepts of

shapes, proportions, percentages could be taught through mudras, body posture, stage utilisation and expressions.

iv. Aesthetics and Science

Scientists and artists share methodologies that are common to both practices. From a behavioral perspective, both scientists and artists utilize observation, observation, reflection, and serious play to interpret abstract environmental signals.

- ✓ *Example:* Abstractions are interpreted through an aesthetic, an algorithm for problem solving, which is the basis for scientific and artistic modeling. Models vary in their presentation, comprising works of art, formulas, theories, or diagrams but all of them have one thing in common: they communicate abstract ideas.

In an interdisciplinary approach to teaching undergraduate science, students mimic the behaviors of scientists and artists to engage in complex biological problems. As students observe, contemplate, reflect, and play they visualize and make sense of abstractions that represent cellular, molecular, and evolutionary biology. By reflecting on their own practice of model-building, students achieve an enhanced understanding of their personal aesthetic, the tool they use for problem solving, which is key to abstract reasoning and critical thinking.

There is a huge gap between the student's worlds and the abstract world which is way too big and that it can be reduced by aesthetic contribution. Learning science and the significance of aesthetic perception is especially important when it comes to younger children. Wong, Pugh and the Dewey ideas group at Michigan State University (2001) argue that wonderment and anticipation is vital to engagement and deep learning Hence, anticipation, wonderment and bewilderment are not only related to emotion, but to intellectual and aesthetic aspects as well.

These ideas could be implemented by inspiring students to read the biographies of famous scientists, by bringing their experiments in the classroom; by practically implementing the theories and showing its daily life applications.

v. Aesthetics and Physical Activities

Aesthetics could be brought into physical training classes (PT). Same activities could be conducted in the form of well-planned games. Adventure based games where learning takes place through movement, team-work, thinking could be implemented in PT classes.

- ✓ *Example:* PT through treasure hunt games where there is a time limit set to access the next clue after solving the first one.

Such activities not just encourage swift and fast movements, but also enhances the thinking skill of a student.

Discussions And Suggestions

This way, a lot of aesthetics could be added across the curriculum to encourage the learning process and to bring out the innovative side of every teacher. The examples and subject correlation done in this study is to propose the evolvement of the curriculum by keeping in mind the overall development of every student. Implementing aesthetics in various subjects can make the teaching-learning process a memorable journey rather than a painful one.

This proposition targets onto to ensuring that every concept is absorbed by the student in only the way he/she understands.

The experience the student has with art in the classroom has to be enjoyable for both the student and the teacher. If the atmosphere in the classroom is too serious or stressing it will not serve any useful purpose. In fact, if there had been any of even a slight chance of getting the student involved with art (even if superficially) it might disappear completely if not approached with care. The underlying meaning in a piece of art is important, it serves as a means of instruction. The point that should be taken into consideration is that the Art form is not important, it is the subject (language in this case) more important. The student should understand the concept and not just sit back appreciate the aesthetics of the art. The student becomes familiar with the works of art but s/he does not really have to understand them, it is the first impression that the student receives as a new observer that will portray the aesthetic form of the content under consideration.

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- Enhance Children's Aesthetic Development Education Essay

GENDER SENSITISATION: A REVOLUTIONARY TOOL FOR FUTURE TEACHERS

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Abstract

Men and women are the two wings of the same bird. As the bird cannot fly with one wing so the society cannot be developed unless men and women are developed equally. Gender Sensitisation is spreading awareness and modifying the behaviour of the individual towards gender. It is the current and the latest tool for bringing the revolutionary change in the society which can transform the mind-set of the individual by eradicating the orthodox practices and developing a concern of the society towards the gender issues. Education is a weapon through which we can shape the society. The attitude of teachers needs modification towards gender issues. Positive attitude needs to be created with the elimination of the negative thoughts towards objects, people, activities, events, or ideas. It is due to the personal belief and stereotype thinking that individual pertain in their mind from childhood. The teacher can shape the mind-set of the students by creating a positive ideology towards gender. The transformation or empowerment will only come when there is awareness of gender sensitivity in the minds of the youth. This paper is an attempt to find out the role of affective attitude and commitment in creating a gender sensitive environment in schools.

Keywords: *Gender Sensitisation, Gender Discrimination, Attitude, Commitment,*

Introduction

We are living in an era where each sector of the nation is developing day by day. Most of the citizens in India face challenges of discrimination from the birth on the basis of sex, gender, caste, religion etc. (Narayanrao & Gingine, 2016). Even our society has a strong believe than men and women are ‘unequal identities’ (Barodia, 2015). Hence, the treatment is biased on the basis of sex leading to differential position and importance in the society. We need to reform the society in the most effective and non-confrontationist approach where sensitisation is a powerful vehicle to drive the force towards gender equality (Dash, et al., 2008). We are still trying from decades to understand the root cause of gender inequality in the society. With the rising trend of social intolerance and gender based violence various efforts are taken up to address the issues of gender discrimination. The government has taken many initiatives and various laws are also amended in our constitution but still the growth on gender inequality is immensely increasing (Thomas, 2016).

Gender Sensitisation is a great weapon that can extirpate the issues of gender from the society. This can be implemented with the help of the education system at grass root level i.e. schools. Teachers can be the agents who can transform the young minds towards gender by metamorphosing the stereotype line of thought on genders. Special training programmes should be held for teachers as they can bring a revolutionary change if they are equipped with the Gender Sensitisation process and pedagogic strategies to avoid gender based violence and leading to promote gender sensitive classroom (Barodia, 2015). For this purpose (Panigrahi, 2016) conducted a study to raise the awareness of teachers and train them to address prevailing gender and social issues in an academic setting. This study was titled as “Building Capacity to initiate change”. The study concluded that not even a single school has a gender interest committee to address the child sexual abuse. The teachers were not aware about the difference between sex and gender. The teachers were not equipped to conduct gender analysis of curriculum material, teaching and learning practices. On the whole it was found that the educational system was not gender friendly, attitude of the teacher needs to be shaped and there is a lack of training regarding gender issues (Allana et al., 2010). Similarly, (Sebastian, 2016) also conducted the studies to understand the perception of B.Ed. students related to gender role in the society and he felt that much work has to be done to change the perception of teachers towards gender issues. The teachers were not comfortable in responding to the questions concerning school policies which showed their attitude and commitment towards the institution (Tatar & Emmanuel, 2001). Lack of Gender Sensitisation is the root cause of all the issues in the society such as eve teasing, domestic violence and brutal rape. Education can play a cardinal role in the elimination. Compulsory courses and seminars on gender awareness should be conducted for teachers and students to change their attitude and perception of students and teachers towards the gender issues (Nayak, 2014).

Objectives Of The Study

- To study the role of teachers towards Gender Sensitisation.
- To analyse the Attitude and Commitment of teachers towards Gender Sensitisation.

Gender Sensitisation And Education

In this era of mind-boggling sea-changes a positive ideology towards gender should be manifested in the behaviour of an individual where, equal respect should be given to all the genders by spreading awareness and changing the stereotype thinking and learning the gender norms of the society for forming gender identities and creating a gender friendly milieu. Education system can become the backyard to solve these issues by creating a gender based framework which will be a powerful tool towards the empowerment of both genders. Schools can act as a yardstick where teachers can be the agents in building creative gender sensitive minds. To trigger the changes and to build the reflection of new image by creating sensitivity in the minds of youth this will further be based on a positive equity ideology towards gender.

Gender sensitisation is the current and the latest tool for bringing the revolutionary change in the society which can change the mind-set of the individual by eradicating the orthodox practice and developing a concern of the society towards the gender issues. The following are definitions of Gender Sensitisation by various authors:-

Table1. Definitions of Gender Sensitisation

| S.No | Source / Author | Definition |
|------|------------------------------|---|
| 1. | (Narayanrao & Gingine, 2016) | “Gender sensitivity can be defined as the act of being aware of constructed assumptions of gender and how they impact our practices.” |
| 2. | (Aurance, 2016) | “Gender sensitivity” is the ability to recognise gender issues. It is the beginning of gender awareness, so that individuals rely less on assumptions about traditional and outdated views on the roles of men and women. |
| 3. | (Deshmukh, 2016) | “Gender sensitisation refers to the modification of behaviour by raising awareness of gender equality concerns.” |
| 4. | (Chaven, 2016) | Gender sensitisation is about changing behaviour and instilling empathy into the views that we hold about our own and the other sex. It helps people in “examining their personal attitudes and beliefs and questioning the ‘realities’ they thought they know. |
| 5. | (Gure, 2016) | Gender sensitisation refers to the theories which claim that positive modification in the behaviour of all stakeholders, students and teachers towards children so that there have no causal effect on gender equality. |

From the above definitions we can summarise that “Gender Sensitisation is spreading awareness and modifying the behaviour of the individual towards gender which will create gender equality in the society.”

According to Sebastian (2016) following are the steps in Gender Sensitisation:-

- 1. Understanding-** We can understand the Perception of an individual through the stimulus.
- 2. Identifying-** The wrong perception can be identified
- 3. Confronting-** Confronting with someone needs a lot of guts to arrive to the solution
- 4. Deciding-** Deciding the best solution to the problems

The transformation or empowerment will only come when there is an awareness of gender sensitivity in the minds of the youth (Thosare, 2016). It can only be brought when training is furnished which will definitely bring orientation in the thinking, practices and approach of the individuals. Prevention and interventions from grass root level, i.e. school is important to improve the behaviour of the students to reinforce an affirmative social interaction

towards gender. There is a need to groom the child from the childhood to become a responsible youth, which will assist the society to flourish. Gender issues can be controlled if education system becomes the backyard to solve these issues by creating a gender based framework which will be a powerful tool towards the empowerment of both genders (Baviskar, 2016). Schools can act as a yardstick where teachers can be the agents in building creative gender sensitive minds. To build the reflection of new image in the minds of youth we need to trigger the changes by creating sensitivity this will further be based on a positive equity ideology towards gender.

Teacher's Role In Gender Sensitisation

In our society the problem of gender issues are prevailing in all areas of life (Patel & Shaikh, 2016). Schools are the gateway of knowledge where education is given beyond any boundation. Teachers act as an agent of social change, so we need to hook up such teachers in the school who have an affirmative knowledge towards gender to create a gender neutral environment. They act as a role model for the children and an inspiration to achieve their goals. They should always pertain a positive ideology towards life (Barodia, 2015). There are individual differences and the classroom is diverse with different kind of needs. The teacher should always be sensitive towards their needs by treating them equally in all aspects (Panigrahi, 2016).

Now-a-days teachers are charged with responsibilities to bring metamorphose in the young minds which can reframe the ideologies towards gender. They play a vital role in upbringing of the child with a positive mindset and beliefs which can reframe the shape of the society (Allana et al., 2010). As the potter can mould the clay and give shape to the earthen pots. In the same way teachers have the ability to shape the young minds and give them a direction that can be affirmative in nature (Sebastian, 2016). To train the students towards positive gender ideology they herself should have a positive attitude towards gender. Women's are facing a lot of challenges such as eve-teasing, domestic violence, sexual harassment, dowry violence, job harassment, etc. This need to be sensitised and a strong stride is required to solve these issues.

In school the classroom environment is built by the teacher. They can use various strategies and interventions to build a gender friendly milieu. They can also ensure that equal opportunities, responsibility and respect should be given to all the genders (Chaven, 2016). There are various gender issues that take place in the school setting which needs to be identified. Some of the gender sensitive parameters in education are Gender discrimination in school layout, classroom practices, Instructional Material and child maltreatment. This can be controlled by the teacher if she wields gender sensitive approach in the classroom to extirpate all the issues in the system.

According to Narayanrao & Gingine (2016) "It is important to gain the insight into the overall situation of teachers as well as their behaviour and attitude towards their pupil" following is the role of teacher in Gender Sensitisation:-

- Gender Issue discussion in classroom
- Gender Sensitivity teaching
- Arrange Gender Sensitive Programmes
- Gender based Language

- Gender Equality in classroom
- Gender Equality based atmosphere in school
- Gender activity and projects
- Use strategies for gender sensitisation
- Women Empowerment
- Gender responsive classroom interaction

Teachers Attitude And Commitment Towards Gender Sensitisation

Teachers are a yardstick through which we can bring change in the society as they are the pillar of the education system. They are the knowledge transformers so the commitment of a teacher to the school and the students must be justified accordingly. “Attitude towards gender role is composite and conflicting” (Gul et al., 2012). People usually adhere verbally to the rhetoric of equality, the behaviour towards this is not necessary. Attitude can be positive or negative towards gender depending on the personal beliefs of a person. We have heard a teacher saying that ‘Boys will be Boys’ this is a gender bias statement. ‘Boys are good in maths as compared to Girls’ this statement manifestly shows that boys are favoured more in mathematics as compared to girls (Deore, 2016). The teacher should have a positive attitude towards gender, then only she can shape the society. Attitude and commitment are co-related to each other. If a person has a strong and an affirmative commitment towards something accordingly on that ground the attitude of a person is built. The level of commitment also plays a foremost role in developing a positive attitude towards gender sensitivity.

Schools are the building block for the children where they learn things in formal and informal ways. A teacher has a commitment to the institution that they will create a milieu for all around development of the child. The development should have an affirmative outcome which can be through the right attitude of the teachers towards the classroom. Most of the research has shown that attitude and mind-set of the teachers needs to be changed for the overall development of the students. Teachers are not gender neutral when they enter the classroom (Barodia, 2015). Biasness is a hurdle that creates an unhealthy environment leading to gender discrimination. Biasness should be eradicated so that a trauma free environment can be furnish to the children in the school. Attitude of teachers needs to be shaped towards gender equality to bring a change in the field of education. Several training programs or workshop should be held for the teachers to build a gender positive attitude and ideology so that a drastic change can be seen towards gender equality and education (Tatar & Emmanuel, 2001). Education is the only field which can bring a change in the behaviour of the young minds. So, the first step towards gender equality should be taken through education by changing the attitude and perception of teachers and students towards gender discrimination.

Research Methodology

The data in the paper has been taken from secondary sources such as magazines, newspapers, journals, books and various other publications. It is an exploratory research which is thoroughly analysed by the author. For this research, various papers were analysed by using key terms which are as follows:-

Table 2. Key Term Analysis

| S.No. | Key Words | Name of the Research Papers |
|-------|--|---|
| 1. | Gender Sensitisation + Education + School | Baviskar (2016), Deshmukh (2016), Chaven (2016), Patel & shaikh (2016), Obiunu (2013), Barodia (2015) |
| 2. | Gender Sensitisation + School + Teacher | Narayanrao & Gingine (2016), Deore (2016), Dammani (2015) |
| 3. | Gender Sensitisation + Teacher + Attitude | Sebastian (2016), Gure (2016), Allana, Asad & Sherali (2010), Nayak (2014) |

Conclusion

We are living in a democratic country, as a citizen we cannot turn our blind eyes towards the duties and responsibilities (Dash, et al., 2008). Education is a weapon which has the power to shape the society. Schools are the pillar and teachers are the backbone of the institution. We need to metamorphose the stereotype thinking and patriarchal notions of the society. In the eyes of the law, every gender is treated equally. Many schemes are launched to empower genders, but still the issue of gender inequality is there for decades. From the above, we can conclude that Gender Sensitisation through education can be an effective, forceful and a primary tool to empower the young minds by changing the thought process towards genders. Thus, attitude and commitment are the two important benchmarks through which we can have a positive ideology leading to gender unbiased society. It is the need of an hour to underline the importance and necessity of the genders to have a rational, strong and progressive social vacuum (Nayak, 2014). Teachers should always be ready and act as a helping aid for the students to create a gender neutral environment (Barodia, 2016). They should have a positive gender attitude and a strong level of commitment to the society. Gender Sensitisation through teachers can be a powerful vehicle which can bring a definite change in attitude and perception of the students towards gender.

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EXAMINATION STRESS AMONG SCHOOL CHILDREN IN RELATION TO PERSONALITY AND ACHIEVEMENT MOTIVATION FROM MUMBAI CITY

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Abstract

Examination stress is a type of performance anxiety. In situations where the pressure is on and a good performance counts, people can become so anxious that they are actually unable to do their best. It seems that people experience stress according to their level of intelligence, achievement motivation and other traits. In the name of modernization, rapid social change, technical innovations, competitions and information technology explosion have proved to be both boon and bane for people. The continuous pressures from outside world over the abilities, interests, attitudes, and various aspects of human behaviour cause restlessness in the mind of the individual. While the search for excellence became a universal quest, some found themselves unable to cope with the challenges of time, which caused a state of restlessness in them. Hence the study was conducted of the target group of school students of suburban Mumbai and a comparison was made between the school going adolescents and college going adolescents using various questionnaires.

Introduction

Examination stress is a type of performance anxiety. In situations where the pressure is on and a good performance counts, people can become so anxious that they are actually unable to do their best. It seems that people experience stress according to their level of intelligence, achievement motivation and other traits. In the name of modernization, rapid social change, technical innovations, competitions and information technology explosion have proved to be both boon and bane for people. The continuous pressures from outside world over the abilities, interests, attitudes, and various aspects of human behaviour cause restlessness in the mind of the individual. While the search for excellence became a universal quest, some found themselves unable to cope with the challenges of time, which caused a state of restlessness in them. When human being uses his capacities optimally and his expectations increase than functioning of his abilities he feels tension. Hence individuals come in the race of achieving standard of excellence with their own competencies. When they fail to cope with these competitions and races in the environment, they feel stress. Stress is a courage of modern day living. Stress serves a useful purpose in stimulating effort, inventiveness and high standards but when there is more stress than our ability to cope with; ups

and downs come in our life. The ability to cope with stress depends upon a combination of constitutional or natural resources, uniqueness in intelligence and capacity to reach standards of excellence.

Need Of The Study

Sahu and Mishra (1995) explored gender differences in relationship between stress experienced in various areas of life i.e. work-related and society related stress. For the above reason, the variable of examination stress has been selected for investigation, especially as it exists in relation to one's cognitive functioning. The other variables selected for the present study are intelligence and achievement motivation. Students react differently with the event of examination. It is yet to be explored whether more intelligent students take the examination as challenge and utilise their maximum energy to do the best. Personality has different traits and any particular trait may help the individuals to react in a specific way for the coming possibilities. Some students want to achieve the standard of excellence in every sphere of life but examination stress plays its role everywhere. It may vary with varying levels of intelligence and achievement motivation. Hence the investigator took the present study to account for the issue of examination stress which has been stated as below: "Examination Stress Among School Children in Relation to Personality and Achievement Motivation from Mumbai City".

Objectives Of The Study

The following objectives are formulated for the proposed study:

- ✓ To study the level of stress among school children.
- ✓ To know the gender difference in the impact of examination stress among school children.
- ✓ To find out the influence of personality on the examination stress among school children.
- ✓ To explore the influence of achievement motivation on the examination stress among school children.

Operational Definition

Examination Stress: Examination stress is an interaction between the challenge of an examination and resistance opposed to it by an individual.

Personality: Personality is the sum total of all the characteristics which give uniqueness and consistency to the individuality of a person and distinguishes identifiably different from other persons.

Achievement Motivation: The tendency of an individual that implies actions to aspire, strive and achieve in the competition with others.

Data Collection Tool

1. Examination Stress Scale (*self developed test*)

The investigator had to assess the examination stress among school children, but no such scale was available to the best of the knowledge of the investigator. Thus it necessitated to develop such a scale.

2. Indian Adaptation Of Contact Personality Factor Test (Form B)

This test has been standardised by S.S. Srivastava.

3. Deo-Mohan Achievement Motivation Scale By Deo-Mohan (2002)

The term motivation refers to any organismic state that mobilizes activity which is in some sense selective or directive as is suggested by Deo-mohan. In fact, this is one of the most important manifests of social needs and personality variable.

Result And Discussion

To study the level of stress due to examination among school children the data were analysed. To find out examination stress among school children the scores obtained on examination stress scale were computed. Mean score and its standard deviation have been shown in Table 4.1.

Table 1: Examination Stress Among School Children

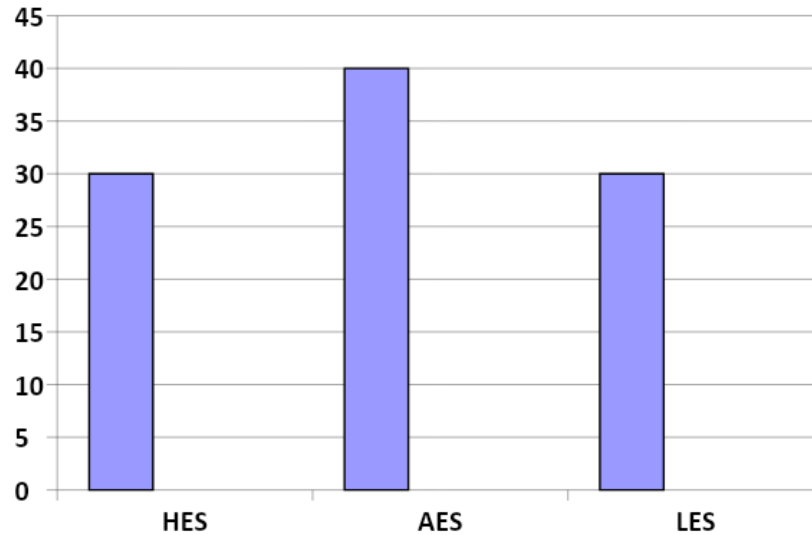
| Examination Stress | | Level of examination stress | | | | | | |
|--------------------|-------|-----------------------------|-------|----|------|----|--------|----|
| Mean | 32.40 | | Total | % | Male | % | Female | % |
| SD | 10.35 | HES | 37 | 30 | 15 | 25 | 22 | 37 |
| N | 120 | AES | 49 | 40 | 23 | 40 | 26 | 44 |
| SE _m | 0.94 | LES | 34 | 30 | 20 | 35 | 14 | 19 |

Table 4.1 shows that mean value of the scores of stress due to examination is 32.40. The standard deviation has been found to be 10.35 where as its standard error (SEM) is 0.94. The total number of school children for the present study was 120. The total score for high examination stress was 60 whereas mean score has been found to be 32.40. It indicates that the group of students who were studied as subjects for the present study had an average examination stress. But when 25th percentile (P25) and 75th percentile (P75) were calculated from the examination stress scores, three groups were formed namely High Examination Stress (HES) group, Average Examination Stress (AES) group and Low Examination Stress (LES) group as depicted in Table 1.

It indicates that only 30 percent school children had high examination stress, 40 percent of them suffered from average examination stress whereas only 30 percent of them felt low examination stress as shown in Graph 1.

As observed in the graph below, out of 37 students of HES 15 (25%) were male students and 22 (37%) were female students. Similarly 23 (40%) male and 26 (44%) female comes in the AES whereas 20 (35%) male and 14 (19%) female were in the LES. It is clear that in the present study nearly half (48%) of the students had an average level of stress.

Students' motivation and achievement in academics help them to pursue their goals to be achieved but it largely depends upon the maintenance and handling of stress in life in general and particularly during examination. The findings of the present study have revealed that majority of the school children suffer from examination stress.



Graph 1: Levels of Examination Stress of School Children

The reason for such a problem can be attributed to the present competitive era in which they live, less future prospects and high ambitions of parents. Moreover, high contents of study, in congenial environment, thrust of unrelated subject matter and evaluation system of competitive examinations have forced them to stick around the stress.

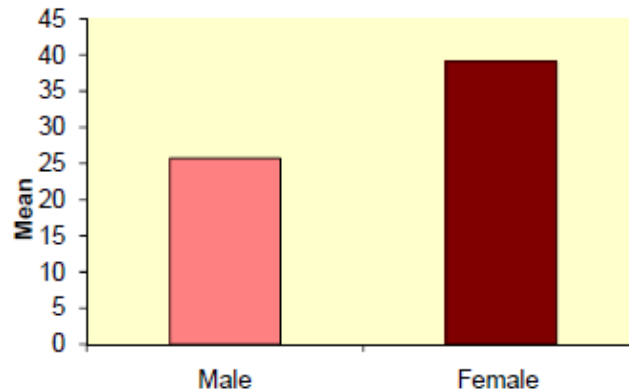
Examination Stress Among School Children In Relation To Their Gender

For the assessment of stress due to examination, 60 male and 60 female school children were studied as subjects of the present investigation. The scores obtained on the examination stress scale were analysed with the help of t-test. It was found that the mean score of male school children was 25.73 whereas mean score of female school children was found to be 39.08. The mean difference between the two groups was found to be significant at .01 level, t value being 12.71 as shown in table 2.

Table 2: Examination Stress among Male and Female School Students

| | Male | Female | Level of Significance |
|-----------------|-------|--------|----------------------------|
| N | 60 | 60 | t-value 17.0636 p < .01 |
| Mean | 25.73 | 39.08 | |
| SE _M | 0.45 | 0.64 | |

The results revealed that the mean score of male students was less than the mean scores of female students indicating that female students feel more examination stress than male school children and there was a significant difference between them at 0.01 level as the t-value was found to be 17.0636 ($P < 0.01$). Mean score of female students was more (39.08) as compared to mean scores (25.73) of male school students which is also shown in graph 2.



Graph 2: Examination Stress V/S Gender Difference

It is also clear from graph 2 that female students exhibit more examination stress as compared to male students. The first hypothesis that there is no significant difference in the examination stress of male and female school children stands rejected because the findings of the study have indicated a significant difference between the two said groups.

The findings indicated significant difference between the examination stress of male and female school students. This may be because of the sensitivity of the girls towards the problems of life. They get easily affected by emotions of fear, anxiety and tension etc. as compared to boys. It is felt that the girls are more responsible than boys whereas boys are carefree and relaxed. Moreover, the commonly found characteristic of girls is that they rely more on rote memorization whereas boys have more understanding of the subject matter. Hence the above mentioned reasons may have led to more examination stress among girls as compared to boys.

Conclusion

The present study has been although successfully conducted yet has few limitations. The researchers have only considered adolescents from suburban Mumbai as their population, the population could include the students of entire Mumbai. Also research could include samples from a government school and a private school. Despite these limitations, the study also has several strengths such as creating awareness among the school students regarding examination stress. Further, it contains interesting findings from developing countries perspective, which will be of use to both researchers and clinicians. In a nutshell, the findings of the present study indicate that there is felt need to decrease examination stress. Although this is a small scale quantitative study, it provides the insights of the levels of stress during examinations among school students.

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ADAPTING NARRATIVE AND ITERATIVE STORYTELLING STRATEGY FOR TEACHING – LEARNING OF COMMERCE

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Abstract

It is a known fact that when something is heard in the form of a Story, the neurons in the human brain develops a pattern and these patterns are reconnected when a similar concept or situation is deliberated in reality. When students hear a story, they visualize themselves as part of situations described in them. Stories help students conventionalize the world, providing frameworks that teach, entertain and shape thoughts. When engaged by a story, the brain responds in ways similar to the way it reacts to reality. Hence, the concept of Storytelling is very popular in the teaching world and several subjects are incorporated in the popular theme of teaching through Storytelling. Storytelling in Commerce can be proven to be an important communication strategy which will assist teachers in dealing with several Commerce topics and simulate reality by making them ideal marketing tools. The emotional engagement of storytelling allows students to connect with strategies and concepts in ways impossible with traditional teaching methodologies. Hence the major highlight of this manuscript is using the Narrative form of Storytelling in Teaching-Learning process of Commerce and its implications.

Key words: *storytelling, commerce, teaching-learning, iterative*

Introduction

Students and adults, alike, are all exposed to stories from a young age. Stories are used to entertain, pacify or most of the times teach things which are difficult to only explain. Story is an elaborated example where characters are brought in either from the real world or generated as fiction. To these characters, the listener empathises and/or sympathises [Melisa T.M, 2016]. Yet, despite storytelling continuing to be a widely accepted and important method of communication, and in turn a respected marketing and branding tool, it is often the first thing to be neglected within a Commerce.

When considering commerce, the business/corporate community is the one that comes into everyone's mind. The corporate world has a way of making everyone forget that we are, underneath it all, just people [Teo.R et al, 2000]. The concentration is so much on the– features, benefits, pricing and delivery of the business – that one often forgets to communicate the why and the how. But it is these parts that are going to be memorable to customers. When a story is narrated; part of the brain wakes up which otherwise is a little inactive when consuming information in other formats, this includes audio and visual aids; which processes one's movements and is the recipient of sensual

information. This extra processing makes the information one receives more memorable, because the brain is performing as if it is experiencing the things narrated in the story [Berman et al, 2000]. And if something is more memorable, it is also easier to replay; which means, in storytelling, a listener has not just constructed a message about a company, but these customers are more likely to remember and share the information of these products.

The fact that common human minds don't distinguish between a story that is relayed to and their own real-life experiences goes some way to explain why people become more emotionally invested when information is given to us in this format. In fact, while the temptation is to bombard potential buyers with facts and figures, research has consistently shown that emotional content has a greater impact on our intent to buy than its factual counterpart [Capuano et al]. And not only is the immediate effect (driving customers to buy) a positive one but there is also a long-term benefit, with emotionally invested customers more likely to feel loyalty to that particular brand, increasing the likelihood of repeated custom. Hence, inculcating storytelling is important to one's business.

There's something about stories that stick with us. Something about an organized narrative teaching strategy that serves as a unique kind of glue, lingering with us long after the facts and formulas fade away. It's exactly this kind of adhesive that teachers want to leverage for their own students, weaving the skills and information they need together with the magic of storytelling. But despite how magnetic these teaching strategy narratives may be, it can be difficult to implement it when dealing with topics of Commerce. This manuscript proposes methodology to inculcate the art of storytelling in teaching Commerce.

Literature Review

According to several benchmark studies, teaching must include two major components; sending and receiving information. Ultimately, a teacher tries his best to impart knowledge as the way he understood it. So, any communication methods that serve this purpose without destroying the objective could be considered as innovative methods of teaching. The use of innovative methods in educational institutions has the potential not only to improve education, but also to empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country [Damodharan et al].

Other studies also highlight the point that those who are incarcerated, as a whole, have come from difficult past environments. This leads to having a different way of learning than most others who have had successful educational experiences. [S.Butcher, 2006] states that Wisconsin Department of Corrections professionals were interviewed to explore their teaching strategies and use of storytelling with offenders. Their outcome was again a benchmark study where there was a tremendous difference in the perspective and ideology of the offenders. A completely new and ethical value system was inculcated into them.

Understanding and abiding to ethical forms of business is necessary for the current generation. Hence it becomes a responsibility of commerce teachers to mould the Commerce students with right values and ethics. To do so, [Barnett T., 1994]] three themes emerged. These induced connections between teacher and student, validation of student experience and student perspective. Connection between teacher and student was seen in the relationship

between student and teacher in the classroom. Validation of student experience was shown in developing empathy for self and others and being able to see how past behaviour influences present circumstances. Student perspective included learning to broaden and challenge the student's current perspective, issues related to changing thinking patterns, and approaches that involve reflection.

Mauro in his work [S.C.Mauro et al, 2014] promotes storytelling as language learning where the learner's vocabulary is enriched and new language structures are acquired. He also states that storytelling can provide a motivating and low anxiety context for commerce learning because Storytelling is the original form of teaching and has the potential of fostering emotional intelligence and help the child gain insight into human behaviour.

Narrative Form Of Storytelling

In literary theoretic approach, narrative style of storytelling is defined as fiction-writing mode in which the narrator is communicating directly to the reader. In narration, the narrator has to lend number of voices to several characters in addition to narrator's, possibly created as per the narrator's views [Teeter et al, 2016]. The narrator has the capacity to implant thoughts and ideas which he/she wants to audience to reciprocate and deliberate upon. Hence, for teachers, adapting narrative form of storytelling is a form through which they can not only make the student understand the concept, but also inculcate good values and leave scope for critical thinking.

There are several different types of stories a teacher could potentially tell in the classroom.

- ✓ A true story from your own life.
- ✓ A true story from the life of someone you know, like a friend, family member, or neighbour.
- ✓ A true story from the news or a current event.
- ✓ A story that took place sometime in history.
- ✓ A fictional story, with made up characters or events.
- ✓ An “Imagine if ...” story that sets up a hypothetical situation.

These are various genres and styles of storytelling, but the above given list represents the essential variety that a teacher can incorporate into the commerce classroom.

The Storytelling Teaching-Learning Model

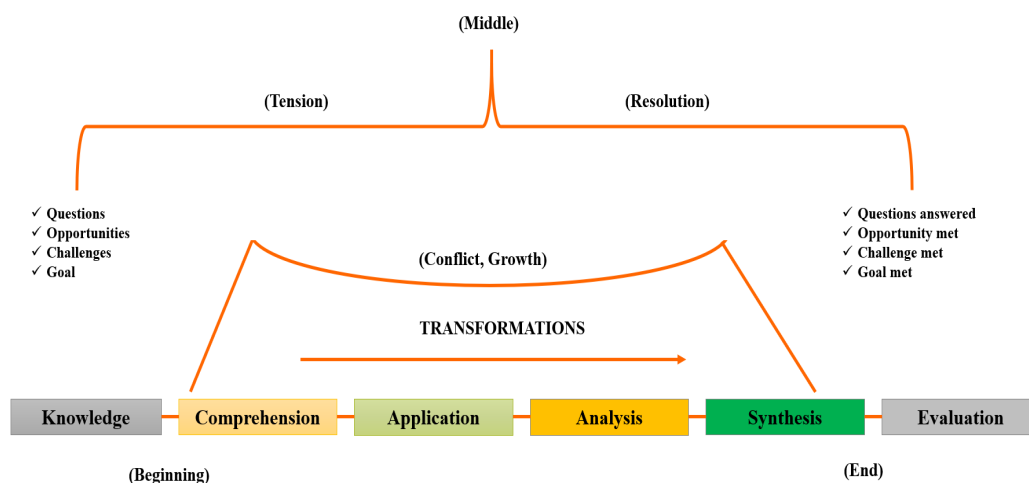


Figure 1: Mapping between Bloom’s Taxonomy and T-L through Story telling

This section describes the narrative Storytelling model and its mapping with the Blooms Taxonomy of teaching-learning process [Bloom, 1956]. This model is purposed to build challenging training resources to explain to students with little or no background about concepts related to Commerce in general and in specific areas like demand and supply, trade, e-commerce. The proposed model is designed keeping in mind the transfer notions about procedures to follow, character involvement, normative references about commerce and advantages of such a method of entrepreneurship with respect to ethical practices.

Iterative Form Of Storytelling

To ensure the achievement of assigned learning objectives and specifications, each situation of the story must present itself as an arrangement of educational events whose structure facilitates organization, selection and integration of information [Gaeta et al., 2014].

- ✓ The Precursor Event designed to activate student’s prior knowledge and to ensure his involvement in the initial situation.
- ✓ The Learning Event that supports the objectives to maximize student’s topic understanding and is based on a heavily driven approach.
- ✓ The Reflective Event designed to support the learner in the reflection process on concepts learned and helping them consolidate the knowledge acquired.
- ✓ The Assessment Event able to assess whether the type of cognitive transformation hoped for the student has occurred. By recognizing the knowledge gained by the user in different teaching situations, it is possible to define a series of treatments able to support the student in overcoming the presented shortcomings. Assessment Events are in fact the driver of a dynamic branching mechanism that allows a re-articulation of the story to recovery found knowledge gaps.

The defined model inculcates varied value-based concepts that aimed to meet specific educational approaches or principles. Comprehensibly with an interactionist perception, the audience are able to correlate themselves with certain roles/characters of the story (e.g., Hero, Victim, Opponent, etc.). During the interaction with the learning resource which, selected randomly, allows learners to experience situations and events with greater responsibility and empathy [Porteous et al., 2010].

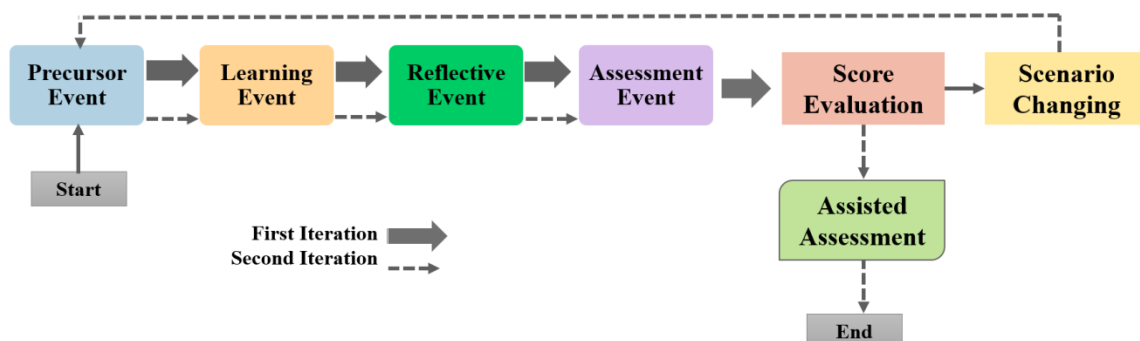


Figure 2: The iterative model of storytelling

Figure 2 shows the flow of events within a modelled situation. It is based on two teaching iterations. The assessment event that occurs at the end of a situation. It allows the teacher to obtain a measure of understanding of key concepts through a formative evaluation (first iteration). This represents a specific goal of knowledge. Once the first set of scores are notes, the teacher (who is also one of the narrator) branches out and suggests to the student different alignment and recovery paths score (second iteration), basing on specific rules defined by the teacher and related to knowledge levels detected by formative tests [Mangione et al., 2011].

Experimental Story In Narrative And Iterative Form

Considering the example of the story titled “The Merchant of Dead Mouse” [Buddhist Tales, web-reference 1] several concepts of commerce are adapted. Below is the gist of the story:

The story is all about an intelligent and hardworking youth who climbs from rags to riches making use of fundamental business principles such as understanding of demand and supply, being courteous, reinvesting profit as capital and making useful business connects.

First Iteration

1. Jobless poor boy with ethics and good values (students empathise)
2. Always applies the value of being humble and honest
3. Identifies the first resource of capital income: a Dead mouse
4. Fundamental business principles implemented
5. Understanding of demand and supply
6. Reinvesting profit as capital
7. Gains trust through work
8. Makes useful business connects
9. Works more effectively and responsibly towards consumer
10. Manages resources properly

Second Iteration

1. A confident business man with minimum resources (students relate)
2. Optimum use of resources
3. Better aware about trading activities
4. Better awareness of demand and supply of resources
5. Skills of literacy, inquiry, presentation and interpretation are developed and used effectively
6. Understanding of the processes of business and its environment
7. increase in efficiency and shows more responsibility towards customer’s demands
8. Uses the value of trust and honesty
9. Generated more resources

10. Climbs from rags to riches

Conclusion and Discussions

This manuscript describes a new learning model, based on iterative form of storytelling, that integrates dynamic branching allowing re-articulation of the story according to assessed training results. The model has been designed in the Commerce scenario to build engaging learning resources about online mediation, targeting to students with limited and general background on e-commerce and entrepreneurship. A prototype and a sample story have also been developed to provide a first empirical validation of the model. The prototype was shown to a group of Commerce teachers and scenarios have been simulated. The results obtained are encouraging and confirms that proposal that the storytelling model is capable of building valuable learning resources in the field of Commerce. The obtained learning resource is a fully interactive, value based, element-oriented and a learner centred educational approach and able to provide guidance and to make the reflection easier. The nature of the obtained learning resources allows the creation of an augmented narrative form of storytelling that is capable of supporting learners participation and enhancement of concepts and skills. The work described in this paper is still on-going and additional stories are currently in course of development which will be implemented with a complete experimentation and validation plan with real users. The validation will follow the expert-based approach combined with an empirical one.

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UNDERSTANDING THE RELATIONSHIP BETWEEN BULLYING ATTITUDE AND PERSONALITY TRAITS AMONG HIGH SCHOOL STUDENTS

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Abstract

In the last decade, researchers have noted the detrimental effects of peer mocking on the mental health of children. In order to ensure students have better mental health one needs to tackle the problem at the root. Peer trouble is often lightly termed as teasing or in extreme cases it is termed as ragging. However one needs to understand when this behaviour can turn into bullying. This study attempts to explore standard IX students' attitude, studying in SSC schools in Mumbai, towards bullying and ascertain its relationship with their personality traits. The sample of the research consists of 90 students of standard IX. Tools for data collection include ready-made Questionnaires. In the past researches have shown that bullies score high on a trait called Neuroticism and the present study seeks to explore if this is true.

Key words: *Mental Health, Bullying, Personality Traits and Attitude*

Introduction

Mental health is fundamental indicator of an individual's life. It reflects the way one thinks, feels, reacts in relationships, physical wellbeing and health, etc. WHO estimated that all over the world 450 million people suffer from mental health issues. Thus one needs to thoroughly investigate the roots of this problem.

1 in 10 students in Indian schools experiencing mental health problems. Past researches have clearly indicated links between mental health of students and bullying in schools. Researches reveal that due to bullying students often feel sad, are withdrawn, and anxious, enter into depression which are key indicators of mental health problems. Bullying can have a lasting effect on a person's mental health. Researchers in numerous studies have recommended that schools need to take an increased effort and organise mental health screening to identify bullies, victims, and combined bullies and victims (John M. Grohol, Nick Nauret)

In order to prevent the negative effect of bullying on the mental well-being of students it is essential that schools and parents take bullying behaviour seriously. Thus one needs to address the problem of bullying. The researchers thus felt the need to understand if bullying attitude is related to students' personality trait.

What is Bullying?

Dr. Dan Olweus, a pioneer in bullying research, defines bullying as negative actions that are carried out repeatedly over time and are characterized by an imbalance in strength (Olweus, 1993). The imbalance of strength, or power, is

a key characteristic of bullying behaviour. This imbalance allows for a clear distinction between bullies and victims, based on the fact that one side is usually physically or psychologically stronger than the other(s).

Bullying behaviour is accompanied by a lot of negative effects, not only for the victims, but also the perpetrators. According to Kim (2004) the victims of bullying experience lasting behavioural and psychological problems which include depression, high anxiety, and low self-esteem. It has been observed that victims experience low social support, higher anxiety, and social dysfunction. Some victims try to avoid the bullying environment by staying away from school.

A number of factors can be responsible for the development of the attitude of bullying in students. Bullying behaviour can be a product of observation of the world outside the school (Neto, 2005) which includes family home environment, school climate, community factors, peers, etc (Cook, et al 2010).

According to Olweus (1993) certain personality characteristics and typical reaction patterns, combined with the level of physical strength or weakness in the case of boys, can help to explain the development of bullying problems in individual students.

All these point to the possible link between bullying attitude and personality traits of bullies. Thus, the present study seeks to specifically look into the relationship between personality and bullying attitude amongst secondary school students.

Rationale For The Study

According to Bronfenbrenner (1994) “The ecological system theory” bullying victims and perpetrators are part of the complex, interrelated system where the individual is at the center. It is conceptualized as a “series of concentric circles of influence, which include intrapersonal, family, peer, community, and wider societal influences on behavior and development”. According to the theory at the individual level, both the victim and the bully bring with them personalities, interests, and beliefs that are formed through biological, social, and environmental factors. These factors can guide or influence decisions about the type of activity they engage in, including bullying and victimization.

Thus the researchers propose to understand bullying attitude and its relation to personality traits by using the ecological system theory as the theoretical lens.

Review Of Related Literature

Nierenberg C (2015) in his article pointed out those children who are either victims or perpetrators are more likely to develop a psychiatric disorder that need treatment as an adult, compared with kids who were not bullied. Nick Nauret in his research study published in the journal, “*Pediatrics*” said that both bullies and victims are at risk of personality disorders. Where victims are more likely to develop anxiety disorders, the bullies themselves were at higher risk to develop antisocial personality disorder. Those who have been both bullies and victims tended to develop both anxiety and antisocial personality disorders.

A number of studies have revealed that lower levels of Agreeableness and Conscientiousness and higher levels of Neuroticism and Extraversion were associated with both bullying and victimization. (M. Effrosyni & T. Giovazoliasb 2015). Eskisu M., (2014) in his research found that, students who stated that they bully others, have high level of bully personality, family dysfunction and low level of avoidance whereas students who stated that they are bullied, showed higher levels of bully personality, and avoidance.

Studies also recommend a collective collaboration among all educational stakeholders to combat the problem (Ndibalema, 2013; Baier, 2007), with a view to helping them resolve some inter personal and emotional problems (Alika& Henrietta, 2012). Issues of bullying can lead to a broader context of violence as reported in many different studies around the world.

However, upon reviewing the related literature on bullying the researcher found that a large number of studies have been conducted abroad on the topic but very few studies have been conducted in India. The limited studies that have been conducted in India have reported lower rates of violence victimization in Mumbai in relation to adolescents of metros across different countries (Solomon). Although bullying has existed in Indian schools, many Indian educational practitioners and students do not realize the difference between bullying and teasing (Skrzypieca, Slea, 2015). Through the journey revealed that studies to understand bullying in the Indian context is the need of the hour, so as to understand how Indian students conceptualize bullying.

Need And Significance Of The Study

The consequence of bullying can have long lasting effects on the mental health of a child which can be seen throughout their life. They might develop depression and anxiety which may extend into their adult lives where they develop chronic, sometimes lifelong health problems. Bullying hampers the victims' ability to view themselves as desirable, capable and effective individuals resulting in the inability to trust themselves as capable individuals.

Schools administrators and teachers need to be aware of ways of identifying bullying behaviour and nipping it in the bud. The researchers feel there is a strong need to educate for bullying for the following reason

- To show educators that aggressive behaviour in the form of a bully and submissive behaviour as a victim can be identified through the personality traits of a child and that it is possible to resolve bullying issues.
- To create a more peaceful school where learning and growing is a harmonious process.
- To create a better learning environment where students have better mental well-being.
- To ensure that schools prepare students who mentally sound and stable.

Operational Definition Of Key Terms

- ✓ **Bullying:** An act where a student is purposefully inflicted with physical or psychological harm continuously. This negative action is repeated over a period of time subject on a victim by one or more students, characterized by an imbalance of power and strength.
- ✓ **Bullying Attitude:** Children's predispositions to evaluate bullying behaviour favourably or unfavourably.

- ✓ **Personality:** Personality is a set of individual differences that are affected by the socio-cultural development of an individual: values, attitudes, personal memories, social relationships, habits and skills.
- ✓ **Personality trait:** Personality traits can be of different types viz., Extraversion, Openness, Conscientiousness, Agreeableness and Neuroticism

Objective Of The Study

The objective of this research is to study the relationship between bullying attitude and personality trait of IX standard students of SSC schools.

Hypotheses

The present study is intended to find if there was any significant relationship between bullying attitude and personality trait. Thus, the following null hypothesis were framed-

1. There is no significant relationship between bullying attitude and Extraversion personality trait of IX standard students.
2. There is no significant relationship between bullying attitude and Agreeableness personality trait of IX standard students.
3. There is no significant relationship between bullying attitude and Conscientiousness personality trait of IX standard students.
4. There is no significant relationship between bullying attitude and Neuroticism personality trait of IX standard students.
5. There is no significant relationship between bullying attitude and Openness personality trait of IX standard students.

Methodology Of The Study

The research methodology adopted by the researchers was quantitative correlational study. The purpose of the study was to generate insight into the relation between bullying attitude and personality traits. Thus, a quantitative correlation study was employed to understand if personality traits are linked to bullying attitude.

Sample

The sample comprised of a total number of 90 secondary school students, from class IX belonging to two S.S.C. schools in Mumbai. The sample comprised of 17 girls and 73 boys. For the purpose of the present study convenience sampling technique was used by the researchers.

Tools Used

The data for the present study was collected from secondary school students using readymade tools.

- BIG FIVE INVENTORY (BFI)- 44-item inventory that measures an individual on the Big Five Factors (dimensions) of personality which are Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience (Goldberg, 1993)

- **Bulling Attitude Scale - Bullying attitude Scale** was constructed by Reynolds & Craven in 2012. It is a 19-item scale. The reliability of this scale was demonstrated by coefficient alpha of .80, indicating this is a reliable measure of attitudes toward bullying.

Data Analysis

The statistical technique used to test the hypotheses was Pearson's product moment coefficient.

Result And Interpretation

In order to explore standard IX students' attitude, studying in SSC schools in Mumbai, towards bullying and ascertain its relationship with their personality traits Pearson's coefficient of correlation Scores were calculated that are given in Table 1.

Table 1: Coefficient of Correlation of Bullying attitude Scores and Personality trait scores.

| Personality Traits & Bulling Attitude score | Coefficient of Correlation |
|--|----------------------------|
| Extraversion v/s Bulling Attitude score | 0.180761 |
| Agreeableness v/s Bulling Attitude score | -0.27007912 |
| Conscientiousness v/s Bulling Attitude score | -0.04047864 |
| Neuroticism v/s Bulling Attitude score | -0.1134548 |
| Openness v/s Bulling Attitude score | 0.12112721 |

Testing of Hypothesis 1

The following table shows the relevant statistics for it.

Table 2: Correlation between Bullying attitude and Extraversion Personality trait of IX standard students

| Group | N | df | r | p value | Tabulated value | I.o.s. |
|--------------------------------|----|----|----------|----------|--------------------------|-----------------|
| Bullying attitude | 90 | 88 | 0.180761 | 0.088948 | At 0.01 level = 0.283 | Significan t |
| Extraversion Personality trait | | | | | At 0.05 level = 0.217 | Significan t |

The correlation value between Bullying attitude and Extraversion personality trait was found to be 0.180761, which indicates that there is a low positive relationship between the variables.

Since the obtained 'p' value for correlation is less than the tabulated value at 0.01 level, which indicates that the correlation coefficient are significant. Hence the null hypothesis that there is no significant relationship between Bullying attitude and Extraversion Personality trait of IX standard students is rejected. Hence it is concluded that there is a significant relationship between Bullying attitude and Extraversion Personality trait of IX standard students.

Testing of Hypothesis 2

The following table shows the relevant statistics for it.

Table 3: Correlation value between Bullying attitude and Agreeableness Personality trait of IX standard students

| Group | N | df | r | p value | Tabulated value | I.o.s. |
|------------------------------------|----|----|--------|----------|--------------------------|-------------|
| Bullying attitude | 90 | 88 | -0.270 | 0.088948 | At 0.01 level = 0.283 | Significant |
| Agreeableness Personality trait | | | | | At 0.05 level = 0.217 | Significant |

The correlation value between Bullying attitude and Agreeableness personality trait was found to be -0.270, which indicates that there is a low negative relationship between the variables.

Since the obtained 'p' value for correlation is less than the tabulated value at 0.01 level, which indicates that the correlation coefficient are significant. Hence the null hypothesis that there is no significant relationship between Bullying attitude and Agreeableness Personality trait of IX standard students is rejected. Hence it is concluded that there is a significant relationship between Bullying attitude and Agreeableness Personality trait of IX standard students.

Testing of Hypothesis 3

The following table shows the relevant statistics for it.

Table 4: Correlation value between Bullying attitude and Conscientiousness Personality trait among IX standard students

| Group | N | df | r | p value | Tabulated value | I.o.s. |
|--|----|----|--------|----------|-----------------------|-------------|
| Bullying attitude | 90 | 88 | -0.040 | 0.088948 | At 0.01 level = 0.283 | Significant |
| Conscientiousness Personality trait | | | | | At 0.05 level = 0.217 | Significant |

The correlation value between Bullying attitude and Conscientiousness personality trait was found to be -0.040, which indicates that there is a moderate negative relationship between the variables.

Since the obtained 'p' value for correlation is less than the tabulated value at 0.01 level, which indicates that the correlation coefficient are significant. Hence the null hypothesis that there is no significant relationship between Bullying attitude and Conscientiousness Personality trait of IX standard students is rejected. Hence it is concluded that there is a significant relationship between Bullying attitude and Conscientiousness Personality trait of IX standard students.

Testing of Hypothesis 4

The following table shows the relevant statistics for it.

Table 5: Correlation value between Bullying attitude and Neuroticism Personality trait of IX standard students

| Group | N | df | r | p value | Tabulated value | I.o.s. |
|-------------------------------|----|----|--------|----------|-----------------------|-------------|
| Bullying attitude | 90 | 88 | -0.113 | 0.088948 | At 0.01 level = 0.283 | Significant |
| Neuroticism Personality trait | | | | | At 0.05 level = 0.217 | Significant |

The correlation value between Bullying attitude and Neuroticism personality trait was found to be -0.113, which indicates that there is a low negative relationship between the variables.

Since the obtained 'p' value for correlation is less than the tabulated value at 0.01 level, which indicates that the correlation coefficient are significant. Hence the null hypothesis that there is no significant relationship between Bullying attitude and Neuroticism Personality trait of IX standard students is rejected. Hence it is concluded that there is a significant relationship between Bullying attitude and Neuroticism Personality trait of IX standard students.

Testing of Hypothesis 5

The following table shows the relevant statistics for it.

Table 6: Correlation value between Bullying attitude and Openness Personality trait of IX standard students

| Group | N | df | r | p value | Tabulated value | I.o.s. |
|----------------------------|----|----|-------|----------|-----------------------|-------------|
| Bullying attitude | 90 | 88 | 0.121 | 0.088948 | At 0.01 level = 0.283 | Significant |
| Openness Personality trait | | | | | At 0.05 level = 0.217 | Significant |

The correlation value between Bullying attitude and Openness personality trait was found to be 0.121, which indicates that there is a low positive relationship between the variables.

Since the obtained 'p' value for correlation is less than the tabulated value at 0.01 level, which indicates that the correlation coefficient are significant. Hence the null hypothesis that there is no significant relationship between Bullying attitude and Openness Personality trait of IX standard students is rejected. Hence it is concluded that there is a significant relationship between Bullying attitude and Openness Personality trait of IX standard students.

Discussion

The result of the present research leads to the acceptance of the hypothesis that there is no significant relationship between Bullying attitude and Personality traits. The research results revealed that there is a significant positive relationship between Bullying attitude and Extraversion and Openness personality trait. The research further revealed that there exists a negative correlation between Bullying attitude and agreeableness, conscientiousness and Neuroticism personality trait. This is consistent with the results of some researches showing that bullies may be more extraverted and neurotic (Tani et al.,2003)

Suggestions For Further Research

As these findings suggest, bullying behavior can be identified with the help of the personality of a student. However one cannot overlook the fact that bullying stems from complex interactions between individuals and the contexts in which they live as pointed out in the Ecological systems theory. Accordingly, other systems must be studied in order to understand bullying behavior and also for development of bullying prevention and intervention programs to be effective in India. The findings in this are a road map that will guide further researches towards understanding bullying behavior amongst school students.

Conclusion

Today students face bullying daily and it has become a part of most children's lives. However a neglect of the same can be detrimental for the mental well-being of a child. No child should have to live in fear of being bullied, and suffer physically and/or emotionally. By studying the relation between bullying attitude and personality traits, we hope to improve our understanding of how bully behavior can be identified through the personality traits of children and accordingly can be nipped in the bud..

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A COMPARATIVE STUDY ON PREFERRED LEARNING STYLE OF STANDARD IX STUDENTS

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Abstract

Learning styles are preferred ways of learning by the individual. The present study describes the learning styles of secondary school students which are Enactive, Figural and Verbal. The study was conducted on 100 students from Bandra Hindu Association School and Amulakh Amichand Bhimji Vividhlakshi Vidyalaya School. In order to measure the Learning styles of 9th standard students, (LSI-MK) learning style inventory by Karuna Shankar Misra (2012) was used. From the study it is concluded that BHA school students are more likely to prefer figural learning approach and A.A.B.V.V. school students are more comfortable with figural as well as verbal with equal amount of interest.

Keywords: *Enactive Learning Style, Figural Learning Style, Verbal Learning Style*

Introduction

Learning style can also be described as a set of factors, behaviours, and attitudes that facilitate learning for an individual in a given situation.

These learning styles are characteristic cognitive, affective, and physiological behaviours that serve as pretty good indicators of how learners perceive, interact with, and respond to the learning environment.

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they see and hear

- 70% of what they say
- 90% of what they say and do

Definition Of The Key Term

Figural Learning:

Figural Learning Style refers to the student's preference for visual experience related to making diagrams, charts, pictures, maps and photographs, imitation and practice, reproducing the information and conceptualizing one's experience based on the processing of figural experiences [REFERENCE Example Mishra M.,2018].

Verbal Learning:

Verbal Learning Style learners are most comfortable with verbal information written or spoken representations of information in the form of words, ideas, expressions, etc. Verbal learners learn most thoroughly and efficiently, when material is presented to them audibly. They retain information if they repeat it audibly to themselves what they were taught.

Enactive Learning:

Enactive Learning Style performers absorb the information through all the senses of the body. It describes a way of interacting with the environment that is based on knowledge gained through physical actions and motor skills. It indicates one's preference for action based concrete experiences.

Reproducing Learning:

Reproducing Learning Style refers to the student's preference for imitation and practice, memorizing the content and reproducing the information through reading aloud or writing or telling to oneself silently or through listening to others; seeing many figures related to content and making the figure in mind for reproducing the requisite information.

Constructive Learning:

Constructive Learning Style refers to the students' preference for comparing, relating and analysing the content; reorganizing information and adding new idea's to it, constructing diagrams related to any activity and drawing out differences and similarities between figures; emphasizing self-efforts in performing activities; comparing and relating new experiences to old one's for constructing the requisite information.

Need Of The Study

Most people have a preferred way to learn. Some learn best by listening, some have to observe every step, while others have to do it to learn it. The fact is that individuals need all three modalities to truly commit information to memory: visual, auditory, and kinaesthetic. While most are typically stronger in one area than another, the trick is figuring out the preferred modality and capitalizing on strengths.

Objectives Of The Study

- To assess the Learning Styles of standard IX School Students.

- To compare the difference between the learning style of BANDRA HINDU ASSOCIATION SCHOOL and A.A.B.V.V. SCHOOL.

Where in the scope of the study is to administer the different learning style patterns and to find the preferred learning style in secondary standard school students.

Significance Of The Study

The study helps in understanding the different learning styles of secondary standard students and the style in which students are more comfortable to learn and understand the content more easily.

Review Of Related Literature

Review of related studies promotes a greater understanding of the problem and its crucial aspects and ensures the avoidance of unnecessary duplication. It is an indispensable part of any research project. It is also an important prerequisite to actual planning and then execution of any research work. The key to the vast house of published literature of India and abroad opens doors to sources of significant problems, explanatory hypothesis and provides helpful orientation, paving the way for the insights and much higher level of generalizations. Besides, it provides comparative data in this light of which the investigator enables to compare and interpret his findings.

According to [Aggarwal,1966], “study of the related literature implies locating, reading and evaluating reports of research as well as reports of casual observation and opinion that are related to the individual’s planned research project”.

Importance Of The Related Studies

Study of related literature serves the following:

- A review of the related literature studies makes the scholar familiar with what is already unknown and with what is unknown and unproved.
- The review of the related literature enables the researcher to define the limits of his field; it helps the researcher to delimit and defines his problem.
- It brings the researcher up to date on the work.
- It helps to avoid unfruitful and useless problem areas.
- It helps to avoid duplication of well-established findings.
- It gives the researcher an undertaking of the research methodology.
- It helps to know about the tools and instruments which proved to be useful and promising in the previous studies.

Review Of Studies

Indian Studies

Study No. 1

[Parua and Archana, 2011] conducted a study on “learning style of secondary school students in relation to their Scholastic Achievement” This study intended to explore the learning style of secondary school students in relation to their scholastic achievement in the Yamuna Nagar district of Haryana.

Study No. 2

[Susai Rajendran, 2009] conducted a study on “Are learning style gender biased?” In the present work the learning style of high school students in Dindigul area, Tamil Nadu, with respect to home environment, reading, note taking, planning of subject, habit of concentration, general habits and attitudes, preparation for examination and school environment, have been investigated. A standardized tool was used for this study. The finding revealed that no significant difference was found between boys and girls in their learning styles.

Study No. 3

[Amirthagowri et al, 2009] The Study aims at to find the “Relationship between learning style and academic achievement of post graduate students”. For the study, the investigator randomly selected 100 post graduate students from Govindammal College Tiruchendur. Data are collected using appropriate tools and 43 analyzed by two-tailed “t” test.

Abroad Studies

Study No. 1

[Marcus C., et al 2009] conducted a study on “Study skills and attitudes: The third pillar supporting Collegiate Academic performance.” The meta analysis (N=72, 431, K=344) examines the construct validity and predictive validity of 10 study skill measures improved prediction of academic performance more than any other non-cognitive individual difference variable examined to date and should be regarded as the third pillar of academic success.

Study No.2

[Omotere T., 2011] conducted a study on “The effects of learning style on the academic performance of students”. A case study of some secondary schools in OGUN state: The study investigated the effect of learning style on the academic performance of students. Two hundred students were randomly selected from five senior secondary schools in the area. The instrument utilized for the study was a questionnaire named ‘learning style and study attitude Scale’ (LSSAS). Four hypotheses were tested and the result showed that family background, peer group of study pressure, personality type of the student and the school environment all affect the reading habit of students in secondary schools.

Study No.3

[Johnson et al 2007] did a study on “Learning Style under Two Web-Based Study Conditions”. A sample of 48 college students prepared for in-class examinations using two web-based study conditions. The A condition used web-based study groups and the B condition used web-based quizzes. The Index of Learning Styles positioned students on four dimensions of learning style (active-reflective, visual-verbal, sequential-global, and sensing-intuitive). Students who were more active than reflective expressed a preference for face-to-face study

groups rather than online study groups and for online quizzes rather than pencil-and-paper quizzes. Students who were more visual than verbal expressed a preference for online quizzes rather than online study groups. Such preferences were validated by decreased achievement in the less-preferred study condition.

Linking With The Study

- All the above studies whether INDIAN OR ABROAD is inter related to each other.
- All studies are conducted to know the learning styles and different variables
- e.g. (academic achievement, learning environment, school adjustment and intelligence etc.

Critical Review

- The investigator reviewed altogether 6 related studies of which 3 are Indian and 3 are foreign studies. The review of literature shows that learning style was studied in majority of the investigations. In some of the studies, background variables such as sex, community, locality of the school are used. These studies have been conducted on secondary schools, undergraduate and post graduate college students.
- From the analysis of the studies given above, it is clear that the present study stands distinctly different from the studies in population, sample, tool, variables and dimensions conducted so far. Hence the investigator was of the opinion that the present study would be able to provide information necessary for the teachers and students to understand the importance of learning style to improve the academic achievement of higher secondary school students.

Methodology

The sample was selected by stratified random sampling from BHA School and A.A.B.V.V school MUMBAI city. Sample of the Study In the present study, descriptive survey method has been used for investigation Students were selected from two different Secondary schools of Mumbai district of Maharashtra State, India. From A.A.B.V.V. school 66 students were selected randomly in class 9th and 36 students were selected from BHA school. Thus, the sample of the study comprised of 100. This study was limited to students of class 9th enrolled in two schools only.

Tools Of The Study

- In order to measure the Learning styles of 9th standard students, (LSI-MK) learning style inventory by Karuna Shankar Misra (2012) was used.
- This inventory attempts to measure three main styles learning namely-

1. Enactive reproducing-It indicates preference for conceptualizing ones experience based on the processing of enactive information.

2. Enactive constructive - It indicates ones preference for action based concrete experience. The emphasis is on imitation and practice and is reproduction oriented

3.Figural Reproducing-It refers to ones preference for visual experiences related to making diagrams, charts, picture, maps and photographs. The emphasis is on imitation and practice and it is reproduction oriented.

4. Figural constructive-It refers to the preference for processing of figural experiences, which will lead to conceptualizations.

5. Verbal Reproducing-It refers to written or spoken information related to subject matter communicated through words.

6. Verbal constructive- It refers to the preference for reflective, accommodative and abstract thinking about subject matter to develop conceptualizations.

Statistical Technique Used

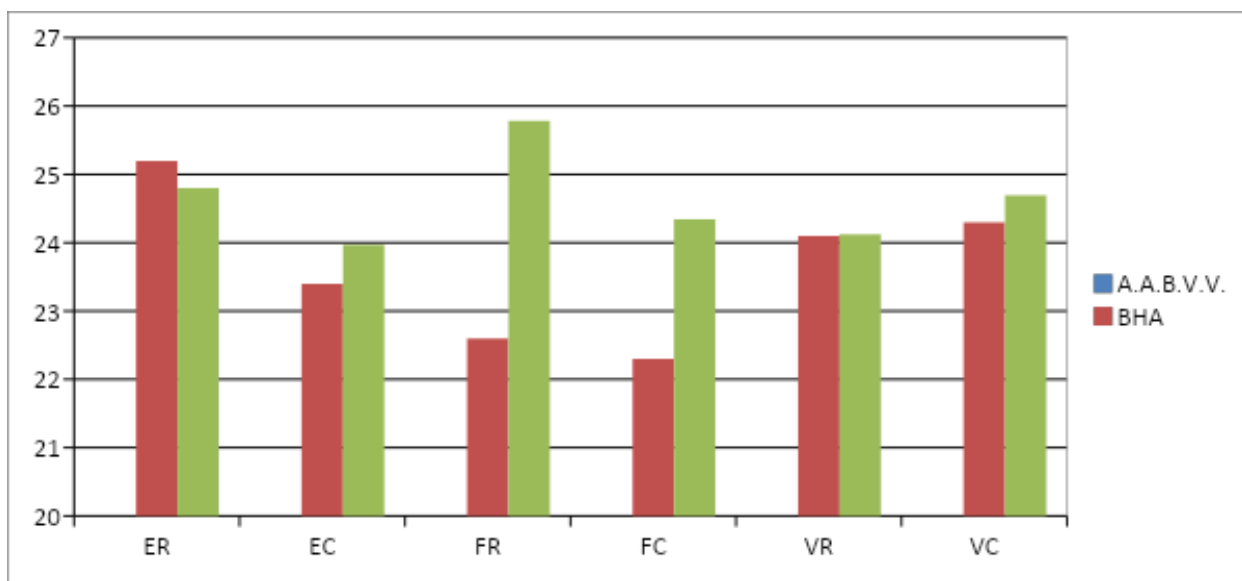
- The statistical technique used is average (mean), median, and mode.
- Comparative joint bar graph.

Statistic Information

Table 1: Average Score of All Learning Styles in Both School Are As Follow

| NAME OF THE SCHOOL | ER | EC | FR | FC | VR | VC | TOTAL |
|--------------------|------|-------|-------|-------|-------|-------|--------|
| A.A.B.V.V. | 25.2 | 23.4 | 22.6 | 22.3 | 24.1 | 24.3 | 139.02 |
| BHA | 24.8 | 23.97 | 25.78 | 24.34 | 24.12 | 24.69 | 147.63 |

Table 2: Statistical Representation of Average Data



- All the students have scored below 35 marks in each learning styles.
- The total marks of all the learning style is out of 210.

The average score of all the learning style is 147.63 in BHA school and 139.02 in A.A.B.V.V. school students

Interpretation:**The Average Score of Each Learning Style In A.A.B.V.V. School Students.**

- 25.2 Score Out Of 35 Is Learn Through Enactive Reproducing.
- 23.4 Average Score Of Students Learn Through Enactive Constructive Style.
- 22.6 Average Score Prefer Figural Reproducing Learning Style.
- 22.3 Average Score Prefer Figural Constructive Learning Style.
- 24.1 Average Score Out Of 35 Prefer Verbal Reproducing Learning Style.
- 24.3 Average Score Prefer Verbal Constructive Learning Style.

The Average Score of Each Learning in BHA School Students.

- 24.8 Score Out Of 35 Is Learn Through Enactive Reproducing.
- 23.97 Average Score Of Students Learn Through Enactive Constructive Style.
- 25.78 Average Score Prefer Figural Reproducing Learning Style.
- 24.34 Average Score Prefer Figural Constructive Learning Style.

Conclusion

From the study it is concluded that the students of BHA school were more comfortable in Figural learning approach whereas the students of A.A.B.V.V. were comfortable with Figural as well as Enactive learning style.

BHA school students prefer reproducing approach of learning but A.A.B.V.V. school students prefer constructivist approach of learning.

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ETHNOGRAPHY OF EDUCATION

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Abstract

Ethnography and Education (E&E) is committed to understanding the nature of people's educational lives – teachers, pupils, students, supports staff and managers. Evaluation is a process that critically examines a program. It involves collecting and analysing information about a program's activities, characteristics, and outcomes. Its purpose is to make judgments about a program, to improve its effectiveness, and/or to inform programming decisions. The primary purpose of teacher evaluation is personal and professional growth that leads to improved performance. The principal (or other evaluator) acts as a facilitator for each teacher, just as the teacher serves as a facilitator for students in the classroom. These activities provide teachers with opportunities to raise their professional skill level and their relationship with students, as well as engaging in research activities, thus emphasizing learning by doing. Teachers with this background create strategies to build new standards in educational practice. The county's philosophy of performance evaluation states that the evaluation process exists to facilitate the improvement of instruction, and it identifies the area to be strengthened. Learning and teaching is a collaborative work and the best training is where ideas and experiences are shared and reflection is accomplished through discussion in peer groups and networks.

Keywords: *ethnography, evaluation, performance*

Introduction

Teacher evaluation refers to the formal process a school/ institution uses to review and rate teacher's performance and effectiveness in the classroom. Ideally, the findings from these evaluations are used to provide feedback to teachers and guide their professional development. Teacher evaluation systems rely heavily on classroom observations conducted by principals or other school administrators. Samples of work done by students, teachers' records and lesson plans, and other relevant factors are often taken into account for evaluation. The purposes of evaluating teacher performance is:

- to determine Teachers competence level
- to assess their strengths
- to provide support and mentoring
- to assure continued growth through differential experiences
- to monitor the organization's employment decisions.

The System Recognizes The Need For The Following Areas

- Orienting, inducting, and evaluating new employees or employees new to a position
- Evaluating employees who are experienced in their position, and
- Offering professional growth options for commendable teachers who deserve an array of choices in meeting evaluation and growth goals.

The purpose of academic Institution is to provide every student the opportunity for a quality education necessary for them to compete across globally. The institution intent is to promote high academic standards, ensure safe schools, increase daily attendance, attract and retain high-quality teachers, and promote parental and community involvement. Effective education begins with an understanding of what people are like, how they behave and learn, and what problems they face. The institution is committed to graduating literate adults who are self-sufficient, self-disciplined, life-long learners. Every student has the responsibility to come to school prepared and willing to learn, and is ultimately responsible for self, family, community and country. The purpose of Teachers Evaluation is to improve the delivery of services to students. It should be a continuous, constructive, and cooperative endeavour.

Improving The Teacher Performance

To improve her/his teaching performance the teacher must use productive teaching techniques:

- Demonstrate effective planning skills.
- Uses knowledge of students to design educational experiences
- write lesson plans with clear, logical and sequential content
- Selects objectives at the correct level of difficulty to assure successful learning experiences for each student
- Includes teaching methods and procedures relevant to the objective
- Includes relevant student activities
- Plans both formative and summative evaluation procedures
- Plans appropriate time allotment
- Selects a variety of teaching methods, procedures and student activities
- Implements the lesson plan effectively
- Reviews students' prior knowledge and/or experiences
- Provides independent practice activities
- Indicates positive directions for moving from one activity to the next
- Communicates effectively with the students
- Uses a variety of verbal and nonverbal techniques free of sarcasm
- Elicits and responds to student questions before proceeding
- Gives clear, explicit directions
- Uses probing techniques
- Provides structuring comments which clarify the tasks and help the lesson proceed smoothly

- Prepares appropriate evaluation activities makes methods of evaluation clear and purposeful, uses pre- and post-tests, monitors student progress through a series of formative and summative evaluation techniques.
- Provides students with appropriate evaluative feedback. Gives written comments, as well as points or scores, makes opportunities for one-to-one conferences, effectively interprets test results to students and parents.
- Provides opportunities for individual differences, uses knowledge of individual students to design educational experiences, paces learning according to students' mastery of content, provides extra help and enrichment activities.
- Sets high expectations for student achievement, establishes expectations for students based on a level of skills acquisition appropriate to their ability level, uses concrete, first-hand information about students.
- Demonstrates evidence of students' academic growth a. Reviews and evaluates student achievement data.
- Demonstrates effective interpersonal relationship. Enhances community involvement with the school, cooperates with parents in the best interests of the student, supports and participates in parent-teacher activities, works well with other teachers and the administration, provides a climate which opens up communication between the teacher and the parent, has positive relationships with students individually and in groups.

Evaluation Process And Procedures

1. *Evaluation is the process of gathering data, which provides evidence of a teacher's performance. This data is synthesized and analyzed in light of county adopted performance criteria to determine the effectiveness of a teacher's performance. Evidence for it can be collected from students, from colleagues, faculty, department, and other school responsibilities.*

Criteria for evaluating teachers 'basic' level of performance in teaching:

All areas of work ultimately contribute to better student learning. Impact on student learning is therefore a natural criterion for evaluating teaching. But since actual learning is affected by many factors outside a teacher's control, it is more realistic and fairer to the teacher to also consider other critical contributions by the teacher that have made better student learning possible.

(1) **Quality of teaching:** the extent to which the teacher is delivering high quality teaching pertaining to the facilitation of student learning and development, as evidenced by his/her commitment to teaching, pedagogical merit, and quality of interaction with students basic (equivalent to a 'Satisfactory' rating) – be suitably well prepared for class and demonstrate a basic competence in teaching as evidenced by the appropriateness of teaching and assessment approaches, clarity in delivery and quality of interaction with students.

(2) **Impact on student learning:** the extent to which the teacher is making a positive impact on student learning and development, as evidenced by students' attainment of learning outcomes, motivation for learning, quality of work and other forms of achievement Basic (equivalent to a 'Satisfactory' rating) – the teacher's teaching be

generally conducive to the attainment of intended learning outcomes by students and has a generally positive impact on students' learning motivation

(3) **Contribution to development/management:** the extent to which the teacher is contributing to the development and operation of subjects and programmes, as evidenced by involvement and contribution in planning and implementing programme curricula and subject syllabi, and their relevant discussions, projects and processes Basic (equivalent to a 'Satisfactory' rating) – be active and constructively engaged in duties related to curriculum/pedagogy development and/or subject/programme administration/management as required (if any)

(4) **Educational leadership:** the extent to which the teacher is making an impact on teaching and learning beyond his/her own teaching, as evidenced by leadership in teaching innovations, scholarship of teaching and learning, and other forms of contributions leading to system-wide impact Basic (equivalent to a 'Satisfactory' rating) – satisfactory performance of assigned leadership roles (if any) The 'basic' level is intended to be the threshold level of performance for all staff members with teaching responsibilities, regardless of rank.

(5) **Teacher self-evaluation:** Another common instrument used in teacher evaluation is teacher self-evaluation. The perspective of the teacher being evaluated is essential, because it allows teachers to express their own views about their performance, and reflect on the personal, organisational and institutional factors that had an impact on their teaching.

(6) **Conduct ongoing, formative assessments of teachers':** skills, knowledge, and practices. The assessments should inform teacher growth and development. Assessments may be conducted by administrators, mentors, coaches, teachers themselves, or teachers' peers. Criteria should include evidence of student learning and feedback from parents and students

(7) **Conduct summative evaluation of each teacher:** This should be done at relatively frequent intervals for new or probationary teachers and less frequently for non-probationary continuing contract teachers. Summative assessments of a particular teacher may become optional if formative assessments of that teacher remain positive over a reasonable period. Teachers who need to improve to meet quality standards should receive intensive} intervention, support, and individualized professional development.

(8) **Implement evaluation results:** Inform teachers of evaluation results and the impact on continued employment status, tenure, license renewal, and career ladder opportunities for high performers.

Generally speaking, 'quality of teaching' and 'impact on student learning' are regarded as the core criteria for all teachers. These two criteria should apply to all staff members with teaching responsibility, regardless of rank.

Conclusion

Above all, great teachers are most often noted for the heart they have put into teaching. Many of the best teaching practices and innovations we see today are a result of their commitment to providing the best possible learning experience to their students. Promoting teacher evaluation is clearly in the national interest as well as serving students and their families and communities. Teachers need feedback on their performance to help them identify

how to better shape and improve their teaching practice and, with the support of effective school leadership, to develop schools as professional learning communities. At the same time, teachers should be accountable for their performance and progress in their careers on the basis of demonstrated effective teaching practice.

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A STUDY ON SELF ESTEEM OF ADOLESCENT OF SUBURBAN MUMBAI

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Abstract

The term self-esteem is used to describe a person's overall sense of self-worth or personal value. In other words, how much you appreciate and like yourself. Self-esteem reflects a person's overall subjective emotional evaluation of his or her own worth. It is a judgment of oneself as well as an attitude toward the self. Self-esteem can play a significant role in your motivation and success throughout your life. Adolescence is actually the phase when people begin to form a self esteem. Hence the study was conducted of the target group of adolescents of standard IX, X, XI, XII of suburban Mumbai and a comparison was made between the school going adolescents and college going adolescents using a 7 pint rating scale. After the analysis on the three parameters of religion, gender, standards it was found out that girls have a high self esteem when compared to boys. On the basis of religion, Christians had the lowest self esteem. The school going adolescents were low on self esteem in comparison to college going adolescents.

Key words- *self-esteem, self worth, personal value*

Introduction

Self-esteem reflects a person's overall subjective emotional evaluation of his or her own worth. It is a judgment of oneself as well as an attitude toward the self. Self-esteem encompasses beliefs about oneself, as well as emotional states, such as triumph, despair, pride, and shame. Smith and Mackie (2007) defined it by saying; The self-concept is what we think about the self; self-esteem, is the positive or negative evaluations of the self, as in how we feel about it.

Self-esteem is attractive as a social psychological construct because researchers have conceptualized it as an influential predictor of certain outcomes, such as academic achievement, happiness, satisfaction in marriage and relationships, and criminal behaviour. Self-esteem can apply specifically to a particular dimension (for example; I believe I am a good writer and feel happy about that & quote) or a global extent (for example, I believe I am a bad person, and feel bad about myself in general). Psychologists usually regard self-esteem as an enduring personality characteristic (self-esteem), though normal, short-term variations (self-esteem) also exist. Synonyms or near-synonyms of self-esteem include: self-worth, self-regard, self-respect, and self-integrity.

High self-esteem has a high correlation to self-reported happiness; whether this is a causal relationship has not been established. The relationship between self-esteem and life satisfaction is stronger in individualistic cultures.

Additionally, self-esteem has been found to be related to forgiveness in close relationships, in that people with high self-esteem will be more forgiving than people with low self-esteem. High self-esteem does not prevent children from smoking, drinking, taking drugs, or engaging in early sex. One important exception is that high self-esteem reduces the chances of bulimia in females. Many early theories suggested that self-esteem is a basic human need or motivation.

According to Maslow, without the fulfilment of the self-esteem need, individuals will be driven to seek it and unable to grow and obtain self-actualization. Maslow also states that the healthiest expression of self-esteem is the one which manifests in respect we deserve for others, more than renowned, fame and flattery. Modern theories of self-esteem explore the reasons humans are motivated to maintain a high regard for themselves. Self-esteem is important because it shows ourselves that how we view the way we are and the sense of our personal value. Thus, it affects the way we are and act in the world and the way we are related to everybody else.

Need Of The Study

Abraham Maslow states that psychological health is not possible unless the essential core of the person is fundamentally accepted, loved and respected by others and by her or his self. Self-esteem allows people to face life with more confidence, compassion and optimism, and thus easily reach their goals and self-actualize. Self-esteem may make people convinced they deserve happiness. Understanding this is fundamental, and universally beneficial, since the development of positive self-esteem increases the capacity to treat other people with respect, compassion and goodwill, thus favouring rich interpersonal relationships and avoiding destructive ones. For Erich Fromm, love of others and love of ourselves are not alternatives. On the contrary, an attitude of love toward themselves will be found in all those who are capable of loving others. Self-esteem allows creativity at the workplace and is a especially critical condition for teaching professions.

For the above reasons the variable of Self Esteem has been selected. Since adolescent is age where students think more of themselves or try imitate their role model, it is essential to know their attitude towards their own self. Channelizing their attitude towards self will work wonders for them and make them competitive in this dynamic world. Since their Metacognition development is on an increase this age becomes the right age to conduct research on and through this development of positive attitude towards self is possible through guidance and counselling. Also, this is the age when social media too plays a significant influence on Self image of an adolescent because during adolescence an individual is more inclined towards the use of social media. Hence there is a need to study Self Esteem of today's adolescent in the light of various factors acting on it.

Research Problem

A study on the self Esteem of an adolescent of suburban Mumbai.

Operational Definition

- Self esteem-a feeling of having respect for yourself and your abilities. (Merriam Webster)
- Self-concept-the mental image one has of oneself. (Merriam Webster)

- Self-awareness-‘the process can be painful but it leads to greater self-awareness’. (US English)
- Self worth- Self-worth is the feeling that you have good qualities and have achieved good things. (Collin English Dictionary)
- Real self- The individual’s unique wishes and emotions and the potential on their part for future growth as a being. (Psychological Dictionary)
- Ideal self- Ideal Self is the person you want to be. (Humanistic Psychologist Carl Rogers)

Objectives Of The Study

The following objectives are formulated for the proposed study:

- To study the influence of religion on the self esteem of adolescents
- To examine the self esteem of male and female adolescents
- To recognize the role of school and college on the self esteem of adolescents.

Research Hypothesis

The following hypotheses are formulated for the present study: -

H 01 : There is no significant difference in the self esteem of a male and female adolescent.

H 02 : There is no significant difference in the self esteem of school going adolescents and college adolescents.

H 03 : There is no significant difference in the role that religion plays in the formation of self esteem of an adolescent.

Materials And Methods

This research employed quantitative descriptive data. The study behaviour was self esteem of school and college going adolescents. This study was conducted in schools and colleges of Suburban Mumbai which involved 130 adolescents selected through purposive sampling technique. The inclusive criteria of the study were, adolescents of both gender in the age group of 13 -19 years and who can speak English and the local language. Data were collected using standardised questionnaires, and were analysed through descriptive and inferential statistics.

Data Collection Tool

The tool used by the researcher is a 7-point rating scale. This is done so as the target group comprises of adolescents and hence are in position to answer the questions and place their views on their self esteem in regards to their understanding of emotions, self concept, self worth. Also students form self esteem in these crucial years and hence it become of prime importance to students to reflect on their behaviour and channelize their actions in the right way and direction. The ratings are as follows

1=Always

2=Most of the time

3=A good part of time

4=Some of the time

5=A little of the time

6=Rarely

7=Never

Scoring Pattern

Score Percentile

260 85

244 70

227 50

210 30

194 15

Data Collection

Data collection was done keeping in mind the target group and hence was collected from High Schools and Junior college by distributing questionnaires and one at a time. Only one school or college was targeted at a time. This was done to collect the data without any confusion. Also the data collection could be easily invigilated and doubts raised could be easily clarified. Hence it was considered appropriate to focus on one target group.

The data collected in this manner was without any commotion and it gave an assurance that the samples have understood the questions and were in a position to answer all the questions. Also, the queries raised were solved efficiently. Leading to effective utilization of human resources.

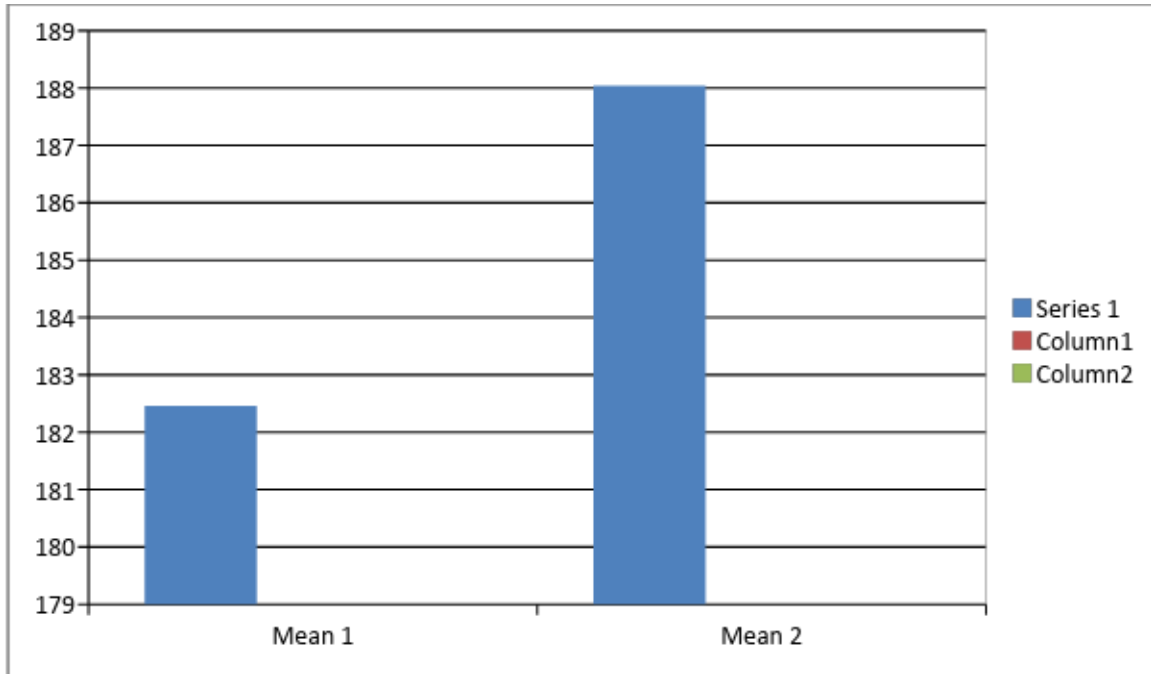
Result And Discussion

The present study aimed at to assess the self-esteem among adolescents with the impact of gender, educational institution and religion.

Following are the inferences deduced on the descriptive analysis of the data

Table-1

| Mean 1(Boys) | Mean 2(Girls) |
|--------------|---------------|
| 182.4567901 | 188.037037 |

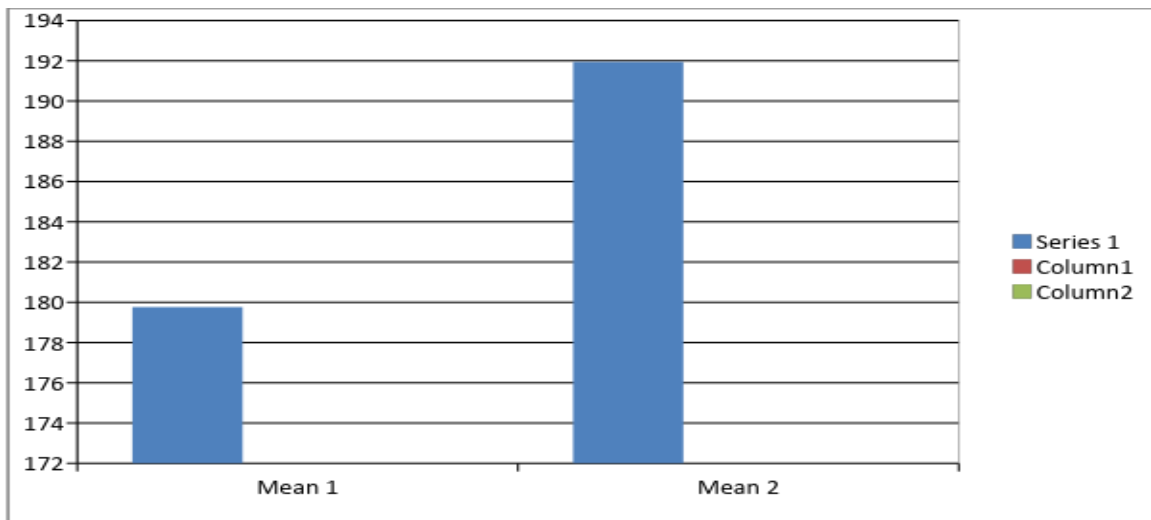


Graph 1: Mean of 1 and 2 parameters

The above table and graph concludes that there is a significant difference between the mean of self esteem of girls and boys. This difference is proved by statistical evidences.

Table-2

| Mean1(School) | Mean2(College) |
|---------------|----------------|
| 179.7625 | 191.94 |

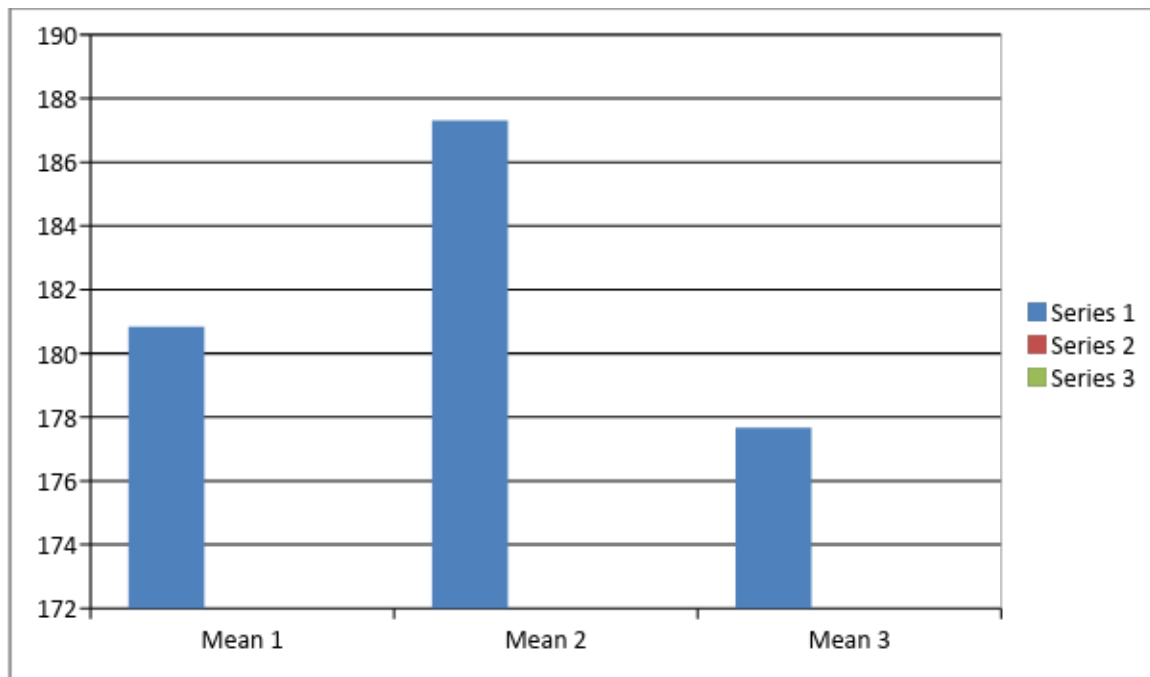


Graph 2

The mentioned table clearly displays a difference between the means of self esteem of school going adolescents and college going adolescents.

Table-3

| Mean1(Hindu) | Mean2(Muslim) | Mean3(Christian) |
|--------------|---------------|------------------|
| 180.8301887 | 187.3108108 | 177.6666667 |



Graph 3

Since the mean of students of different religion varies, it can be concluded that there is a difference between self esteem of students of different religion.

The present study has been although successfully conducted yet has few limitations. The researchers have only considered adolescents from suburban Mumbai as their population , the population could include adolescents of entire Mumbai. Also research could include samples from vernacular mediums too. Despite these limitations, the study also has several strengths such as creating awareness among the adolescents regarding assertive behaviour and self-esteem. Further, it contains interesting findings from developing countries perspective, which will be of use to both researchers and clinicians. In a nutshell, the findings of the present study indicate that there is felt need to improve the self-esteem and the assertiveness among adolescents through training programmes. Although this is a small scale quantitative study, it provides the insights of the adolescent's level of assertiveness and their relation with self-esteem.

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ADAPTING DIGITAL STORYTELLING FOR STUDENTS WITH LEARNING DISABILITIES TO PURSUE STEM EDUCATION

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Abstract

Learning Disability is a neurological disorder where a student's ability to read, write and/or do mathematics is hampered. Hence education becomes a daily struggle for them. To tutor these students, new methodologies need to be adopted by the educators. It has been observed that students with learning disabilities are underrepresented in STEM (Science, Technology, Engineering, Mathematics) category. In the interconnected global world of the 21st century, STEM education has become more important. It is therefore, the responsibility of the teacher to motivate all the students who show an inclination towards these streams to pursue their careers in these areas. One such methodology is to include and tutor learning disabled students in STEM subjects is through digital storytelling. When a child visualises a story, he/she correlates with the story and often visualise him/herself as part of situations described in the story. The events occurring in the story are conceived systematically and can be reproduced by the student in the form of flowcharts. Hence, concepts like derivations, formulas, algorithms are remembered easily, learning takes place more impactful and ideas become clear. This paper proposes methods to incorporate digital storytelling in STEM targeting students with learning disabilities to conceptualize the teaching-learning process as per their cognition.

Key Words: *digital, STEM, storytelling, learning disability*

Introduction

Education system's aim is to maximize the potential of every student. To achieve this, there needs to be an improvement in teacher's effectiveness and student's engagement. A teacher should cater to every student in the class and must ensure inclusiveness.

For students with learning disabilities (LD), regular blackboard teaching is less effective. Due to their neurological disorder, they fail to form conceptual patterns in their minds and to understand correlations of topics which the normal students usually are capable of doing [Manghirmalani et al, 2012]. A special effort needs to be taken by the teacher to felicitate the teaching-learning process of the LD otherwise these students struggle very hard just to pass in a regular class.

Considering the art of Storytelling, it has always been a beloved practice for students and adults alike; and is an effective way to ensure student's engagement. Stories help students understand complex concepts and co-relate it

with daily life situations. When storytelling is combined with technology, it forms digital storytelling. With technology becoming an integral part of the educational realm it becomes an added advantage to make use of it for the benefit of students [Garrety C., 2008].

Digital Storytelling (DST) is a medium to create curiosity, interest, involvement and inspiration for the "digital generation" in the 21st century classroom. DST utilises almost all of the skills students are expected to have in the 21st century [Robin B, 2006]. Features of DST include oral, written language with pictures, clip art, animations or video that are usually used to create learning materials.

As most LD students do not pursue carriers in the areas of STEM due to the myth of its complexity, this manuscript proposes a unique technique to teach and motivate LD students for STEM education using DST. Through this manuscript, researchers are trying to utilise the features of DST to cater to the difficulties faced by LD students in regular classroom teaching.

Background: Formats Of Storytelling

Storytelling traditions diverge across the world. Still, several archetypal forms in storytelling are seen. The middle-aged generation is struggling to rediscover the art of storytelling after the realisation of a severe loss in culture and values which were passed to one generation to another through stories. Stories have forever been an archetypal tradition of all cultures as it was a source to inspire, impart wisdom, techniques, ideas, values, passion and technical details [Mallan K. et al, 1992]. Even with all this inculcated, these stories were simple and beautiful. Re-evoking this trend is a challenge the teachers in today's classroom face. To understand the art of storytelling, it can be categorised as traditional and contemporary.

Traditional storytelling includes fairy tales, folktales, mythology, legends, fables and so on. The contemporary form of storytelling has a scope. Apart from taking the core from traditional storytelling, contemporary form spreads across education curriculum right from describing the history to narrating the political scenarios, to discussing biographies of the rich life of great personnel, to the revolution of the culture [Brich et al, 1996]. Evolution in the types of media available is encouraging teachers to record and retell the age old stories with correlation to the advancement of the 21st century's digital generation of students. Teachers are shifting their paradigm to digital platforms to narrate these stories in a more impactful manner.

Multimedia gaming, virtual reality and other digital platforms which can produce interactive storytelling are preferred by the teachers to allow the students to not just listen to the stories but also be a part of it visually and virtually [Lindley C., 2004]. Contemporary storytelling also includes interactive documentaries, web series, short movies which employ narrative storytelling techniques to communicate information about the subject of concern. Through digitalisation, self-revelatory stories can also be generated for intense and therapeutic effect.

The ideology of storytelling ultimately belongs to one of the following plots [C. Brooks, 2004]. These plots are recycled and often merged with a new script to bring out a new story. They are used in traditional as well as a contemporary form of storytelling. These plots include concepts where i) the hero is Overcoming the monster or a

bad guy; ii) how a hero is working hard to change his status from rags to riches; iii) a mission; iv) adventurous voyage; v) comedy; vi) empathy and sympathy through tragedy, and vii) Rebirth

One can rightly conclude that archetypal stories are rooted in the human unconscious to his/her arguments. To conclude with, storytelling must also cater to the psychosomatic aspect of human mind and these have been the roots of the traditional stories. Especially considering the Indian culture, all the scientific phenomenon like fasting on particular days, behavioural patterns that should be followed during eclipses, etc., have a deep scientific meaning. They are explained in the form of stories so that everyone (even the non-science persons) can understand the concept with equal ease. The ideology behind the story should be to educate, empower and inculcate good values to the listeners.

Digital Storytelling

The art of conveying a story on a particular topic or concept which comprises of a specific ideology using multimedia combined with computer software is referred as DST. Multimedia includes animation, text, graphics, pictures, pre-recorded audio narration, music and video. Here, the stories are stored in digital format and can be viewed on any device that supports playing video files including a computer. To keep the attention of the user, the majority of the stories (digital or verbal) are kept short with a length of 2 to 10 minutes. Most digital stories are made available for free on the internet and can be viewed using any browser. In today's online world, its popularity has increased immensely and one can find digital stories on every topic imaginable. It has been widely supported in today's educational settings right from kindergarten to graduate school and has been proved as a powerful tool. Teachers are integrating information and communication technology in their classrooms to felicitate language learning, encourage discussion, intensification the social presence. Apart from schools, it is widely supported in libraries, community centers, museums, medical schools, businesses and many more. With this, it becomes increasingly important to understand whether a video is actually a digital story or not.

Robin (2016) suggested some questions that should be used as a base to classify whether a video is a digital story or not. Questions could be based on the topic and purpose of creating the video, does it have a personal viewpoint, does it seem factual and presented in a fair and balanced manner, authorship of the video and when it was created, where was it found and intended audience, did the video have any narration, length of the video and does the video conclude with a message related to an institution, business or any type of organization.

Silvia (2015) believes that DST is often misunderstood and is assumed to be about the tools or substituting analogue stories or the transfer of knowledge or creating media or telling an story which could be an isolated one. But it is actually about the skills, transforming stories, amplification of voice, creating meaning, sharing and connecting experiences and perspectives to a community and contributing and collaborating with others.

To summarize, it is very important for the creator of digital story to understand the requirements of making a digital story and creating a meaningful digital story.

Tools Used For DST

Digital stories can be easily created even by people with no technical background. The easiest way is to create using Microsoft PowerPoint in which text, still images, audio and video clips can be embedded and save the file as PowerPoint Show instead of PowerPoint Presentation. The movie with audio embedded will automatically play once the show is started. If the digital story needs to be created from the beginning then hardware tools like digital camera, digital video camera, webcam, microphone and scanner will be required along with the software for creating and editing the movie.

There are various paid and unpaid software available in the market that can be used for creating a digital story. Some examples are Movie Maker, Photo Story, Avid Free DV etc. Still, photo editing can be done using software like Adobe Photoshop etc. and audio recording/editing can be done using software like Audacity, Goldwave etc. Similarly, there are many video editing software like Ulead, Adobe Premier Pro are also available in the market. Once the digital stories are created they can be shared using CD/DVD or pen drive or can be published online on websites.

To support the education community for inclusive education, Open Educational Resources (OER) are coming to the market to enhance the teaching-learning process. Where economics was often a barrier for the inculcation of technology, OER is there as a rescuer for the teacher community in their quest to educate and empower every single student. Massive Open Online Courses (MOOC) is another such venture where free courses with certifications are made available for everyone through digital technology. Such ventures lead to the empowerment of the LD community.

Benefits of DST on LD Students

DST deals with prospects to develop a platform to promote the regular form of teaching-learning for LD students so as to assist them in understanding and learning a new concept or a skill. To achieve this some amount of creativity is also expected. Keeping in mind that digital stories also use narration, they are frequently combined with gif images, videos and audio accompanied by text in order to create a movie. Through this, student's engagement is assured. As multiple times playing the same story is possible, it reduces the efforts a teacher has to put in order to repeat the content and hence the level of frustration (which is an unavoidable part of human behaviour) is absent. This not just creates a more conducive environment for the student to learn, but it also gives him/her enough encouragement to learn the most out of the aid. Through this, the students with LD are able to not just understand the content but are in a position to formulate sequence by themselves, and correlate with supplementary concepts of the story without rote learning [Mishra et al, 2013].

The ease of availability of OER, various applications and technology, LD students who are seen struggling to write regular educational assignments and class notes are able to employ a multimedia approach to complex problems (for them) like graphs, algorithms, and other components of STEM education. Subsequently, students are able to gain confidence in their ability to create and express ideas through this multimodal medium.

Storytelling permits the educator/teacher to tailor fit the teaching through DST and develop it as per the need of individual students. This is done so because students with LD fall into seven categories [Manghirmalani et al, 2011] and consequently have their own strengths and weaknesses in learning and understanding the concepts. This approach goes way beyond traditional form of teaching-learning process. Students have experienced a stronger engagement in writing, problem-solving and doing mathematics when they are taught through DST.

Though several specialists [Kaylor.M, 2007] may disagree on the use of technology to encourage students to perform several STEM subject related tasks and assignments, they state that this approach might be taking them away from the in-depth understanding of the material. But most educators feel that LD who usually struggle are becoming highly motivated by digital technologies and only this can help expand their STEM skills to new levels.

Merging Elements of DST to Favour LD Students to Pursue STEM Education

In order to comprehend the barricades, delusions and complications of seen in pursuing STEM education, one needs to focus on the key components of STEM education for LD students of all grades. Persuading LD students to leave their comfort zones and go for STEM education is a big challenge. Though they have the calibre to pursue these streams, their disability sets a major drawback for them psychologically. The psychological barrier needs to be eliminated. To achieve this, the mentoring teacher must first understand the issues faced by a LD student. The issues faced by LD students are broadly classified as [Jain et. al, 2009]:

1. Speaking language: delays and deviations in listening and fluent speaking
2. Written language: difficulty with reading sentences, writing in full sentences and spellings
3. Arithmetic: difficulty in performing arithmetic operations or in understanding basic concepts
4. Reasoning Skill: difficulty in arranging and assimilating ideas
5. Memory: difficulty in memorising, remembering information and multiple instructions

Merging issues seen in LD students with educational concepts studied by the students are as follows [Manghirmalani et al, 2011]:

Table 1: Educational difficulties faced by LD students

| | |
|--------------------------------------|---|
| Spoken language difficulties | Reading and Narration, Comprehension, Word Problems |
| Written language difficulties | Essay writing, Comprehension |
| Arithmetic difficulties | General Mathematics, Word Problems |
| Reasoning difficulties | Time and Calendar Concepts, Money transactions |
| Memorising difficulties | Spellings, Tables, Directional issues |

The issues stated in Table 1 deal with the three types of LDs; Dyslexia, Dysgraphia and Dyscalculia. A student can have one form of LD, or a combination of two or sometimes (due to their interrelated nature) all three types of LD. Considering their difficulties in reading, writing and doing mathematics, which are the essential skills for STEM

education, elements of DST that could be taken into consideration to cater to the LD student as proposed by The Centre for DST (CDS), Berkeley, California are as follows: [Webliography 1 accessed on March 15, 2018]

1. Point of View of the story
2. The story centred around a dramatic question
3. The story comprising of emotional content
4. Different voices for different characters
5. Soundtrack (intermediate or background)
6. The economy in giving just enough content
7. Pace of narration of the digital story
8. Quality and clarity of images, video & other multimedia elements
9. Economy of the story detail
10. Good Grammar and Language Usage

These ten elements can be used efficiently for developing effective and stimulating digital stories. Creating stories requires consideration for every aspect and determining the balance of each element that is occurring in the story. This required a lot of thinking, reflecting and re-thinking.

STEM includes some of the most important, dynamic and research-oriented careers in the 21st Century. Majority of the new developments that are ensuring comfortable life across the world can ensure that a better place to live in are from the professionals belonging to the STEM fields. The economy up to a great extent is technology-driven and skilled workforce in STEM fields are the driving force for innovation of a nation. LD students have innovation and logical thinking in them, but lack of motivation and stereotyped thinking of the organisations is demotivating them to pursue these streams. It is observed that in order to pursue STEM subjects, the general skill set required is: [National Institution for Health, 2011]

1. Logical Thinking
2. Analytical Thinking
3. Critical Thinking
4. Problem Solving
5. Mathematical Skills
6. Science Skills
7. Technical Skills
8. Spatial Skills
9. Systematic Approach
10. Innovation

Through this study, the researchers are merging the problem areas faced by LD students with the elements of DST. The following mapping as shown in figure 1 could be done to develop the skill set required for STEM based education and its corresponding concepts:

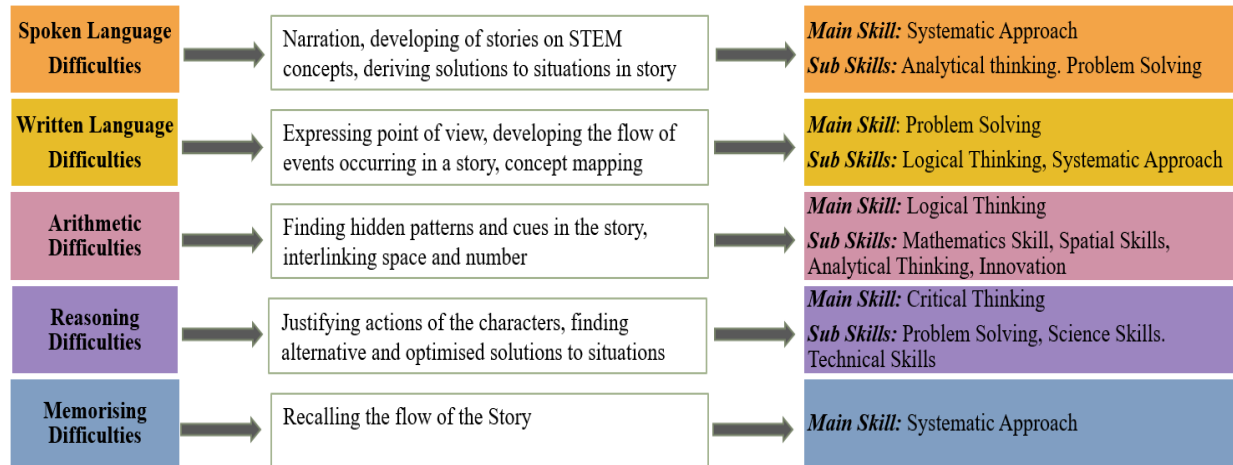


Figure 1: Bridging the issues with skill sets of STEM with the features of DST

Challenges in Using DST

DST is a powerful tool that has the ability to reach a very broad audience in a very short time. But it also comes with its own set of challenges, especially when it is used for educational purposes. While it provides exceptional value in delivering content-rich narrative, it fails to capture feedback from the students of the digital story. Communication and Teaching are interactive processes which get improvised based on the feedback received making it more meaningful and interesting experience for both the parties. DST being one-sided lacks the feedback mechanism that a live storytelling has. Additionally, the costs involved in creating, updating, hosting the DST material might not be something that many organizations can incur on an ongoing basis. Besides, with students being bombarded with new digital content 24X7 from a variety of mediums, it is possible to completely miss the digital story a particular organization was trying to share. In summary, lack of two-way interaction, lack of feedback mechanism, the constant need for funding and maintaining/updating the story, competition for screen time with other digital content, are some of the challenges with digital storytelling.

Conclusion

This manuscript provides an overview of adapting DST for students with LD to pursue STEM education. It gives insights into the challenges faced by students with LD and how they are underrepresented in STEM category due to preconceive mindset of people. It discusses various formats and challenges of traditional and contemporary storytelling. Further, it discusses DST and its advantages to consuming and visualising the content much easier than traditional storytelling. It points out ways to find out whether a story is a digital story or not and explains what digital story all about is as it could be quite confusing due to the dearth of videos available online. Tools required to create a digital story are easily available in the market. The researchers strongly believe that DST has the potential

to open up many opportunities for students with LD by learning and mastering new skills and applying them creatively. The researchers propose bridging the issues faced by students with LD with the various skill sets required for STEM-based education with the features of DST. Though DST comes with countless advantages it still has some challenges that are pointed out in this manuscript.

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EXPLORING THE TEACHER EFFICACY OF SECONDARY AND HIGHER SECONDARY SCHOOL TEACHERS: A QUANTITATIVE ASSESSMENT

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Abstract

The effectiveness of educational process is dependent on teachers' efficacy beliefs. In a very broad sense, "teacher efficacy," refers to teachers' beliefs about their ability to influence student outcomes. These beliefs have a great influence on the efforts that teachers put in the courses of action they pursue i.e. their performance. The conceptual basis of teacher efficacy lays in two theoretical perspectives- Bandura's Social Learning Theory and Rotter's Locus of Control. The study aimed to find out the change in teacher efficacy over years of experience. Also the study investigated the teacher's efficacy gender wise, section wise (secondary and senior secondary) and stream wise (science, arts and commerce). Convenience sampling was employed to collect information from 51 secondary school teachers and 25 senior secondary school teachers. The study uses the Teacher's Sense of Efficacy Scale – Long form (TSES—Tschannen-Moran & Woolfolk Hoy, 2001) to measure teacher efficacy. The scale measures the three dimensions of teacher efficacy viz- efficacy in instructional practices, classroom management and student engagement. Descriptive and Inferential Statistics like Mean, Standard Deviation, t-test and ONE WAY ANOVA were employed to analyse the data.

*The great ancient teacher, Ved Vyasa wrote Mahabharata to make common people understand the teachings of Vedas in a simplified form. This is reflection of Vyasa's **teacher efficacy** whose excellence is honoured by celebrating his birthday as Guru Purnima in India.*

A person with great content knowledge and pedagogical knowledge may not be as effective a teacher since the success of educational process depends on his/her efficacy beliefs. In a very broad sense, "teacher efficacy," refers to teachers' beliefs about their ability to influence positive student outcomes. These beliefs have a great influence on the efforts that teachers put in the courses of action they pursue i.e. their performance. Several researchers have found that teacher efficacy is consistently related to positive teaching behavior and student outcomes (Ashton & Webb, 1986; Grant, 2006; Klassen, et al., 2009; Perrachione, Rosser, & Petersen, 2008).

Teacher Efficacy –Origin of the construct

The construct of teacher efficacy was identified a few decades ago and its origin is ascribed to two main sources of researches. One is researches by RAND Company on Rotter's (1996) Locus of Control. The second is researches based on Albert Bandura's Social Cognitive Theory. *Self efficacy* is an important concept of Social Cognitive theory

and Bandura defines it as "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations". This self efficacy applied in educational process improvement becomes *Teacher Efficacy*.

Definitions of Teacher Efficacy

Teacher efficacy is the extent to which the teacher believed he or she had the capacity to affect student performance - McLaughlin & Marsh, (1978); Berman & McLaughlin (1977)

Teachers' beliefs in their abilities to organize and execute courses of action necessary to bring about desired results is defined as Teacher efficacy - Tschannen-Moran & Woolfolk-Hoy (1998)

Statement of the Study

Exploring the Teacher Efficacy of Secondary and Higher Secondary School Teachers: A Quantitative Assessment.

Objective of the Study

The objective of the study was to assess the teachers' efficacy beliefs in relation to years of experience, gender, sections of teaching and subjects taught on their Total Efficacy and its three dimensions: Efficacy in Student Engagement, Efficacy in Instructional Strategies and Efficacy in Classroom Management.

Hypotheses of the Study

Based on the above objective the following hypotheses were framed

- There is no significant difference in the Teacher Efficacy beliefs of Secondary and Higher Secondary School teachers in the Total Efficacy and its three dimensions - Student Engagement, Efficacy in Instructional Strategies and Efficacy in Classroom Management
- There is no significant difference in the Teacher Efficacy beliefs of Novice and Experienced school teachers in the Total Efficacy and its three dimensions - Student Engagement, Efficacy in Instructional Strategies and Efficacy in Classroom Management
- There is no significant difference in the Teacher Efficacy beliefs of Male and Female school teachers in the Total Efficacy and its three dimensions- Student Engagement, Efficacy in Instructional Strategies and Efficacy in Classroom Management
- There is no significant difference in the Teacher Efficacy beliefs of Science, Arts and Commerce teachers in the Total Efficacy .

Operational Definitions

1. Teacher Efficacy

Teacher efficacy is teachers' beliefs in their capacity to affect student performance as measured by Teacher's Sense of Efficacy Scale (TSES) on its three dimensions - instructional practices, classroom management, and student engagement.

- **Efficacy in Instructional Practices** is pre service teachers’ belief in their ability to use applications that fuel effective and efficient classroom interaction to drive students on their journey of discovery in a Learning Experience.
- **Efficacy in Classroom Management** is pre service teachers’ belief in their ability to use wide variety of skills and techniques that teachers use to keep students organized, orderly, focused, attentive, on task, and academically productive during a class.
- **Efficacy in Student Engagement** refers to pre service teachers’ belief in their ability to gain and sustain attention, curiosity, interest, optimism, and passion of students show when they are learning or when being taught, which extends to the level of motivation they have to learn and progress in their education.

2. Secondary and Higher Secondary School Teachers

- **Higher Secondary Teachers** are the teachers teaching the XI & XII grades of Maharashtra State Higher Secondary Board.
- **Secondary Teachers** are the teachers teaching standards V to X standards of the Maharashtra State Secondary Board.

3. Novice Teacher and Experienced Teachers

- Novice teachers are teachers who have teaching experience five or less years of experience.
- Experienced teachers are teachers who have teaching experience of more than five years.

4. Science, Arts and Commerce Teachers

- **Science Teachers** are secondary and higher secondary school teachers teaching science and/or math subjects.
- **Arts Teachers** are secondary and higher secondary school teachers teaching languages, social sciences and/ or other arts subjects.
- **Commerce Teachers** are secondary and higher secondary school teachers teaching commerce and/ or economics subjects.

Significance of the Study

Several studies were reviewed and findings showed a positive relationship between teacher efficacy and student achievement (Mujis,D. &Reynold,D, 2002. Tschannen .M &Barr.M, 2004 , Goddard, R, 1998). The sources of teacher efficacy were investigated and identified as teaching competence, personal characteristics, personality and motivation (Poulou,M., 2007 &Sunjin O.S, 2011). A comparative study of the teacher efficacy of the primary school teachers of India and Iran by Shridhar,Y.N. & Badiei, H.R. (2008) showed no significant difference in their 23 efficacy beliefs. Teacher efficacy increases significantly during student teaching but declines during the first year of teaching (Hoy.A. & Spero, 2005). Witcher,L.A. et al., (2002) found no relationship between educational beliefs and personal teacher efficacy. Not many studies are conducted in India investigating teacher efficacy and its relationship with respect to gender, stream, years of experience etc. This study was an attempt in this direction

Methodology of the Study

The study is a descriptive one. Survey was employed to collect information from teachers of five secondary schools and one higher secondary school. Teacher's sense of Efficacy scale long form was used to collect information. Data was collected and analysed quantitatively to assess the teacher efficacy of the teachers in relation to gender, years of experience, sections and streams.

Sample of the study

Convenient sampling technique was used to select the participants for the study. Teachers from four secondary schools and one higher secondary school were included. The sample had 51 secondary teachers and 25 higher secondary teachers.

Tool used for the Study

The long form of Teachers' Sense of Efficacy Scale (TSES) by Tschannen-Moran and Woolfolk-Hoy will be used. It is a 9 point scale which measures three domains of teaching: Instructional Practices, Classroom Management, and Student Engagement. The reliability of the scale is as follows.

Alpha Co-efficient of Reliability:-

- For overall scale -0.94
- For Instructional Practices subscale -0.91
- For Classroom Management subscale – 0.90
- For Student Engagement subscale – 0.87

Statistical Treatment Employed for the study

Descriptive and Inferential statistical analyses were done with the data. Measures of central tendencies mean and standard variation were calculated. Inferential analysis using t-test and ANOVA were also carried out. Hypotheses testing were done by comparing the calculated t-value and F-value with the table values.

Data Analysis

Data was analysed descriptively and inferentially to

- Compare the efficacy of teachers' gender wise.
- Compare the efficacy of teachers' section wise.
- Compare the efficacy of teachers' stream wise.
- Compare the efficacy of teachers' experience wise.

Table 1: Comparison of the Mean scores of Teacher Efficacy of Teachers - Gender wise

| Efficacy Dimensions | df | Male N= 28 | | Female N=58 | | t-ratio | Table value |
|---------------------|----|------------|----|-------------|----|---------|-------------|
| | | Mean | SD | Mean | SD | | |
| | | | | | | | |

| | | | | | | | |
|-------------------------|----|-------|------|-------|------|-------|--------------------------------------|
| Total Teacher Efficacy | 75 | 173.9 | 21.7 | 175.1 | 28.8 | 0.81* | 0.01 Level =2.65 0.05 Level =2.00 |
| Instructional Practices | 75 | 60.1 | 7.3 | 56.8 | 8.8 | 0.09* | |
| Classroom Management | 75 | 57.6 | 10.5 | 57 | 10.9 | 0.82* | |
| Student Engagement | 75 | 57.6 | 7.9 | 61.4 | 14.2 | 0.18* | |

* Not significant at 0.01 and 0.05 levels of significance

The calculated t-value for the total efficacy, its dimensions- instructional practices, classroom management and student engagement for male and female teachers are 0.81, .09, 0.82 and .18 respectively. The critical value for t at 0.01 and 0.05 levels for df 75 are 2.64 and 2.0 respectively. Therefore the t value is not significant at 0.01 and 0.05 levels: so the null hypotheses were accepted. Male and Female teachers showed no significant difference in their total efficacy and its dimensions - Instructional Practices, Classroom Management and Student Engagement.

Table 2: Comparison of the Mean scores of Teacher Efficacy of Teachers - Section wise

| Efficacy Dimension | df | Secondary N=51 | | Higher Secondary N=25 | | t-ratio | Table value |
|-------------------------|----|-------------------|------|--------------------------|------|---------|--------------------------------------|
| | | Mean | SD | Mean | SD | | |
| Total Teacher Efficacy | 75 | 174.9 | 23.7 | 169.5 | 21.5 | 0.3* | 0.02 Level =2.65 0.05 Level =2.00 |
| Instructional Practices | 75 | 56.1 | 12 | 58.8 | 7.4 | 0.34* | |
| Classroom Management | 75 | 58.1 | 10.3 | 55 | 8.7 | 0.19* | |
| Student Engagement | 75 | 60.2 | 10.5 | 56.4 | 8.1 | 0.12* | |

*not significant at 0.01 and 0.05 levels of significance

The calculated t-value for the total efficacy, its dimensions- instructional practices, classroom management and student engagement for secondary and higher secondary teachers are 0.3, .34, 0.19 and 0.12 respectively. The critical value for t at 0.01 and 0.05 levels for df 75 are 2.64 and 2.0 respectively. Therefore the t value is not significant at 0.01 and 0.05 levels: so the null hypotheses were accepted. Secondary and Higher Secondary teachers showed no significant difference in their total efficacy and its dimensions - Instructional Practices, Classroom Management and Student Engagement.

Table 3: Comparison of the Mean scores of Teacher Efficacy of Teachers - Experience wise

| Efficacy Dimension | df | Novice N=8 | | Experienced N=68 | | t-ratio | Table value |
|-------------------------|----|---------------|------|---------------------|------|---------|-------------------------------------|
| | | Mean | SD | Mean | SD | | |
| Total Teacher Efficacy | 75 | 179 | 21.6 | 172.6 | 23.6 | 0.43* | 0.01Level =2.65 0.05 Level =2.00 |
| Instructional Practices | 75 | 59.8 | 10.2 | 57.4 | 8 | 0.45* | |
| Classroom Management | 75 | 55.4 | 11.1 | 57 | 9.6 | 0.65* | |
| Student Engagement | 75 | 61.4 | 7.3 | 59.2 | 11.6 | 0.60* | |

* Not significant at 0.01 and 0.05 levels of significance

The calculated t-value for the total efficacy, its dimensions- instructional practices, classroom management and student engagement for novice and experienced teachers are 0.43, .45, 0.65 and .60 respectively. The critical value for t at 0.01 and 0.05 levels for df 75 are 2.64 and 2.0 respectively. Therefore the t value is not significant at 0.01 and 0.05 levels: so the null hypotheses were accepted. Novice and experienced teachers showed no significant difference in their total efficacy and its dimensions - Instructional Practices, Classroom Management and Student Engagement.

Table 4: Comparison of the Mean scores of Teacher Efficacy - Stream wise

| Source of Variance | df | SSy.x | MSSy.x | F-ratio | P |
|--------------------|----|-------|--------|---------|---|
|--------------------|----|-------|--------|---------|---|

| | | | | | Value |
|-----------|----|---------|-------|-----|-------|
| Treatment | 1 | 553.9 | 276.9 | 0.5 | 0.61* |
| Error | 73 | 40432.9 | 553.8 | | |
| Total | 74 | 40986.8 | | | |

*not significant at 0.01 level of significance

The F value is 0.5 which is not significant at 0.01 level with $df=1/73$. It indicates that the adjusted mean scores of Teacher Efficacy of Arts, Science and Commerce stream do not differ significantly. So the corresponding null hypothesis is accepted.

Discussion of Results

Teacher efficacy of 76 teachers was measured using the long form Teachers' Sense of Efficacy Scale (TSES). The Total Efficacy scores and the scores on its three dimensions – Instructional Practices, Classroom Management and Student Engagement were calculated. The mean value for the total and subscales were computed. The significance of these values with respect to gender, section and experience were assessed using t test. The t values when compared with p values showed no significant difference in the total efficacy and dimensions with respect to these attributes. So the null hypotheses were accepted. The significance of the total efficacy of teachers stream wise –Arts, Science and Commerce were compared using ONE WAY ANOVA. The F-value when compared with p value showed no significant difference at 0.01 level of significance. So the null hypothesis was accepted. The efficacy of the teachers has no significant difference stream wise.

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THE EFFECTIVENESS OF USING THE TECHNIQUE OF STORYTELLING IN TEACHING ENGLISH GRAMMAR

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Introduction

India is a multilingual country. Language is a tool to understand and appreciate the culture of a human society and we must learn its language to understand it clearly. English is for some a first language of public (academic, societal, creative) discourse. For some it is a second language and many others a foreign language. The school contexts in which English is taught, mirror this contextual diversity. English language teaching has undergone tremendous change over the years, especially the last ten years. Students are burdened with studying, learning and grasping the materials, and of course, lectures with the collection of relevant information from prescribed texts. It would behove us to make learning English as easy as possible, for both children and adults, in this country. To master any language the grammar of that particular language should be taught properly.

Grammar has always been a difficult area to master in second language learning. It becomes even more challenging when the grammar rules of the students' first language are very different from the grammar rules of the target language. Most researchers agree that the reasons why students find it difficult to acquire the grammatical components of a language, was due to the fact that they were influenced by their first language or mother tongue. Second language learners are frequently in search of shortcuts or ways to memorize grammar rules. Native speakers of English naturally pick up the grammatical components and therefore the teaching of grammatical rules to native learners is not emphasised. In a second language learning classroom however, the scenario is different whereby students need to grasp the grammatical rules for them to be confident in the language.

Storytelling in the Syllabus and Curriculum

A syllabus is concerned essentially with the selection and grading of content. For example, if teachers are using a course book in their teaching, it is the authors who have selected the language items the teachers are going to teach and the order in which they introduce the content to their students. They, in turn, may have based their selection on guidelines laid down by a Ministry of Education. A syllabus is most likely to include language functions and structures, vocabulary, pronunciation and skills to be practised. It may also include the types of activities and tasks the pupils will be involved in. Various factors are considered when selecting and grading content such as the age and conceptual level of learners, their needs and interest, their language level and previous language-learning experience, and the degree of difficulty of language and activities. The teachers do not have to adhere rigidly to a course book; storybooks can also be used as short basic syllabuses in their own right, offering a novel alternative to

the course book. There are **three main dimensions** in which stories can add to learning in the whole school curriculum:

1. Stories can be used to reinforce conceptual development in children (for example, colour, size, shape, time, cause and effect, and so on).
2. Stories are means of developing learning. They reinforce thinking strategies, (for example: comparing, classifying, predicting, problem–solving, hypothesizing, planning, and so on). They develop strategies for learning, (for example: guessing the meaning of new words, training the memory, self–testing, and so on). They develop study skills (for example, making, understanding and interpreting charts and graphs, making and learning to use dictionaries, organizing work, and so on).
3. Carefully selected stories can also be used to develop other subjects in the Curriculum, in particular:
 - **Mathematics:** telling the time, numbers: counting and quantity, measuring.
 - **Science:** the life–cycle of insects, animals, outer space, how seeds grow.
 - **History:** prehistoric animals, understanding chronology.
 - **Geography:** the local area, neighbourhood parks, sports and games, using a map, using the atlas, the weather and climates around the world, cultural studies.
 - **Art and Craft:** drawing, making masks, hats, cards, clocks etc., making collages, making puppets.
 - **Music and Drama:** singing songs, playing instruments, role play, miming.

Storytelling as a technique in teaching English Grammar

Soo and Nor Haniza (2014) found in their study that storytelling or analogy can be a successful tool for the acquisition of English grammar rules especially among second language low proficiency learners. As stories tend to attract almost everyone’s attention, the idea of introducing grammatical terms and their rules in a story form could facilitate the process of grasping these rules among second language learners.

Everyone loves stories. A well-told story not only holds students’ attention but also provides a platform for fun learning. Stories can inject enthusiasm among learners and thereby, instil the element of amusement among learners to learn a language in a more meaningful way. Therefore, there is a dire need for language teachers to prepare their lessons in such a way that learning becomes meaningful. It cannot be denied that meaningful learning leads to language acquisition. The present paper thus, seeks to determine if storytelling can be used as a tool to assist in the grammar learning process and to enable effective application of grammar rules to be grasped by learners.

Storytelling is traditional in almost all cultures. We can tap into that tradition for a very portable resource and a convenient and flexible technique for teaching any phase of a grammar lesson. A story provides a realistic context for presenting grammar points and holds and focuses students’ attention in a way that no other technique can. Students naturally like to listen to stories, when told with energy and interest and most are remembered long after the lesson is over.

The popularity of stories as analogies to relate a familiar activity or event to some new unfamiliar concept in order for cognition to process and unassumingly accept as something natural to comprehend is indeed a common phenomenon. This is because stories can provoke imagination of familiar objects or situations and therefore the element of panic in unfamiliar territory gradually disappears. Good stories are able to capture one's imagination and hold one's attention. However, not everyone has the creativity to invent stories that can deliver the point. To invent a story that has the ability to explain basic grammatical structures is indeed something that can help instructors provide not only the fun aspect for the classroom but more importantly an avenue to explain and clarify grammar rules in a more innovative and receptive manner.

Grammar taught using this technique could possibly help learners counter their fear of learning grammar structures directly. In general, learners have been seen to look upon learning grammar rules as dull and repetitive. Unlike native speakers who naturally acquire the rules without formal learning, second language learners find themselves to be less confident when they do not know why the grammatical structures are formed in certain patterns. Therefore it has become a tedious task for language instructors to ensure that they learn the rules. Learners have been known to memorise rules through drills. However, stories designed to explain each basic grammatical component in a precise manner could open doors, in effect, the hearts and minds of learners, to learning.

A Story to teach “The Parts of Speech” in English (primary school pupil)

Primary school Teachers in general incorporate a variety of methods and strategies as well as techniques in disseminating concepts and principles so that it can be understood by their students. Language instructors have been experimenting on a variety of methods, strategies and techniques to hopefully make learning grammar rules less scary. One technique is by introducing grammar rules through storytelling. The story invented for this Paper was tailored in a new and innovative manner to suit comprehension of **Parts of speech in English**.

“The Grammar Family”

In the country called English there lived a family called **“The Grammar family”**. The family consisted of father, mother, two brothers and sister. They lived in an estate named **“Parts of Speech”**. The surname of the family was **“Grammar”**. The father was known as **“Noun”** while the mother called herself as **“Verb”**. The father and mother was a loving couple and always discussed matters with each other. Whenever Mr. Noun went out, Mrs. Verb was seen with him. They were always seen together. Noun was the head of the family and Verb was the most hard working member in the household.

Noun often used to go away on account of his business. In the absence of the father, the elder son **“Pronoun”** shouldered the responsibilities. He was a helpful boy. But the younger brother, **“Adjective”** was not old enough to be responsible. He was quite attached to his father and was not old enough to be responsible. He was seen only in the company of Noun. Something must be said about the sister **“Adverb”**, She was very quiet and felt shy in the company of the father and brothers. Therefore if they went out for a walk, she preferred the company of mother verb.

It was a rich family and they were able to have two servants, who were known as “**Conjunction**” and “**Preposition**”. Conjunction acted as a messenger between the members of the family. Preposition too performed the same task, though his status was not easily recognized by others. Is this family absent, or has it perished in the wear and tear of time? An emphatic “No” is the answer. Though they are not present in flesh and blood, the influence of this “Grammar Family” is still full in the Academic Circle. **Long Live Grammar Family!!!**

Follow–Up Activities

While no follow–up is necessary, stories are valuable in their own right, but a variety of options are available.

- 1. Ask comprehension questions carefully:** The usual who, what, where, when, how, why and multiple choice questions can be asked.
- 2. Listening activities:** After a tale, listeners can demonstrate comprehension by: comparing, discriminating, predicting, sequencing, classifying, transferring information, etc. Unlike other listening activities, stories are often repeated, but never in exactly the same words.
- 3. Oral activities:** Choral reading, story fill–in, add–on stories, building a tale from key words, etc., are all options. Discussion topics can be taken from the story's themes. Students can retell their favourite tales, or invent stories based on their own personal experiences.
- 4. Written activities:** Re-writing, summarizing, or paraphrasing a tale are obvious and worthwhile activities. Written exercises can include controlled writing dictation and close paragraphs, guided writing (sentence extension or sentence-combining exercises), or free writing using the tale as a literary model.
- 5. Visual activities:** Story–related artwork can include: posters, models, collages, crafts, masks, puppets, mobiles, photos, picture stories, blackboard drawing, etc. Stories are part of aesthetic education and develop creativity.
- 6. Creative drama activities:** There are many story games to play. Stories naturally lend themselves to be dramatized, mimed, or role–played. Prepared dialogs from tales can be recited, or students can tell or retell stories they choose or make up themselves.
- 7. Organizing book corner:** Most primary school classrooms have a book corner where pupils can read books of their own choice and at their own pace. Once a story in English has been completed in class, it is a good idea to put extra copies of the book in the book corner. This will provide an introduction to the written word in English.

Benefits of Telling stories for primary school children

Encourages Discussion

Telling a story captures children’s imagination, it gets them interested and excited and therefore happy to engage in purposeful talking. By using a storytelling technique, a subject becomes familiar and easy to relate to. While a pupil may have not had the confidence to speak out about a subject if explained in a wholly practical way, by telling a story the pupil will feel safer and more willing to speak out.

It Improves Listening Skills.

Classroom management is hugely important, particularly for primary school children who can be easily distracted and can lose concentration quickly. Storytelling is a fantastic way to keep the whole class engaged, and if you tell a story well, they will be hanging on to teacher's every word!

It Develops Creativity.

It is so important to encourage creativity in children, and allowing children to be creative can have important health and learning benefits. Storytelling is naturally a creative teaching method, allowing for freedom of expression and use of imagination.

Other benefits of using storytelling in the classroom

Stories...

- Promote a feeling of well-being and relaxation.
- Increase children's willingness to communicate thoughts and feelings.
- Encourage active participation
- Increase verbal proficiency
- Encourage use of imagination and creativity
- Encourage cooperation between students

Role of Teacher Education Institutions is to promote storytelling as a technique in disseminating content/knowledge irrespective of the pedagogy the student teacher teaches. TEIs should encourage the student teachers to prepare lesson plans incorporating techniques such as storytelling, games etc.... Garvie (1990) states that storytelling is a communication tool for use between the learner and the storyteller (in this case, the teacher). Teachers certainly use storytelling well in their classes. In addition, learners enjoy learning more when their environment is to their liking and they recognise a real-life approach to learning Marzano, R. (2001). When receiving information in the right environment, storytelling makes learners want to learn to write and to appreciate other people's beliefs and social cultural values.

Conclusion

Teaching English as a second/foreign language in primary school should include all the aspects of the language because none of them is to be neglected. Grammar was for long taught for its own sake, but it is an integral part of any language learning and modern approach to teaching grammar introduces it through concentric circles spreading progressively the learners' knowledge as they proceed from the beginning to more advanced phases. There is no satisfactory communicative competence without having mastered the grammar rules and structures of the target language. Grammar is crucial and probably the most delicate aspect of language as a system, hence the age factor should determine the most adequate learning strategies to be stimulated and developed through the teaching process. Different research and project assignments could stimulate the learners to rely on implicit learning strategies, which would definitely help the development of a future autonomous speaker able to use the language correctly and fluently.

Stories educate, illustrate, enlighten, and inspire. They give relief from the routine and stimulate the mind. They are a great motivator for teachers as well as for students. Stories are used in an exclusively positive scholastic setting, i.e., no grades, no failures, no textbooks, no notepads, no dictionaries, no costly audio-visual equipment nothing coming between the listener and the teller. A storyteller eventually makes a personal collection of stories for various occasions and purposes. Storytelling is a folk-art which can't be manipulated, intellectualised, or mass-produced. Its magic is unique. The storyteller is always a teacher, and the teacher is always a storyteller. All teaching methods and suggestions in this paper may be adapted to different grade and proficiency levels depending upon the type of literature chosen.

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PICTURING DIVERSITY: IN-SERVICE TEACHERS' CULTURAL EFFICACY IN URBAN SCHOOLS

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Abstract

Effective teaching in multicultural settings requires the ability to adapt to diverse needs and viewpoints. Teachers with high self-efficacy: 1) believe they can positively influence students' learning and achievement despite environmental conditions (Armor et al., 1976; Ashton & Webb, 1986; Gibson & Dembo, 1984); and 2) assume accountability for student learning (Gibson & Dembo, 1984; Ross, 1998; Siwatu, 2007). On the contrary, teachers with low teacher efficacy have minimal expectations for and fewer interactions with minority students. They are also more likely to feel teacher burnout and abandon the profession (Betoret, 2006; Friedman, 2004; Guerra, Attar, & Weissberg, 1997).

In the present research, the researchers studied the cultural efficacy of school teachers based on the in-service teachers' presage characteristics. The results revealed that teachers' cultural efficacy showed significant difference based on their presage characteristics for age, mother tongue and religion while no significant difference was found for other presage characteristics i.e. teachers' qualifications and years of teaching experience. The study can be concluded stating that school teachers with the help of their prior experience and during their teacher education days might have felt more confident in their ability to use a variety of teaching and instructional methods, communicate with parents, and develop positive, trusting relationships with students irrespective of their cultural and religious backgrounds. This in turn have made them culturally responsive.

Introduction

Culture is an incredibly difficult idea. The late Raymond Williams, cultural historian and literary critic, once informed us that "Culture is one of the two or three most complicated words in the English language" and while he was never quite good enough to tell us what the other one, or perhaps two, might be. The idea of culture embraces a range of topics, possesses, differences and even paradoxes, many of which cannot be resolved.

Every child comes to school with a cultural identity whether these identifications are conscious or unconscious. This identification must be recognised and respected by the teacher. It must be the basis for the learning activities in the classroom. The point here is to acknowledge differences rather than ignore them. It is equally critical that the children recognise and appreciate their own cultural background and learn to appreciate those of the other children

in the class. This recognition of individual cultural identities is the beginning point, it is a connector of both the teacher to the student and the students to each other.

Effective teaching in multicultural settings requires the ability to adapt to diverse needs and viewpoints. Teachers' multicultural efficacy may be gained from coursework or interactions within diverse communities. Researchers agree that teachers' efficacy beliefs play a significant role in student achievement (Armor et al., 1976; Hoy & Spero, 2005; Szabo & Mokhtari, 2004; Woolfolk & Hoy, 1990). Teachers with high self-efficacy: 1) believe they can positively influence students' learning and achievement despite environmental conditions (Armor et al., 1976; Ashton & Webb, 1986; Gibson & Dembo, 1984); and 2) assume accountability for student learning (Gibson & Dembo, 1984; Ross, 1998; Siwatu, 2007). On the contrary, teachers with low teacher efficacy have minimal expectations for and fewer interactions with minority students. They are also more likely to feel teacher burnout and abandon the profession (Betoret, 2006; Friedman, 2004; Guerra, Attar, & Weissberg, 1997). Various studies have confirmed that even after successfully completing multicultural courses and field experiences, the interns' negative beliefs and low outcome expectancies for minority students remained (Garmon, 1996, 2004; Easter, Schultz, Neyhart & Reck, 1999). Although little is known about how teaching efficacy develops, it is possible that programs incorporating efficacy-building opportunities assist to create and maintain a pool of quality teachers in culturally diverse schools (Clark & Wegener, 2009; Garcia, 2004; Milner, 2005; Santoro & Allard, 2005; Tucker et al., 2005; Siwatu, 2007; Swearingen, 2009). In India four main concerns that have dominated educational thought and policy over the last fifty years. First, education, being a fundamental and basic human right, must be a channel through which personal development (physical, material, spiritual and aesthetic) can be achieved. Second, education has a cultural and social role to play in developing the unity and cohesion of the nation to forge the national identity. Third, education is a driving force that can propel the economy to higher and more competitive levels. Fourth, education should be used as a tool to achieve a more comfortable and just social order to redress some of the traditional wrongs that society has inflicted on its subgroups.

Literature

Culturally responsive efficacy beliefs are linked to racial attitudes and the perceived ability to work with student of colour (Gay, 2000). Goddard and Skrla (2006) found indications that teacher's social class and ethnicity have a role in teacher efficacy. It is essential for students to either assimilate in to the predominate school culture or for the teachers to include the culture of the students in order to improve student academic success (Riohas-Cortez & Flores, 2009). Teacher efficacy unites the attributes of effective multicultural teaching, appreciation for diversity and culturally relevant pedagogy under the umbrella of a highly efficacious teacher. Based on the reviewed Indian and international researches, vast studies were done to check the cultural responsive teaching of educators in which efficacy is included as one of the main variables.

Need of the study

The researchers found the need to conduct this study due to various sensitive reasons which focused on the tolerance level of the teachers' towards a diverse classroom in urban schools of Mumbai and Navi Mumbai cities. Teachers ignore the needs of the students who may not be having the difficulty to learn, but face adjustment difficulties in a classroom environment. Teachers at times fail to understand the cultural background of the student and are found to blame the students' background for his inability to learn. Hence the study is conducted to find the Cultural Efficacy of teachers

Aim

The aim of this research is to study the Cultural Efficacy of teachers based on their presage characteristics.

Objective

To study and compare teachers Cultural Efficacy with respect to their presage characteristics:

- i. Age (21-30, 31-40, 40 & above)
- ii. Mother Tongue (Hindi, Marathi & Konkani, Urdu, South Indian, Others)
- iii. Religion (Hindu & Others, Muslim, Christians)
- iv. Qualification (Graduates, Post Graduates)
- v. Years of experience (less than 10 years, more than 10 years)

Hypothesis

Based on the above objective, the following hypothesis is formulated which stated that, there is no significant difference in the mean scores of the teachers' Cultural Efficacy on the basis of their presage characteristics:

- i. Age (21-30, 31-40, 40 & above)
- ii. Mother Tongue (Hindi, Marathi & Konkani, Urdu, South Indian, Others)
- iii. Religion (Hindu & Others, Muslim, Christians)
- iv. Qualifications (Graduates, Post Graduates)
- v. Years of experience (less than 10 years, more than 10 years)

Methodology

To analyze the difference between the teachers' Cultural Efficacy based on their presage characteristics, the researchers has used a Descriptive Analysis to find the Measures of Central Tendency i.e., Mean, Median and Mode. Measures of Variability to measures Standard deviation, and Measures of Divergence used were Kurtosis and Skewness.

For inferential analysis to test the hypothesis, ANOVA, Tukey HSD and t-test are used.

Sampling

Population for the present study comprised of 216 in-service teachers from English medium schools in the state of Maharashtra. It is to be noted that the study was conducted on all teachers who are working in selected Muslim,

Christian, Hindu and Private schools in Mumbai and Navi Mumbai cities. The sample was selected from this population using a combination of Stratified and Purposeful Sampling selection.

Tools

Tool for data collection was previously constructed and standardized. The researchers employed the Teachers' Sense of Multicultural Efficacy Scale (TSMES) scale to test the cultural efficacy of the in-service teachers. The scale was developed by Sarah K. Silverman. The reliability of the scale was ($r = .94$), comprising of 15 items divided into two factors, Individual (10 items) and Societal (5 items). The scale was on a 9-point Likert Scale.

Results

In the descriptive analysis of the data, the researchers has made use of frequency polygons, bar graphs and pie charts in this work to highlight certain significant facts based on the in-service teachers' scores obtained using the TSMES. The descriptive analysis of Cultural Efficacy is done using the measures of central tendency, dispersion and divergence from normality. The following table 1 gives the descriptive analysis of teachers' Cultural Efficacy.

Table.1 Descriptive Statistics for Cultural Efficacy of Teachers

| Cultural Efficacy of Teachers | | | | | | | |
|--|------------------------|-------------|---------------|-------------|---------------------------|-----------------|-----------------|
| Groups | Sample Size (N) | Mean | Median | Mode | Standard Deviation | Skewness | Kurtosis |
| | 216 | 94.65 | 97.5 | 103.19 | 19.43 | -0.58 | -0.30 |
| On the basis of their Age Groups | | | | | | | |
| 21-30 | 53 | 101.90 | 104 | 108.18 | 18.40 | -0.77 | -0.29 |
| 31-40 | 73 | 89.49 | 95 | 106.01 | 21.46 | -0.48 | -0.68 |
| 40< | 90 | 94.56 | 94.5 | 94.36 | 16.98 | -0.47 | -0.05 |
| On the basis of their Mother Tongue | | | | | | | |
| Marathi & Konkani | 71 | 91.16 | 93 | 96.66 | 18.86 | -0.31 | -0.65 |
| Hindi | 58 | 101.13 | 106 | 115.72 | 19.14 | -0.85 | -0.30 |
| Urdu | 24 | 98.25 | 96.5 | 93 | 12.96 | 0.62 | -0.82 |
| South Indian | 38 | 95.31 | 97.5 | 101.86 | 19.11 | -1.25 | 2.36 |
| Others | 25 | 85.04 | 91 | 102.92 | 22.41 | -0.05 | -1.51 |
| On the basis of their Religion | | | | | | | |
| Hindu & Others | 132 | 90.45 | 94 | 101.09 | 20.13 | -0.33 | -0.61 |
| Christians | 37 | 97.64 | 101 | 107.70 | 17.14 | -1.12 | 1.07 |
| Muslims | 47 | 104.08 | 104 | 103.82 | 15.24 | -0.74 | 0.54 |

| On the basis of their Qualifications | | | | | | | |
|---|-----|-------|------|--------|-------|-------|-------|
| Graduates | 133 | 94.18 | 97 | 102.62 | 19.61 | -0.65 | -0.10 |
| Post-Graduates | 83 | 95.39 | 98 | 103.20 | 19.23 | -0.45 | -0.63 |
| On the basis of their Years of Experience | | | | | | | |
| less than 10 | 126 | 94.46 | 98 | 105.07 | 21.22 | -0.57 | -0.54 |
| more than 10 | 90 | 94.92 | 95.5 | 96.65 | 16.71 | -0.52 | 0.01 |

The averages (mean, median and mode) clustered around between scores 94.65 to 103.19 for the total sample. This indicated that the difference between Mean, Median and Mode was almost marginal and hence the distribution was near normal, which confirmed to implementation of parametric tests for inferential analysis. The skewness of the distribution was negatively skewed and kurtosis was negative indicating Platykurtic. Figure 1 indicates smoothed frequency distribution of Teachers' Cultural Efficacy for the total sample

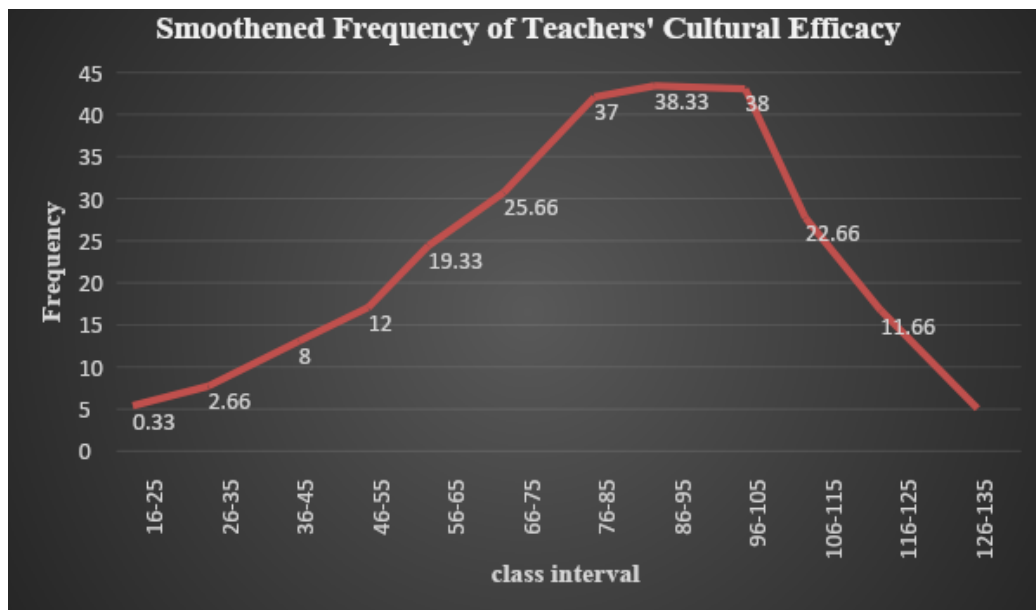


Figure.1 Smoothed Frequency Distribution of Teachers' Cultural Efficacy for the total sample

Findings And Discussion Of The Study

- **Cultural Efficacy of teachers with respect to age, mother tongue and religion**

In the inferential analysis part, ANOVA technique is used to test the hypothesis on the basis of **age, mother tongue and religion**. It revealed that there are significant differences w.r.t. their presage characteristics. Thus, hypotheses H_{01i} , H_{01ii} and H_{01iii} are rejected. The following table.2 shows the F ratio and p value of the ANOVA tests conducted on age, mother tongue, and religion.

Table.2 ANOVA for Teachers' Cultural Efficacy based on their Age, Mother tongue, and Religion

| Presage Characteristic | Groups | Mean | SD | F ratio | p value | Level of Significance |
|------------------------|-------------------|--------|-------|---------|---------|-----------------------|
| Age | 21-30 | 101.90 | 18.40 | 6.59 | .0017 | 0.01 |
| | 31-40 | 89.49 | 21.46 | | | |
| | 40 & < | 94.56 | 16.98 | | | |
| Mother Tongue | Marathi & Konkani | 91.16 | 18.86 | 4.16 | .0029 | 0.01 |
| | Hindi | 101.13 | 19.14 | | | |
| | Urdu | 98.25 | 12.96 | | | |
| | South Indian | 95.31 | 19.11 | | | |
| | Others | 85.04 | 22.41 | | | |
| Religion | Hindu & Others | 90.45 | 20.13 | 9.79 | .0001 | 0.01 |
| | Christians | 97.64 | 17.14 | | | |
| | Muslims | 104.08 | 15.24 | | | |

The researchers further investigated and found out among teachers with which age groups, mother tongues and religious backgrounds had a difference in their Cultural Efficacy. Thus Tukey's HSD test is done based on these scores and the following Table 3 displays the results of the 't' test which are significant.

Table.3 t-test for Teachers' Cultural Efficacy based on their Age, Mother tongue, and Religion

| Presage Characteristic | Groups | Mean | SD | t ratio | p value | Level of Significance |
|------------------------|-------------------|--------|-------|---------|---------|-----------------------|
| Age | 21-30 | 101.90 | 18.40 | 3.63 | .0004 | 0.01 |
| | 31-40 | 89.49 | 21.46 | | | |
| | 21-30 | 101.90 | 18.40 | 2.23 | .0268 | 0.05 |
| | 40 & above | 94.56 | 16.98 | | | |
| Mother Tongue | Marathi & Konkani | 91.16 | 18.86 | 2.89 | .0034 | 0.01 |
| | Hindi | 101.13 | 19.14 | | | |
| | Hindi | 101.13 | 19.14 | 3.56 | .0006 | 0.01 |
| | Others | 85.04 | 22.41 | | | |
| | Urdu | 98.25 | 12.96 | 2.44 | .0181 | 0.05 |
| | Others | 85.04 | 22.41 | | | |
| | South Indian | 95.31 | 19.11 | 2.11 | .0388 | 0.05 |
| Others | 85.04 | 22.41 | | | | |
| Religion | Hindu & Others | 90.45 | 20.13 | 2.06 | .0401 | 0.05 |

| | | | | | | |
|--|----------------|--------|-------|------|--------|------|
| | Christian | 97.64 | 17.14 | | | |
| | Hindu & Others | 90.45 | 20.13 | 4.29 | <.0001 | 0.01 |
| | Muslim | 104.08 | 15.24 | | | |

Findings

For teachers with different age groups: 21-30 year old teachers showed significant difference with teachers of age groups 31-40, and 40 & above. These teachers are just budding into the teaching profession, they could have still retained the theoretical aspects of teacher education in dealing with a pedagogy for a multicultural classroom, which makes them more compatible to suggest changes towards issues of different cultures and solve classroom problems. Another possibility could be that the newly qualified teachers tend to show higher interpersonal efficacy and more awareness towards multicultural education (Y.J, Hur; 2014).

For teachers with different mother tongue: Effective teaching in multicultural settings requires the awareness and ability to adapt to diverse needs and viewpoints. Teachers' multicultural efficacy may be gained from coursework or interactions within diverse communities. There also can be a possibility that these teachers' political views about people from other regions can be the reason to show this difference. Similarly, there can be a possibility that teachers' experiences positively influence the development of this efficacy. This can be clearly seen from the results derived from the 't' ratio of teachers' with Other languages showed more significant difference with Hindi, Urdu and South Indian language speaking teachers respectively.

For teachers with different religions: From the above findings we can conclude saying that teachers differ in their cultural efficacy when religion is considered. Hindu and Other religious belief teachers' showed significant difference when tested with the Christian and Muslim teachers. This can be possible due to the influence of their positive religious values especially of the Christian and Muslim teachers when dealing with their profession and its impact on handling a diverse classroom, in other words discovering culturally responsive teaching pedagogies that they could use in their classrooms (Mitchell, 2009), with the help of these religious beliefs.

- **Cultural Efficacy of teachers with respect to qualifications and years of experience**

t-test is conducted on teachers' Cultural Efficacy based on their presage characteristics i.e. **qualifications and years of experience**. Both the t-tests did not show any significant difference as the *t* scores were 0.44 and 0.17 respectively which are lesser than the table value of 1.97 at 0.05 level of significance. Thus the hypotheses **H₀1.iv** and **H₀1.v** are accepted.

Findings:

Increasing cultural awareness, teaching strategies in culturally diverse environments, developing multicultural competence, growing personal and general teaching efficacy, and creating multicultural awareness, can be reasons for teachers to be culturally responsive. When comparing this with the findings of the present study, teachers didn't differ in their cultural efficacy skills when it came to their years of experience, as these teachers could have already

been efficacious and mixing with a diverse population could have helped the teachers enhance their cultural efficacy whether it be a teacher with less than 10 years of experience or more than 10 years of experience, the ability to deal with a multicultural classroom remains the same. Also, City teachers, irrespective of their qualifications, must have already been aware of the needs of its students coming from different cultural backgrounds, hence they may perhaps have already built that skill to address to the need of students from different cultures.

Recommendations

Nevertheless, cultural efficacy of teachers can be further enhanced. Further recommendations for schools is to give more training for in-service teachers in teaching a diverse classroom as it should be noted though that serious concerns have been voiced about teachers' readiness to meet these new realities, thus enhancing the schools' standards in terms of being a culturally inclusive school. For policymakers and state departments of education, they need to support and implement data improvements for greater applicability to informing state policy for conducting in-service training and workshops for teachers in multicultural education and find ways to make these data more available and accessible for research use and making the profession of teachers in a diverse setup more efficient.

Conclusion

Teachers dealing with culturally diverse class have to be in a position to address the needs, recognize the experiences and ways of thinking of their students to help them become active citizens (Spinthourakis, Aktan and Korhonen; 2010). Urban in-service school teachers in the present study believe that they can teach their children about cultural conflict and how to end a cultural conflict peacefully. They can make efforts to change the negative views of society especially towards minorities, close the achievement gap between students from low socio-economic status and with those of higher. Teachers believe that play a crucial role in changing the beliefs of the students about cultural differences making it more positive and accepting, ensuring that minority students are held to the same academic and behavioural standards as other students, setting aside negative biases. While teaching, motivating the students to learn even if the child lacks the resources, convincing fellow teachers to teach about diversity, and finally convincing the school administrators to make social equality a part of the school policy.

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SKILL DEVELOPMENT IN STUDENTS THROUGH INQUIRY AS A TEACHING LEARNING STRATEGY

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Abstract

Memorizing facts and information is not being considered as an important skill in today's world. Educators understand that schools need to go beyond data and information accumulation and move toward the generation of useful and applicable knowledge. In the past, country's success used to be dependent on the supply of natural resources but today it depends upon a workforce that works smarter. Unfortunately, our educational system works in a way that discourages the natural process of inquiry. Inquiry emphasizes on the nurturing of inquiring attitudes or habits of mind that will enable individuals to continue the quest for knowledge throughout life and construct much of their understanding of the natural or the man-made world to produce deeper learning. For futuristic education, the skills and the ability to continue learning should be the most important outcomes. The present paper focuses on the ways inquiry helps in encouraging student learning, its features, process, elements, and important steps of questioning, investigating and reflecting on the content. The paper also discusses its importance in creating cooperative social environment, promoting higher levels of thinking, problem-solving skills, and increasing interaction and participation among the learners

Key words: *Knowledge, skills, Inquiry, investigating, thinking.*

Introduction

Skill development is an efficacious tool for empowering the youth to act responsibly, take initiative and control of their own actions. These skills include psychosocial competencies and interpersonal skills that help people make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and cope with managing their lives in a healthy and productive manner. The reform from traditional education to a more inquiry-based learning asks for a paradigm shift for specific new actions and hands-on activities for students.. Teachers need to shift their emphasis from textbooks to exploring questions (Crawford, 1999).

In present scenario, the goal of all educational programs must be to develop skills in students necessary for competing effectively in the global marketplace. Helping students to become inquirers continues to be the focus of many current reform efforts. Today, more than ever, educators must prepare a diverse workforce capable of research activities, investigation, and informed decision making. All students are naturally curious, and this approach leads to

learning skills. Having a solid foundation in Inquiry areas will enable students to work, live, and meet the demands of the 21st century (State Educational Technology Directors Association [SETDA], 2008).

What Is Inquiry?

Inquiry can be defined as a process that is used to resolve uncertainty by examining an individual ideas and beliefs. Grounded in the work of John Dewey, inquiry requires a person to use reflective and critical thinking skills. Inquiry uses skills that are active, persistent, and based on a person's knowledge. It is a vibrant approach to learning that involves exploration, questioning, making discoveries, and testing discoveries to search for new understanding (Lemlech, 2010). Students who engage in inquiry demonstrate an ability to describe objects, ask questions, communicate ideas to others, and construct explanations. Other inquiry behaviours include identifying assumptions, considering alternative explanations, and using critical and logical thinking.

What Is Inquiry-Based Learning?

The process of inquiring begins with gathering information and data through applying the human senses: seeing, hearing, touching, tasting, and smelling. Infants make connections to the world by inquiring. They observe faces that come near, they grasp objects, they put things in their mouths, and they turn toward voices. It is natural. Inquiry - based learning (IBL) is used to engage students of all ages, to learn by exploration and discovery. Inquiry-based strategies incorporate questioning and active engagement for student learning. Inquiry-based learning refers to any pedagogy that replaces traditional lectures and textbooks with some form of student-centered activities. Instructors typically supply students with carefully crafted course notes consisting of a sequence of definitions, problems or theorems.

1. Goals Of Inquiry Based Learning
2. It involves students in the construction of knowledge through active involvement. Learning becomes almost effortless when something fascinates students and reflects their interests and goals. It stresses skill development and nurtures the development of good habits of mind. There is more emphasis on "how we come to know" and less on "what we know."

Inquiry-Based Learning In Developing Life Skills

It helps students in the following manner:

- **build 21st century skills** such as critical and creative thinking, higher levels of thinking, problem solving, communicating, collaborating, Building Arguments;
- **improve information skills and media literacy** skills by using the library and Internet, reading to learn, taking notes, evaluating media messages, finding reliable Web sites, using primary sources, documenting sources, and avoiding plagiarism, Understanding Media, Using Social Media.
- **improve study skills** by Reading to Learn, Improving Vocabulary, Following Basic Conventions, Succeeding in School and workplace.

- **develop inquiry skills** such as questioning, planning, researching, creating, improving, presenting, Conducting Basic and advanced Research; and
- **develop information processing skills** like observing, listening, collecting and documenting, interacting.
- **creation skills** by creating amazing projects, from writing and graphic projects to design and community projects.
- **Ability in finding information**, Computer related skills (e.g., *PowerPoint*), Knowledge about the research topic, Communication skills, Presentation skills (Verbal), Research skills.

Advantages Of Inquiry Based Learning

There are several advantages to an inquiry-based approach to learning. An inquiry-based approach is:

- **Versatile.** It is applicable across the content areas, flexible, and suitable for the shared learning of team projects or for individual exploration.
- **Flexible for students.** It encourages students to be more creative by giving them more freedom, time, and fewer constraints for discovery.
- **Highly motivating.** As students become engaged in the question forming process, they take ownership of their learning.
- **Connected to the real world.** It works to prepare students for real-life situations. It reinforces multiple skills and allows students to build the confidence to know where and how to get wanted information.

Role Of Teacher In Inquiry Classrooms

The role of the teacher in an inquiry-based approach is to be a facilitator, guide, and partner. Initially, the teacher poses open-ended questions; students follow this lead and form their own. This type of activity motivates students because their own questions ultimately become the focus of research and learning. As students begin to research and explore, their learning becomes more web-like in structure, and the teacher assumes a different role. At this point, the teacher remains attentive to help students remain focused. The teacher must be willing to allow time for discoveries, to encourage dialogue among class members, and to allow mistakes to be made. Errors lead students to re-analyse their data and to readjust their thinking. Surveys, interviews, field trips, conducted by the instructors after these lessons emphasizes hands-on, inquiry-based learning, revealed positive attitudes toward subjects. Learning in IBL should come from experiments and inquiry activities which should be conducted by collaboration and interaction with other students and teachers.

Role Of Students In Inquiry Classrooms

Inquiry classrooms are open systems where students are encouraged to search and make use of resources beyond the classroom and the school. Teachers who use inquiry can use technology to connect students appropriately with local and world communities which are rich sources of learning and learning materials. They replace lesson plans with facilitated learning plans that account for slight deviations while still keeping an important learning outcome in focus. Inquiry is not only done in laboratory or group work -- it can also be done in lectures that provoke students to

think and question. Teachers often discount the fact that when they are giving talks or lectures to students, the students, if engaged, are applying listening and observing skills -- using their senses.

For example, when discussing the internal structure of the earth, a teacher will often give the students information about just the names and sizes of these earth layers, or the "what we know." But what really is important and intriguing for the student is the "how do we know?" about these structures. No one has been down there, and physical probes have only scratched the surface. To enhance inquiry learning, the teacher should explain that indirect evidences, mainly the transmission and reflection of different kinds of earthquake waves, provides much of our understanding about the internal structure of the earth.

Steps Of Inquiry Based Learning

An inquiry-based approach to learning incorporates the following basic steps or components:

1. Ask questions.
2. Explore by observing and investigating.
3. Analyze and describe findings.
4. Communicate and share by writing and discussing.
5. Reflect on what has been learned.

In this paper three inquiry-based instructional strategies are discussed viz. The 7E Instructional Model, Inquiry Training Model and Scientific Inquiry Model. The Inquiry Training model works on inquiry strategy and is appropriate for various skill development in students like Confrontation, verification, experimentation, investigating and explaining.

Inquiry Training Model (ITM)

ITM developed by Richard Suchman (1962) teaches students a process for investigating, explaining unusual phenomena and kinds of procedures that are used to organize knowledge and generate principles. ITM is designed to assist students in developing skills to raise questions and seek out answers stemming from their curiosity. It enhances creativity, independent inquiry skills, and process skills. This model promotes strategies of inquiry, active autonomous learning, creativity spirit, proficiency in verbal expression, persistence, logical thinking, listening to others and remembering what is said, values and attitudes essential to an inquiring mind like process skills (observing, collecting, organizing data, identifying and controlling variables, formulating and testing hypotheses, formulating explanations and drawing inferences.

| | |
|-----------|--|
| Phase I | Present a discrepant event or a puzzling situation to the students |
| Phase II | Encourage students to ask questions (only Yes or No type) |
| Phase III | Ask students to collect and arrange data on the basis of questions |
| Phase IV | Ask students to analyze and verify data |
| Phase V | Ask students to reflect on the learning process |

The students are presented with a puzzling problem/situation/event and for getting clues to the problem solution, the students ask questions to the teacher that are answered in affirmative or negative. Students gather in a stimulated process and then explain this discrepant event.

Seven- E Instructional Model

The Five E instructional model progresses through five phases that begins with the letter “E”: Elicit, Engage, Explore, Explain, Elaborate, Evaluate and Expand.

1. **Elicit** – In the first phase, teachers try to capture students’ attention for the subject matter and examine students’ prior knowledge.
2. **Engage**- The teacher’s role is to motivate and raise student interest in the subject. This can be done through an activity or experience that allows students to connect current and past experiences.
3. **Explore** - Exploring is the essence of inquiry learning, students design their own question and hypothesis in order to engage in hands-on activities which are aligned by exploration. The first phase of the cycle is student centered; the teacher plays the role of a facilitator, observing, questioning, and assisting students as needed.
4. **4. Explain** - The teacher formally presents the concept, process, or skill. Explanation is based on the activities presented in the engagement and exploration experiences, connect students’ prior knowledge, observations, and findings from the exploration activity. This will help students to comprehend the teacher’s explanation and help them answer their own questions.

Table 1

| Phases | | Activities | Development of skill |
|----------------|------------------------------|--|--|
| Elicit | Activate prior understanding | Videos, citing other similar phenomenon | Creative skills |
| Engage | In identifying a problem | Brainstorming, Analyzing a graphic organizer, A short reading from a journal or piece of literature, Watching a short video. Students are encouraged to ask a variety of questions which include questions starting with why, what, when, how: | Questioning, psychosocial competencies and interpersonal skills, critical thinking, creative thinking, effective communication skills, building relationships. |
| Explore | To tackle the problem | Performing an investigation, Reading resources to collect | Higher thinking, problem solving, investigating, observing, listening, |

| | | | |
|------------------|---|--|---|
| | | information, Problem solving, Constructing a model | process skills, recording, observation, testing, discussion, creating, exploring. |
| Explain | To analyze the problems | Structured Questioning, Reading and discussion, Student analysis and explanation, Supporting ideas with evidence | compare, classify, error analysis. |
| Elaborate | To transfer knowledge from one concept to another | Problem solving, Decision making, Experimental inquiry | apply, extend, elaborate, decision making, problem solving, inquiry, designing, vocabulary, explaining. |
| Evaluate | Assessment of thinking, process, skills and habits of mind | Using a scoring tool or rubric, Using a performance assessment, Producing a product, Producing a Portfolio | Evaluation, recording, reporting, reflecting. |
| Extend | New hypotheses and experiments are performed | Demonstration, generalizing and transferring principles. | Self-reflection |

5. Elaborate - In the elaborate phase, the students are involved in activities that have them to apply, extend, or elaborate on the concepts and/or processes they explored. Students are applying information learned in the previous phases to new situations.

6. Evaluate- Students work with each other to check their understanding. Students are expected to ask each other open-ended questions based on evidence, observations, and previous explanations. The teacher provides feedback on their explanations. The teacher has the option to complete a formal evaluation and/or administer a test to determine students' level of achievement (Bybee et al., 2006).

7. Extend – Students are encouraged to apply or extend the concepts and skills in new situations. They can make connections not just with the idea but beyond it.

Scientific Inquiry Model

Its goal is to teach students to process information according to the research biologists. It has the focus to develop problem solving ability. It has following four phases in teaching process:

Table 2

| | |
|-----------|---|
| Phase I | Area of investigation is posed to students |
| Phase II | Students structure the Problem |
| Phase III | Students identify problem |
| Phase IV | Students speculate on ways to clear up difficulty |

Conclusion

Inquiry learning describes a range of philosophical, curricular and pedagogical approaches to teaching. Its core premises include the requirement that learning should be based around student questions. Pedagogy and curriculum requires students to work independently to solve problems rather than receiving direct instructions on what to do from the teacher. Teachers must be viewed as facilitators of learning rather than vessels of knowledge. The teachers in an inquiry learning environment is therefore not to provide knowledge, but instead to help students along the process of discovering knowledge and developing skills themselves. The teacher sets up and manages situations in which the students can discover and invent on their own to reach understanding to develop process skills, critical thinking skills and various other related skills. Through IBL, Students are engaged in a motivating classroom environment that provides encouragement and frequent student–teacher interaction. Students can use familiar objects in real-life settings and are given the opportunity to encounter natural phenomena through firsthand experiences. Inquiry learning is concerned with in-school success, but it is equally concerned with preparation for life-long learning. Inquiry learning is a form of active learning, where progress is assessed by how well students develop experimental and analytical skills rather than how much knowledge they possess.

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INTEGRATING COOPERATIVE SPIRIT AND SKILLS IN THE LEARNING CULTURE

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Abstract

Cooperation is one of the important social values in human life. It refers to the joint action of members. Cooperation is becoming more and more important in every field including education. Moreover, one of the aims of education is also to develop cooperation among the students. When the class works together towards a goal, they become a positive, supportive and successful group. The team spirit motivates individuals to contribute to the learning of others in the team. Team success depends on individual learning as the members share ideas and interpret instructions to help each other. It is necessary therefore, to give these skills more attention and consideration. These skills give easy access to create, gather and share information as the human beings seek cooperation from the nature, society, and family from birth till the end of life. It puts heavy demands on both the teacher and the students who exercise these skills to communicate. It is beneficial and the resulting learned skills will be reflected in future work on the job through project teams and group work. Now this is the era of teacher-student exchange, networking, collaboration and communication. Education promotes student leadership, location of information and taking actions as a result of the learning process. For this purpose, the present article focuses on teachers, administrators, education planners, policy makers to be well acquainted with the significance of cooperative spirit and skill. The paper gives a brief account of related studies on cooperation and emphasizes to develop cooperative spirit and skill as the people who understand others, respect and value other cultures and cope with the global societies would gain more in terms of achievement and success.

Key words: *cooperation, learning, collaboration, group work, project team.*

Introduction

Cooperation is conducive to better health and liking one another.

- Alfie Kohn

Cooperation is a structure of interaction designed to facilitate the accomplishment of an end product or goal. During cooperation, People come together in groups, it suggests a way of dealing with people which respects and highlights individual group members' abilities and contributions. There is a sharing of authority and acceptance of responsibility among group members for the group actions. Cooperative activities allow all levels of learning from preproduction to high level to undertake tasks that are appropriate to their aptitude skills and also it allows each one to take an important part in doing the group's assigned tasks since without each one's expertise, the group's

task is incomplete. There is an obvious weakness in students when they interact and cooperate in/out classrooms and teachers as well to formulate a meaningful group task. The reasons for students' lack of cooperative spirit could be the influence of emergence of nuclear family in India, the influence of social factors and also because colleges and universities don't stress sufficiently the importance of cooperative spirit.

In the present multicultural society a number of cultures of different communities exist. Every community has different customs, traditions, languages, festivals, laws, dresses, food etc. So there is a need to work with cooperative spirit that fosters multi-culture and develops the power of tolerance and promotes love among all. Now in the present age we talk about differentiated instructions wherein teachers provide variety of learning experiences to the students in the form of collaboration with community and flexible grouping, awareness about Cooperative spirit and skill becomes a must.

Concept of Cooperative Spirit and Skill

Cooperative spirit is the heart and backbone of society. “Each shall work for all and all for each” is the motto of Cooperative spirit.

The term cooperative spirit or team spirit is generally used in sports but now its value and utility is seen in every field of education, society and life especially in the present changing educational scenario. Cooperative spirit was defined by Slutsky as the conscious aspiration to create an economic union not only in the interest of those individuals currently participating, but also in the interest of the wide circles of the society and which served to link the society together (1913).

Cooperative spirit is sensitive to the feelings and situations of other members of a group. It is meant to work for the betterment and success of the group leaving personal ego and selfishness. There is greater real freedom and security, for one is no longer afraid of unspoken rules or undercurrent issues. There is openness to discuss and listen to divergent views, even open to criticism about oneself. It involves proper planning of objectives of a group or a team, sensitivity, followership, sense of cohesiveness, cooperation, get to know one another better, share perspectives, discover more about yourself, establish trust, to build morale, work in teams, cooperative effort, selflessness, sense of unity, sense of belongingness, to break the tension, have fun, learn to work together, learn something new, support each other, resolve conflicts constructively, communicate accurately and unambiguously, experiment and function well together both in the classroom or in shared living situations. The groups typically involve collective problem solving, which requires them to work out a solution together, appreciate the differences in one another, and build effective listening and communication skills.

Cooperative skills are the skills we use to cooperate with others in a group or a team. A group of people pooling their skills, talents and knowledge with mutual support and resources to provide effective solutions for a particular task is called as a team. Engaging in cooperative learning builds a sense of team spirit. To complete tasks as a team, learners must learn to work together for a common purpose. Group members use interpersonal skills through social

interaction in a heterogeneous group. The following are skills that students practice and learn by participating in cooperative learning activities:

1. **Interaction** - The interactions learners have with each other build interpersonal skills such as active listening, politely interrupting, expressing ideas, raising questions, disagreeing, paraphrasing, negotiating, asking for help, praising, asking for elaboration, Good communication, discussing, questioning, persuading, respecting, helping, sharing, participating, summarizing, extending critical thinking abilities. The team works together to make a solution plan. The team re-groups regularly to review progress and reassesses goals.

2. **Interdependence** – “Alone we are smart, together we are brilliant”. Learners must depend on one another to accomplish a common objective. Each group member has specific tasks to complete, and successful completion of each member’s tasks results in attaining the overall group objective. It involves positive interpersonal peer relationships, equality, developing self-esteem, information sharing, equal opportunity to speak, self-expression, equal participation, simultaneous interaction, cooperation among students, turn-taking, decision making, trust-building, effective communication, conflict-management skills, respect for diverse persons and abilities, appreciation of various viewpoints, consensus-building. Each person is responsible for a different learning issue, for sharing information and teaching each other. It is said that 2 is better than 1, 3 is better than 2 and so on.

3. **Individual Accountability** – Successful completion of a cooperative learning task is highly dependent on the accountability of every individual group member. All learners are responsible for mastering the content inherent in their tasks so that they can contribute meaningfully to the overall group task(s). It includes a template for developing cooperative learning activities, as well as sample group activities for Climate setting, group function, knowledge and comprehension, application, analysis, synthesis and evaluation, interaction and practice, reflection, activities to complement projects, activities to acquire feedback. Each person is responsible for a different learning issue, for sharing information and teaching each other.

4. **Interpersonal Skill** – It includes turn-taking, decision making, trust-building, effective communication, conflict-management skills, respect for diverse persons and abilities, appreciation of various viewpoints, consensus-building, facilitating, collaborating etc.

5. **Virtuous character** – It includes leadership, helpfulness, caring, impulse control, understanding, kindness, courtesy, citizenship, creativity, networking, delegation, determination to accomplish the task, influencing skills.

Hence on the basis of above, **Cooperative spirit and skill is defined as the conscious aspiration to create an atmosphere of cooperation among the members of the group making them sensitive towards the feelings and situations of one another.**

Review of Related Studies

Vygotsky (1978) found that students were able to solve certain problems when working cooperatively prior to being able to solve those individually. All learning is social, as is the cognitive development that results from learning. What students can do today only with peer support they can do tomorrow on their own, as a result of having enjoyed

that support previously. Petreson (1982) found that students of low achievement benefitted from participation in groups heterogeneously composed on achievement in comparison to participation in homogeneously low achieving groups. McKeachie et al (1986) found that working together with fellow students, solving problems together, and talking through material together has other benefits as well. Students are more likely to acquire critical thinking skills and meta cognitive learning strategies, such as learning how to learn, in small group cooperative settings. Slavin (1987) through his continuous studies observed that group goals are necessary to motivate students to help each other learn by giving them a stake in one another's success. The number of the group members has to be from two to four in which an accomplished student, a weak student and the average ones are essential component of the group. Johnson and Johnson (1989) studied higher achievement for cooperative groups, higher quality of discussion and interpersonal exchange within cooperative learning groups, meta-cognitive processing improves ability to solve problems through increased student self-efficacy and insights on effective behaviour, cooperation produced higher levels of self-esteem than did competitive and individualistic efforts.

Researchers (Cohen, et al, 1990; Johnson, Johnson, & Smith, 1991; Miller and Harrington, 1990; Ochi and Sugie, 2001; Slavin and Cooper, 1999) have found higher self esteem of students, more positive peer relationships including improved inter-ethnic/cross-cultural relationships and lowered levels of prejudice, and equal or higher academic achievement, compared to classrooms where students worked without cooperation (independently) or structured competitively (negative interdependence). Adams & Hamm (1990) studied that during the group work, students often take on roles in order to help them feel responsible for participating and learning. The teacher monitors groups to see that they are learning and functioning smoothly. "Team spirit" is stressed with students "learning how to learn" by participation with their peers. Emler & Hopkins (1990). It improves students' emotional well-being, self-esteem, coping skills, and attitudes toward schoolwork (Patterson, 1994; Patrick, 1994). Kagan (1994) has developed roughly 200 classroom "structures", which may be thought of as steps to classroom activities. These structures stress positive interpersonal peer relationships, equality, self-esteem, and achievement. As students witness the diverse abilities of peers, and notice their usefulness while performing the structures, they learn to appreciate and value each other's differing skills and gifts. Students engaged in cooperative learning experiences have been able to identify an increase in their own knowledge and self-esteem, trust of peers, and problem-solving and communication skills (Dyson, 1995). Shachar & Sharan (1994) found that the cooperative group provides a more intimate setting that permits such direct and unmediated communication. Tinto (1994) found that two major reasons for dropping out of college are failure to establish a social network of friends and classmates, and failure to become academically involved in classes. Jacobs (1997) studied that the students are encouraged not to think only of their own learning but of their group members as well. Cooperation becomes "a theme", not just a teaching technique. Goodwin (1999) found that Social skills encompass communicating, building and maintaining trust, providing leadership, and managing conflicts. Tyler & Smith (1999) found that respect among group members also increases members' belief that they are valued as group members. It increases members' commitment to the group,

adherence to in group norms, and group-serving behavior. Simon & Sturmer (2003) found that respect among group members tends to increase members' collective identification. Researchers have found that interpersonal skills are important for peer acceptance and social adjustment throughout childhood and adolescence. Keramati (2008) believed that when the members of group are not contiguous in language, culture, ethnicity, abilities, academic achievement, and personal specifications, the positive effects will be greater. Johnson and Johnson (2009) found that students must be taught the interpersonal and small-group skills needed for high-quality cooperation and be motivated to use them. To coordinate efforts to achieve mutual goals, participants must (a) get to know and trust each other, (b) communicate accurately and unambiguously, (c) accept and support each other, and (d) resolve conflicts constructively.

Conclusion

Building on the theories of Kurt Lewin (1935) and Morton Deutsch (1949), the type of structure of cooperation made among students determines their instructional outcomes in the long run. The quality of peer relationships and their influence has widespread and powerful impact on individuals' cognitive and social development. As individuals and as members of society, acting with a cooperative spirit and skill is to be encouraged both within the cultural group and in relationships with individuals and other cultural groups. Education activities need to focus on the development of the human both as an individual and as a member of society, with cultural identity and the choice and ability for a 'Cooperative Spirit' (Banjarmasin, 2014).

UNESCO four pillars of education also focus on Learning to know, Learning to do, Learning to be and most importantly Learning to live together. Education places importance on social interaction as a force in mental development. All learning is social, as is the cognitive development that results from learning. What students can do today only with peer support they can do tomorrow on their own. The twelfth five year plan reports about quality and excellence in higher education has also shown concern over "Infusing Culture of Collaboration and Co-operation" which is of paramount significance in higher education.

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LIFE SKILLS EDUCATION PROGRAMME: ENHANCING CRITICAL THINKING SKILL OF MARGINALIZED STUDENTS

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Abstract

Modern life, has led to stress and frustration among students and therefore they need an ability to deal with it. Adolescents require a combination of cognitive as well as social skills to tackle their problems, and prepare for future challenges. The present paper aims to examine the critical thinking skill of students from low- socio economic backgrounds (Marginalized) of eighth standard from SSC board. The study adopted a two stage sampling technique. The total sample for the study was 320 students studying in eighth standard were selected from aided school in Mumbai city. The methodology of the present study was of an experiment type. The study adopted a quasi-experimental design of the pre-test- post-test, non-equivalent groups. The intervention programme included lessons in critical thinking. The statistical technique used for the data analysis was one- way ANOVA and ANCOVA (Analysis of Covariance). The findings of the study shows that there is a significant difference in the post – test scores students on their critical thinking of control and experimental group after partialling out the effect of pre-test scores. The mean scores of EG are significantly higher than the mean scores of CG. In other words, the Life Skills Education programme was effective in enhancing critical thinking of marginalized students of Eighth standard.

Keywords – *Life skills education programme, critical thinking, low- socio- economic status, marginalized students.*

Introduction

India has the highest population with inequality existing in the country. Education is a powerful instrument in the hands of people suffering from inequality and poverty. Education can help these strata of society to move up the ladder for success. Education should be such that it helps them to meet up to the challenges they face in their daily life. To meet the everyday challenges of life in a changing environment it is vital to possess essential life skills for adolescents' students. Life skills are understood to be an effective tool for empowering the youth to act responsibly, take initiative and take control. It has been observed that many adolescents are able to deal effectively with these challenges, while some struggle more than the others. How well an adolescent deals with these issues is decided by some factors that include their personality, psychosocial support from the

environment (that includes parents, teachers and peers), and the life skills that they possess. So it's important to study them. Adolescence is one factor which needs supervision and guidance and other factor is poverty which leads them to enter antisocial activities to get money. Students come from different strata of society, some are from low- socio economic background and some are first generation learners. It is important to impart and enhance critical thinking skills for academic purpose and success in life.

Need of the Study

Life skills are vivacious competencies that help and work as an aid to adolescent students to think critically, make informed decisions, solve problems, build and maintain healthy relationships. Modern life, has led to stress and frustration among students and therefore they need an ability to deal with it. Adolescents require a combination of cognitive as well as social skills to tackle their problems, and prepare for future challenges. It is a vital stage of growth and development, a period of stress and strain, characterized by rapid physiological, changes as well as psychosocial maturation. It is an age which is easily influenced by peers and outside world. It is important to develop and enhance their ability to deal with problems in an effective manner. The learning experience is not rich for these students to enhance their thinking skills. Studies and statistics have clearly demonstrated the link between low achievement and low socioeconomic status or Socio-Economic Status.

Therefore the researcher developed a programme on Life Skills Education Programme (Cognitive Skills) for the marginalized adolescence students. It sensed the need to provide academic enrichment activities through this programme. The present paper aims to examine the critical thinking skill of students from low- socio economic backgrounds (Marginalized) of SSC board.

Review of related literature

In the present study prior researches were explored by the researcher in the area of Cognitive life skills education programme.

Bharath Srikala and Kumar K. V. Kishore (2010) conducted a study on empowering adolescents with life skills education in schools – School mental health program: Does it work? The aim of the study was Mental Health Promotion among adolescents in schools using life skills education (LSE) and teachers as life skill educators is a novel idea. Implementation and impact of the NIMHANS model of life skills education program studied. The materials and methods of the study was the impact of the program is evaluated at the end of 1 year in 605 adolescents from two secondary schools in comparison to 423 age, sex, socio -economic status-matched adolescents from nearby schools not in the program. The results of the study was the adolescents in the program had significantly better self-esteem ($P=0.002$), perceived adequate coping ($P=0.000$), better adjustment generally ($P=0.000$), specifically with teachers ($P=0.000$), in school ($P=0.001$), and prosocial behavior ($P=0.001$). There was

no difference between the two groups in psychopathology (P - and adjustment at home and with peers ($P=0.088$ and 0.921). Randomly selected 100 life skill educator-teachers also perceived positive changes in the students in the program in class room behavior and interaction. LSE integrated into the school mental health program using available resources of schools and teachers is seen as an effective way of empowering adolescents.

Chaudhary S. and Mehta B. (2012) conducted an intervention study in order to provide life skill education to school going adolescents who are from economically disadvantaged background and belong to tribal community. The research included various necessary and essential skills like decision making, communicating, building self-esteem, developing relationships, dealing with conflicts, problem solving, coping with stress and emotions in the program. Sample of the study comprised of tribal adolescents from Bharuch district of Gujarat Province of India. Pre-test was administered through a self-administered questionnaire to assess the knowledge of the samples. After assessment the intervention program was implemented which was of the duration of 20 sessions. Each session was activity based and participatory in nature. The post test data was carried out after a week of implementation of the programme. The same questionnaire was given to the students to know any changes in their knowledge and understanding of different domains, as a result of the training program. The result indicated that the programme helped and empowered adolescents to understand better insight of their physical changes, build self- confidence and gender related issues. Though the program was able to achieve information and knowledge gain, the required modifications/changes in attitude and behavior, especially in the areas like gender socialization, which are deep rooted would require continuous efforts. Researcher strongly recommended that this kind of Soft Skill Intervention programme should be made integral feature of the school curriculum.

Harish G.C (2013) conducted a study on critical thinking skills among ninth standard students in relation to gender, intelligence and study habits. Critical thinking skill is not an isolated skill but rather one with a wide applicability. It is a skill needed by all leaders, followers, professionals, businessmen, market women, young and old, men and women, in business thinking, teaching thinking, medical thinking, personal thinking, etc. Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing or evaluating information gathered from or generated by, observation, experience, reflection, reasoning as guide to belief and action. For teachers who are entrusted with producing future leaders and manpower for every nation, it is even quite essential.

The present study aim to examine empirically the effect of Gender, Intelligence and study habits on the critical thinking skills of secondary school students. A sample of 140 students was selected randomly from ninth standard students of Bangalore city. 2x2x2 factorial design was employed with two levels of gender: boys and girls, two levels of intelligence: high and low and two levels of study habits high and low. The analysis was carried out by employing three -way analysis of variance.

Kaur M (2014) conducted a study aimed to assess the life skills among school going adolescents in relation to gender, locale, parental education and parental occupation. The sample consisted of 200 school going adolescents

studying in government and private schools of Patiala, Fatehgarh Sahib and Mansa districts of Punjab. Life skills scale (Sharma, 2003) and the background information sheets prepared by the investigator herself were used to collect the data. The findings revealed that female and rural school going adolescents possess more life skills than their counterparts. School going adolescents whose fathers and mothers are less educated possess significantly more life skills than their counterparts. School going adolescents who have business as parental occupation possess more life skills than their counterparts. Results of the study further revealed that school going adolescents whose mothers are non-working possess significantly more life skills than those with working mothers.

The review related literature shows gap in the area of enhancing cognitive (critical thinking) life skills education programme. Few researches have been done conducted in this area.

Concepts of the Study

Cognitive Life Skills (Critical Thinking)

Essentially, there are two kinds of skills - those related to thinking are termed thinking skills; and skills related to dealing with others are known as social skills. Thinking skills relate to certain strengths with regard to cognitive abilities at an individual level.

Screven, 1996 defined it as “ the intellectual disciplined process of actively and skilfully conceptualizing, applying, analysing, synthesizing and or evaluating information gathered from or generated by observation, experience, reflection, reasoning, (Walker TRC, 2006,p.2). Angelo, 1995 also conceived it as “the intentional application of rational, higher order thinking skills, such as analysis, synthesis, problem recognition and problems solving, inference and evaluation” (Walker TRC, 2006, p.2.).

Life skills have been defined as “the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life” (WHO). ‘Adaptive’ means that a person is flexible in their approach and are able to adjust in different circumstances. ‘Positive behaviour’ implies that a person is forward looking and even in difficult situations, can find a ray of hope and opportunities to find solutions.

Marginalized Students (Low Socio-Economic Status)

Socio-economic background takes account of social and economic factors including parents’ educational qualifications, parents’ occupations, household income, and the level of household overcrowding. It is the economic and sociological combined total measure of students’ family

(parent) family's economic and social position in relation to others, based on income, education, and occupation. It include a household’s lack of financial problems lack of learning resources such as books, supplies and computers and other contributing factors include lack of parental involvement. Studies have also shown that given the right conditions, every student – including those from less fortunate circumstances – have the opportunity to succeed.

Conceptual Definitions

1. **Critical Thinking:** is the capacity of students to think clearly and rationally in order to make purposeful judgments for an idea, experience and content. The score obtained by the student on critical thinking, Mincemoyer, C., Perkins, D. F., & Munyua, C (2001).
2. **Marginalized students:** refers to those students who are pushed to the margin of the society and are denied the privileges and resources available in the society. In a normal distribution those who get a score of less than -1σ and $M - 1\sigma$ will be termed as marginalized section.
3. **Life skills Education:** An approach to train and enhance the cognitive skills of students belonging to the marginalized section of the society and prepare them to face the challenges of life.

Aim of the Study

To study the effect of Cognitive Life skills education programme on the critical thinking skill of adolescent marginalized students of eighth standard of SSC board.

Objective of Study

1. To study the effect of Cognitive Life Skills programme on their critical thinking skill of adolescent marginalized students of eighth standard of SSC board

Hypothesis of the Study

1. There is no significant difference in the post-test scores of students on their critical thinking of control and experimental group after partialling out the effect of pre-test scores.

Sampling Technique: The study adopted a two stage sampling technique. At the first stage, purposive sampling technique was used. At this stage, five schools were selected which were known to admit students from low socio-economic status i.e. marginalized section. Students from these five schools were administered SES Inventory to identify the marginalized schools. This was followed by comparing the SES scores of students from these five schools using the technique of ANOVA. Here, the F-ratio was found to be 24.56 ($P < 0.0001$). Hence, the Mean SES of the five schools was found to be significantly different. Now, the school which had the least SES mean scores was selected as the experimental school and the second least mean scores was identified as control group.

At the second stage, intact class were selected from these two schools using cluster sampling technique.

Sample of the Study: The total sample for the study was 320 students studying in eighth standard were selected from aided school in Mumbai city. The age range of the sample was 12+. The sample included students from urban area only. The control group consisted of 147 students and experimental group consisted of 173 students.

The sample consisted of two schools from South Mumbai. One was the experimental group and the other was the control group. The schools were of co-educational type and affiliated to S.S.C board. After administering the pre-test in the two schools, the treatment was given in the experimental school, which was followed by the post-test in the two schools. No such treatment was given in the control group. In the present study, the population comprised of secondary school students of eighth standard from South Mumbai.

Tools used for the Study

The following tools were used for collecting data:

1. Critical thinking - Mincemoyer, C., Perkins, D. F., & Munyua, C (2001)
2. Socio- economic status Inventory - Patel (2015).

Intervention Programme: The Intervention programme (treatment) included seven lessons on Critical thinking skills. The duration for each lesson was of an hour. A constructivist approach was used. The programme focused on the abilities like reasoning, inquiry, analysis and information processing of the marginalized students. Topics like Think Imaginatively, Agree to Disagree, and Make Choices was included in the lesson. PMI, i.e. Plus, Minus and Interesting, APC, i.e. Alternatives, Possibilities and Choices strategies was used to enhance the critical thinking skills.

Methodology of the Study: The methodology of the present study was of an experiment type. The present study adopted a quasi-experimental design of the pre-test- post-test, non-equivalent groups.

Statistical Technique used for the Study: The statistical technique used for the data analysis was one- way ANOVA and ANCOVA (Analysis of Covariance)

Findings and Discussion of the Study:

H_{01} : There is no significant difference in the post-test scores of students on their critical thinking of control and experimental group after partialling out the effect of pre-test scores.

This null hypothesis was tested using the technique of ANCOVA in which the pre-test scores of students on Critical Thinking were used as a co-variate. The F-ratio was found to be 65.66 ($P < 0.0001$). Thus, the null hypothesis is rejected. Hence a significant difference was found in the Critical Thinking Skills of students from the experimental and control groups on the post-test after adjusting for the pre-test scores.

Conclusion: There is a significant difference in the post – test scores students on their critical thinking of control and experimental group after partialling out the effect of pre-test scores.

The mean scores of EG are significantly higher than the mean scores of CG. In other words, the Life Skills Education programme was effective in enhancing critical thinking of marginalized students of Eighth standard.

Discussion: It has been observed that there is a significant difference between the post-test mean scores of EG and CG. The EG had been taught the topics in critical using constructivists approach whereas no treatment was given in the control group. This implies that the Intervention programme (treatment) has had an effect on the critical thinking of marginalized students of Eighth standard. Therefore, their ability to think rationally, analyze on issues and topics have been served. The reasons could be that the activities and worksheets helped them to enhance their critical thinking. Brainstorming strategies such as Plus, Minus and Interesting was used which helped the students to look at an idea from more than one viewpoint. It enabled them to inquire and analyse information and process it. APC, i.e. Alternatives, Possibilities and Choices, was used which helped them to think critically and arrive at conclusions with explanation and reason. It enhanced their reasoning ability.

The present study is corroborated by the findings of Beyer (2008) encouraged schools to consistently expose students of all ages to thinking strategies. He asserted that —what our students learn, produce, and achieve in class depends considerably on how well and how consistently they apply these skills. Albergaria Almeida (2010) maintained that —one of the main aims of secondary teaching is the development of critical, reflexive and creative thinking, in order to provide students with the necessary tools to become active and autonomous citizens, as well as lifelong learners.

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A STUDY OF METACOGNITION SKILLS OF JUNIOR COLLEGE STUDENT

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Abstract

Metacognition means knowing about one's own knowledge & understanding including all the factors related to the process of obtaining knowledge. Having a metacognition skill makes the process of learning uncomplicated. Better metacognitive skills lead to better learning. A teacher has a great responsibility of inculcating the metacognitive skills in their students. A teacher always strives to make the student an intuitive learner and hence making them independent and giving them freedom in learning. After knowing the level of metacognition skills in the students a teacher can help students to rely on their own thought process. Other than this the students need to understand how things work because they will be crossing their middle adolescence very soon enter adulthood an important stage of life and hence it is important for them to know about their own metacognition skills. Therefore the study was conducted on the target group of adolescents of standard XI and XII of Rizvi College of Arts, Science and Commerce and a comparison was made between Arts, Science and commerce students using a 4 points rating scale. After the analysis on five parameters i.e. stream, gender, religion, medium of school and mother tongue the result shows that there is a significant difference between the metacognition skills with respect to mentioned parameters.

Keywords: Cognition, Knowledge, Skills, learning, Education.

Introduction

Metacognition refers to one's knowledge concerning one's own cognitive processes or anything related to them (Flavell, 1979). Quite simply, metacognition is thinking about thinking. Any process in which students examine the method that they are using to retrieve, develop or expand information is deemed to be metacognitive in nature. It is observed that modern studies discuss the metacognition under two main headings; Metacognitive Knowledge and Metacognitive Control (Flavell, 1979; Schraw, 2000). Metacognitive knowledge, in one case, refers to one's knowledge and beliefs within his mental resources and his awareness about what to do. Metacognitive knowledge means one's own cognitive skills; own cognitive strategies and knowledge about what to do under which circumstances (Flavell, 1979). Metacognitive knowledge requires one to accurately and exactly define his/her thought or knowledge. However, metacognition requires one, besides the knowledge mentioned above, to use this

knowledge effectively. The ability to use metacognitive knowledge, on the other hand, is called metacognitive control.

Metacognitive strategies range from simple processes such as underlining, outlining, note taking, summarizing, self-questioning, and to more elaborate methods such as hierarchical summaries, conceptual maps, thematic organizers, and metaphorical thinking. The older student's best handle the more elaborate methods. Learning strategies vary by degree of difficulty. The most important task to teach to the students is when to use such a strategy. The awareness of knowing when to use a metacognitive strategy is of more importance than the how to use the strategy. Most learning strategies are procedural in form. If students are aware of how committed (or uncommitted) they are to reaching goals, or how strong (or weak) their disposition to persist is, and of how focused (or wandering) is their attention to a thinking or writing task, they can regulate their commitment, disposition and attention (Marzano et al., 1988).

Need Of The Study

In today's world where students are more into technology and have more knowledge about their phone features and popular cultures, be it music, the newest Hollywood series or movies, their metacognitive skills are likely to be weak, there is a strong need to inculcate metacognition skills in them and for the same we need to study about their metacognition skills

As educationist the researchers feel that it is important that students are aware of their metacognition skills. And hence this research is important to get an idea about the current situations and capability of student's ability to understand their knowledge. Also students need to develop their metacognition skills these crucial years and hence it become of prime importance to students to reflect on their behavior and channelize their actions in the right way and direction.

Objectives Of The Study

Following are the objectives of this study:

- To Study the differences of Junior College students in metacognition skills on the basis of stream.
- To study the differences of Junior College students in metacognition skills on the basis of gender.
- To study the difference of Junior College students in metacognition skills on the basis of religion
- To study the difference of Junior College students in metacognition skills on the basis of their previous medium of school.
- To study difference of Junior College students in metacognition skills on the basis of mother tongue.

Research Hypothesis

Following are the hypothesis of this study:

- There is no significant difference in the metacognition skills of male and female students of the Junior college.
- There is no significant difference in the metacognition skills of the Junior college students of Arts, Science and Commerce streams.

- There is no significant difference in the metacognition skills of the Jr. College students on the basis of Religion.
- There is no significant difference in the metacognition skills of the Jr. College students on the basis of medium of school.
- There is no significant difference in the metacognition skills of the Jr. College students on the basis of mother tongue.

Methodology Of The Study

The researcher used descriptive research design for collecting the data. This study was intended to understand the metacognition skills of all the Junior College Students of 16-17 years of age of the colleges in Mumbai. The study was conducted at Rizvi College of Arts, Science and Commerce, Mumbai Suburbs. The tool was administered among standard XI students of all the three streams.

Here the researcher has used the purposive and convenient sampling procedures for the study. In purposive sampling procedure, the researcher chooses the sample based on who he/she thinks would be appropriate for the study.

Data Collection Tool

The tool used by researcher was **Metacognition Inventory (MCI)** developed by **Punita Govil (2003)**, this inventory includes 30 items dealing with both the aspects of metacognition i.e. knowledge of cognitive process and regulation of cognitive process although standardized there is no mentioning of validity or reliability of the tool by the author

The scoring pattern of the questionnaire were as follows

| Very much so | To a considerable extent | Somewhat | Not at all |
|--------------|--------------------------|----------|------------|
| 1 | 2 | 3 | 4 |

Table I: Scoring pattern of questionnaire

The tool was administered at Rizvi College of Arts, Science & Commerce, among standard XI students in one of their free lectures. The researcher distributed the questionnaire and explained how it had to be filled. Since the students only had to read the questions and put a tick against the option they feel suits the answer, the researcher only gave the students 20 minutes to fill the questionnaire. In the meanwhile, the researcher monitored whether the students were filling it correctly or no, if they were answering all the questions, if they had any doubts regarding any questions. All this was clarified for the students at the same time. After the given time, the researcher collected all the questionnaires and checked whether the details were filled in properly and whether each question was answered or not.

Data Collection

The data collected for this research work was commotion free and it gave the researcher an assurance that the samples have comprehended rightly answered the questions in the tool. During the research the queries were

resolved by the researcher leading to an appropriate data collection. Overall, experience of conducting this research proved to be a fruitful one.

Result And Discussion

The Present study attempts to investigate metacognition skills of junior college students with respect to stream, gender, religion, medium of school and mother tongue.

Following are the inferences deduced after data analysis

Table 2: Distribution of scores on metacognition skills of Junior college students.

| METACOGNITION SKILLS OF JR. COLLEGE STUDENTS | |
|--|----------|
| Mean | 58.15 |
| Median | 57 |
| Mode | 57 |
| Standard Deviation | 12.44762 |
| Range | 64 |

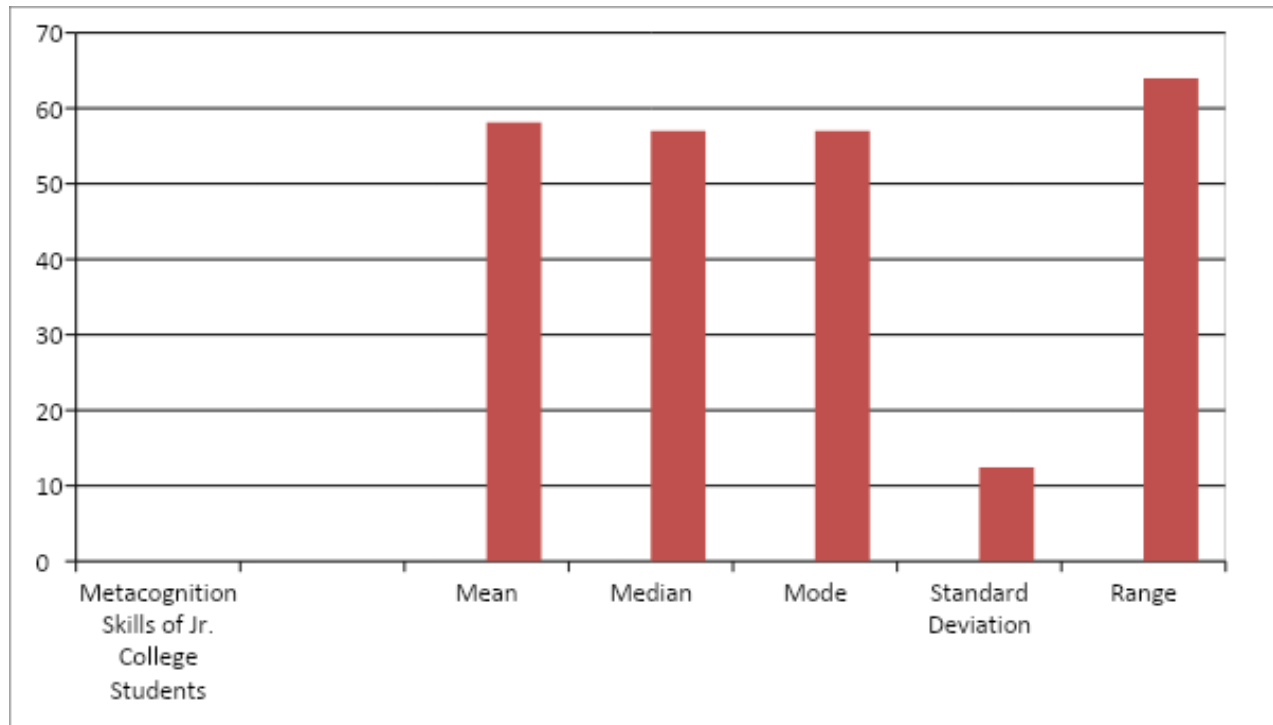


Figure 1: Descriptive statistics of metacognition skills of Junior college students.

H_1 – There is no significant difference in the metacognition skills of male and female students of the Junior college.

Table 3: Distribution of scores on metacognition skills of male and female students of the Junior college.

| GENDER | MALE | FEMALE |
|--------------------|-------|--------|
| MEAN | 60.39 | 54.31 |
| MEDIAN | 61.5 | 53.5 |
| MODE | 62 | 58 |
| STANDARD DEVIATION | 10.60 | 12.01 |
| MIDRANGE | 38 | 43 |

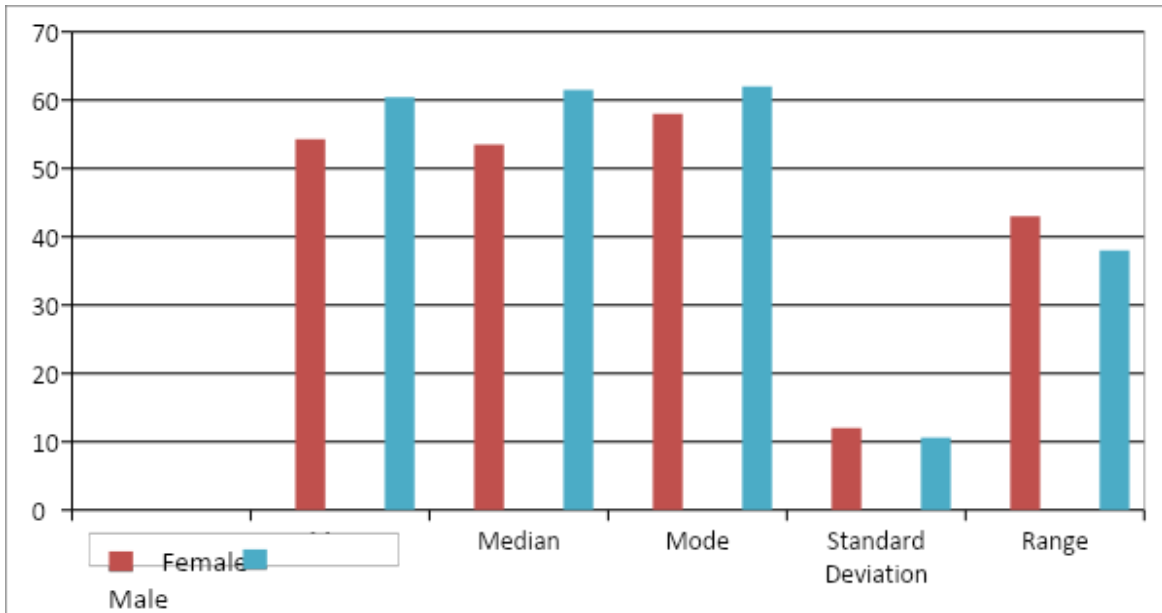


Fig 2: Descriptive statistics of metacognition skills of Junior college students on the basis of gender.

The mean and standard deviation of metacognition skills of male students is 60.39 & 10.60 and that of female students is 54.31 & 12.01 respectively. Therefore, there is a significant difference in the metacognition skills of male and female students of the Junior college.

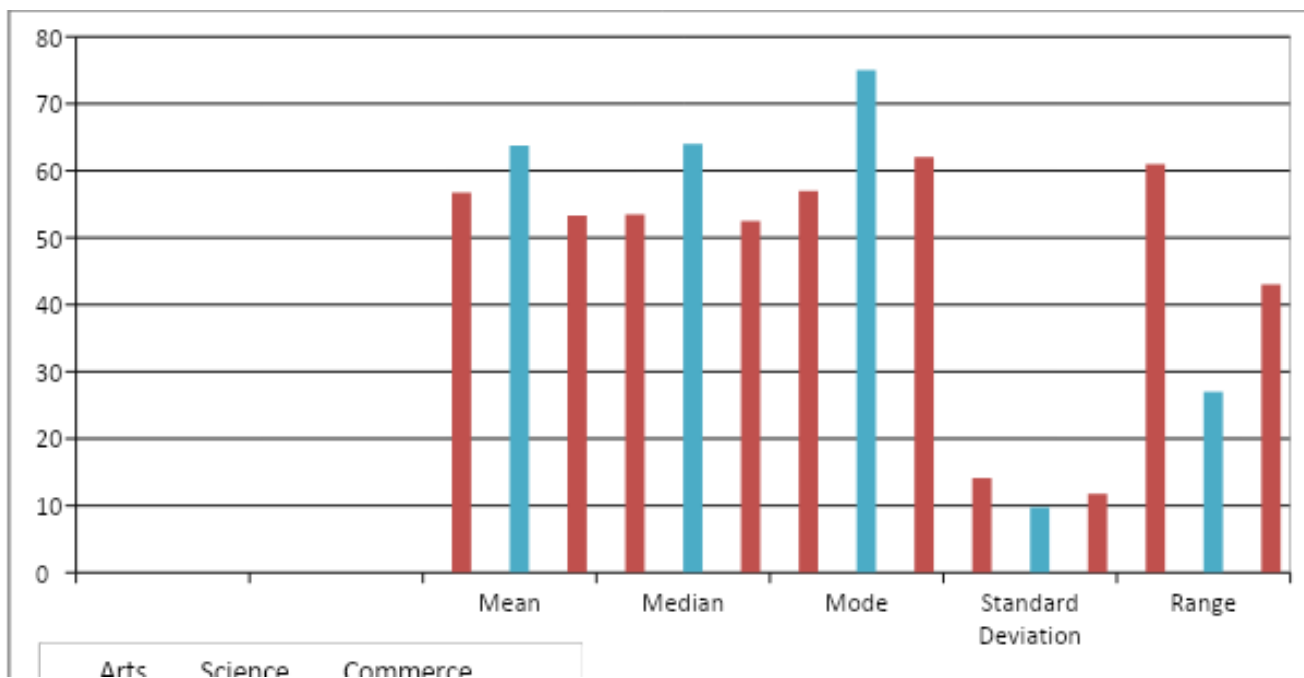
There is statistical evidence supporting this;

Hence, the null hypothesis H_0 is rejected

| STREAM | ARTS | SCIENCE | COMMERCE |
|--------------------|-------|---------|----------|
| MEAN | 56.7 | 63.75 | 53.3 |
| MEDIAN | 53.5 | 64 | 52.5 |
| MODE | 57 | 75 | 62 |
| STANDARD DEVIATION | 14.12 | 9.75 | 11.76 |
| MIDRANGE | 61 | 27 | 43 |

H_2 – There is no significant difference in the metacognition skills of the Junior college students of Arts, Science and Commerce streams

Table 4: Distribution of scores on metacognition skills of students from arts, science and commerce.



Fig

Figure 3: Descriptive statistics of metacognition skills of Junior college students from arts, science and commerce.

The mean and standard deviation of metacognition skills of students from Arts is 57.7 & 14.12 and that of science students is 63.75 & 9.75 and of commerce students is 53.3 & 11.76 respectively. Therefore there is a significant difference in the metacognition skills of the junior college students of Arts, Science and Commerce streams

There is statistical evidence supporting this;

Hence, the null hypothesis H_2 is rejected.

H_3 - There is no significant difference in the metacognition skills of the Jr. College students on the basis of Religion.

| RELIGION | HINDU | MUSLIM | CHRISTIAN |
|--------------------|----------|-------------|-----------|
| MEAN | 55 | 58.12280702 | 66 |
| MEDIAN | 55 | 57 | 66 |
| MODE | N/A | 57 | N/A |
| STANDARD DEVIATION | 4.242641 | 12.70695841 | N/A |
| MIDRANGE | 55 | 68 | N/A |

Table 5: Distribution of scores on metacognition skills of the Jr. College students on the basis of Religion.

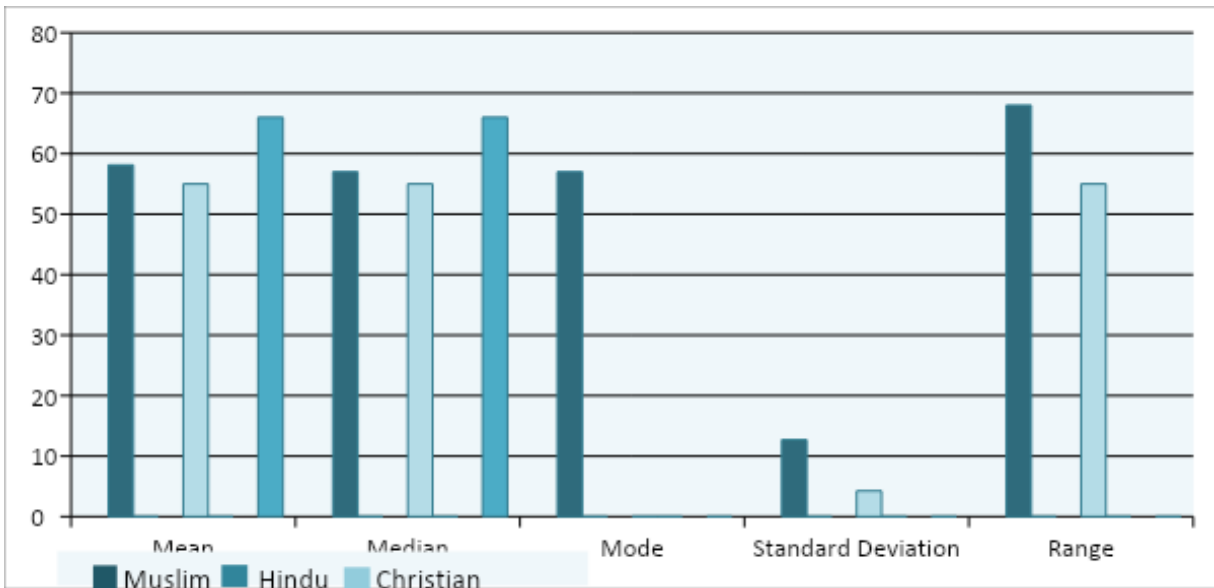


Fig 4: Descriptive statistics of metacognition skills of Junior college students on the basis of Religion.

The mean and standard deviation of metacognition skills of students from Hindu religion is 55 & 4.2 and that of Muslim students is 58.12 & 12.70 and Christian students is 66 & N/A respectively. Therefore there is a significant difference in the metacognition skills of the Jr. College students on the basis of Religion

There is statistical evidence supporting this;

Hence, the null hypothesis H_3 is rejected.

H_4 -There is no significant difference in the metacognition skills of the Jr. College students on the basis of previous medium of school.

| Previous Medium of School | English | Urdu |
|---------------------------|------------------|-------------|
| Mean | 59.04 | 53.8 |
| Median | 57.5 | 52 |
| Mode | 57 | #N/A |
| Standard Deviation | 12.8776978548503 | 10.08464179 |
| Midrange | 64 | 25 |

Table 6: Distribution of scores on metacognition skills of the Jr. College students on the basis of previous medium of school.

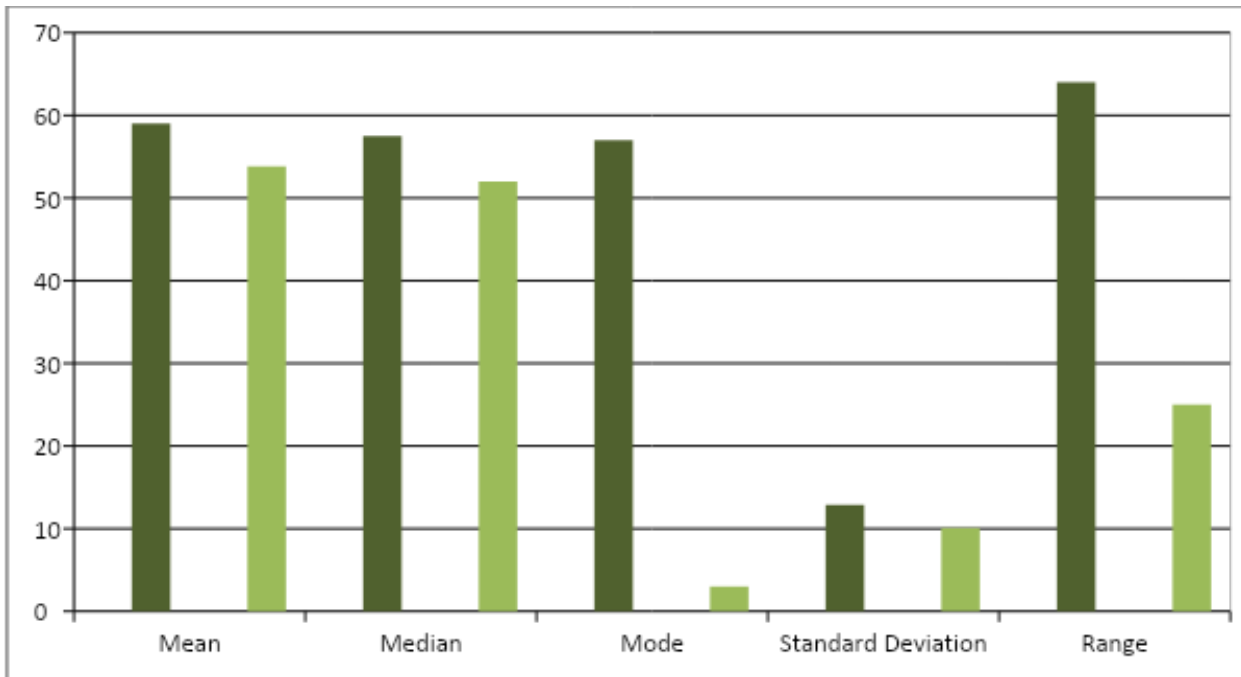


Fig 5: Descriptive statistics of metacognition skills of Junior college students on the basis of previous medium of school.

The mean and standard deviation of metacognition skills of students who completed their schooling from English medium schools is 59.04 & 12.8 and students who completed their schooling from Urdu medium schools is 53.8 &

10.08 respectively. Therefore there is a significant difference in the metacognition skills of the Jr. College students on the basis of medium of school

There is statistical evidence supporting this;

Hence, the null hypothesis H_4 is rejected.

H_5 - There is no significant difference in the metacognition skills of the Jr. College students on the basis of mother tongue.

| MOTHER TONGUE | HINDI | URDU | ENGLISH |
|--------------------|------------------|------------------|------------------|
| MEAN | 58.3157894736842 | 57.5789473684211 | 63.5 |
| MEDIAN | 57 | 52 | 63.5 |
| MODE | 57 | 49 | #N/A |
| STANDARD DEVIATION | 10.2669905671444 | 16.876399660386 | 3.53553390593274 |
| MIDRANGE | 40 | 64 | 5 |

Table 7: Distribution of scores on metacognition skills of the Jr. College students on the basis of mother tongue.

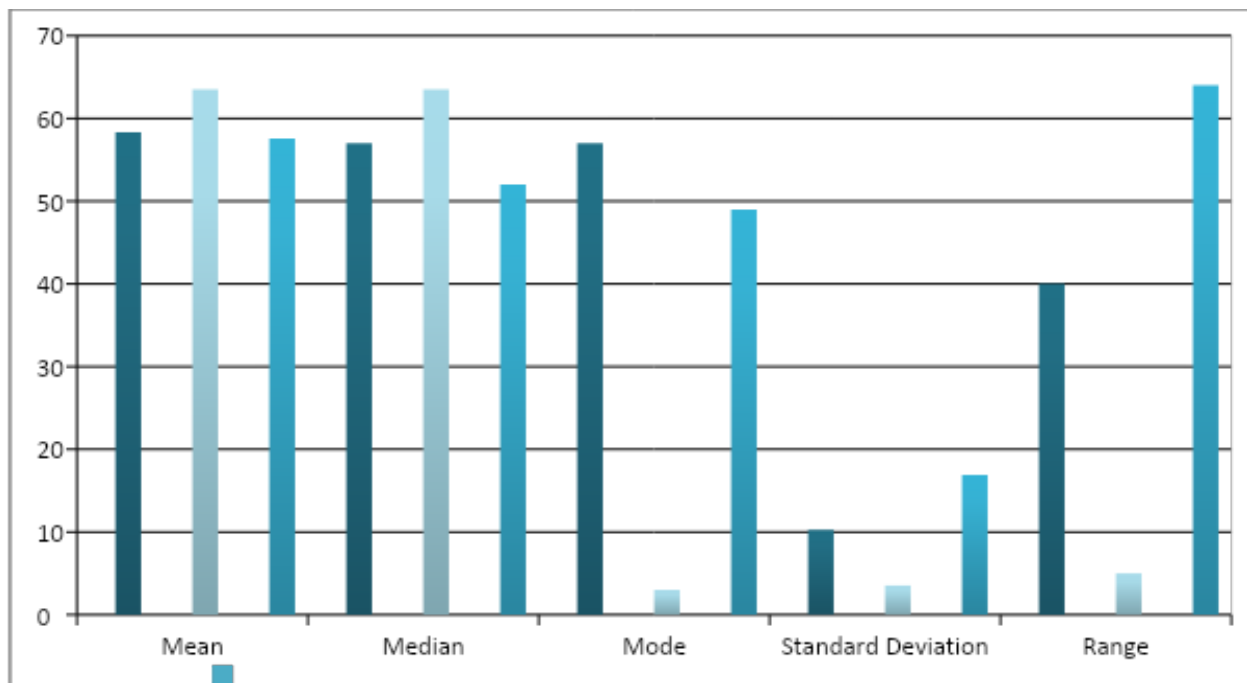


Fig 7: Descriptive statistics of metacognition skills of Junior college students on the basis of mother tongue

The mean and standard deviation of metacognition skills of students whose mother tongue is Hindi is 58.31 & 10.26 and English are 57.57 & 16.87 and Urdu is 63.5 and N/A respectively. Therefore there is a significant difference in the metacognition skills of the Jr. College students on the basis of mother tongue. There is statistical evidence supporting this. Hence, the null hypothesis H_5 is rejected.

Limitations of Study

In this study researchers have examined how metacognition differs on the basis of different factors such as gender, medium of instruction and mother tongue etc. Based on the result of this study the researchers suggest that there is direct correlation between metacognition and self-concept. Teachers should be able to make students understand their metacognitive skills by metacognitive activities which may help students reflect on their knowledge, strengths and weakness and thoughts which will lead to self-awareness.

The present study is limited to check the metacognitive awareness of junior college students only. Moreover the study is limited to Mumbai city only. The size, data and sample are limited to one college and hence the study is limited to a small group of students, due to the semester patterns of the course, which is not flexible. Along with that the rigid schedule of the junior college. It cannot be used universally.

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A STUDY THE EFFECTIVENESS OF SELF-EFFICACY PROGRAM ON COGNITIVE STYLES OF B.ED. STUDENT-TEACHERS

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Research Guide

Abstract

Quality of teachers is the most significant and decisive factor influencing student outcomes in every aspect. The destiny of a nation is shaped in the classrooms and teachers act as main pillars of a sound and progressive society. B.Ed. students during their course face a variety of problems as to coping with the practice teaching, use of statistics, speaking English, meeting submission deadlines, lengthy syllabus, high work load, tension of future job. It can be said student-teachers have their own set of problems and environment. A student-teacher is expected to act professionally while working with the teacher, the supervisor, professional colleagues, and the students to strengthen their skills and knowledge as a teacher. How do they face challenges, direct their actions, and succeed in teaching-learning process? The answer to this question lies with the concept of self-efficacy. This study will help the institute, teacher educators and future teachers in developing and making use of their cognitive styles in their teaching learning process.

Introduction:

“If I have the belief that I can do it, I shall surely acquire to do it even if I may not have it at the beginning.”

~ Mahatama Gandhi

Quality of teachers is the most significant and decisive factor influencing student outcomes in every aspect. The destiny of a nation is shaped in the classrooms and teachers act as main pillars of a sound and progressive society. B.Ed. students during their course face a variety of problems as to coping with the practice teaching, use of statistics, speaking English, meeting submission deadlines, lengthy syllabus, high work load, tension of future job. It can be said student-teachers have their own set of problems and environment.

A student-teacher is expected to act professionally while working with the teacher, the supervisor, professional colleagues, and the students to strengthen their skills and knowledge as a teacher. How do they face challenges, direct their actions, and succeed in teaching-learning process? The answer to this question lies with the concept of self-efficacy.

Concept of self-efficacy

Self efficacy is commonly defined as the belief in one's capabilities to achieve a goal or an outcome. Students with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated.

These students will put forth a high degree of effort in order to meet their commitments, and attribute failure to things which are in their control, rather than blaming external factors. Self-efficacious students also recover quickly from setbacks, and ultimately are likely to achieve their personal goals. Students with low self-efficacy, on the other hand, believe they cannot be successful and thus are less likely to make a concerted, extended effort and may consider challenging tasks as threats that are to be avoided.

Bandura suggests that one's perception of self-efficacy, that is, his/her efficacy expectation, is the key factor in determining whether that person will engage in a certain behaviour. Given sufficient incentive and pre-requisite sub-skills, self-efficacy judgments determine a person's choice of activities and environmental settings, the amount of effort they expend, and their persistence in the face of obstacles and aversive experiences.

On the lines of Bandura's definition of self-efficacy, student- teacher self-efficacy can be defined as judgment of his/her capabilities to bring about desired result of his/her own commitment and learning and as well as of his students during teaching practice.

Cognitive Styles

Cognitive style or "thinking style" is a term used in cognitive psychology to describe the way individuals think, perceive and remember information. Cognitive style differs from cognitive ability, the latter being measured by aptitude tests or so-called intelligence tests.

Cognitive styles refer to the preferred way an individual processes information. Unlike individual differences in abilities (e.g., Gardner, Guilford, Sternberg) which describe peak performance, styles describe a person's typical mode of thinking, remembering or problem solving.

Concept of Cognitive Style

To understand cognitive style, a definition of cognition must first be understood. Cognition is a collection of mental processes that includes awareness, perception, reasoning, and judgment. The study of cognitive processes has its roots in the Gestalt psychology of Max Wertheimer, Wolfgang Kohler, and Kurt Koffka and in the studies of cognitive development in children by Jean Piaget during the 19th century.

The main objective of education is development of student in relation with education, social and financial condition. Person can invent ways to face the problems of life by education. Therefore to reach higher level of success various cognitive style can be used. By the cognitive styles transformation of working style self, leadership, decision making ability, adjustment are slowly developed in trainee.

Cognitive style includes teaching students the belief, knowledge and also awareness of strategy of problem arising, while teaching the students. Teachers faith, knowledge, principles, themes, thoughts are included in cognitive style.

Cognitive style is considered in five variety in this research,

Systematic Style, Intuitive Style, Integrated Style, Undifferentiated Style, Split Style

Overall student- teachers have to develop self confidence and to solve problems. They have to make changes in action according to condition. They have to adjust and have to take proper decision. For their cognitive style should be high.

Hurakadli B.M. (2015) studied the research on relationship between attitude towards teaching profession and teacher's self-efficacy belief in this research studied with personal teaching efficacy of teachers own expectations that they will be able to perform the actions that leads to students learning and general teaching efficacy was the belief that the teacher populations ability to perform these actions was not limited by factors beyond school control. Klessen, Bong and others (2009) studied about the validity of the teacher's sense of self-efficacy scale (TESE) in five settings Canada, Korea, Singapore and the United States. The second purpose was by extension to establish the importance of the teacher self- efficacy construct across diverse teaching conditions. Multi-group confirmatory factor analysis was used to better understand the measurement invariance of the scale across countries, after which the relationship between the TSES and factors like job satisfactory was explored. The TESE showed convincing evidence of reliability and measurement invariance across the five countries and the relationship between the TSES and job satisfaction was similar across settings.

The following are the review related to cognitive study:

Maru Jasvanti. (2014) studied on a co-relation study of cognitive styles, career interest and academic performance of secondary school student. In this research has studied correlation between cognitive styles and career interest, academic performance of secondary school students 320 students were taken as a sample for this study.

Pannu Randep (2013) studied on the correlation of cognitive style, standard of living, sex and educational achievement in teenage students in this research. The sample was taken from higher secondary level of urban and rural areas. For this study 545male and 661 females were selected. Through research study according to sex and student cognitive style was seen that there is significant difference in students educational achievement. Conclusion was that females educational achievement was more than makes. In institutional style males education achievement was high.

The review of related literature indicates that studies done on self-efficacy programme are based on the variable such as positive teaching behaviour of students achievement, self esteem etc. Review of related literature shows for cognitive styles are focus on such as carrier interest, educational, achievement, emotional maturity etc. The researcher felt the need to measures the effectiveness of self –efficacy programme on cognitive styles of B.Ed students-teachers as both high professional efficacy of the teacher.

Definitions Of The Terms:

Self-efficacy : It is the capability in one's own self to organize various co-curricular activities in teaching-learning processes with self-confidence, motivation and good communication skills.

Cognitive style: It is the faith, knowledge, principles, theory, attitude, thought and contemplation existing among the teachers in order to solve various problems.

Cognitive styles are defined as per the following sub variables.

- **Systematic style:** An individual who typically operates with a systematic style uses a well defined step by step approach when solving a problem looks overall method or pragmatic approached then makes an overall plan for solving problem.
- **Intuitive style:** The individual whose style is imitative uses and unpredictable ordering of analytical steps when solving a problem, relies on experience patterns characterized by universalized area or hunches and explores and abdomens alternative quickly.
- **Integrate style:** A person with an integrated style is able to change styles quickly and easily such style changes seen to be unconscious and take place in matter of seconds. The result of this “ rapid fire” ability is that is appears to generate an energy and a proactive approach problem solving in fact integrated people are often referred to as problem seekers “because they consistently attempt to identify potential problems as well as opportunities in order to find better way of doing things.
- **Undifferentiated style:** A person with such of style appears not to distinguish or differentiate between the two styles extremes i.e systematic and imitative and therefore, appears not to display style. In a problem solving situation he will exhibit a receptivity to instructions or guidelines from outside sources. Undifferentiated individuals tend to be withdrawn passive and reflective and often look to other for problem solving strategies.
- **Split style:** An individual with split style shows fairly equal degrees of systematic and intuitive specialization .However people with a split style do not possess an integrated behavioral response, instead they exits each separate dimension in completely different setting using only one style at a time based on nature of their task. In other word they consciously respond to problem- solving by selecting the most appropriate style.

Aims & Objectives Of The Study :**Broad Aim:**

To study the development of self-efficacy programme and its effectiveness on cognitive styles of B.Ed. student-teachers.

Objectives of the study:

1. To identify the pre-test scores of experimental group with respect to their cognitive styles of B.Ed. student-teachers.

2. To identify the pre-test scores of control group with respect to their cognitive styles of B.Ed. student-teachers.
3. To develop the programme on the self-efficacy of B.Ed. student-teachers.
4. To identify the post- test scores of experimental group with respect to their cognitive styles of B.Ed. student-teachers.
5. To identify the post- test scores of control group with respect to their cognitive styles of B.Ed. student-teachers.
6. To compare the pre- test scores of experimental group and control group with respect to their cognitive styles of B.Ed. student-teachers.
7. To compare the post- test scores of experimental group and control group with respect to their cognitive styles of B.Ed. student-teachers.
8. To compare the pre-test and post-test scores of experimental group with respect to their cognitive styles of B.Ed. student-teachers.
9. To compare the pre-test and post-test scores of control group with respect to their cognitive styles of B.Ed. student-teachers.
10. To study the effectiveness of self-efficacy development programme on cognitive styles of B.Ed. student-teachers.

Null Hypothesis Of The Study:

1. There is no significant difference in the pre-test scores of experimental group and control group with respect to their cognitive styles of B.Ed. student-teachers.
2. There is no significant difference in the post-test scores of experimental group and control group with respect to their cognitive styles of B.Ed. student-teachers.
3. There is no significant difference in the pre-test and post-test score of experimental group with respect to their cognitive styles of B.Ed. student-teachers.
4. There is no significant difference in the pre-test and post-test score of control group with respect to their cognitive styles of B.Ed. student-teachers.
5. There is no significant difference in effectiveness of self-efficacy development programme for cognitive styles of B.Ed. student- teachers.

Methodology Of The Study:

The investigator of the present study will adopt the non-equivalent control group design of quasi-experimental type.

In addition the researcher will adopt a factorial design to study the interactive effect of treatment and various moderator variables on the dependent variables.

Sample:

For the purpose of experimentation the study will include student-teachers studying in B.Ed. colleges from Kalyan city of Thane district. The Colleges which will be included as a sample will have Marathi as the medium of instruction.

B.Ed. colleges will be selected randomly using Lottery Method in which one will be assigned as experimental group and other as control group.

Thus the sample will be selected by using three stage sampling method process. At the first stage two colleges will be selected using simple random sampling technique (lottery method). At the second stage these two colleges will be assigned as experimental and control groups. At the third stage students will select using incidental sampling technique as intact classes of two different colleges. The sample size to be included in present study will be more than 50 in each group.

Tools Of Present Research:

The following tools will be prepared by the researcher-

1. Personal Data Sheet.
2. Self-efficacy programme.
3. Cognitive styles scale.
4. Reflective Journal.

The following tool will be made by the researcher on Cognitive style Inventory.

Techniques Of Data- Analysis:

1. Measures of Central Tendency
2. Measures of Variability
3. 't'- test

Scope And Delimitation Of The Study :

It is extremely necessary to demarcate the scope of a study and to define and identify its limitations and delimitation, the study will include one experimental and one control group. It will be conducted only in two B.Ed. colleges. The study includes two colleges located in Kalyan, Thane district of Maharashtra state. The study will include only self-efficacy program based on the cognitive styles. The study will be conducted only on B.Ed. student-teachers.

Significance Of The Study :

Self-efficacy is emerged as one of the important factors of professional development of a teacher. Many researchers have been done to determine variables associated with self-efficacy. But, not many researchers have been found that investigated various variables associated with self-efficacy of student-teachers.

It is significant to assess the self-efficacy of a student-teacher on the basis of criteria as that are directly relevant to the area of his/her functioning. Also, not many researchers have shown that whether self-efficacy programme had influence on cognitive style of a teacher. Cognitive style is made up of the information processing methods of an

individual. It would be useful to know if self-efficacy programs can influence the cognitive style of a teacher. In this research, researcher has develop a self-efficacy programme and studied it's effectiveness on cognitive styles of a teachers.

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EFFECTIVENESS OF FEEDBACK BY TEACHER TRAINEES IN TERMS OF ATTITUDE TOWARDS PEER ASSESSMENT

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Abstract

In present education system there is a need to incorporate new assessment techniques for realization of specific instructional objectives and level of achievement. Assessment is a process of determining the level of student's learning. Teachers using innovative practices may follow formative and summative assessments which are complement to one another. Peer assessment and self assessment are parts of effective planning and key to foster motivation. Therefore the researcher conducted research to compare pre and post- test mean scores of attitude towards peer assessment of experimental group. Pretest- posttest single group design was used for this study. The sample comprised of 34 teacher trainees, who registered for a pre- service teacher training course in the session 2015. Sample comprised of male and female both from science stream. Five- point Likert attitudinal scale developed by the researcher was used for data collection. Participants were subjected to treatment for a period of 52 days in regular class time. The data were analyzed by calculating correlated t- value, which is 16.14, significant at 0.01 level with $df = 35$, indicates a significant difference between pre and post test mean attitudinal scores. Thus activities of feedback by teacher trainees were found to be effective in terms of attitude towards peer assessment. Learners may gradually learn to use peer assessment by means of regular classroom practice for understanding of criteria and better performance.

Key terms: *Attitude, Assessment, Feedback, Peer assessment.*

Introduction

In present education system, teaching- learning process needs some modifications to improve the learning ability among trainees. It is essential to use new teaching strategies for enhancing active participation as well as understanding of trainees. So there is a need to incorporate new assessment techniques which help to realize specific instructional objectives and level of achievement. Learner's level of achievement may be assessed by implementing different assessment techniques. Assessment is a feedback mechanism in education system which is based on collection and interpretation of scores obtained. Assessment is a process of determining the level of student's learning. Teachers using innovative practices may follow formative and summative assessments. Both of these are not completely different types of assessment, instead complement one another. Both of them are useful in different phases of teaching- learning process. Peer assessment and self assessment must be understood as a methodology for learners to acquire better knowledge of, understanding of and commitment to the assessment process. Peer

assessment is a kind of sensitive, constructive and formative assessment. Peer assessment refers to both peer correction and peer feedback. It is a part of effective planning and key to foster motivation in the learners. It promotes understanding of objectives, deciding assessment criteria, recognizing educational achievements and also suggests ways of improving own performance. Teachers need time, flexibility and clear assessment criteria to help learners in developing a common understanding of assessment process. It is required to study teacher trainee's attitude towards peer assessment and promote them in positive direction. The researcher attempted here to determine the impact of feedback for objective framing and lessons by teacher trainees in terms of attitude towards peer assessment.

Rationale

A number of researches have been conducted related to teacher trainee's attitude towards peer assessment. Ineke van den Berg, Wilfried Admiraal, Albert Pilot (2003) indicated the results that most students complied with the procedure and assessed the work of their fellow students seriously, and used the peer feedback to revise their work. Karaca (2009) revealed that teacher trainees' opinions about peer assessment were positive and believing in helpfulness of peer assessment process. Praver, Rouault and Eidswick (2011) indicated that although students generally anticipated discomfort and difficulty in both giving and receiving peer evaluation, especially using comments, more than 90% endorsed using a numerical scale with comments as being more useful for improving English discussion skills. Serrano Angulo and Cebrián de la Serna (2011) highlighted in the results that students internalized quality criteria, and gradually gained more practice with the e Rubric methodology. Azarnoosh (2013) revealed no significant difference between the learners' peer assessment and teacher assessment. No friendship bias was found in peer assessment, but this practice led to the change of students' attitudes towards a positive perception on peer assessment. Cornelius and Kinghorn (2013) revealed that alternative forms of assessment were perceived as being a valuable language- learning tool even from the perspective of students who had little or no prior experience of such activities. Moraes, Michaelidou and Canning (2013) found that students are supportive of the principles of assessed group work and peer evaluation, but that there are differences in students' attitudes toward the group coursework protocol and peer assessment system (GCP & PAS) between those who experience group conflict and those who do not. Sukumaran and Dass (2014) found that the participants of the study had a positive perspective on the use of peer feedback and on the use of an online peer feedback tool. Keçeci, Kirilmazkaya, and Zengin (2015) revealed that the between peer and teacher assessment scores of classes were positive and high correlations as compared. Yan Zou, Christian Dieter Schunn, Yanqing Wang & Fuhui Zhang (2017) reported that that among the attitudinal factors, procedural negative was negatively associated with participation, as expected. Interestingly, interpersonal negative was associated with greater participation, and positive attitude was associated with lower participation, in part because students worked hard on each review rather than doing many reviews superficially. The aforementioned researches indicate that most of the studies in the area of peer assessment are limited to other aspects. Majority of researches have been conducted in the foreign countries. There is lack of researches on teacher

trainee's attitude towards peer assessment in India. Researchers ought to take bold initiative to eliminate the lack of research in this area in our country. With this study it is expected to contribute addressing this shortcoming by design and redesign thoughtful plans in this area.

Statement of the aim

Effectiveness of Feedback by Teacher Trainees in Terms of Attitude towards Peer Assessment

Objective

This paper attempts to study the following research objective:

To compare pre and post- test mean scores of attitude towards peer assessment of experimental group.

Hypothesis

There is no significant difference between the pre and post- test mean scores of attitude towards peer assessment of experimental group.

Methodology

The methodology for present investigation was as follows:

Sample

The sample was selected by convenient sampling method. The participants of this study were 34 teacher trainees, who registered for a pre- service teacher training course at ILVA Commerce and Science College in the session 2015. The age group of the teacher trainees was 23 years to 28 years. Sample comprised of male and female both from science stream. All of them belong to English medium and average socio economic status.

Tools

In the present study the researcher developed the tool named as attitudinal scale for data collection. A five- point Likert attitudinal scale was used for the 22 relevant items in the tool. It had five rating categories, scores for positive items were; 0 = strongly disagree 1= disagree 2= undecided 3= agree 4= strongly agree and vice versa for the negative items. Initially the scale consisted of 34 items, but only 22 were selected in the final drafting of the tool. Teacher trainees in the sample could obtain maximum 88 scores.

Experimental design

The present study was experimental in nature. The pretest- posttest single group design was used for this study. The experimenter used this design to assess dependent variable attitude towards peer assessment. The independent variable was feedback activities performed by the participants. Attitude towards peer assessment was assessed before giving treatment and then measured again after treatment. The difference in the assessed scores of dependent variable, if any, was calculated. It was considered as a result of applying treatment. The pretest – posttest single group design is represented as follows:

O X O

Where,

O = pretest

X = treatment

O = posttest

Procedure of data collection

The researcher searched the list of B. Ed. Colleges in Indore city. The researcher requested to principals of the colleges for permission of data collection. Not even a single college was ready to permit for longer duration treatment. Therefore ILVA Commerce and Science College, Indore (M.P.) was selected by convenient sampling method. The researcher assured the participants that the gathered information will be used only for the research purpose. Initially two days orientation for peer assessment was provided. The treatment consisted of peer feedback for 16 lessons. There was two days gap between feedbacks for each lesson. Experimental group was subjected to the treatment for a period of 52 days. Period of treatment includes orientation, pre testing, treatment and post testing. Peer Assessment Attitude Scale was administered in the class in order to determine their attitudes towards peer assessment. The feedback by teacher trainees was scheduled within regular class time. After collecting the responses scoring was done as per set criteria for further statistical calculations.

Statistical analysis: Total scores of 22 items in administered attitudinal scale were considered. Attitude towards peer assessment of teacher trainees were assessed before as well as at the end of the treatment. The data were analyzed with the help of correlated t- test. The results are given in the following Table- 1.

Table 1: Test wise mean attitudinal score, SD and correlated t- value

| Test | df | Mean | SD | r | t- value |
|-----------|----|-------|------|------|----------|
| Pre test | 35 | 47.25 | 6.08 | | |
| Post test | 35 | 49.69 | 6.33 | .990 | 16.14 |

** Significant at 0.01 level

Interpretation

It is evident from the table that the correlated t- value is 16.14, which is significant at 0.01 level with $df = 35$. It indicates that the mean scores of attitude before and after the treatment through activities on feedback by teacher trainees differ significantly. In this situation the null hypothesis that “There is no significant difference between the pre and post- test mean scores of attitude towards peer assessment of experimental group” is rejected.

Further from the table it is evident that the mean scores of attitude after treatment is 49.69, which is significantly higher than that before the treatment which is 47.25. It may therefore, be concluded that treatment in feedback has the potential to increase the attitude of teacher trainees significantly. Thus activities of feedback by teacher trainees were found to be effective in terms of attitude towards peer assessment. To determine the significance of the change in students’ attitude before and after training correlated t- test was used. t- tests of item responses for attitude towards peer assessment, the statistical comparison between teacher trainee’s responses to pre test and post test was significant ($t = 16.14$, $SD = 6.33$, $p < 0.01$). Therefore it may be said that teacher trainee’s responses on peer assessment indicated significantly positive change in a meaningful way in post- implementation of treatment period.

Findings and discussion

Results revealed that participating teacher trainees held positive attitude towards the use of peer assessment activities. Pre- service teachers regarded peer assessment as an effective teaching technique for promoting active learning and effective teaching. Findings of Karaca (2009) and **Sukumaran and Dass (2014)** also support the results that learner's opinions about peer assessment were positive. Ineke van den Berg, Wilfried Admiraal, Albert Pilot (2003) indicated that most students assessed the work of their peer seriously. Results of the research by Azarnoosh (2013) favored that learners' peer assessment and teacher assessment didn't differ significantly. Keçeci, Kirilmazkaya, and Zengin (2015) found high correlation between peer and teacher assessment scores. In the educational institutions for all courses learners are needed to have more involvement in exchange of feedback and use comments for further improvements.

Conclusion

Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor. It may be driven in a desirable direction by providing treatment in some ways. The researcher attempted to find the effectiveness of training in terms of peer assessment. The results revealed that the activities on feedback by teacher trainees enhanced positive attitude. According to them peer assessment motivates learners to focus on how they could improve their work in future. The use of peer assessment in more classes, learners may begin to regard such assessment as a normal part of their education. They may also understand more clearly how their peer's advice can contribute to their education. The researcher attempted to provide an experience of peer assessment and studied that effectiveness of treatment as a method of enhancing positive attitude towards peer assessment. Learners may gradually learn to use it by means of regular classroom practice, which contributes to them better internalizing criteria and assessment standards. In the teacher training courses teacher trainees ought to have more involvement in peer assessment activities and in the exchange of quality criteria for raising standards. Administration ought to permit them to discuss these performance criteria and standards when working with other teacher trainees. They need to share and generalize assessment criteria with each other.

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LEARNING BEYOND THE CLASSROOM WITH ICT

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Abstract

In Teaching and Learning Process, using digital technologies enables students to personalize their learning and extend that learning beyond the classroom. Distance learning options such as the Virtual Learning Network (VLN) Learning exchange, and NetNZ enable students to access areas of the curriculum that are not readily available within their school. Bring your device (BYOD) initiatives enable learning to extend and continue beyond the classroom.

Providing students with high quality learning activities in relevant situations beyond the walls of the classroom is vital for helping students appreciate their firsthand experiences from a variety of different perspectives. Experiences outside the classroom also enhances learning by providing students with opportunities to practice skills of enquiry, values analysis and clarification and problem solving in everyday situations.

Use of ICT

Technology is both customizable and, often, intrinsically motivating for students. However, with that said, if you're a teacher or administrator, it's important to help students choose the "right" digital tool/s for to support their task, project, or goals. Tools, when chosen carefully, help teachers support, enhance, and extend student learning. Some of the ways are as follows-

1. Select tools that help students design and personalize their learning experience. Students should have the flexibility to access information and create their own learning experiences. Resources such as YouTube and iTunesU can not only keep your students informed but can help them learn in-depth information on a wide variety of topics.
2. Choose tools that support effective classroom instruction. Good technology supports effective classroom instruction. For example, your students are engaged as they learn about the effect of earthquakes on the ecosystem. And, you want them to review and add key vocabulary and terms to the conversation? A visual online vocabulary tool such as Wallwisher can help reinforce and extend word learning beyond the classroom.
3. Find tools that facilitate collaboration between students & teachers. Collaboration is key to a 21st century mindset. Help your students collaborate on projects and research with tools such as Google Docs, DropBox, Twitter, Google Hangouts, Skype, and Facebook groups.
4. Select digital tools that support students as they build their curation skills. With so much information, students need to learn how to curate content. Distilling content is a snap with tools such as paper.li, Alltop, feedly, Scoop.it! and Flipboard.

5. Introduce students to tools that help them get and stay organized. Organization is key, so they say. Digital resources such as LiveBinders, Evernote, and Kweeper can help students organize information so they can find resources from their notes, laptop, calendar, and the web.

6. Utilize virtual tools that support blended learning models. Tools such as Camtasia, YouTube, iTunesU, Google+ Hangouts, Twitter Chats, and others can help you design, deliver, and support rich content and communication 24/7. Not only mastering ICT skills, but also utilizing ICT to improve teaching and learning is of utmost importance for teachers in performing their role of creators of pedagogical environments. While literature provides some evidence of the effectiveness of using ICT in technical considerations, little is known about which learning strategies and pedagogical framework should be used for education and training. How to construct these electronic teaching and learning environments so that they are based on specific epistemologies or knowledge bases? What will be the new vision and guiding principles of teacher development for pedagogy -technology integration? As we become increasingly supported by ICT, teaching and learning will not be the same as before. We will have to make use of the rich and exciting opportunities offered by the new technologies in education to reach our new goal and vision. To appreciate the integration of ICT in teaching and learning, we need to understand the major paradigm shifts in education in recent years.

The integration of ICT into the very idea of teaching and learning always places pedagogy over technology. It is not the only concern to master ICT skills, but rather it involves using ICT to improve teaching and learning. The major emphasis of ICT infusion in pedagogy should be such that it tends to improve learning, motivate and engage learners, promote collaboration, foster enquiry and exploration, and create a new learner centered learning culture. It permits the move from reproductive model of teaching and learning to an independent, autonomous learning model that promotes initiation, creativity and critical thinking with independent research. Learners are expected to collect, select, analyze, organize, extend, transform and present knowledge using ICT in authentic and active learning paradigm. Teachers are expected to create a new flexible and open learning environment with interactive, experiential and multimedia based delivery system. ICT should help teachers and learners to communicate and collaborate without boundaries, make learners autonomous and allow teachers to bring the whole world into classroom activities. It is ultimately important to understand the roles of ICT in promoting educational changes. A basic principle is that the use of ICT changes the distribution and ownership of information resources in the space of teaching and learning and thus changes the relationship among educational participants. While designing any innovative teaching and learning environment using ICT, the teacher should always keep the learning at the center of all activities, pedagogy should be at the heart and integration of pedagogy-technology should be the central focus.

Pedagogical Practices

Using ICT Mere learning ICT skills is not sufficient but using ICT to improve the teaching and learning is the key for pedagogy-technology integration. But the question is how we can combine these two. Consider a scenario of a

young teacher who has just started to use ICT for his daily classroom activities of teaching and learning. To start with he or she needs to prepare lesson plans and compile lesson materials for the classroom lecture.

To prepare such materials one has to go through the act of drafting phase, editing phase, revising phase and finally publishing the lesson plans and course contents. Word processor can be a great help to accomplish this task in a professional and productive way to avoid repetition, duplication of manual work and concentrate on quality of the course materials. The teachers also need to make lists of the name of the students for monitoring and recording their academic performance and to analyze and perform a statistical analysis to take some corrective measure if any, in the lesson plan, delivery of instruction. Spreadsheets can be a good choice for creating class lists, recording their performance and executing statistical analysis upon them. While delivering the class lectures, any innovative teacher needs to draw diagrams, show pictures, animate some objects to explain critical concepts, even play some video clipping of real time operation. All these multimedia applications can assure very productive, interesting, motivating, interactive and quality delivery of classroom instruction. Presentation software like power point can be a good choice for teachers for performing such tasks.

E-learning

The link between distance learning and telecommunications is becoming even stronger, yielding new solutions to old problems, innovative educational resources and new teaching/learning practices. One of the most innovative and promising outcomes of this relationship is e-learning and online education, notably a process whereby teachers and students are linked up in an electronic media/computer network.

The concept of e- learning and how it relates to effective use of ICT is critically important for teacher education, because it places the focus firmly where it should be - jointly on pedagogy and the new ICT. The term e-learning, or learning via electronic media, nicely combines this twin concept: first, the changing focus of pedagogy to learning and, second, the new technologies stretching beyond the walls of the traditional classroom. In other words, e-learning for teacher development is learning about, with, and through all electronic media (i.e., ICT) across the curriculum to support student learning. ICT is the means, and e-learning and the effective integration of pedagogy and ICT constitute the goal. There are a number of benefits to e-learning. These include any time learning, anywhere learning, asynchronous interaction and group collaboration.

Blogs

Blogs or classroom web logs are becoming increasingly popular with teachers and teacher education. Many experts predict that blogs will eventually become more successful teaching tools than web sites. A blog is a web page made up of usually short, frequently updated posts that are arranged chronologically -like a “what’s new” page of a journal. The contents and the purposes of blogs vary greatly from links and commentary about other web sites to news about a company/person/idea, photos, poetry, mini-essays, project updates, even fictions. A crucial blog mission is to link to other web sites, or, sometimes even other blogs.

Many blogs are personal. Others are collaborative efforts based on a specific topic or an area of mutual interest. The use of blogs in instructional settings is limited only by one's imagination. There are many ways teachers can use blogs, some of them include content -related blog, networking and personal knowledge sharing, instructional tips for learners, course announcements and readings, annotated links etc., most importantly for the purpose of knowledge management. Learners can also take part in blogs by reflective writing, assignment submission, collaborative work, e-portfolios and sharing course-related resources. For teachers, blogs are attractive because it needs little efforts to maintain, unlike more elaborate classroom websites. Teachers can build a blog or start a new topic in an existing blog by simply typing text into a box and clicking a button. Such ease of use is the primary reason to predict that blogs are more successful teaching tools than web sites

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MENTORING: A RESPONSIBLE TASK

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Mentoring

Mentoring is most often defined as a professional relationship in which an experienced person (the mentor) assists another (the mentee) in developing specific skills and knowledge that will enhance the less-experienced person's professional and personal growth.

Mentoring and Coaching: Similar but Not the Same

The terms mentoring and coaching are often used interchangeably, and that is misleading. While similar in their support of someone's development, they are very different disciplines in practice. Mentoring is a long term relationship where the focus is on supporting the growth and development of the mentee. The mentor is a source of wisdom, teaching, and support, but not someone who observes and advises on specific actions or behavioral changes in daily work. Coaching is typically a relationship of finite duration where the focus is on strengthening or eliminating specific behaviors in the here and now both mentoring and coaching are incredibly valuable in providing developmental support. However, one offers high-level guidance for the long-term development, and the other helps you improve immediately.

The story of Mentor comes from Homer's *Odyssey*. Odysseus, king of Ithaca, fights in the Trojan War and entrusts the care of his household to Mentor, who serves as teacher and overseer of Odysseus' son, Telemachus. After the war, Odysseus is condemned to wander vainly for ten years in his attempt to return home. In time, Telemachus, now grown, ventures in search of his father. Athena, Goddess of War and patroness of the arts and industry, assumes the form of Mentor and accompanies Telemachus on his quest. Father and son reunite and cast down would-be usurpers of Odysseus' throne and Telemachus's birthright. The word *Mentor* evolved to mean trusted advisor, friend, teacher and wise person. History offers many examples of helpful mentoring relationships: Socrates and Plato, Hayden and Beethoven, Freud and Jung. Mentoring is a fundamental form of human development where one person invests time, energy and personal know-how in assisting the growth and ability of another person.

**From Shea, Gordon F. (1997) Mentoring (Rev. Ed.). Menlo Park, CA: Crisp Publications*

Mentoring is almost a huge part of the B.Ed training course. Trainee teachers receive teacher educators as mentors for most of their work and time in B.Ed.

Conceptual Framework Of Attitude Towards Mentoring

Mentoring Relationship

Building Effective communication: The mentor and the mentee are exploring their feasibility of working together. They are determining

the alignment of values, establishing a mutual respect, agreeing on the purpose of their relationship, and establishing the roles, behaviors and expectations.

Setting direction and relationship building Exercise: Managing mentorship is a complex relationship. It entails goal setting. It encompasses the rapport building exercise. The partners have to establish a sense of purpose and are determine what each of them should achieve through this relationship. It includes:

- Goal identification
- Clarification, and management
- Personal planning
- Analyzing the mentee's level of commitment to specific goals as well as the reality of achieving them.

Progression and Assimilation: It validates that both the mentor and mentee become more comfortable about challenging each other's perceptions. They explore issues more deeply and experience mutual learning. It includes the skill and ability to

- Sustain commitment
- Ensure sufficient challenge in the mentoring dialogue
- Help the mentee take increasing responsibility for managing the mentoring and being available
- Understanding in helping the mentee cope with setbacks.

Winding up and transition to a professional relationship: The phase states that the mentee has achieved a large amount of his or her goals and now has the confidence to continue the journey on their own. This process assures that the mentee is not overly dependent on the mentor for mundane tasks. It ensures avoiding unhealthy dependence on both. Winding up by celebrating the accomplishments redefines the relationship and it often evolves into a beautiful professional relationship.

Mentor Characteristics

Articulating: The mentor needs to be articulate in conveying the ideas to the mentee through mediums such as a story and or an anecdote. An effective mentor should be able to guide the mentee articulate their thoughts, feelings, and ideas through appropriate mediums. The mentee and the mentor need skill sets that are nearly same so as to understand the issues together and respond in an appropriate manner.

Listening: Effective mentors should first be good listeners. They should be able to recognize the importance of helping the mentee establish his or her own insights. They should be able to use questions to make frequent shifts of perspective/thoughts, so that the mentee can understand the concerns in complete true sense of the discussion. Mentees also need to exhibit good listening skills. The mentee needs to ensure that he/she accesses advice or the mentor's experience.

Respect: Without respect on both sides, the relationship will never achieve the level of openness required. Respect is not the same as deference – it is based on recognition of the value of the other person's intellect, values, and experience.

Goal clarity: Mentors and mentees need to have a clear understanding of their objectives. If these change, both need to be able to recognize, accommodate and assimilate to these changes and adjust accordingly. This ensures that the mentee understands the mentor's goals and it is easier to ensure relationship is reciprocal.

Challenging: One of the most common concerns of mentors and mentees is that they do not feel the other person is challenging them sufficiently often or strongly. In many cases, mentees feel that this is the most useful part of the relationship, while mentors have concerns that that this is the part that provides them with the greatest intellectual stimulation. Many a time, the mentor underestimates the mentee and does not allow him/her for challenging thoughts and progress.

Self-awareness: Self-awareness is essential for the mentor, to be a proactive and insightful role model and to recognize when and how to draw appropriately on his or her own experience. Self-awareness provides a practical foundation, upon which they reflect and to select their decisions.

Mentoring Process

The mentoring process is a complex task. The mentor and mentee should be acceptable to each other for smooth mentoring results. It involves identifying needs, setting goals and establishing an agreement over the relationship. The mentoring process needs to be affirmative and positive. It imperative that the mentee is successfully matched to a person who would best fit their area of need. Reassessment of goals and results is an important phase of the mentoring process.

Research Framework Of Attitude Towards Mentoring

Research Methodology: Mixed

Sample: 40-Trainee Teachers in Second Year B.Ed. of Rizvi College of Education

Sampling Technique: Convenience Sampling

Tool for Data Collection: Data was collected through a Tailor made questionnaire by the researcher studying attitude of trainee teachers towards mentoring. Three dimensions of mentoring were considered namely Mentor Characteristics, Mentoring Relationship and Mentoring Process. Mentor characteristics consists of 10 items, Mentoring Relationship consists of 8 items and Mentoring Process consisted of 6 items all rated on a 5-point Likert type rating scale. The highest a person could score on the scale is 120.

The tool also encompassed some open ended questions-

- Naming their Mentors during the course.
- List 5 qualities/attribute that they love about their mentors and 5 qualities that they do not appreciate
- Will they remain in contact and seek suggestions from their mentor after the course is over?
- Did they wish that they were assigned a different mentor and why?

Table 1

Measures of Central Tendency and Variability

On Attitude towards Mentoring and its three Dimensions

| Measures of central Tendency and Variability | Mentor Characteristics | Mentoring Relationship | Mentoring Process | Attitude Towards Mentoring |
|--|------------------------|------------------------|-------------------|----------------------------|
| Mean | 39.05 | 34.76 | 25.33 | 99.15 |
| Mode | 39 | 36 | 25 | 101 |
| Median | 39 | 35 | 28 | 99 |
| SD | 4.66 | 2.80 | 2.68 | 7.16 |

From Table1, The researcher has come to a conclusion that the S.Y B.Ed. trainee teachers show a very favorable attitude towards mentoring. The mean scores for total sample lies at 99.15 which indicated favorable attitude towards mentoring. The standard deviation measures how concentrated the data are around the mean; the more concentrated, the smaller the standard deviation. In this case the SD lies at 7.16, which states that the variation is large.

The open ended questions asked in the questionnaire also gave valuable insights to how the trainee teachers perceived their mentors and how observant were they to lists down the do's and don'ts of mentoring. The responses were studied and patterns were drawn from the mentioned responses. Some common attributes that were listed by the sample have been presented below

Table 2

Responses to Open Ended Questions on Mentoring

| Mentor | 5-Qualities that are appreciated | 5-attributes that are not appreciated | Contact after the course | Wish for a Different mentor |
|--------|---|---------------------------------------|--------------------------|--|
| A | Excellent Guidance Intelligent Innovative | Aggressive Insulting Intrusive | Yes | 4 suggested they wished for a different mentor |
| B | Patient Calm Approachable Helpful | Absent Minded Lacks Innovation | Yes | None |
| C | Intelligent Impressive | Boring Too strict | Yes | None |
| D | Co-operative Helpful Teacher Persona | Partial Not Challenging Enough | Yes | 2 suggested they wished for a different mentor |
| E | Friendly Approachable Co-operative | Casual approach Intrusive | Yes | None |

| | | | | |
|----------|--|--------------------------------------|-----------------------|---|
| F | Friendly Impressive Caring | Bad listener Sarcastic Insults | 6 suggested- No | 8 suggested they wished for a different mentor |
| G | Innovative Motivational Co-operative | Partial | Yes | None |

Discussions

Mentoring is a tool for development and progression for both the mentor and the mentee. The most visible interpersonal problem in mentorship occurs when the relationship moves from professional to personal. Problems in mentoring can be minimized when both parties have clear expectations of what professional ethics allow or disallow them to do. It should be understood by both that they are humans who are trying to meet their personal goals and need in this complex world. Forgiveness and patience are needed to build a successful mentoring relationship. The mentor role needn't take an excessive amount of time. Establishing firm and clear ground rules with mentees can improve efficiency. It has to be made clear that accountability isn't optional. Effective mentors educate mentees about the standards of the profession — and ensure they live up to them.

Every Great Achiever is inspired by a Great Mentor

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A STUDY ON THE IMPACT OF RELIGION AND GENDER ON THE EQ OF TEENAGERS OF SUBURBAN MUMBAI

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Abstract

The rationale of this study is to evaluate the EQ levels of teens across schools and colleges in Suburban Mumbai. The need for this type has arisen due to the exceeding aggressive and insensitive behaviour seen in the teens of the 21st century belonging to metropolitan city. After the initial survey, the researchers shifted their study from general evaluation of EQ of teenagers to gender and religion-based study. Through this study, they found a difference in the EQ levels of teenagers who were enrolled within an institution through the minority quota. This work is targeting the teachers and management of the institutions to highlight that EQ levels are equally important (like IQ) and there is an urgent need to leverage these levels.

Keywords: *EQ, teenagers, minority, gender.*

Introduction

Emotional intelligence or emotional quotient (EQ) of a person is the ability one possesses to identify the feelings of oneself and of the others who are closely associated. EQ matters in terms of motivating our own self and for handling our emotions. EQ is equally important when it comes in maintaining relations with family, peers, colleagues and sometimes even with unknown entities. EQ describes abilities distinct from but complementary to academic intelligence or the purely cognitive capacities measured by intelligent quotient (IQ) [Goleman Daniel, 2011]. However, for this study, only EQ has been considered and measured in terms of its dimensions, emotional control, emotional maturity, emotional conscientiousness, emotional awareness, emotional commitment, emotional fortitude and emotional expression.

When we discuss about teenagers, we usually talk about the age group of 13-18 years. Students of this age group are commonly studying between the 8th to 12th grades. The technical term used for teenagers is adolescents. In this age, these students suddenly experience a lot of change in their physical and mental states. Their growth hormones accelerate and they emotional dependency changes. Some become mature and quiet, some become rebellious and boisterous while some become timid and shy. Hence, this age groups experiences a shift in their EQ and its impact becomes prominent in their education and social lives.

To evaluate EQ, many parameters could be considered. For this study, the researchers are mainly considering parameter of religion and gender and seeing if there is a paradigm shift in the EQ levels based on these two parameters. The following sections of this study discuss about the previous works in the field of study of EQ,

followed by the methodology used to conduct this study. The final segments of this manuscript discusses the findings and solutions the researchers wish to propose.

Related Literature

Mayer & Salovy (1999) conducted a research in which they targeted at identifying the dimensional EQ as it represents a scalable capacity for individuals by applying a multi factor EQ standard, tested on 290 high school students, aging 11 to 18 years old. The findings were: Girls exceeded boys in EQ scores. Elder adolescents (boy, girls) exceeded younger counterparts in the study.

Morand (1999) found positive relationship between family size and the ability to recognize emotion from facial expression. Participants were shown seven separate faces that depicted different emotions. They had to decide which of seven emotions each face was expressing. He found that participants who came from larger families more often choose the correct emotions. He argued that people who are belonging to larger families have higher level of emotional intelligence because of greater number of social interaction they experience in their home.

Petrides and Furnham (2000) in their manuscript conducted a study on two hundred and sixty predominantly White participants completed a measure of trait EQ and estimated their scores on 15 EQ facets on a normal distribution with 100 points as the mean and 15 points as a standard deviation. Females scored higher than males on the "social skills" factor of measured trait EQ. However, when the 15 facets of self-estimated EQ were combined into a single reliable scale and the participants' measured trait EQ scores were held constant, it was demonstrated that males believed they had higher EQ than females.

Pandey and Tripathi (2004) conducted a study on development of EQ in light of age and sex. The developmental changes in EQ were investigated in a sample (50 males and 50 females) from five age groups. They completed the measure of EQ consisting of identification of emotion, perception and recognition of emotion-with probing, perception and recognition of emotion-without probing, understanding emotional meaning and emotion intensity rating. The results indicated that there was increase in EQ with age and females were more proficient in managing and handling their own emotions as well as of others. This study also reveals that there was no significant difference between male and female on emotional Intelligence.

Tiwari and Srivastava (2004) conducted a study on EQ in relation to sex, age and grade. Sample consisted of 270 primary school children drawn from different schools. The results of this study revealed that gender had no significant main effect while medium of instruction and grade had significant main effects on all the three components of emotional intelligence. It was noted that children attending English medium schools scored higher followed by Hindi and mixed medium school children respectively. The older children of fifth grade scored higher than third and fourth grade children.

Saroja Bai (2011) studied emotional intelligence of Arts, Science and Commerce Pre-University students. The study involves 500 Pre-University students selected from Bangalore urban and rural area who were studying in Science, Arts and Commerce stream by using stratified random sampling procedure. The study conducted on 269 male and

231 female students of Government, Private and BBMP (Bruhat Bangaluru Mahanagara Palike) colleges. The present study reveals that the Arts, Science and Commerce students of Pre-University Colleges have significant difference in Emotional Intelligence. The Science students of Pre-University Colleges have higher EQ compare to Arts and Commerce students.

Not much work has been done in comparing the religion as a key parameter to measure the EQ of the students. Hence, this manuscript highlights on the gender and the religion aspect of the teenager to analyse their EQ levels.

Need For The Study

The present study is a descriptive research to evaluate the EQ of teens belonging to two different minority institutions. This kind of study is important for institutions with minority quotas. Through this study, the researchers are trying to evaluate if the essence of the religious minority provided by most of the educational institutes across Mumbai are catering to all the needs of students who are a part of that institution. Such studies make management and teachers of these institutions to be aware of the difficulties faced by the students. With collaborative work of teachers and management, special attentions could be given to EQ of the students and remediation could be provided to leverage their weaker.

Assessment Of EQ Amongst Teenagers Of Suburban Mumbai

This manuscript aims to study the EQ level of students of Institution X and Institution Y. It is also aiming to study the difference in levels of EQ between Male and Female students. Further, this manuscript aims to check the role of religion in the EQ of the students. For this study, the religion minority offered by the two institutions is referred as Religion A and the other religions (in combination) are referred as Religion B.

a. Tool for the study

To conduct study, tool devised by Kyde, Pethe and Dhar (2001) was adopted. The students had to attempt 34 questions. The analysis was done using five-point Likert scale where the student could score a minimum of 34/170 and a maximum of 170/170.

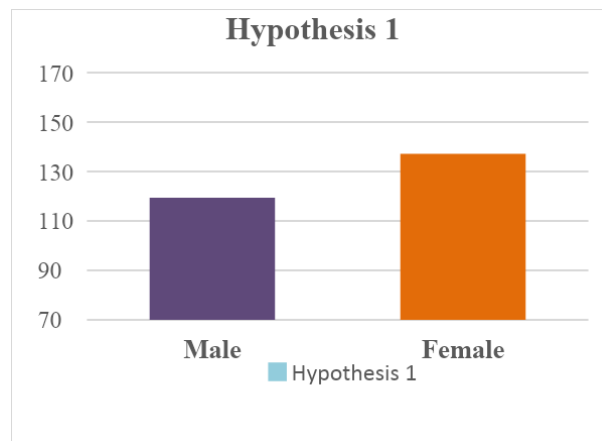
b. Methodology of the study

The methodology of this research is decided on the basis of nature of the problem under consideration, it aims several key parameters and its objectives are devised. To gather authentic data, systematic procedure is followed by the researchers. To attain the objectives of the present study an ex – post facto study involving descriptive correlation research method was found to be most suitable. Descriptive research explains the sequential process involved in recording, analysing and interpreting the conditions that exist. The variables refer to existing conditions. The gender, religion and age are non-manipulative existing independent variables of the study. EQ of adolescents is the dependent variable. Hence the researchers have adopted descriptive methodology for this study. A sample size of 200 is collected from Institution X and Y with the sample age between 14-18 years.

c. Analysis

Hypothesis 1: There is no significance difference of EQ of male students and female students of school and junior college.

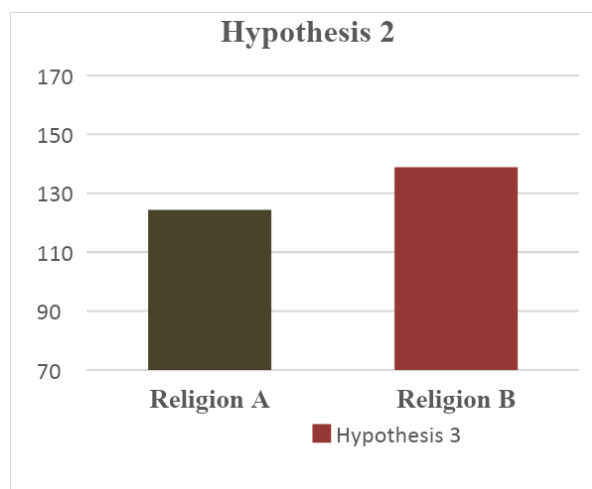
It is observed that the EQ of all the female students (Institution X and Y combined) is belonging to Level 3 (137.17) where as that of all the male students is belonging in Level 2 (119.17). Hence, through this study, we can say that there is a significant difference between the EQ of males and female students of considered in this study. Hence, null hypothesis is Rejected.



Graph 1: Male vs Female analysis of Hypothesis 1

Hypothesis 2: There is no significance difference in the E-Q of students belonging to Religion A and Religion B.

- In this study, it is observed that the EQ of all the students (of Institution X and Institution Y) belonging to Religion A is in Level 2 (124.31) where as that of all the students of Religion B is belonging in Level 3 (138.81). Hence, through this study, we can say that there is a significant difference between the EQ of students belonging to Religion A and Religion B of both the institutions. Hence, null hypothesis is Rejected.



Graph 2: Religion A vs B analysis of Hypothesis 2

Discussions

There is a significant difference between the EQ of male students and female students of both the organisations taken into consideration. The male students belong to level 2 (119) whereas the female students belong to level 3 (137). It is observed that the EQ of female students is high as they tend to be mature more than their age and so has high level of EQ due various factors such as empathy, self-awareness about oneself as compared to the male students. Female students are more emotionally stable and multi-task oriented which leads to have a better EQ as that compared to male students. While the masculine gender is said to be more tough and rigid in their nature which is also one of the reason of male students having low EQ.

There is a significant difference between the EQ of students based on their religion belonging to Institution X and Institution Y. The students of Religion A (minority) have lower EQ as compared to Religion B (other religions). The institutions are encouraging religion minority to leverage these students and the efforts these institutions take to support and provide education is tremendous and applaudable. Sufficient encouragement is given to the students with lower socio-economic background and financial instability to get education. These students are getting the best of the facilities but at times, their neighbourhood and family, surroundings and social environment discourages them to higher emotional stability and hence their EQ is hampered. The ratings of the Institutions taken under consideration for this study is excellent (according to the Government organisations' rating). Hence seeking admission in these institutions is a challenge for students belonging to religions other than Religion A. So basically, there is a drift in several social parameters of students belonging to Religion A and B.

Conclusion

The researchers in this have found out that the EQ of females is higher than that of male teenage students in comparison with each other. But if the overall EQ is considered, female EQ is on the margin of Level 2 and 3 whereas male EQ is just under level 3. Both the genders need leveraging of the skills. As the researchers are dealing with teenagers, it needs be dealt with sensitivity and care. By encouraging these students to take part in several psychosomatic activities and games (under the observation of psychotherapist or psychologist); a remarkable improvement should be seen within a span of a handful of sessions.

Post observation of EQ levels of minority community in the Institutions under consideration, parameters like standard of living, changing environment of home and school, over exposure of social media, low economic conditions, educational background of parents could be the reason of these results. Though most of these parameters are not within the reach of the management and/or teachers to control, the best efforts that could be taken by them is to ensure students feel safe mentally, their knowledge is enriched and they are socially aware. This could be attained by small measures like yoga, meditation, seminar, counselling, buddy grouping, etc. Through exchange of ideas, friends, spirituality and meditation, these students will come out with flying colours at academic as well in real life situations.

Though this study has been conducted in depth, some gaps have been identified which can be fulfilled through better planning. Data of Religion A (Minority quota religion) could be collected from difference minority schools and colleges in order to understand the scenario better. The researchers could also consider the socio-economic, and educational background of the parents as parameters of the study to get a more detailed and clear picture. However, this study gives a clear picture of the need and requirement of students of the various institutions across Suburban Mumbai.

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A STUDY TO FIND A CHANGE IN THE STUDENTS PERCEPTION OF JUNK FOOD THROUGH AN INTERVENTION PROGRAM ON HEALTHY EATING

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Introduction

Food is an important elements to meet the growing needs of the children. During the olden days children used to consume what was prepared at home. But now with both parents working, nuclear family there are number of options to fulfill one's needs of hungers. Junk food is a preferred option, which are attractively marketed and advertised, with yummy tastes and affordable rates. But what are the implications of the junk food on the mental health of adolescents who are the future of any nation. Junk food affects the physical health (Fleck, 2014) and the mental health of children. Junk foods are loaded with trans-fats, sugar and high calorie with low nutrients. The way the food is marketed and advertised influences children's food consumption, purchasing patterns and preferences of food.(Hastings et.al, 2003). The job of any marketing agency is to promote the product and increase the sales of that product. The product is advertised in such a manner that people are induced to buy the products. Be it any product a consumer durable or advertisements of junk food, the motto of the company is to boost the sale and consumption of junk food. According to (McDermott, L., et al, 2006) parents tend to buy more junk food, as children pester their parents due to junk food advertisement. Junk food causes obesity related problems, physical problems and mental problems. According to (Parkin, D.M. and Boyd, L, 2011) obesity due to junk food would lead to 6,70,000 cases of cancer in the next 20 years. But what do students perceive about junk food, how often do they consume junk food, the different occasions on which they consume junk food, the ill effects of junk food on the mental health of the children are few things which need to be thought about. The role of nutrition plays a very important role in the mental health of the students. According to world health organization mental health would be one of the major problems by the year 2020. Studies have shown that students who consume high amount of junk food have higher chances of mental health problems. Unhealthy eating patterns, sugar sweetened soft drinks, sweet chocolates, savory snacks and fast food have resulted in symptoms of dizziness, anxiety and feelings of worthlessness among adolescents.

Health and nutrition plays a very important role. With healthy eating habits one hopes to live a healthy living. In today's fast paced world, junk food becomes a viable option for adults and the younger generation. If we want to increase the life span of individuals with a healthy life style it is very necessary that one is aware of the consequences of the marketing gimmicks, advertising which creates an impact in the minds of adolescents. It is

necessary that children know about the ill effects of these junk food the extent of mental health problems junk food can cause to the human body

Objectives of the study

1. To compare the perception of junk food of the pre test scores and post test scores of secondary school students.

Hypotheses of the Study

1. There is no significant difference in the percentage of pre test scores and post test scores of junk food secondary schools students.

Variables of the Study

1. Students perception of Junk Food - Dependent Variable
2. Intervention Program on Junk Food – Independent Variable

III. Operation definitions of the study

1. Students perception of Junk Food
Students perception of Junk food refers to students knowledge and consumption about Junk Food
2. Secondary School Students
Students of standard eight or ninth from SSC board
3. Intervention Program
Intervention Program consists of lesson plans prepared to orient students about the harmful effects of junk food and to motivate students to consume healthy food.
4. Junk Food: Junk food defined as food that is of little nutritional value and often high in fat, sugar, salt, and calories.

Tool for the study

A single page questionnaire containing set of 15 multiple choice questions was prepared and distributed. The responses were collected and counted manually based on the options specified for each question framed.

Method for the study

Method of the Study

The present study is an action research study conducted in the school set up. Action research is an attractive option for teacher researchers, school administrative staff, and other stakeholders in the teaching and learning environment to consider (Mills, 2011). Specifically, action research in education can be defined as the process of studying a school situation to understand and improve the quality of the educative process (Hensen, 1996; Johnson, 2012; McTaggart, 1997). Action research helps to gain new knowledge and understanding about how to improve educational practices or resolve significant problems in classrooms and schools. The prime focus of action research is to improve the lives of children. Action research helps teachers to identify problems and helps in identifying and

finding solutions to those problems. The present study measures the perception of junk food of secondary school students and to ensure a positive change among students towards healthy eating habits. A pre test was administered to understand students perception about junk food, three interventions were carried after which post test was administered to find if there was difference in students perception towards junk food.

Description of the Intervention

Three interventions were conducted to enable students to develop positive attitude towards healthy eating. The first intervention consisted of making students aware of the negative impact of junk food on one’s health, the second and third intervention consisted of making students understand how healthy eating habits would be beneficial for a good living.

Findings of the Study

1. **Q.1.** In your opinion do you consider junk food is healthy or not?

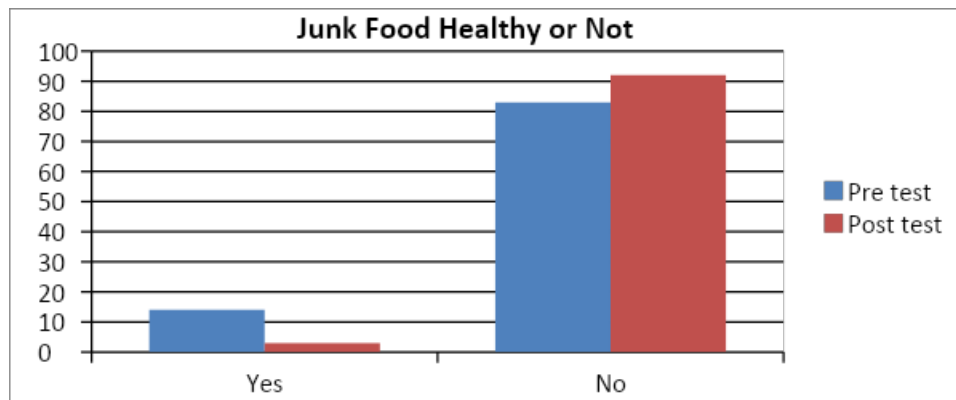


Fig 1 Junk Food Healthy or Not

The bar graph indicates that initially students considered junk food as a healthy option but after the intervention junk food was considered unhealthy.

Q.2. What are the factors influencing the choice of junk food?

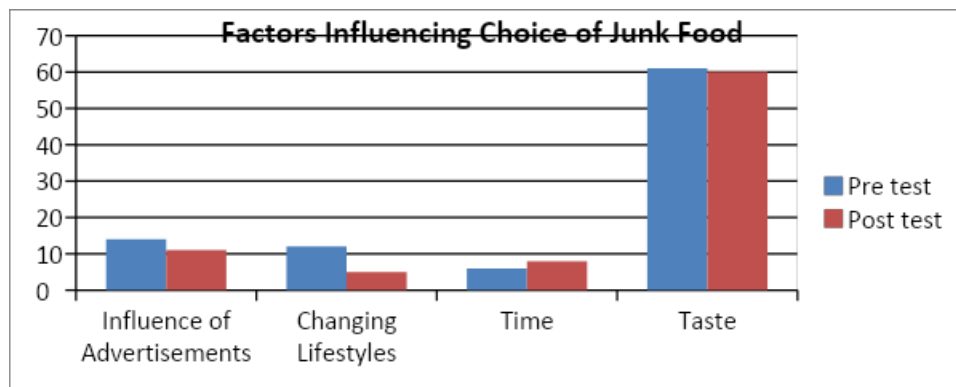


Fig 2 Factors Influencing Choice of Junk Food

The graph indicates that it was the taste that influences students choice of junk food. Students preferred to have junk food due to the yummy taste which students enjoyed eating.

Q.4. What is your favourite junk food?

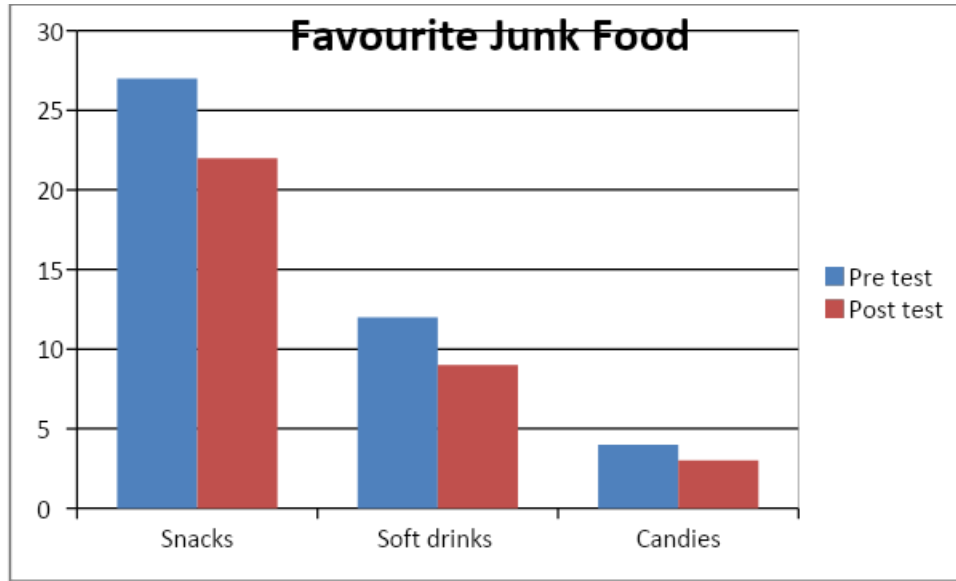


Fig 4 Favourite Junk Food

The graph shows that the preferred junk food among students was snacks items. Though the questionnaire does not specify snacks, but snacks could mean fried and oily food, chips, burgers.

Q.5. 5. Where do you often have junk food?

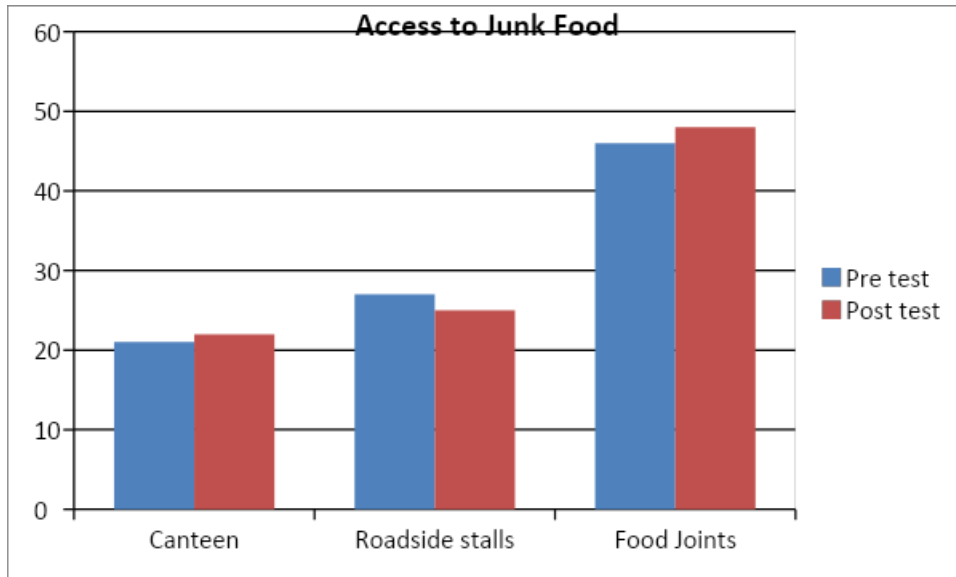


Fig 5 Access to Junk Food

The graph indicates that students often ate junk food at food joints, followed by roadside stalls. The number of food joints is at increase with easy access at shopping malls.

Q.6. . How many times do you eat junk food on an average per week?

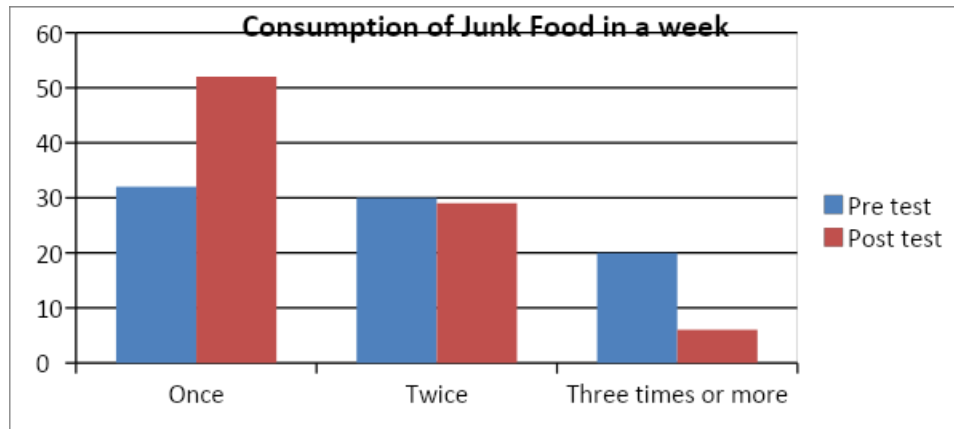


Fig 6 Consumption of Junk Food in a week

The above graph indicates that at least once in a week, students enjoy junk food. The students might be eating junk food because of the yummy taste.

Discussion on the findings

The data analysed shows that students prefer to have junk food at least once in a week and the reason to consume junk food was due to the taste. Since students preferred to have junk food like snacks which may include items like fried food stuff and oily food stuff. The intervention carried has been effective in making students understand that junk food is harmful and has effect on the health and nutrition of the children. Though the post test for the statement opinion about junk food shows a decrease, there is more to be done to help students understand the impact and ill effects of junk food on the mental health of the students. In a study conducted, it shows that consumption of Junk food increases the psychiatric distress and violent behaviors in adolescents and children.

Conclusion

It is therefore necessary that consumption of junk food could be reduced among school children only after students are made aware of the impact of junk food on the physical and the mental health and more on the mental health of students. For students to be able to think rationally and lead better lives it is necessary that along with their physical health and the mental health of the secondary school students.

References

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