ISSN 2250-334X

Registration No. PUNENG/2010/37675

MALWA JOURNAL OF EDUCATION

Vol.1, No. 12, Issue 12, Annual, 30th Oct. 2021, Pages 80 ₹ 00.00

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CONSTRUCTION AND STANDARDIZATION OF CAREER MATURITY SCALE FOR UNDERGRADUATE STUDENTS

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Abstract

The paper presents the details about the development and standardization of Career Maturity Scale for undergraduates especially the first-year students. The test initially consisted of 100 items. After the experts review; items were reduced to 60. This was followed by item analysis on 89 undergraduates the final draft included only 39 items. The Croanbach Alpha reliability was found to be 0.81. To establish the validity of the present scale the concurrent validity index was calculated which came out to be 0.81.

Key Words*: Career, Construction, Maturity, Standardization, Questionnaire.*

Introduction

Career maturity is the readiness to make age apt career decisions. It is essential as per the developmental approach to understand career behaviours involving the assessment of an individual about the level of career progress in relation to his/her career development tasks. It is further referred to as the points reached on the continuum of career development from the early exploratory years (adolescent years) till decline (old age). Furthermore, it is the ability to sequentially plan by utilizing exiting resources and accepting of responsibility for choices.

As per Savikas (1999) career maturity is defined as "the individual's readiness to make informed, age appropriate career decisions and cope with career development tasks".

Pickworth (1997) defines it as "the individual's readiness to cope with the developmental tasks with which he or she is confronted with because of his or her biological and social developments and because of society's expectations of people who have reached that stage of development."

Career maturity is thus the affective and cognitive behaviour of individuals indicating their readiness to make informed decisions

at the apt stages of career development. So, it is imperative to assess the level of career maturity of undergraduates' i.e. later adolescents. For this career maturity scale was developed and standardized by using the Likert's (1932) method. The process of scale construction is divided into in three phases:

- Planning Phase
- Construction Phase
- Standardization Phase

Planning Phase: This phase included the following steps:

- Operationally defining the construct of career maturity.
- Review of literature as well as consulting already constructed standardized scales, questionnaires, inventories, etc. related to career maturity.
- Methodology of the scale construction.

Operational Definition

As operationalized by the investigator "it is the degree of readiness an individual possess towards its career developmental tasks. It also refers to the ability to cope effectively with these tasks for shaping one's career in the face of existing societal opportunities as well as constraints. For the present study, the degree of readiness is measured using the levels of agreement including the ability of coping which is accessed via the attitude scale."

After extensive review of available li terature from the catalogues, journals, books, official and web sources that have helped the investigator to understand the vocational development of the undergraduate students intensively. Further she also intensively went through already established different standardized scales, questionnaires and inventories. The scale consisted of the following five dimensions i.e. career planning, career exploration, world of work information, career decision making lastly, integrated knowledge of self and career.

Methodology for Scale Construction: The 'Summated Rating' technique of Likert (1932) was used to create this scale. It is the most widely used scaling technique for data collection in studies, particularly those related to behavioural sciences and surveying. The five-point rating scale is the most popular and widely used form of Likert scale for research purposes, and it includes a continuum of alternative responses, ranging from strongly agree to strongly disagree, as well as different categories based on the

variations in responses, such as frequency, quality, importance, and likelihood, to be used in the study. Scoring is accomplished by assigning numerical weights ranging from 1 to 5 to each category, with 5 representing the most favourable response and 1 representing the least favourable for positive items and vice versa for negative ones.

Construction Phase: This phase is further divided in following steps:

- Writing the items
- Constructing the preliminary draft
- Editing of the items after experts review
- Directions for respondents
- Try Out of the scale
- Item Analysis
- Preparing the Final Draft
- Scoring

Writing the items: The construction of the items is the most important step in the development of a scale. The investigator thoroughly researched the literature on career maturity available in books and journals of psychology, sociology, education, and various websites on the internet. In addition, the tools that had already been built and standardized for various age groups and professionals were constantly read and re-read for the purpose of selecting content for the scale.

The investigator then framed the items of the scale on tentative basis as per the information gathered from various accessible sources. These items were constructed in the form of statements. For the preliminary draft 100 statements were tentatively framed under five dimensions of career maturity. The statements were then discussed with supervisor time and again. After all the necessary modifications were made, this draft was handed over to the experts to review.

Editing of the items and provisional draft: The experts were given a draught of 100 items to critically examine for grammatical correctness, repetitiveness, and ambiguity. Panjab University, Chandigarh and its affiliated education colleges in Chandigarh and Punjab were approached for this purpose, and 11 experts with extensive experience in the field of education were approached. These experts were personally asked to go over each statement and indicate how the statements were relatively in close connotation with the construct in question, as well as the dimension under which it was mentioned. A note was written outlining the

meaning of career maturity as well as the dimensions. The experts were asked to provide objective and critical feedback on the items in the form of comments and observations. Each expert was asked to accept, reject, or modify the item as needed. The investigator and the supervisor met several times to review and reconsider the items based on the opinions of the aforementioned experts. As a result, a pool of 60 statements for the provisional draught of undergraduate students' career maturity was finalized.

Directions for respondents: On the booklet, the required information regarding today's date, name, father's name, date of birth, age, gender, qualification/class, semester/grade, stream, college/institution address, area, place, residential/house address, contact no., E-Mail ID etc., that needed to be filled before marking the statements. Along with this, the following instruction were mentioned for the respondents. On the following pages there are 39 statements that have been given for your kind consideration. Read each statement carefully, decide your response by putting a tick on one response category/alternative viz. strongly agree, agree, undecided, disagree and strongly disagree which in your opinion suits the most. Record your first impression that comes to your mind when you read the statement. Make sure only one mark is made against each statement. Please do fill all the 39 statements. The time taken to complete the scale is 25-30 minutes approximately. Choose the alternative carefully and avoid any other unnecessary tick marks on the other alternatives. Be assured your responses will be kept confidential.

Try out of the scale: The try-out of the scale was carried out online on first year undergraduates from Sciences (Medical and Non-Medical), Commerce and Arts (17-19 years) stream. The first-year students studying in two of the government colleges of Chandigarh i.e. Post Graduate Government College, Sector-11, Chandigarh and Government College of Commerce and Business Administration Sector-50, Chandigarh; as these colleges were chosen randomly using lottery method. As, due permissions were taken from the concerned departments. Then the scale was administered via Google forms due to COVID. The E-Mail IDs of the students were procured from the colleges (i.e. from one college while in the other college the responsibility was taken up by the concerned authorities (professors) so the investigator had to mail and whatsapped them the

Google forms on their respective e-Mail IDs and via other contact details). The forms were sent with complete instructions and with a time of one and a half month just to fill the forms. Only 89 college first year undergraduates from Sciences (Medical and Non-Medical), Commerce and Arts filled the scales completely and responded back. The studies in consonance with the small sample size for pilot testing include Treece and Treece (1982) who suggested 10% of the project sample size. Sheatsley (1983) suggests a lower number: "It usually takes no more than 12-25 eases to reveal the major difficulties and weaknesses in a test questionnaire". In elaborate terms, as cited in Zukerberg, Von Thurn and Moore (1995); According to Sudman (1983), "A pilot test of 20-50 cases is usually sufficient to discover the major flaws in a questionnaire before they damage the main study". However, Courtenay (1978) asserts that "for most purposes a pilot survey of between thirty and a hundred interviews is adequate. But the exact size will depend on the aims of the particular test: two or three interviewers doing five to ten interviews each will often be able to reveal wording and layout problems". Johanson and Brooks (2010) were of the view that 30 representative participants from the population of interest is a reasonable minimum recommendation for a pilot study wherein the purpose is preliminary survey or scale development; as cited in Whitehead, Julious, Cooper and Campbell (2016) is "when estimating the sample size for the pilot trial, the simplest methods to apply are sample size rules of thumb. Browne (1995) cited a general flat rule to 'use at least 30 subjects or greater to estimate a parameter'." Lastly as mentioned in their work by Chaudhary and Isreal (2021) "A pilot test is also called a field test. There is no prescribed sample size for a field test; various researchers suggest sample sizes from 10-25 (Sheatsley, 1983) to 20-50 (Sudman, 1983), but the final sample size decision is made by the researcher based on available time and budget to carry out the field test."

Item analysis: It is a statistical technique which is used for selecting and rejecting the items of a test i.e. scale, inventory, questionnaire etc., on the basis of either their difficulty value or discriminative power as well as including both.

This scale cannot be evaluated in terms of right or wrong responses because it is in the form of a rating based on agreement that is being used to secure an expression of opinion for the construct to be measured. As a result, the concept of item difficulty would

be inappropriate for this scale. So, for this scale, only the item discrimination index was calculated, and the items were selected and rejected based on the results.

Item discrimination index: The discrimination index of an item was determined by item total correlation. According to Whiston (2008) "An item discrimination index can be calculated through correlational analysis between the performance on an item and an overall criterion" as cited in Boateng, Neilands, Frongillo, Melgar-Quiñonez and Young (2018). Also, as mentioned in the work by Tapsir, Pa and Zamri (2018) "The analysis covered inter-item relation, item-total correlation, Cronbach alpha values (when respective item is deleted), and item-total statistics for item analysis." These suggestions were followed for this scale. In order to make selection of items objectively and scientifically, item analysis was done by following the above statistical method to obtain discriminative power for every item included in the provisional draft of the scale.

Selection of items and preparation of the final draft: The final draft of the career maturity scale was prepared on the basis of item analysis by using item-total correlation. The items falling in between the acceptable range of 0.2.-0.7 {as recommendation by Streiner, Norman, and Cairney (2015) that corrected item–total correlations range lie between 0.20 and 0.70; as cited in Piqueras, Gomez-Gomez, Marzo, Gomez-Mir, Falco and Valenzuela (2021)} were selected for the purpose of further administration. It lead to the elimination of 21 items from the 60 items mentioned in the testing draft of the scale. Hence, career maturity scale for undergraduates in its final form comprised of 39 items.

Scoring: Each item of this scale using Likert scaling has a response option on five points continuum viz, Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree with respective weights of 5, 4, 3, 2 and 1 for positive items and vice versa for negative items. Career maturity score of the subject is the sum total of all item scores. The theoretical range of scores is from 39 to 195, high scores reflect relatively higher level of career maturity for undergraduates and vice- versa.

Standardization Phase

Standardization phase include establishing reliability and validity of the tool.

Reliability of the scale: Reliability refers to the consistency of scores or measurement which is reflected via the reproducibility of

the scores. A test is said to be reliable over a given period of time when all the examinees retain the same relative ranks. In the words of Anastasi and Urbina (1997), reliability refers to "the consistency of scores obtained by the same individuals when re-examined with the same test on different occasions or with different sets of equivalent items or under other variable examining conditions." As Drost (2011) describes reliability is "the extent to which measurements are repeatable when different people perform the measurement on different occasion, under different condition, supposedly with alternative instruments which measure the construct or skill". The types include alternative form, internal consistency, scorer and test-retest.

Cronbach's alpha depicts the degree of internal consistency. It ranges from zero to one exclusively and locates the variance of the individual score on each item and then adding the variances across all the items. It is the most generalized method used for finding estimates of reliability via internal consistency (Singh, 2010). It was found to be 0.81. This was fairly high to testify the soundness of the scale.

Validity of the scale: Validity refers to the degree to which a test measures, what it proposes to measure. It is also the extent to which conclusions and decisions made based on test scores are appropriate and meaningful. The validity of the test is determined by measuring the extent to which it matches with a given criterion. According to Anastasi (1968) "the validity of a test concerns what the test measures and how well it does so." Kalpan and Sacuzzo (2001) define it as "the agreement between a test score or measure and the quantity it is believed to measure." The types include content or circular, construct and criterion. For establishing the validity of this scale is a sub-type of criterion validity i.e. the concurrent validity which implies that the "test is correlated with a criterion available at the present time (Singh, 2010)." For obtaining concurrent validity of the present scale it was correlated with already existing Career Development Questionnaire by Langley, Herbst and Du Toit (1992). Validity index came out to be 0.81 which indicates that the scale has a good concurrent validity and it can be used as a tool for measurement.

Time Limit for the Test

The average time taken by the examinees to reach the last item that can be fixed as the duration of the test which comes out to be 25-30 minutes approximately. It includes

both the time for reading the instruction and for responding to the test.

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COMPARATIVE STUDY OF MENTAL HEALTH OF SECONDARY SCHOOL STUDENTS IN RELATION TO ACADEMIC ANXIETY

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Abstract

The present study is a preliminary attempt towards the study of mental health in relation to academic anxiety of secondary school students of district Ludhiana of Punjab, India. For this endeavor, descriptive survey was conducted on a sample of 160 secondary school students selected randomly from the government and private schools of Ludhiana district of Punjab. The value of the sample was assessed using standardized tests namely Mental Health Battery by Sengupta and Singh (2008), and Academic Anxiety Scale for Children by Singh and Sengupta (2009). The findings of the study revealed no significant difference in mental health on the basis of type of schools (Government and private) and on the basis of gender (Male and female). Significant negative relationship was found between mental health and academic anxiety of secondary school students.

Key Words: *Mental Health, Academic anxiety, and secondary school students*

Introduction

Adolescents' mental health is critical in developing a healthy lifestyle, building strong relationships, adapting to change, and dealing with life's challenges. Adolescents who are mentally healthy are happier and more positive about themselves and enjoy life, can recover from upsets and disappointments, have healthier relationships with family and friends, engage in physical activity and eat a healthy diet, participate in activities, have a sense of accomplishment, and can relax and get a good night's sleep.

Mental health is a state of well-being in which an individual recognizes his or her own abilities, is able to cope with everyday stresses, can work productively, and can contribute to his or her community (World Health Organization, 2018). The term "mental health" refers to a person's cognitive, behavioural, and emotional well-being. It all comes down to how people think, feel, and act. The term "mental health" is sometimes used to refer to the absence of a mental disorder (Legg, 2020). A state of mind characterized by emotional well-being, good behavioural adjustment,

relative freedom from anxiety and disabling symptoms, and the ability to establish constructive relationships and cope with the ordinary demands and stresses of life is referred to as mental health (Dictionary of American Psychological Association, 2020).

Students' mental health is jeopardized when anxiety and depression go unnoticed, which can lead to social and behavioural issues, poor performance and learning. Academic stress and its effects on mental health are well-studied topics. According to research, academic stress reduces well-being and increases the likelihood of developing anxiety or depression.

Academic anxiety is a mental sensitivity to uneasiness or distress in response to negative school or college circumstances. They experience academic anxiety in the form of panic, helplessness, hypertension, and mental disorganization. Academic anxiety contributes to academic difficulties by causing irrelevant thoughts, preoccupation, and a reduction in attention and concentration (Derakshan & Eysenck, 2009). It refers to the feeling of being distressed, fearful, or stressed out as a result of school pressures (Barta, 2010). It is a mental feeling of uneasiness or distress in reaction to a school situation that is perceived negatively (Shakir, 2014). When a student experiences anxiety symptoms as a result of schoolwork or stress related to schoolwork, this is referred to as academic anxiety (Dorfman, 2021).

Sharma (2017), Kumari (2018) revealed significant negative relationship between mental health and academic anxiety. Javet (n.d.) and Agarwal (2011) found significant negative relationship between academic stress and mental health of students

Kiani, Latif, Bibi, Rashid and Tariq (2018) reported no significant relationship between academic stress and mental health of college and university students.

Significance of the Study

In a developing country like ours, there is an economic divide in society. Some are wealthy, while others are impoverished; their lifestyles differ according to their income. All of the parents want to provide better educational opportunities for their children in order to prepare them for the future. Parents who cannot afford expensive private school education for their children send them to government schools, which are less expensive. The majority of private schools in India are superior to public schools. This difference has an impact on

some of the children's personality traits, such as self-concept, academic achievement, and academic anxiety. This researcher's thought motivated him to conduct the current investigation.

Academic success is one of the most important aspects of a child's life. It is more important to understand the factors that influence children's achievement. The main factors influencing children's achievement are their abilities, the type of school they attend, and their parents' encouragement. It is surprising that in a country like ours, so much emphasis is placed on children's academic achievement, ignoring academic anxiety, which must be reduced for academic success and the maintenance of positive mental health.

As a result of its practical and immediate application, the investigator felt that there was an urgent need for such a study on the impact of academic anxiety on the mental health of secondary school students. With this in mind, the investigator conducted this research.

Objectives

1. To compare the mental health of secondary school students studying in government and private schools.
2. To compare the mental health of secondary school students with regard to gender differences.
3. To study the relationship between mental health and academic anxiety of secondary school students.

Hypotheses

1. There is no significant difference in mental health of secondary school students studying in government and private secondary schools.
2. There is no significant difference in mental health of secondary school students with regard to gender.
3. There is no significant relationship between mental health and academic anxiety of the secondary school students.

Sample

A random sampling technique was employed for the selection of sample. 9th class students studying in the government and private secondary schools situated in the Ludhiana district constituted the sample of the present study. The sample consisted of 160 students, out of which 80 were drawn from government secondary schools and 80 from private secondary schools. The sample was further comprised of 40 male and 40 female in each category of schools.

Methodology

Keeping in mind the nature of the present research, the researcher has used descriptive survey method to conduct this study

Tools

1. Mental Health Battery by Sengupta and Singh (2005).
2. Academic Anxiety scale for Children by Singh and Sengupta (2009)

Analysis and interpretation

To investigate the significance of difference between mental health of private and government school students mean, standard deviation and t-value were calculated and the values are given in table 1 below:

Table 1: Comparison of Mental Health of Private and Government School Students

Group	N	Mean	Standard Deviation	t-value
Private Secondary School Students	80	72.04	10.21	0.34 (NS)
Government Secondary School Students	80	71.56	6.73	

NS means non-significant

Table 1 show that the mean scores of mental health of secondary school students studying in private and government secondary schools as 72.04 and 71.56 respectively and their standard deviation as 10.21 and 6.73 respectively. The t-ratio is 0.34 which is significant ($p>0.05$). It indicates no significant difference in the mental health of government and private secondary school students. Therefore the hypothesis 1 stating that **'**There is no significant difference in mental health of secondary school students studying in government and private secondary schools' is not rejected.

To investigate the significance of difference between in mental health of male and female secondary school students mean, standard deviation and t-value were calculated and the values are given in table 2 below:

Table 2: Comparison of Mental Health of Male and Female Secondary School Students

Group	N	Mean	Standard Deviation	t-value
Male Secondary School Students	80	71.49	8.74	0.45 (NS)
Female Secondary School Students	80	72.11	8.54	

NS means non-significant

Table 2 reveals that the mean scores of in mental health of male and female secondary school students as 71.49 and 72.11 respectively and their standard deviation as 8.74 and 8.54 respectively. The t-ratio is 0.45 which is not significant ($p>0.05$). This showed that no significant difference exists between mean scores of in mental health of male and female secondary school students. Therefore the hypothesis 2 stating that 'There is no significant difference in in mental health of secondary school students with regard to gender' is not rejected.

To investigate the significance of relationship between mental health and academic anxiety of secondary school students Pearson' coefficient of correlation was worked out and the value is given in table 3 below:

Table 3: Relationship between Mental Health and Academic Anxiety among Secondary School Students (N=160).

Variables	r
Mental Health	-0.19*
Academic Anxiety	

**significant at 0.05 level of significance*

Table 3 shows that the value of Correlation between academic anxiety and mental health of secondary school students is -0.19 which is significant ($p<0.05$). It indicates significant negative relationship between academic anxiety and mental health of secondary school students. Therefore hypothesis 3 stating that "There is no significant relationship between academic anxiety and mental health of secondary school students" is rejected.

This finding is in line with the studies conducted by Sharma (2017), Kumari (2018). Excessive academic stress can increase the prevalence of psychological and physical issues like depression, anxiety, nervousness, and stress-related disorders (Thakkar, 2018). Academic stress and anxiety thus have a negative impact on adolescents' mental health.

Main findings: On the basis of the statistical analysis of data, the study revealed the following findings

1. Government and private secondary school students do not differ significantly in their mental health.
2. No significant difference was found in mental health of male and female students.
3. Significant negative relationship was found between mental health and academic anxiety of secondary school students.

Implication

The results of this study indicated that there is no difference in mental health of secondary school students on the basis of type of school (Government and Private) and also on the basis of gender (male and female). Results also indicated significant negative relationship between mental health and academic anxiety. Therefore, it is important to focus more on the academic anxiety of the students, low academic anxiety will improving mental health of secondary school students. Parental support and healthy parenting have been identified as factors that contribute to improved mental health outcomes and a decrease in help-seeking barriers in their children (Maiuolo, Deane, & Ciarrochi, 2019). Sensitization and training of teachers and counsellors in dealing with adolescent mental health issues can also help in developing good mental health. Model-based health delivery approaches, such as mental health promotion through yoga, meditation, sports, and a life skills approach in secondary schools, will also yielded significant results and can be strengthened the mental health of adolescents (Kapur, 1997; Hagen & Nayar, 2014). Positive competition should be promoted among students rather than negative competition that will also aid in reducing academic anxiety.

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EXPERIENTIAL LEARNING BASED STUDY IN ECONOMICS: HIGHLIGHTING THE SCOPE AND NEED AT SCHOOL LEVEL

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Abstract

Experience is a phenomenon in which students actively participate in all learning situations, i.e. they experience the field, ask questions, and find solutions to problems. Furthermore, students become more creative and construct their own knowledge. This paper focuses on the classroom environment in terms of experiential learning for Economics students at school. The paper also discusses various teaching strategies used by teachers in the teaching-learning process at the school level. The study focused primarily on four government schools in southwest Delhi. As a result, an observation schedule was created in order to observe the class and gather relevant information. According to the findings, the teacher's role in the teaching learning activity was limited to delivering a lecture with some charts and PPT. Students' engagement is passive and monotonous. Furthermore, research shows that there is a lot of room for experiential learning in economics at the school level. It is recommended that teachers should encourage students to engage themselves and reflect on their topics of economics.

Keywords- *Experiential learning, economics, students, teacher.*

Introduction

Experiential education is a philosophy popularized by Dewey that focuses on purposeful engagement of the teacher with learner in direct experience and focus on reflection to enhance knowledge, skill and capacity of the learner. It is an organic connection between education and personal experiences (Dewey, 1934). Scope of experiential education is various disciplines: adventure education, non-formal education, project-based learning, global education, environmental education, student-centered education, informal education, active learning, service learning, cooperative learning and expeditionary learning. David

Kolb' theory defines Experiential learning theory as of the best-known educational theories in all areas of education (Kolb, 1984). It occurs when an experience is followed by reflecting on it, critically analyzing and synthesize all the collective experience, Experience is structured as collective effort of student's activity and his decision, Students get fully aware about the phenomena and actively engage in all learning situation i.e. they experience field, raise question and find solutions to the problem. They become creative and construct their own knowledge, Student engagement is emotional, intellectual and physical, Learning is quite personal and has some future benefits to the learner, Teacher and student may face success, failure, adventure, risk-taking and uncertainty as the learning outcome through experience cannot be predicted totally, The instructor and student may experience success, failure, adventure, risk-taking and uncertainty, because the outcomes of the experience cannot totally be predicted. the theory has a wide range of applications in economics, including helping students to have deeper learning of the concept of behavioral economics and make students more active and engaged (Egbert & Mertin, 2006), guiding student teachers to look at the impact of reflective journals (Karasneh, 2014) and help teaching staff become reflective teachers (Burkill, Dyer, & Stone, 2000).

Review of Related Literature

Bohon, McKelvey, Rhodes, and Robnolt (2016) conducted a study on " training for content teachers of English language learner: using experiential learning to improve instruction" data analysis was done through quantitative and qualitative methods using pre and post surveys that determined positive changes in participants understanding of key English language learning concepts, knowledge and understanding of instructional strategies and practices.

Rodriguez and Morant (2019) conducted a study on "promoting innovative experiential learning practices to improve academic performance" and it focus on impact of experiential learning on student's performance academically. Study conducted at business school for bachelor's degree students in Spain. Relation tested through Pearson's correlation and structural equation modelling. Finding shows that those involved in experience- based study had better competency that means experiential learning enhanced students understanding of

theoretical concepts and attain better performance.

Karin (1967) studied "The importance of direct experience of teaching out-doors". In the study conducted by author Children were taken to the field trips and later evaluated their attitude and behavior. The duration of the trips was from 12 minutes to 2 hours and the duration of experiment conducted was11 years that is from1955 to1964. The subject included for activities were language activity, mathematics activity, social studies activity, science activity etc. the results recorded by the researcher in the form of notes, creativity and discovery by the students. It shows from the rigorous study that direct experience has better climate for learning.

Kelly and Joshua (2003) in their paper titled" Using Experiential learning in wildlife courses to improve retention, problem solving and decision making" explore the role of experiential learning in acquiring the necessary skills and mechanics of experiential learning. Here they had focused on demonstrating experiential learning mechanics into wildlife curriculum for classroom concepts in two courses of wildlife technique. Instructional methods for those courses were service learning, field trips and tours, role playing etc. Result shows that students respond favorably to experiential learning opportunities and ranked these skills highly.

Austin, Vogelgesang, Ikada, and Yee (2000) conducted an empirical study at university of California on experiential learning through community services learning and results shows that academic performance, self-efficacy and values were positively affected through experiential learning.

Rationale

There has been focus on promoting experiential based learning from a very long time. Various commissions and committees has emphasized the issue to a great extent. NCF 2005 focused on linking students life in real world situation and to deliver a child centric education. NCERT also emphasized the economics as a subject that creates an environment for the students that link their classroom learning to the daily life and that they carry forward the their learning in future

From the above mentioned recommendations the pedagogical practices in school should engage students and equip them into such practices. Thus this study is conducted to find whether such pedagogy is practiced in school.

Objectives

1. To study the methodology used by the teachers for teaching-learning process of economics at school level.
2. To study classroom Environment with respect to experiential learning for Economics students at school level.

Research Methodology

Since the main focus of the researcher is to explore teaching learning process in economics classroom where experiential learning is implemented .So, population comprises of secondary and senior secondary school focusing economics class .As it was not feasible to collect data from whole population, the study is primarily focused on four schools from government schools of southwest Delhi. Observation schedule for classroom observation has been used as the tool for collecting data to gather the relevant information. The main objective of the study focused on teaching-learning methods used within the school where experiential learning can be implemented so primary source i.e. classroom observation has been considered as an effective tool to fetch the relevant information .The main purpose of classroom observation is to personally experience the teaching learning methods adopted by the teachers in teaching economics at senior secondary school. In order to see the scope of experiential learning within the textbook the researcher reviewed the content of the book.

Data Analysis

Data has been analyzed qualitatively based on sampling technique used by the researcher i.e. direct classroom observation. There is description of the analyzed data on the basis of various objectives. These are as follows:

To study the method used by the teachers for teaching economics at school level: Data is analyzed qualitatively based on classroom observation by the researcher. There have been various aspects that have been kept in mind while gathering information. The table given below briefly describes some of the essential aspect that has been observed.

Table 1: Topic and Class wise Description of Teaching Learning Methodology used in Economics Classroom

No of schools	Class	Topic/Sub-Topics	Students engagement	Teachers Readiness	Transaction of Teaching Learning Activities
1	9	A village Palampur Factors of production	Students were listening to teacher. No involvement of the students Students were watching lectures through PPT. They were writing some points as directed by their respective teachers	Initially teacher was enthusiastic. Delivering the lecture through PPT on smart-board	Showing pictorial charts to show production activities in village Palampur. Usage of black board.
3	9	People as resources	Students were passive in the classroom.	Teacher was ready to deliver the lecture	Introduction of the chapter with delivering lecture followed display of chart
5	10	Money and banking currency and notes	Playing among seat partner.	Started the lesson by demonstrating currency notes	Lecture method was used.
6	11	Human capital formation	Passive role	_	Delivered the lecture with usage of blackboard.

In Table 1 there is description of methodology used in economics classroom. In class 9 the chapter taught was "A village in Palampur" students were listening to the lecture without being involved in class and Teachers were showing pictorial charts to show production activities in village Palampur. In class 10 chapter being taught was "Money and banking" and teacher teaching through lecture method. In class 11 teacher delivered the lecture using blackboard and role of student was passive.

To study classroom Environment with respect to experiential learning for Economics students at school level: The description in Table 1 shows that students were learning in passive mode in the classroom. Teachers were delivering the lecture to students with some pictorial chart and PPT presentation. Students seems to be dull and less engaged. Teacher were explaining the topic through demonstration and lecture method. Teacher also using blackboard for writing essential point and elaborating them to students.

Findings

The mode of teaching was lecture method with the usage of blackboard for transmission of pedagogical practices. Teacher was enthusiastic at the beginning of the chapters in the classroom. Teacher's role in transacting teaching learning activity was confined to delivering lecture with some charts and PPT. Few tasks were given to students as their Home work after delivering lecture. Engagement of students is passive and dull. Students were not enthusiastic to ask some questions. There was lack of active engagement among students and teachers within the classroom.

Conclusion: From the data mentioned above, it is clear that the transmission of knowledge is through lecture method in economics classroom at school level. National Curriculum Framework (2005) focused on "understanding basic concepts in economics which can be applied by learner in their day to day life as citizens, consumer and workers. This can only be fulfilled when there is enhancement in teaching learning process to increase student's engagement in classroom for better understanding of the subject. National Curriculum Framework (2005) also focuses on child-centric classroom according to which student should construct their knowledge and knowledge is constructed by the learner when they actively participate (learning by doing, experience the field and should also reflect on it. This can only be possible when experiential learning is implemented in the school especially in economics classroom.

Suggestions

National Education Policy (2020) has emphasized on incorporating experiential learning throughout the curriculum. It also encouraged students to be critical and constructive, and the researcher's findings show that there is a lot of room for experiential learning in economics at the school level. There must be a classroom environment in which students are engaged and actively participate. Teachers should

encourage students to participate in and reflect on their economics topics.

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CONSTRUCTION AND STANDARDIZATION OF ENGLISH LANGUAGE ANXIETY SCALE

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Abstract

The paper describes the development and standardization of the English Language Anxiety Scale. The original 92-item measure was based on secondary school students' English language anxiety. These statements were given in the four skills of listening, speaking, reading, and writing. Following consultation with specialists, the number of items was reduced to 36. After item analysis, all 36 elements of the scale were retained for the final version. The test-retest method's reliability was determined to be 0.76. To determine the validity of the current scale, the concurrent validity index was computed. To obtain concurrent validity, the current measure was associated to an existing scale of Foreign Language Classroom Anxiety Scale developed by Horwitz, Horwitz, and Cope (1986), yielding a validity score of 0.59.

Key Words: *Construction, Standardization, Language Anxiety, English Language Anxiety Scale.*

Introduction

Secondary school students face a variety of life issues, which are exacerbated by academic demands. Their inability to cope with the pressure can lead to significant anxiety, a dislike for the subject, and a dislike for the school environment. It could also lead to serious health problems. This is boosted by the pressure of learning a new foreign language. Anxiety experienced while learning a foreign language is specific and unique (Horwitz et. al., 1986; MacIntyre & Gardner, 1989). Foreign language anxiety is defined by MacIntyre and Gardner (1994) as feelings of stress and apprehension that are particularly connected with activities in a second language setting, such as listening, speaking, and learning. English language anxiety is a psychological construct that is specific to foreign language learning and can be defined as "a distinct complex of self-perceptions, attitudes, and behaviours linked to classroom language learning that arises from the distinctiveness of the

English language learning process". Anxiety, worry, and apprehension are common feelings experienced by English language learners. These emotions are thought to have a negative and damaging impact on English language comprehension. As a result, determining their level of English language anxiety becomes necessary. The Likert (1932) approach was used to design and standardize this English language anxiety scale. The scale-building procedure was divided into three stages:

- Planning Phase
- Construction Phase
- Standardization Phase

Planning phase: Planning phase involved the following steps:

- Identification of the situations causing language anxiety
- Operational definition of language anxiety
- Scale construction methodology

Identification of the situations causing language anxiety: To better understand the types of anxiety students experience when studying English, the investigator used a variety of sources, including catalogues, books, journals, government documents, and online sites. Every aspect of English language instruction that could cause anxiety in children was carefully monitored and counted. In order to achieve this goal, the scale is divided into four sections, each of which corresponds to one of four language learning skills: listening, speaking, reading, and writing.

As a result, the current scale of English language anxiety is based on students' anxiety in various English language skills.

Operational definition: In this study, language anxiety is defined as the fear, tension, and apprehension associated with various language situations such as listening, speaking, reading, and writing.

Scale construction methodology: The technique selected to construct the present scale was Likert's (1932) of 'Summated Rating' for getting the responses on the scale as this is the most widely used technique for the collection of data in the field of behavioural science studies. The most frequent type of Likert scale used for research is the five-point rating scale, which covers a range of possible responses ranging from strongly agree to strongly disagree. Each category is scored by assigning numerical weights of 1 to 5, with 5 representing the most favourable response and 1 representing the least favourable.

Construction phase: - Following steps are involved in this phase:

- Preparation of item pool
- Editing of the items and Provisional Draft
- Directions for respondents
- Try Out of the scale
- Item Analysis
- Selection of Items and Preparation of the Final Draft
- Scoring System.

Preparation of item pool: The items for the tool were carefully framed by the investigator, taking into account the specialists' opinions and recommendations and referring to various resource materials. To express relevant ideas, statements were used. For the preliminary version of the scale, 92 statements on students' English language anxiety were provisionally formulated. The scale was divided into four sections, each with elements associated with four language learning skills: listening, speaking, reading, and writing.

Editing of the items and Provisional Draft: In the Likert scale creation technique, the editing procedure is crucial. Guidelines proposed by Wang (1932), Thurstone and Chave (1929), Likert (1932), Bird (1940), Edwards and Kilpatrick (1948) for reviewing and editing the statements was taken into account for the construction of statements in present scale.

The second preliminary draught was shown to experts in order for them to evaluate the items' grammatical accuracy, repetitiveness, and ambiguity. Nine specialists with extensive experience in the fields of psychology and education were contacted for this purpose. The experts were asked to carefully consider each statement and determine how closely the statements matched the connotation in question. They were taught the meaning of English language anxiety. In addition, additional sessions with experts were held to ensure that they received the correct interpretation. The experts were asked to respond to this task critically and objectively with their thoughts and observations.

After receiving suggestions from various experts in the field, the investigator met with the supervisor several times to make appropriate omissions and changes to the test. A group of 36 statements was finalized as a provisional version of the English Language Anxiety Scale. These 36 items were classified into four groups, as follows: Listening (10 items), speaking (7 items), reading (9 items), and writing (10 items).

Directions for the respondents: On the front page of the test booklet, instructions

were given for the respondents to attempt the test. These were:

1. Fill the personal information:
   Name:
   Class:
   Age:
   Gender:
   Name of School & City:
2. Read all the instructions carefully.
3. There are 36 statements in the booklet. Read each statement carefully and consider the extent to which it applies to you. A 5-point scale, with five boxes placed in front of each sentence, is used to express the amount of applicability. The following is an example:

Sr. No.	**Statement**	**Response Alternative**				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.						

After reading the sentence carefully, express your opinion. If you completely agree with the statement, tick the box below that says "strongly agree", which is the first box. Similarly, if you agree with the statement but only to a limited extent, put a tick in the agree box. So, out of five options, you must select the one that best corresponds to you.

4. Indicate your answers honestly and without hesitation.
5. Do not leave any statement without attempting.
6. Information you enter will be kept private.

Try out of the scale: The care with which the items were chosen determines the appropriateness of a test. For the purposes of this study, the scale was administered to students from two Ludhiana schools: Government Senior Secondary School, Multipurpose and Government Modern Senior Secondary School, PAU Campus. For the English language Anxiety scale, item analysis was performed on data collected from 169 students.

Item analysis: Item analysis is a statistical technique for selecting and rejecting test items based on their difficulty and discriminative power. It is used to determine the overall quality of the test as well as the quality of the test items. The goal of the item analysis process is to:

- choose appropriate items for the final draft of the test
- discard weak items that do not add to the test.
- determine the difficulty level of each test item.
- organize the items into three categories: challenging, moderate, and easy
- gives students the ability to be classified based on their ability to complete the tasks
- change the items that need to be changed
- arrange the statements in a logical sequence.
- explain how distractors can be used as alternatives in multiple-choice questions. This aids in the removal of the perplexing and distracting elements.

This test was in the form of a rating scale, which is designed to secure an expression of opinion for the attribute being tested, hence there were no right or incorrect answers. As a result, the concept of item difficulty does not apply. Here, only the item discrimination index was calculated based on the acquired results for the current tool construction.

The level to which the given items discriminate between the higher and lower groups determines an item's discrimination index. Kelly's dichotomy was employed to determine the higher and lower groups. Kelley (1939) demonstrated that only the tails of the distribution could be used to estimate the product moment correlation between a test item score and the total score, and that the top and bottom 27 percent tails were the most efficient division to use for the analysis. For the current scale, this proposal was followed. Firstly, the scores of 169 students which was obtained through final-tryout were arranged in descending order of their performance. Then, 46 students i.e. 27% were assigned to the upper group, whereas 27 percent of the students at the bottom, i.e. 46 students at the bottom, were assigned to the lower group.

In order to find out the discriminative power of the items included in the scale, the mean of every item for the higher and lower group were compared. Below given formula was employed for calculating item discriminative power:

Discriminative power = $(\Sigma H - \Sigma L)/(N/2)$

Where,

ΣH = sum of all scores of a particular item responded by higher group

Σ L = sum of all scores of a particular item responded by lower group

N = total number of students in higher and lower group.

Item analysis was used to obtain discriminative power for each item included in the provisional draft of 36 items of the English Language Anxiety Scale in order to make item selection objectively and scientifically.

Final draft of the test: Item analysis was used to create the final edition of the English Language Anxiety Scale. For the final draft, all 36 items of the scale were retained based on the t-value.

Scoring procedure: Each item contains five response options on the Likert scale: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree, with weights of 5, 4, 3, 2, and 1 for each.

The total score for English language anxiety is the sum of all item scores. Pupils with greater test scores exhibit more linguistic anxiety than students with lower test scores.

Standardization Phase

It includes:

- Establishing the Reliability of the scale
- Establishing the validity of the scale
- Setting the time limit

Establishing the Reliability of the scale: The consistency of scores or measurements, as shown in the reproducibility of the scores, is referred to as reliability. When all examinees maintain their identical relative ranks in two separate examinations with the same test over a period of time, the test is considered to be consistent. In the words of Anastasi (1951), "reliability refers to the consistency of scores obtained by the same individuals when re-examined with the same test on different occasions or with different sets of equivalent items or under other variable examining conditions".

There are four methods in common use for calculating reliability. These are:

- Alternative or Parallel Form Method
- Split-half Method
- Rational Equivalence Method
- Test-Retest Method

As the assumptions of the unifactor test and parallel items were not met, the test-retest approach was deemed to be a superior choice, and the Kunder-Richardson formula was rejected. The parallel form technique, on the other hand, was ignored because only one form of the test was built. Finally, because the scale was heterogeneous and the objects were logically placed, the two halves could not have been similar, so the split half technique was abandoned. As a result, the test-retest reliability criterion was shown to be the most appropriate for establishing the

Scale's reliability. For establishing the reliability of the English language anxiety Scale, the scale was administered to 169 students of Government Modern Senior Secondary School, PAU Campus, Ludhiana and Government Senior Secondary School, Multipurpose, Ludhiana. These participants were not included in the population sample used in the experiment. For the test-retest reliability, the same scale was delivered to the same students under similar conditions after a 21-day interval. Between two sets of scores, the product moment co-efficient of correlation was calculated. The value was discovered to be 0.76. This was a reasonably high number, indicating the soundness of English Language Anxiety Scale.

Establishing the validity of the scale: The degree to which a test measures what it claims to measure is referred to as validity. Test validity also refers to the appropriateness and significance of findings and judgments based on test outcomes. Validity is best characterized as the degree to which a test can achieve specific goals. The test's validity is determined by determining how closely it matches a specific criterion. It must be proved before it can be used. In the words of Anastasi (1951), "the question of test validity concerns what the test measures and how well it does so". The concurrent validity index was calculated to determine the validity of the current scale. The Pearson product moment correlation index between the current scale and the concurrent scale measuring the same construct was calculated under this form of validity. The current scale was connected with Horwitz, et al (1986) already existing Foreign Language Classroom Anxiety Scale to obtain concurrent validity. The validity index obtained was 0.59, indicating that the currently developed scale has excellent concurrent validity and may be used securely as a measurement tool.

Setting the time limit: The test's duration was set at 20 minutes, which included time for reading instructions and responding to the test, based on the average time required by 75% of examinees to reach the last item.

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ONLINE TEACHING: PERSPECTIVE OF TEACHERS' DURING PANDEMIC

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Abstract

Teaching is a weapon that teachers can use to break down the illiteracy barrier. During a pandemic, it was difficult for teachers to teach students in their natural surroundings, such as a school classroom. In this uncertain environment, ICT has played a critical role in boosting the teaching-learning process. A survey was conducted through this paper to assess teachers' attitudes toward online teaching during COVID-19 in India. To collect information from 360 teachers teaching at various levels of education, telephone and personal interviews were used. The study's findings revealed that young university teachers are in favour of online teaching, whereas elderly staff nearing retirement age are not. Private school faculty are in favour of online teaching in addition to classroom teaching, whereas government school teachers are hesitant to deal with students via online teaching mode.

Keywords*: Online teaching, teachers' perspective, pandemic****.***

Introduction

India is one of the leading countries with the largest young population, and providing proper guidance to youth is a major challenge for the country, particularly during unfavourable times. Precise education is a path that can be used to elevate the future of youth. However, unpredictability can cause major stumbling blocks in this path. One of the unwelcome situations that all countries are currently dealing with is the COVID-19 pandemic. Thousands of students are losing their education as a result of the unpredictability of the COVID-19 pandemic. Schools and universities have closed for an unknown period of time to protect students from the contagious corona virus. However, one of today's warriors, teachers, is playing a critical role by providing online education to all students.

Online education is a type of education that is provided to students through the internet, allowing them to access online teaching from the comfort of their own homes using digital devices such as mobile phones, computers, laptop

computers, iPads, and so on. It has now become a household name because it is adaptable and can be accessed from anywhere at any time. The primary distinction between online and traditional learning is that online education allows students to avoid the traditional trappings of campus degree programmes such as driving to school, planning their schedule around classes, and being actually in attendance for each sequence of their coursework. Online education can be described as the global construction and production of ideas, as well as the use of technology to exchange ideas and provide access to more people. Typically, audio, video, computer, and networking technologies are combined to create a versatile instructional delivery structure. The internet network is essential for connecting the teacher and the distance learner. Satellite, digital subscriber lines (DSL), cable modem, and wireless cable are all appropriate networks for distance learning.

Online learning has been mentioned as a "fifth generation" edition of distance learning "designed to capitalize on the features of the Internet and the Web" (Taylor, 2001). Web based learning put a well-built groundwork on distance education with the help of Information and communication technology. Encroachment in technologies serves up a large number of clusters and amplifies the practice of self-learning among the students (Piccoli, Ahmad, & Ives, 2001).

According to UNESCO when the outburst of COVID-19 started, nearly 1.37 billion students globally from 138 countries have been affected by school and university shutdown. Almost 60.2 million school and university teaching staff were no longer able to teach in the classroom (UNESCO, 2021). Along with the other countries, our entire nation is also underneath the situation of lockdown. Only one option left with the teachers to educate the learners i.e. e-education. University faculties have set up their accounts for platforms such as Zoom, Skype and Google Classroom online video conferencing. Nowadays, Digital education is a blend amid existing course books material and conventions of software like pdf files (Jahangeer, 2020).

Few advantages of online classes that are worth for consideration, given hereunder:

a) It is a student centered approach through which they can become more vigorous and contemplative.
b) It provides anytime and anywhere education to the learners. They have no worry to give the exam at a fixed place. If

they have all the basic equipment of web learning like, headphone, mike, speaker, keyboard etc. they can give their exams from anywhere.

c) Different universities propose a number of attractive online courses, which facilitates the students to comprehensive their professional degrees and acquire the back up in their job profile.
d) Online delivery of programs and courses help to encourage the participation of students who are at geographic distance.
e) Involvement of technology also helps the teachers in connecting with the students effortlessly.
f) With the help of Internet educational portals, e-mail, blogs, Wikipedia and educational websites, teachers can also access a broad assortment of thoughts, tools, teaching and learning materials worldwide (https://net.educause.edu>pdf>ers02032).
g) The assistance of Web-based video, webcasts and webinars, teachers can also monitor diverse instructional approaches in classrooms which are alike and unlike from their own. Online professional expansion enables flexible contact to experts and archival of resources that would otherwise unfeasible devoid of electronic communications (Dede, Breit, Ketelhut, McKlowkey, & Whitehouse, 2005).

Review of Literature

Review of literature assists the researchers to analyze the previous studies, find the foremost gaps and incorporate those gaps in their research. In present study, following studies have been found helpful to supply the string foundation for choosing the research topic.

Chang (2001) in his study on the effectiveness and evolution of web-based learning explored that web-based learning helps the learners to understand topic of concerned area thoroughly. It enhances their learning outcomes like self-regulated learning, ability of self-reflection, self-directed learning etc.

Moore, Deane, and Galyen (2010) had done the research on "e-Learning, online learning, and distance learning environments: Are they the same?" Through his paper, they revealed that there are different expectations and perceptions of learning environment labels: distance learning, e-Learning, and online learning. The findings show great differences within the meaning of foundational terms that are utilized in the sphere, but also provide implications internationally for the referencing, sharing, and therefore

the collaboration of results detailed in varying research studies.

Kapasia, Paul, Roy, Saha, Zaveri, MAllick, Barman, Das, and Chaouhan (2020) had done the research on undergraduate and post-graduate students to assess the impact of online education during COVID-19 in West-Bengal. During their study, they found that only 70% of scholars were involved for gaining online education. During this era, students were facing various problems specified anxiety, depression, poor internet connection and adverse study atmosphere reception. Students from the far-flung or marginalized areas faced many problems like poor electricity and internet connectivity while learning online. Poverty was another major challenge within the learning of some students as they weren't ready to purchase a correct android base phone.

Every new modernization comes with both forms i.e. curse and bliss. The previous review of literature shows that e-learning provides chance to the learners to reinforce their skills and helps them to be independent while learning. In addition, it helps the teachers to make their learning more ingenious by involving animation/audio-video/stories etc. while teaching. It was also disclosed that online learning came out to be burden for some teachers and students who did not have the chance to avail this learning thanks to scarcity of resources.

Research gaps: The following research gaps were found on the basis previous review of literature:

a) No appropriate study was found on teacher perspective with reference to online learning.
b) Very few studies were conducted during the period of COVID-19 pandemic.
c) Most of the studies were conducted at international level. Very few studies were explored on Indian scenario.

The dearth of studies on online learning from the perspective of teachers motivated the researchers to investigate in this area

Justification

In present scenario, use of ICT is mounting day by day in every sphere of life and teaching-learning process is no exception. It is vital to check out the feasibility of ICT from learners as well as teachers' perspective. As the responsibility of imparting education lies on the shoulders of teachers, it's become necessary to analyze the process of online teaching from their point of view. In present study, where the situation of COVID-19 is affecting the whole society in India, efforts have been

made by the researchers to assess the perspective of teachers towards online learning during pandemic. The present research paper will help in spotting the shortcomings of online teaching mode and further recommendations can be made for preparation of comfortable environment for teachers as well as of learners in online teaching process.

Research Questions

1. What are teachers' views for online teaching during pandemic?
2. Are teachers satisfied with online teaching?
3. Are teachers facing any issues regarding online teaching?

Sample

The sample of research paper consisted of state School Teachers, Private School Teachers and University Teachers. Purposive sampling technique was applied to select the sample from Chandigarh, Barnala, Pune and Delhi for the present research paper. As due to COVID period, some teachers were not available or ready for the interview. So, only those teachers were taken for the study that was ready to give the interview for the study.

The entire sample came out to be 360 which comprised 137 (38.05%) Government School Teachers, 145 (40.27%) Private School Teachers and 78 (21.66%) University Teachers.

The age groups of teacher were divided into two categories i.e.

a) Teachers with the age < 38 i.e. young teachers i.e. 156 (43.33%)
b) Teachers with the age > 38 i.e. elderly teachers i.e. 204 (56.66%)

Tool

Interview schedule prepared by the investigator was used for the gathering information.

Data collection: The interview of the teachers was taken telephonically furthermore personal contact (wherever possible). The teachers were told about the rationale of the study and were told to express responses freely. The researchers also noted teachers' responses apart from the asked questions separately.

Results

During pandemic, like all spheres of life, students' education is also suffering. For the continuation of teaching learning process, the teachers required to impart education through online mode which may be a new concept for a few teachers. Some teachers took it as a challenge and tried to use this

chance for the utmost utilization of teaching skills but at the same time online teaching became a hurdle for a few other teachers. This research paper highlighted the views of teachers for online teaching during pandemic (Table 1). This included both positive views as well as issues associated with online teaching.

Table 1: Views of Teachers for Online Teaching during Pandemic

Category of Questions asked from Teachers	**Government School Teachers**	**Private School Teachers**	**University Teachers**
General views on Online Teaching	More than 81 % teachers said online teaching should be done only when all the teachers and students are well trained to teach and learn to maximum potential.	85% of the teachers favoured online teaching but said it should be done along with classroom teaching.	65% Young University teachers were in favour of online teaching than the older teachers.
Preference of Teaching Mode	78% teachers preferred classroom teaching as personal contact with students is more beneficial.	76% teachers preferred both the teaching mode i.e. classroom as well as online teaching.	All the university teachers (100%) preferred classroom teaching mode.
Whether or not teachers are satisfied with online teaching	90% cent Government school teachers said that they are not satisfied with the online teaching as they are not able to check the true performance of students.	56% private school teachers said they are satisfied with the online teaching but do not want it to continue for longer period. They said online teaching can't be a substitute for classroom teaching.	70% of the Older (near retirement age) University teachers are not satisfied with the online teaching as they are more comfortable in face to face teaching in classroom than the young teachers.
Assessment of Students	93% Government school teachers said it is difficult to assess students on the basis of online teaching as it is difficult to	More than 75% private school teachers said assessment of students could be done better in	All the university teachers (100%) felt that assessment is tricky as most of the students' just copy paste the matter of

	decide whether students do the work on their own or just copying from the internet.	classroom teaching than online teaching.	concerned topic from the internet. So, assessment of the students is not easy.
Feedback to students	All the teachers (100%) said that true feedback to students is not possible in online teaching.	65% teachers felt that feedback can be given through online teaching but quality feedback is possible in classroom only.	80% of the university teacher said that accurate feedback is possible through classroom teaching only.
Relationship with the Students	95% of the teachers asserted that friendly and healthy relationship with the students is possible in classroom teaching.	85% of the teachers said that the warmth and pleasing relationship with students is missing in online teaching.	Almost all the teachers of university staff (100%) stated that Online teaching does not give opportunity to have face-to-face relationship with the students.
Parent-Teacher Meeting	95% of the teachers viewed that Online parent-teaching meeting is less successful than parent-teacher meeting in schools.	80% of the educators asserted that Comprehensive feedback to parents regarding students' progress through online is difficult.	

Despite the best efforts made by teachers, online teaching is not found to be successful owing to problems/issues faced by teachers. All the issues raised by the teachers have been mentioned/discussed below in table 2:

Table 2: Issues raised by Teachers

The common issue raised by all the teachers was poor internet connection.		
87% of teachers pointed out that as most of the students belong to middle and lower class family, so connecting through online teaching becomes	85% of the teachers said that maintaining concentration of students during online teaching is difficult.	University teachers (92%) highlighted that preparation of lecture for online teaching is difficult as compared to lecture for classroom teaching.

difficult.		
Nearly 80% teachers said that students' responses often come late be it for homework or project.	88% educators affirmed that Students do not reply on time. Moreover due to internet connection problem, continuation of class is hindered.	While teaching 79% of the teachers viewed that students often hide themselves on internet making it difficult for teachers to decide whether or not they are attending the classes.
92% stated that supervision is difficult in online teaching.	95% said that students do not take online learning seriously and often submit the assignment very late.	100% educators asserted that they do not get students queries on time which hampers the linkage between the previous and current topic.
During the time of test, 90% teachers are afraid that student might cheat to get high marks.	79% educationalists asserted that it is difficult to take decision whether students preparing assignments on their own or getting it done from their parents/siblings.	90% professors said that most of the time students submit the copied assignment easily available on the internet.
86% teachers observed that students do not give feedback which is essentially required for the improvement in online teaching.	While teaching 90% of the educators found that Students' instant response is not possible in online teaching as of classroom teaching.	96% of the teachers asserted that immediate feedback cannot be provided to students through online teaching which is possible in classroom teaching.
92% teachers said that Sometimes they are required to be online for longer duration; hence, family time is restricted.	93% of the teachers stated that more time consuming as compared to classroom teaching.	98% of the teaching faculty members said that the personal experiences of students and teachers shared during classroom teaching remain mostly absent in online teaching.
95% teachers declared that Online teaching is successful for small number of students only as they can be supervised efficiently.	93% of the teachers emphasized that Effectiveness of online teaching is possible only with few students.	100% teachers stated that it is difficult to teach large number of students through online teaching as compared to classroom teaching.

Suggestions/ recommendations by teachers: Apart from the views and issues regarding online teaching, teachers also gave valuable suggestions/recommendations for

the improvement and accomplishment of online teaching. If these suggestions/ recommendations implemented, most of the issues of teachers about online teaching will be resolved and online teaching will become more productive.

a) **Training:** Training of teachers and students is essential for optimal utilization of online teaching-learning process. Moreover, time-to-time refresher programmes are required to get firsthand experience of changing technology and to become more competent in using technology.
b) **Supervision of students at home**: All the teachers unanimously said that online teaching would be unbeaten only if parents oversee their kids/children properly at home.
c) **Policy:** Government needs to prepare a policy/plan in which uninterrupted internet connection should be provided to students and teachers at low cost.
d) **Fixation of teaching hours**: Teaching hours should be fixed as per the MHRD guidelines/age of the students.
e) **Software to stop copying**: Software needs to be developed to stop copying of material available on internet for preparing the assignments/during online test.
f) **Standardization of teacher-student ratio**: Teacher-student ratio for online teaching should be fixed.
g) **Collaboration**: Professionals, teachers, students and parents need to collaborate for the success of online teaching.
h) **Facilitation of classroom teaching**: Online teaching should be used as facilitation of classroom teaching not as its substitute.
i) **Feedback for online teaching**: Regular feedback of students and parents is required for the improvement in online teaching which is missing these days.

Conclusion: The Government, Private and University teachers have different views on online teaching. Private school teachers are in favour of online teaching as compared to government and university teachers. Teachers near retirement age are not comfortable with online teaching as compared to young children. None of the teacher agreed on sole mode of online teaching and highlighted that online teaching is not a substitution for classroom teaching. All the teachers strongly recommended that online teaching should be incorporated along with the classroom teaching so that Pandemic situation can be

handled with expertise and quality of education can be imparted to the students.

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EFFECT OF MULTIMEDIA ON ACHIEVEMENT IN SOCIAL SCIENCES IN RELATION TO LEARNING STYLES AT SECONDARY SCHOOL LEVEL

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Abstract

Present study was undertaken to investigate the effect of multimedia on achievement in social sciences in relation to learning styles at secondary school level. The experimental procedure was executed by employing pre-test and post-test with respect to group i.e. control group and experimental group. A sample of 100 students of IX class was taken from IX class secondary school students affiliated to C.B.S.E. The Pre-test Post-test Equivalent Control Group Design was used. Achievement test and social science and VAK learning style were used as a research tool. Experimental group was taught social science with multimedia (video technology), the control group was taught social science through conventional method. The data was analyzed with the help of statistics. The results revealed that students taught by multimedia by multimedia strategy performed significantly better than the students who taught by conventional strategy. But, there is no significant interaction between multimedia and learning styles on achievement in social science of IX class students. It can be concluded that multimedia significantly enhanced the achievement in social science of IX class students as compared to those who taught with conventional method.

Keywords: *Multimedia, Conventional Method, Achievement in Social Science, Learning Styles, Secondary School students*

Introduction

Multimedia is a set of more than one media element used to produce a concrete and more structured way of communication. In other words, multimedia is simultaneous used of data from different sources. These sources in multimedia are known as media elements. Throughout the 1960s, 1970s and 1980s, computers has been restricted to dealing with two main types of data-word

and numbers but the cutting edge of information technology introduced faster system capable of handling graphics, audio, animations and videos. The entire world was taken aback by the power of multimedia. Multimedia is the media that uses multiple forms of information content and information processing i.e. text, audio, graphics, animation, video, interactivity to inform or entertain the user. Multimedia also refers to the use of electronic media to store and experience multimedia content. Multimedia is a woven combination of text, audio, video, images and animation. Multimedia systems find a wide variety of applications in different areas such as education, entertainment etc. Multimedia is similar to traditional mixed media in fine art, but with a wide scope. The term rich media is synonymous for interactive multimedia (Goel & Chandra, 2003).

Multimedia possessed a lot of advantages to make learning interesting. With the help of its elements, it can invoke creativity in both teacher and students so that they can apply it in order to teach or learn. Learning also becomes much easier with the help of multimedia. Multimedia can help to improve our educational system. This is a must because we need to keep up our pace with evolvement of our technology.

Application of Multimedia

Use of multimedia in various applications can be justified by levels of user friendliness, it provides user with interactivity and customization. Multimedia is widely used now days in various applications. Let us discuss some application of multimedia in detail:

- **Multimedia in education:** Multimedia is extensively used for education and training in school, business and at home. It enhances the quality of education. It provides a new ways for teacher to encourage one of the most rare and important element of learning i.e. curiosity to know and explore. Topics can be linked with other related information. Linking is possible with graphics, text and sound. With a large screen projector and a multimedia play back system, teachers can use multimedia as a way to enhance their standard lesson plan and stimulate questions. On the other hand students will be able to further explore the topics using standard multimedia platform. The assignments, which require students to make their own interpretation of facts, can be represented in the multimedia topics. Multimedia education allows one to proceed at ones pace. It makes

education interesting and presentation alive with sound, movies and interactivities

- **Multimedia in entertainment:** One of the earliest application of multimedia was for games, and many people thought that was really useful for. There is no question that multimedia can improve the quality of games, and it is that very game like-like quality that enhances a learning experience. Parents watching their children play innovative see how powerful multimedia is at teaching them how to read or solve math problems even though the children perceive that experience as just a game. Buildings on the power of these perception innovators have increasingly used multimedia to support all kinds of activities that are not just games.
- **Multimedia in software training:** As computer applications programmes become more complex, software publishers are buildings multimedia presentations into their programmes to introduce new feature and walk the user through them. In companies, this form of presentation will take a big load off the over worked technical support staff. For individuals at home or in small business, it will make programmes easier to learn and use.
- **Multimedia on the web:** When the web was introduced, it was all text. Soon graphics were added and opened up new possibilities. Photographs and drawings could be used to illustrate and explain product and accessories, to demonstrate the workings of technology and nature, or just to make pages more attractive. Multimedia was introduced using tools such as Java and Shockwave. Now web pages display simulations, play sound, and allow you to interact with them. It is possible to experience full multimedia over the internet or internets.
- **Multimedia in office work:** Multimedia is not just for expensive commercial productions. It can be used to enhance ordinary communications. Using technology such as Microsoft OLE and ActiveX or OpenDoc, you can insert sound and movie objects into other applications such as word processing or spreadsheet documents. Double clicking on the embedded icon in the document runs the media clip or plays the sound. Windows Media player controls multimedia-hardware devices and plays media-sequences, such as video clips, animation and sounds. Media player can

be embedded in a document belonging to another application. It lets you start, pause, and stop the sound or movie or drag a slider bar to quickly move to a specific spot.

- **Multimedia in business:** As the market competition is increasing with the introduction of better products in the market every day, it has become absolutely necessary to provide better service and timely information to your client in brief, precise and more understable manner in a short time. Multimedia provides various ways to maintain a competitive edge for accompany especially in training, market speculation and public relation. The interactive feature of multimedia brings life to the business presentation. One can present various aspect of a business such as, marketing plan for a new product, its impact in the market, consumer reaction etc., simultaneously or even you can combine all these to make the consumer feedback on the product launching. Companies can make electronic brochures, which are replacement of printed brochures. These electronic brochures can hold customers attention longer by making the brochure, fun and interactive. These can entertain audience with pictures and animations and say and show much more of product than a flat printer brochure can demonstrate. In trade companies can attract and hold attention with proper sound and flash animation. These animations are excellent for crowded booths when your salesman can not get to each person immediately. Thus by using multimedia, the company can keep clients entertained, until one can give them personal attention. These multimedia shows can be customizing as per the audience.
- **Multimedia server and databases:** Databases called universal servers are now able to store the elements that are displayed on the screen. Fields are used to store images, text, sound files and videos. The multimedia programmes draws on these stored elements to create the show. These powerful databases, accessed over networks, are the new original libraries.

Related Literature

Aloraini (2012); Ercan (2014); Ilhan and Oruc (2018); Iskandar, Rizal, Kurniasih, Sutiksno and Purnamo (2018); and Nachimuthu and Sasi (2021) revealed that using multimedia has significant effect on the achievement. Akinoso (2018) reported

that there is no significant difference in achievement of students exposed to multimedia materials and those in control group.

Objectives

1. To study the effect of multimedia and the interaction between multimedia and learning styles on achievement in social science of IX class secondary school students

Hypotheses

1. There is no significant effect of treatment and interaction between multimedia and learning styles on achievement in social science of IX class secondary school students.

Methodology

The experiment procedure was executed. One experimental and one control group was formed. The multimedia group as experimental group was taught social science with the supplement of video technology, the control group was taught social science through conventional method.

Design

The design was divided into three stages. The first stage was involved pre-testing of all the students into two groups on achievement in social science. The second stage was involved treatment of 60 working days. The treatment was coined of teaching social science to IX class secondary school students with multimedia to experimental group and through conventional method to control group. During the third stage, the students were post-tested on achievement in social science just after the treatment so as to determine the effect of treatment. The content was taught to two groups. In the present study, the treatment variable multimedia and the dependent variables was achievement in social sciences. The study was designed on the basis of the Pre-test Post-test Equivalent Control Group Design.

Sample

The present study was conducted on the IX class Secondary School Students affiliated to C.B.S.E. One private school was selected to form the sample. The investigator put 50 students in the experimental group and 50 students in the control group. The total sample of 100 students was selected from IX class secondary schools. This selection process fell in the category of randomized sampling.

Delimitations

The present study was delimited to the subject of social science.

Tool used

In this study the investigator used

- Achievement test in Social Science developed by Singh and Kaur (2017).

- VAK Learning style self-administration questionnaire developed by Chislettand Chapman (2005).

Results

For the analysis and interpretation, the investigator used descriptive statistics namely mean, standard deviation and inferential statistics namely t-test and analysis of variance (one-way and two-way) was used to study the effect of multimedia on achievement in social sciences in relation to learning styles at secondary school level.

Analysis of data on Interaction between treatment and learning styles on achievement in social science of IX class students: The objective was to study of the interaction between multimedia and Learning styles on achievement in social science of IX class students. There were two levels of treatment i.e. multimedia and conventional method. There were three types of learning styles namely, visual, auditory and kinesthetic learning styles. The data were analyzed with the help of 2 X 3 factorial design of Analysis of Variance. The results are given in table 1.

Table 1: Summary of Analysis of Variance for the interaction between multimedia and Learning styles on achievement in social science of IX class students

Source	Sum of Squares	Df	Mean Square	F-value
Treatment	2129.47	1	2129.47	38.13*
Learning Styles	120.03	2	60.01	1.07 (NS)
Treatment * Learning Styles	40.39	2	20.19	0.36(NS)
Error	5249.27	94	55.84	
Total	157269.00	100		

**Significant at 0.01 level of significance*

NS means non-significant

Effect of treatment on achievement in social science: Table 1 reveals that F value for the main effect of treatment on achievement in social science of IX class students for treatment came out to be 38.13, which is significant ($p<0.01$). It shows that the mean score of achievement in social science of IX class students taught social science through multimedia and those who taught the same topics through conventional method differ significantly. This finding is in line with Aloraini (2012); Ercan (2014); Ilhan and Oruc (2018); Iskandar et. al. (2018); and Nachimuthu and Sasi (2021). In the light of this, the null hypothesis that there is no significant effect of treatment on achievement in social science of IX class student is rejected. Thus, multimedia was

found significantly enhance the achievement in social science of IX class students in comparison to conventional method.

Effect of learning styles on achievement in social science: Table 1 shows that the F-value for the main effect of learning style on achievement in social science of IX class students is 1.07, which is not significant ($p>0.05$). It shows that the mean score of achievement in social science of IX class students belonging to visual, auditory and kinesthetic learning styles do not differ significantly. So there is no significant effect of learning styles on achievement in social science of IX class students. In the light of this the null hypothesis that there is no significant learning styles difference in achievement of IX class students in social science is accepted. It may be concluded that students belonging to visual, auditory and kinesthetic learning styles were found to be not significant.

Effect of interaction between treatment and learning styles on achievement in social science: It has been revealed from the table 1 that F-value for interaction between treatment and learning styles on achievement in social science is 0.36, which is not significant ($p>0.05$). There is no significant effect of interaction between multimedia and learning styles on achievement of students of IX class students. In the light of this, the null hypothesis that there is no significant effect of There is no significant interaction between multimedia and learning styles on achievement in social science of IX class students is not rejected. It can be concluded that the visual, auditory and kinesthetic learning styles may not be kept in mind while selecting the method of teaching social science.

Conclusion: The findings of the present study revealed that multimedia improve the achievement in social science which is significantly higher in comparison to conventional strategy. Multimedia is very useful tool for teaching to the students. The results revealed that the multimedia significantly enhance social science achievement in IX class secondary school students, so it is suggested that with the implementation of multimedia in the education, the students will develop keen interest in their course.

Educational Implications: As we all awarded, COVID-19 has changed the education system. All educational institutions have adopted the online education system. So, multimedia has played important role in the present scenario. The present research study has

various implications in the field of education as given below:

a) The educational institutional should be organize seminar, workshops, conferences and training programmes for the enhancement of computer skills among teachers.
b) The schools, colleges and universities should be arrange the quiz competition, tech savvy, web quest, hunt for codes etc. for the students to enhance their computer skills.
c) Multimedia should improve problem solving ability, deeper understanding, access to a vast variety of understanding, world exploration among the students as well as teachers.
d) Multimedia strategies are intended to help students to perform better in their academic achievement and also enhancing the thinking skills among the students and can determine for themselves how to improve.
e) Teachers should motivate themselves to use information and communication technology, they should prepare their lectures with the help of these technologies.
f) Computer courses should be a part of curriculum and students should be allowed to use computers.
g) Promotions and increments should be offered to the teachers who are efficient in computer skills.

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SELF-EFFICACY AND EMOTIONAL INTELLIGENCE AS PREDICTORS OF PERCEIVE LONELINESS OF ADOLESCENTS

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Abstract

Present study was undertaken to investigate self-efficacy and emotional intelligence as predictors of perceived loneliness among adolescents. The study was conducted on 116 students of 1X class (56 female and 60 male) were selected randomly from three schools of rural area of Ludhiana. Perceived Loneliness Scale by Jha (2016), Self-Efficacy Scale by Mathur and Bhatnagar (2012), and Emotional Intelligence Scale by Singh and Narain (2019) were used for data collection. Result of the study revealed significant negative relation of perceived loneliness with both self-efficacy and emotional intelligence. Self-efficacy and emotional intelligence conjointly predicted perceived loneliness significantly for adolescents.

Key words: *Self-efficacy, emotional intelligence, perceived loneliness, adolescents*.

Introduction

Adolescence is a period of social self-development and consolidation (of one's identity and understanding of oneself in relation to the social world), and teenagers are acutely aware of and concerned about what society thinks of them. However, extreme and consistent fear of meeting new people can severely limit a person's ability to engage in normal social activities.

Adolescents suffering from social anxiety may appear extremely shy and may avoid their usual activities or refuse to participate in new experiences. They may engage in risky behaviours, drug experimentation, or impulsive sexual behaviour in an attempt to reduce or deny their social fear. They are especially vulnerable to feelings of loneliness.

More than 70% of adolescents experiencing recurring loneliness at age of 18 (Heinrich & Gullone, 2006). Vig and Gill (2016) reported that 62% of adolescents in Chandigarh were feeling loneliness. Shukla and Kang (2017) reported that 22.00% of rural and 10.66% of urban adolescents have high of loneliness.

Loneliness

Freud coined the term "loneliness" in 1939 to describe the inner structure of a person that could be completely altered by an experience of loneliness (Bekhet & Zauszniewski, 2008).

According to Hawkley (2020) loneliness is distressing experience that occurs when a person's social relationships are perceived by that person to be less in quality, and especially in quality, than desired. Than experience of loneliness is highly subjective, an individual can be alone without feeling lonely and can feel lonely even when without feeling lonely and can feel lonely even when with other people. According to Psychology Today (2020a) loneliness is the state of distress or discomfort that results when one perceives a gap between ones desires for social connection and actual experiences of it.

Perceived Loneliness

According to Hawkley and Cacioppo (2013) loneliness is synonymous with perceived social isolation. According to Singer (2018) perceived isolation or loneliness may be defined as the subjective experience of lack of companionship and support. According to Mathur and Panwar (2018) loneliness refers to an individual's subjective perception that he/she in lacks close interpersonal relationships an individual is lonely if he or she desires close interpersonal relationships but is unable to establish them.

According to Jha (2015) loneliness refers to an individual's subjective perception that he/she lacks close interpersonal relationships. In the present study perceived loneliness was analyzed through Perceived Loneliness Scale by Jha (2015). The Scale 87 consists of items which conceptualize loneliness as a one-dimensional psychological state of an individual. The scores of Perceived Loneliness Scale by Jha (2015) was taken as perceived loneliness in the present study.

Perceived lonelin1ess is the thus the perception of isolation even when the individual is not actually isolated.

Self-Efficacy

According to American Psychological Association (2017) self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior and social environment. These cognitive self-evaluations influence all manner of human experience, including the goals for which people strive, the amount of energy expanded toward goal achievement and likelihood of attaining particular levels of behavioral performance. According Cherry (2020) to self-efficacy is a person's

belief in his abilities to succeed in a particular situation.

Self-Efficacy is a powerful determine of the choices that individual make than either anticipated outcomes or the actual skills and knowledge relevant to the behavior in question. In present study Self-Efficacy Scale by Mathur and Bhatnagar (2012) was used to analyze self-efficacy. It consists of eight factors namely, self-regulatory skills, self-influence, self-evaluation and self –cognition. The scores of Self –Efficacy scale by Mathur and Bhavnagar (2012) was taken as self–efficacy in the present study.

Self–efficacy may be regarded as individual's strength, ability, self–attribution or confidence about one particular task. When the self-efficacy is heightened, the individual meet the challenging situations and tackle successfully. Self-efficacy beliefs strengthen the will-power of individual to execute the task.

Emotional Intelligence

In 1990, Mayer and Salovey coined the term "Emotional Intelligence," defining it as "a type of social intelligence that involves the ability to monitor one's own and others' feelings and emotions in order to discriminate among them and use this information to guide one's thinking and action" (Golis, 2021). According to Psychology Today (2020b) emotional intelligence refers to the ability to identify and manage one's own emotions as well as the emotions of others.

Singh (2005) defined emotional intelligence as the ability of an individual to appropriately and successfully respond to a variety of emotional stimuli elicited from the inner self and immediate environment. In the present study the variable of Emotional Intelligence was analyzed through Emotional Intelligence Scale (Singh & Narain, 2019). The Scale consists of four dimensions; understanding emotions, understanding motivation, empathy, handling relations. The Scores of Emotional Intelligence Scale-Singh and Narain (2014) was taken as emotional intelligence in the present study.

Emotional intelligence means management of emotions. It refers to individual differences in the perception, processing, regulation and utilization of emotional information. It enables the individuals to understand their emotions and respond accordingly in any situation

Perceived Loneliness in Relation to Self-Efficacy

Fry and Debats (2002), Hermann (2005), AI Khatib (2012), Erozkan and Deniz (2012),

Arfin (2016), Mai and Alhoot (2016), Gazo, Mahasneh, Abood, and Muhediat (2020), Icekson, Begerano, Levinson, Savariego and Margalit (2021) revealed significant negative relationship between perceived loneliness and self-efficacy. Andretta and Mckay (2016) found no significant relationship between loneliness and academic self-efficacy. Padmanabhanunni and Pretorius (2021) reported no significant relationship between loneliness and self-efficacy.

Perceived Loneliness in Relation to Emotional Intelligence

Joshi and Kang (2015), Wols, Scholte and Qualter (2015), Thomas et, al. (2020), and Kim and Sutharson (2021) reported significant negative relationship between loneliness and emotional intelligence. Khaledian, Sogolitappeh and Kermani (2018) reported that emotional intelligence training has been able to reduce the feeling of loneliness.

Emergence of the Problem

Studies on the relationship between loneliness and self-efficacy are conducted in other countries. Fry and Debats (2002) in Southern Alberta, Hermann (2005) in U.S.A.., Al Khatib (2012) in U.A.E, Erozkan and Deniz (2012) in Turkey, Andretta and McKay (2016) in Northern Ireland and Scotland, Arfin (2016) in Bangladesh, Mai and Alhoot (2016) in Kuala Lumpur Malaysia Gazo et. al. (2020) in Icekson et. al. (2021) in Isarel. No study was found conducted on the population of Punjab, India.

Most of the studies on the relationship between loneliness and emotional intelligences are confined to other countries. Khaledian et. al. (2018), Kim and Sutharson (2021) U.S.A.; Zysberg (2012) in Israel; Wols et.al. (2015) and Davis et. al. (2019) in U.K. Two studies Joshi and Kang (2015) in Punjab and Thomas et. al. (2020) in Kerala were found conducted in India.

It can be concluded that not much research work has been done on the proposed topic on the senior secondary school students of Punjab, India. The proposed topic thus seems fully justified.

Objectives

1. To investigate the significance of relationship between perceived loneliness and self-efficacy of adolescents.
2. To investigate the significance of relationship between perceived loneliness and emotional intelligence of adolescents.
3. To investigate the conjoint effect of self-efficacy and emotional intelligence

towards the prediction of perceived loneliness of adolescents.

Hypotheses

1. There is no significant relationship between perceived loneliness and self-efficacy of adolescents.
2. There is no significant relationship between perceived loneliness and emotional intelligence of adolescents.
3. The prediction of perceived loneliness of adolescents on the basis of self-efficacy and emotional intelligence is not significant.

Method: Descriptive survey method of research was used in the present study

Sample: The sample was selected from three Government Senior Secondary Schools from rural area of Ludhiana district of Punjab, India. 116 students of 1X class (56 female and 60 male) were selected randomly from the schools.

Tools: Following tools were used for data collection:

1. Perceived Loneliness Scale by Jha (2016)
2. Self-Efficacy Scale by Mathur and Bhatnagar (2012)
3. Emotional Intelligence Scale by Singh and Narain (2019)

Result

Relationship between perceived loneliness and self-efficacy: To investigate the significance of relationship between perceived loneliness and self-efficacy of adolescents Pearson's coefficient of correlation was worked out and the result is presented in the table1 given below:

Table 1: Relationship between Perceived Loneliness and Self-Efficacy of Adolescents (N=116)

Variables	r
Perceived Loneliness	-0.36*
Self-efficacy	

**Significant at 0.01 level of significance*

Table 1 shows that for adolescents the value of correlation is -0.33 which is significant ($p<0.01$). It reveals that there is significant negative relationship between perceived loneliness and self-efficacy of adolescents. Hypothesis 1 which states that "There is no significant relationship between perceived loneliness and self-efficacy of adolescents,' is thus rejected.

This finding is well supported by the studies conducted by Fry and Debats (2002), Hermann (2005), AI Khatib (2012). Erozkan

and Deniz (2012), Arfin (2016), Mai and Alhoot (2016), Gazo et. al. (2020), and Icekson et. al. (2021).

Relationship between perceived loneliness and emotional intelligence: To investigate the significance of relationship between perceived loneliness and emotional intelligence of female adolescents Pearson's coefficient of correlation was worked out and the result is presented in the tables 2 below:

Table 2: Relationship between Perceived Loneliness and Emotional Intelligence of Adolescents (N=116)

Variables	r
Perceived Loneliness	-0.33*
Emotional Intelligence	

**Significant at 0.01 level of significance*

Table 2 shows that for adolescents the value of correlation is -0.33 which is significant (p=0.01). It reveals that there is significant negative relationship between perceived loneliness and emotional intelligence of adolescents. Hypothesis 2 which states that "There is no significant relationship between perceived loneliness and emotional intelligence of adolescents,' is thus rejected.

This finding is in line with the studies conducted by Joshi and Kang (2015), Wols et. al. (2015), Thomas et, al. (2020), Kim and Sutharson (2021).

Prediction of perceived loneliness on the basis of conjoint effect of self-efficacy and emotional intelligence: R along with R^2 and F-ratio were worked out to predict the perceived loneliness on the basis of conjoint effect of self-efficacy and emotional intelligence for adolescents and the values are given in tables 3 below:

Table 3: Step-up Regression Equations for Adolescents for Perceived Loneliness on the basis of Self-Efficacy and Emotional Intelligence (N=116)

Variable	Degree of freedom	R	R^2	F	Step up regression equation
Self-Efficacy	1, 114	0.36	0.13	16.80*	$Y= 154.10-0.36X_1$
Emotional Intelligence	1, 114	0.33	0.11	14.28*	$Y= 139.58-0.33X_2$
Self-efficacy + Emotional Intelligence	2, 113	0.48	0.23	16.90*	$Y= 175.23-0.35X_1 -0.32X_2$

** Significant at 0.01 level*

Table 3 reveals that the value of R^2 for self-efficacy is 0.13, and that of emotional intelligence it is 0.11. Thus 13 % of perceived loneliness is predicted by self-efficacy and 11% by emotional intelligence. The combined R^2 is equal to 0.23. So 23% of perceived loneliness is predicted by self-efficacy and emotional intelligence conjointly. The remaining 77% of perceived loneliness is predicted by the variables not included in the present study. F value for self-efficacy and emotional intelligence taken together is 16.90 which is significant ($p<0.01$). The conjoint effect of self-efficacy and emotional intelligence towards the prediction of perceived loneliness of adolescents is thus significant. This leads to rejection of hypothesis 4 (c) "The prediction of perceived loneliness of adolescents on the basis of self-efficacy and emotional intelligence is not significant".

The above results clearly show that self-efficacy and emotional intelligence conjointly predict perceived loneliness significantly for adolescents. This is due to the significant negative relationship between perceived loneliness and self-efficacy for adolescents discussed in Table 1, between loneliness and emotional intelligence for adolescents discussed in Table 2.

Conclusions: The following conclusion can be drawn on the basis of result of the study:

a) There is significant negative relationship between perceived loneliness and self-efficacy of adolescents ($r = -0.36$, $p<0.01$).
b) There is significant negative relationship between perceived loneliness and emotional intelligence of adolescents ($r = -0.33$, $p<0.01$).
c) Self -efficacy and emotional intelligence conjointly predict perceived loneliness

significantly for adolescents (R^2= 0.23, F-ratio=16.90, P<0.01).

Implications: Result of the study revealed significant negative relationship of perceived loneliness with self-efficacy and emotional intelligence. The improvement in self-efficacy and emotional intelligence will help in reducing perceived loneliness. It is thus suggested to parents and teachers to create conditions conducive for the development of self-efficacy and emotional intelligence among the students. We need to have democratic environment at home and in the schools. Proper classroom environment and child centered methods of teaching can also play important role in development of self-efficacy and emotional intelligence among the students.

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RESEARCH ANXIETY AMONG Ph.D. RESEARCH SCHOLARS IN RELATION TO ATTITUDE TOWARDS RESEARCH AND RESEARCH SELF-EFFICACY

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Abstract

The current study was conducted to investigate research anxiety among Ph.D. research scholars in relation to their research attitude and research self-efficacy. 302 Ph.D. research scholars from Panjab University, Chandigarh's Social Science discipline were selected at random. For data collection, Research anxiety scale developed by the Investigator, Research Attitude scale by Bhutia and Kharsati (2013) and Research self-efficacy scale by Buyukozturk, Atalay, Sozgun and Kebapci (2011) were used. The study's findings revealed a significant negative relationship between research anxiety and both attitude toward research and research self-efficacy. Furthermore, research attitude and research self-efficacy were found to be significant predictors of research anxiety.

Key words: *Research anxiety, attitude towards research, research self-efficacy, Ph.D. research scholars.*

Introduction

The word "research" comes from the French word "recherché," which meaning "to seek." The words "research" and "search" have two syllables each. Research entails organized creative effort aimed at expanding the bank of information, including knowledge of humanity, culture, and society, as well as the application of that knowledge to develop new applications (Bhome, Prajapati, Ghate & Ghosh, 2015). USC Library Australia (2020) defines research as the creation of new knowledge and/or the creative use of existing information to generate new concepts, approaches, and understandings. This could entail synthesizing and analyzing past research to the point where it produces fresh and innovative results. Department of Education and Training, Western Sydney University (2020) defined research as the generation of new concepts, methodologies, and understandings through the development of new knowledge and/or the creative application of existing knowledge. This could entail synthesizing and analyzing past research to the point where it produces fresh and innovative results.

Research is a time-consuming and labor-intensive rigorous, controlled, analytical, and empirical investigation. Scholars need to devote time and effort in a systematic manner to properly accomplish their research. While conducting research for a Ph.D., researchers are constantly under pressure, which leads to research anxiety.

Research Anxiety

Bokeoglu and Yilmaz (2005) defined research anxiety as "behaviors such as feeling the boredom of the opinion of doing research, not doing research unless obliged, feeling anxious while doing research, lack of confidence about doing research". According to Higgins and Kotrlik (2006) research anxiety refers to the characteristics which a student perceives as discomforting to the extent that productivity may be reduced. According to Gupta (2021) fear, uneasiness, or a lack of confidence while conducting research is referred to as research anxiety. Research tasks are regarded as demanding or tough by the researcher. Fear and doubts impact the researcher's performance during their research activity since they are apprehensive about it. Library anxiety, statistical anxiety, writing or composition anxiety, research language anxiety, and research process anxiety are all examples of research anxiety.

Research anxiety among the Ph.D. research scholars can be studied in relation to their attitude towards research (Papanastasiou, 2005; Adeyinka, 2015; Gredig & Raemy, 2018; Garancho & Marpa, 2019; Natividad, Mangulabnan, & Canlas, 2019; Kritikos, Saini, Carter, Moles, & Krass, 2015; Sebastian, Vergaray, Arellano, Franco, Paico, Flores, & Vallejo, 2021).

Attitude towards Research

According to Salem, Butt and Farooqi (2014) the attitude towards research basically means a detailed study of thinking, feeling and the person's behavior towards research. It also specifies how a person is acting in the research field and what importance is given by him to the different aspects of research. According to Salem, Saeed and Waheed, (2014) research attitude is researchers' positive or negative orientation towards research. According to Salem et. al. (2015) research attitudes describe the researchers' interest or liking regarding research process. According to Prashad and Qasim (2021) the term "attitude toward research" refers to a thorough examination of a person's thoughts, feelings, and actions in relation to research. Attitude is a key aspect in every job, and it's especially important in research.

Research anxiety among the Ph.D. research scholars can also be studied in relation to their research self-efficacy

Research Self-Efficacy

The degree to which an individual believes he or she has the ability to perform research activities is characterized as research self-efficacy, and it is assumed to influence the commencement and persistence of research habits (Bieschke, Bishop & Herbert, 1995). Forester, Kahn, and Hesson-Mclnnis (2004) defined research self-efficacy as one's belief in one's ability to do research tasks successfully (e.g., performing a literature review or analyzing data). Research self-efficacy, according to Unrau and Beck (2005), can be characterized as confidence in carrying out research tasks ranging from planning a research project to carrying out the research process from library research and reading to writing and publication. According to Livinti, Gunnesch-Luca, and Iliescu (2021), research self-efficacy is one of the best indicators of effectively engaging in research activities and symbolizes the adaptation of the social cognitive notion of self-efficacy to the field of academic and scientific research.

Review of Related Literature

Review of related literature under following classifications:

a) **Research Anxiety in relation to Attitude towards Research**

Papanastasiou (2005); Adeyinka (2015); Gredig and Raemy (2018); Garancho and Marpa (2019) found negative relationship between research anxiety and attitude towards research. Whereas Maharajan et. Al. (2017) and Natividad et. al. (2019) found no significant relationship between research anxiety and attitude towards research. Kritikos et. al. (2015) on the other hand found significant positive relationship between students' research anxiety and attitude towards research. Sebastian et. al. (2021) revealed that that the presence of high anxiety state is associated with a regular and good attitude towards scientific research.

b) **Research Anxiety in relation to Research Self-Efficacy**

Rezaei and Miandashti (2013); Razavi, Shahrabi, and Siamian (2017); Maharajan, Rajiah, Tam, Chaw, Ang, and Yong (2017); Samosa (2021) revealed significant negative relationship between research anxiety and research self-efficacy.

Emergence of the Problem

Review of related literature indicate that not much research work has been done on the proposed topic. Few studies which have been found by investigator have been conducted in other countries. No study was found conducted on the sample of Ph.D. research scholars conducting research in Panjab University, Chandigarh.

Objectives

1. To investigate the significance of relationship between research anxiety and attitude towards research of Ph.D. research scholars.
2. To investigate the significance of relationship between research anxiety and research self-efficacy of Ph.D. research scholars.
3. To study the conjoint effect of attitude towards research and research self-efficacy towards the prediction of research anxiety of Ph.D. research scholars.

Hypotheses

1. There is no significant relationship between research anxiety and attitude towards research of Ph.D. research scholars.
2. There is no significant relationship between research anxiety and research self-efficacy of Ph.D. research scholars.
3. The conjoint effect of attitude towards research and research self-efficacy towards the prediction of research anxiety of Ph.D. research scholars is not significant.

Method

Descriptive survey method was used in the study.

Sample: 302 Ph.D. research scholars selected from the discipline of Social Science of Panjab University, Chandigarh who have completed their pre-Ph.D. course work. Simple Random technique of sampling was used. Discipline of social science included faculties of Education, History, Commerce, Physical Education, Languages, Political Science and Sociology.

Tools: Following tools were used for data collection:

1. Research anxiety scale developed by the Investigator.
2. Research Attitude scale by Bhutia and Kharsati (2013).

3. Research self-efficacy scale by Buyukozturk, Atalay, Sozgun and Kebapci (2011).

Result and Discussion

To investigate the significance of relationship between research anxiety and attitude towards research and also between research anxiety and research self-efficacy Pearson's coefficient of correlation was worked out and the values are given in tables 1 and 2 respectively. To study the conjoint effect of attitude towards research and research self-efficacy towards the prediction of research anxiety of Ph.D. research scholars step up regression technique, R along with R^2 and F-ratio were used and the values are given in table 3.

Table 1: Relationship between Research Anxiety and Attitude towards Research of Ph.D. Research Scholars (N=302)

Variables	r	p
Research Anxiety	-0.34	0.00
Attitude towards Research		

Table 1 reveals that the value of correlation between research anxiety and attitude towards research is -0.34 which is significant ($p<0.01$). Research anxiety has significant negative relationship with attitude towards research. Hypothesis 1 which states that 'There is no significant relationship between research anxiety and attitude towards research of Ph.D. research scholars' is thus not accepted. This finding is in line with the studies conducted by Papanastasiou (2005), Adeyinka (2015), Gredig and Raemy (2018), Garancho and Marpa (2019).

Table 2: Relationship between Research Anxiety and Research Self-Efficacy of Ph.D. Research Scholars (N=302)

Variables	r	p
Research Anxiety	-0.19	0.01
Research Self-Efficacy		

Table 2 reveals that the value of correlation between research anxiety and research self-efficacy is -0.19 which is significant ($p=0.01$). Research anxiety has significant negative relationship with research self-efficacy. Hypothesis 2 which states that 'There is no significant relationship between research anxiety and research self-efficacy

of Ph.D. research scholars' is thus not accepted. This finding is in line with the studies conducted by Rezaei and Miandashti (2013); Razavi, Shahrabi, and Siamian (2017); Maharajan, Rajiah, Tam, Chaw, Ang, and Yong (2017); Samosa (2021).

Table 3:Step-up Regression Equations of Ph.D. Research Scholars Research Self-Efficacy (N=302)

Variable	**Degree of freedom**	**R^2**	**R**	**F**	**Step up Regression Equation**
Attitude towards Research	1, 300	0.12	0.34	40.40*	$Y = 102.51 – 0.34X_1$
Research Self-Efficacy	1, 300	0.04	0.19	11.19*	$Y = 98.04 - 0.19X_2$
Attitude towards Research + Research Self-Efficacy	2, 299	0.16	0.40	20.15*	$Y = 103.45 - 0.34X_1 -0.01X_2$

**Significant at 0.01 level of significance*

Table 3 shows that for Ph.D. research scholars of R^2 for attitude towards research is 0.12, and for research self-efficacy is 0.04. Thus 12 % of research anxiety is predicted by attitude towards research and 04% by research self-efficacy. The combined R^2 is equal to 0.16. So 16% of research anxiety is predicted by attitude towards research and research self-efficacy taken together. The value of combined F is 20.15, which is significant ($p<0.01$). Thus attitude towards research and research self-efficacy conjointly predict research anxiety significantly higher as compared to their separate predictions for Ph.D. research scholars. 84% of research anxiety is predicted by the variables not included in the present study. Hypothesis 3 which states that 'The conjoint effect of attitude towards research and research self-efficacy towards the prediction of research anxiety of Ph.D. research scholars is not significant,' is rejected.

The above results clearly show that attitude towards research and research self-efficacy conjointly predict research anxiety significantly higher as compared to their separate predictions for Ph.D. research scholars. This is due to the significant negative relationship between research

anxiety and attitude towards research discussed in Table 1, and between research anxiety and research self-efficacy discussed in Table 2.

Conclusion

a) Research anxiety has significant negative relationship with attitude towards research.
b) Research anxiety has significant negative relationship with research self-efficacy.
c) The conjoint effect of attitude towards research and research self-efficacy towards the prediction of research anxiety of Ph.D. research scholars is significant.

Implication

The study's findings indicated a significant negative relationship of research anxiety with both attitude toward research and research self-efficacy. Research attitude and research self-efficacy were also found to be significant predictors of research anxiety. As a result, it is suggested that universities should promote a positive attitude toward research and create environment to promote research self-efficacy. Research anxiety can be reduced by having well-equipped libraries, timely financial support, a positive supervisory attitude, and administrative support.

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2)	Periodicity of Publication:	Annual.
3)	Date of Publication:	30th October 2021.
4)	Printer's Name and Address:	Malwa Central college of Education for Women, Civil Lines, Ludhiana through Principal Dr. Naginder Kaur, Principal's Lodge, Malwa Central college of Education for Women, Civil Lines, Ludhiana, Punjab- 141001.
5)	Nationality of Publisher:	Indian.
6)	Editor's Name, Nationality and Address:	Dr. Gurmit Singh, Indian, Associate Professor, Malwa Central College of Education for Women, Civil Lines, Ludhiana, Punjab- 141001.
7)	Name and Address of the Owner:	Malwa Central college of Education for Women, Civil Lines, Ludhiana, Punjab- 141001.
8)	Name of the Printing Press where Printing is done:	Malik Printers, College Road, Civil Lines, Ludhiana, Punjab- 141001.
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Printed and Published by
Dr. Naginder Kaur Principal on behalf of Malwa Central college of Education for Women, Civil Lines, Ludhiana, Punjab- 141001.
Printed at Malik Printers, College Road, Civil Lines, Ludhiana, Punjab- 141001.
Published at Malwa Central college of Education for Women, Civil Lines, Ludhiana, Punjab- 141001.
Editor Dr. Gurmit Singh Associate Professor, Malwa Central college of Education for Women, Civil Lines, Ludhiana, Punjab- 141001.