THE EDUCATIONAL BEACON
A RESEARCH JOURNAL

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Editorial office
Government College of Education
Sector 20-D, Chandigarh
Contact No. : 0172-2784182, 2700075
e-mail: gcechd@yahoo.co.in
Website : gcechd.ac.in
PREFACE

It gives me immense pleasure to pen down my thoughts for the current issue of our research journal 'The Educational Beacon'. At this premier college of Education, our goal is to change the society through education. It may sound idealistic, but this is precisely our mission and fuels our works with students, teachers and leaders in education. Our objective of achieving excellence inspires our teaching and research ventures and also a motivation behind this research journal.

Education is always a social process. It involves education institutions, culture, and social resources. The effectiveness of organised activities of a society depends on the interaction and interrelationships of these institutions which constitute the whole. According to S.N. Isenstadt, "perhaps the best starting point for analysis of the characteristics in the educational institutions in modern societies is the pattern of demands for and the supply of educational services that tended to develop with modernisation".

Education always involves values and dilemmas, both in making curricula and in designing methods of teaching. It involves science, art and ways of being in the world. These are major themes of philosophy behind the educational research. Education continues over time, linking our society to its past and to its future. Educational research creates capacities for practice that transform the social arrangements that have come to us from the past. Education is, therefore, a field that links to, and draws from, knowledges across the disciplines of the social sciences and humanities.

In the wider society the individual is treated and judged in terms of 'Universalistic' standards. Within the family the child's status is ascribed, it is fixed by birth. However, in advanced society, status in adult life is largely achieved with the help of education. Thus, through education and positive research the child is helped to move from particularistic standards and ascribed status of the family to universalistic standards and achieved status of adult society.

How one understands the concepts of teaching and learning is inherently underpinned by the understanding which is critical to the successful transition from a learner to teacher. Highly productive economies, distributive justice, people's participation in decision-making bodies, adoption of scientific technology in industry, agriculture and other professions are accepted as the goals of for modernising a society solely emerging from the processes of teaching and learning. These goals are to be achieved through education supplemented by research.
Research is designed to solve particular existing problems so we need to support research that is likely to be usable or solve problems of immediate concern in the field of education. We also must understand how research impacts our educational and academic goals. Many of the norms of research promote a variety of other important moral and social values, such as social responsibility of teaching personnel, human rights in educational contexts and teaching learning situations. Ethical lapses in research can significantly harm human subjects, students and the public. Our endeavour is to fill the gaps in the existing body of knowledge and I sincerely hope that ‘The Educational beacon’ fulfills this aim.

I thank my editorial team, publishers and authors who have contributed towards our accomplishment in the form of this journal.

Dr. (Mrs.) Harsh Batra
Principal, Govt. College of Education,
Chandigarh
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MOBILE PHONE ADDICTION AND COGNITIVE DISSONANCE OF PROSPECTIVE TEACHERS

Dr. Anjali Puri*

Abstract

The present study was undertaken to investigate the Mobile Phone Addiction and Cognitive Dissonance among prospective teachers. The sample of study comprised of 200 prospective teachers, who were selected from Education Colleges of Chandigarh. Attitude towards using Mobile Phone Addiction Scale by Velayudhan and Srividya (2012) and Cognitive Dissonance scale constructed by Bhagwat (2009) were used for the purpose of data collection. Findings of the study were that there was no significant difference between Mobile Phone Addiction among students in Government and private colleges of education. Significant differences were found in cognitive dissonance of prospective teachers in Government and private colleges of education and Mobile Phone Addiction of prospective teachers was found to be significantly related to their cognitive dissonance.

Keywords:
Mobile Phone Addiction, Cognitive Dissonance, Prospective teachers

Introduction

Information Communication technology resources include mainly all the online applications of mobile, computer, email, web based applications, search engines and so on. Mobile Phone Addiction is compulsive behavior towards using mobile phone and related applications. This produces a feeling of discomfort leading to an alteration in one's attitudes, beliefs or behaviors to reduce the discomfort and restore balance etc. For example, when people smoke (behavior) and they know that smoking causes cancer.

Although Mobile Phones allow individuals to have unlimited access to information and to connect with others in a way otherwise thought impossible, there are many harmful and disturbing effects of smartphone dependence. According to Psychguides (2018), Cell phone addiction, sometimes referred to as problematic mobile phone use, is a behavioral addiction thought to be similar to that of an Internet, gambling, shopping, or video game addiction and leads to severe impairment or distress in one's life.

*Associate Professor, Government College of Education, Chandigarh
The obsessive use of a smartphone has been compared to that of credit card misuse and compulsive buying. Cell phones have become a representation of social status and thus, there is pressure to own the newest release and to have all of the best applications. People suffering from this condition often times have what has been coined "nomophobia," or the fear of being without one’s cell phone. Problematic cell phone users can develop a social media addiction as well, which has a number of harmful effects on the user, such as impaired self-esteem, impaired work performance and interpersonal conflicts.

Cognitive dissonance refers to a situation involving conflicting attitudes, beliefs or behaviors. Festinger’s (1957) cognitive dissonance theory suggests that we have an inner drive to hold all our attitudes and beliefs in harmony and avoid disharmony (or dissonance). Attitudes may change because of factors within the person. An important factor here is the principle of cognitive consistency, the focus of Festinger's (1957) theory of cognitive dissonance. This theory starts from the idea that we seek consistency in our beliefs and attitudes in any situation where two cognitions are inconsistent.

Mobile Phones have been used widely in the present decade. Multitasking has become a new sought after trend. One individual is seen focusing on various aspects at one point of time which may give rise to inconsistency or dissonance. Cognitive Dissonance of a teacher may affect the major aim of education. The teacher of modern age has to use variety of sources to keep his knowledge updated. A professionally competent teacher should also have cognitive consistency. Inconsistent Cognition or Cognitive Dissonance may significantly affect the teaching and learning goals.

Cox et al (1999) conducted a study to investigate the factors which have contributed to the continuing use of ICT by teachers experienced in using it for teaching. Findings show that the motivational factors which correlated most positively with ICT use were: perceived ability to use IT; level of resources available and their satisfaction with IT; and whether using IT in teaching is considered to be interesting and enjoyable (internal locus of control). The most significant negative factor was difficulties experienced in using IT.

Greenfield (2009) analyzed a classroom study showing that students who were given access to the internet during class and were encouraged to use it during lectures did not process what the speaker said as well as students who did not have internet access. When students were tested after class lectures, those who did not have internet access performed better than those who used internet.
Vikander (2013) inferred on the basis of his study that teenagers' scores on standardized reading tests have declined or stagnated, some argue that the hours spent prowling the internet are the enemy of reading - diminishing literacy, wrecking attention spans and destroying a precious common culture that exists only through the reading of books.

Sang et al (2010) conducted a study on the impact of Chinese student teachers' gender, constructivist teaching beliefs, teaching self-efficacy, computer self-efficacy and computer attitudes on their prospective ICT use. Results show that prospective ICT integration significantly correlates with all teacher related variables, except for gender. Building on the results of a path analysis model, prospective ICT integration could be directly predicted on the base of teacher thinking variables i.e. constructivist teaching beliefs, teacher self-efficacy, computer self-efficacy, locus of control and computer attitudes in education.

Onen (2012) conducted a study to determine the relationship between pre-service teachers' beliefs about education and their attitudes towards utilizing computers and internet in a descriptive study. The sampling of the study consisted of 270 pre-service teachers. The potential relationship between the beliefs of pre-service teachers about education and their attitudes towards using computers and internet was analyzed and the results were evaluated. The study concluded that there are positive significant relationships between pre-service teachers' beliefs about education and their attitudes towards using internet and computers.

**Design of the Study**

For the purpose of present investigation, descriptive survey method of research was employed.

**Sample**

The sample of the present study comprised of 200 prospective teachers; out of which 100 were randomly selected each from one government and one private college of education in UT, Chandigarh.

**Tools**

Following tools were employed for the purpose of data collection.

Mobile Phone Addiction Scale by Velayudhan and Srividya (2012)

Cognitive Dissonance Scale constructed by Bhagwat (2009)
Objectives

The study was designed to attain the following objectives:

1. To compare the mobile phone addiction of prospective teachers studying in Government and private colleges of education.
2. To compare the cognitive dissonance of prospective teachers studying in Government and private colleges of education.
3. To study mobile phone addiction of prospective teachers in relation to their cognitive dissonance.

Hypotheses

The study was designed to test the following hypotheses:

1. There exists no significant difference in the mobile phone addiction of prospective teachers studying in Government and private colleges of education.
2. There exists no significant difference in cognitive dissonance of prospective teachers studying in Government and private colleges of education.
3. There exists no significant difference in the mobile phone addiction of prospective teachers in relation to their cognitive dissonance.

Results and Discussion

Table: 1 Mean, Standard Deviation, t-ratio of Mobile Phone Addiction of Prospective teachers studying in Government and Private Colleges of Education

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Phone Addiction</td>
<td>Govt.</td>
<td>93.72</td>
<td>18.489</td>
<td>1.898</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>101.70</td>
<td>21.711</td>
<td></td>
</tr>
</tbody>
</table>

Discussion of the results based on Table 1

Table 1 represents the mean, standard deviation, and t-ratio of mobile phone addiction of prospective teachers in Government and private colleges of education. Entries made in table 1 show that the mean score of Mobile Phone Addiction of prospective teachers in government and private colleges are respectively 93.72 and 101.70 and respective standard deviation scores are 18.489 and 21.711. The calculated t-ratio between the mean score of Government and private college of education with regard to their mobile phone addiction is 1.898 which is not significant.
Thus, the first null hypothesis stating that "There exists no significant difference in the mobile phone addiction of prospective teachers studying in government and private colleges of education" is accepted.

**Hypothesis-2**

Hypothesis-2 states, "There exists no significant difference in cognitive dissonance of prospective teachers in Government and private colleges of education"

Table 2 has been prepared to test hypothesis 2.

**Table 2**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Dissonance</td>
<td>Govt.</td>
<td>49.60</td>
<td>7.34</td>
<td>3.991**</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>45.56</td>
<td>6.97</td>
<td></td>
</tr>
</tbody>
</table>

*Note: **Significant at .01*

**Discussion of the results based on Table 2**

Table 2 represents the mean, standard deviation, and mean differentials of cognitive dissonance of prospective teachers in Government and private colleges of education. Entries made in table 2 show that the mean score of cognitive dissonance of prospective teachers in Government and private colleges are respectively 49.60 and 45.56 and respective standard deviation scores are 7.34 and 6.97.

The calculated t-ratio between the mean score of prospective teachers in Government and private college of education with regard to their cognitive dissonance is 3.991, which is greater than tabulated value of 2.60 at 198 degree of freedom which is significant at .01 level.

Thus, the second null hypothesis stating that "There exists no significant difference in cognitive dissonance of prospective teachers studying in Government and private colleges of education" is rejected.

**Hypothesis-3**

Hypothesis-3 states, "There exists no significant difference in the Mobile Phone Addiction of prospective teachers in relation to their cognitive dissonance."
Table 3 has been prepared to test hypothesis 3.

**Table 3: Mean, Standard Deviation, t-ratio of Mobile Phone Addiction of Prospective Teachers with high and low cognitive dissonance**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cognitive Dissonance</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Phone Addiction</td>
<td>High</td>
<td>101.70</td>
<td>21.711</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>118.54</td>
<td>14.950</td>
<td>4.332*</td>
</tr>
</tbody>
</table>

*Significant at .01

**Discussion of the results based on Table 3**

Table 3 represents the mean, standard deviation, and t-ratio of mobile phone addiction of prospective teachers in relation to their cognitive dissonance. Entries made in table 3 show that the mean score of mobile phone addiction of prospective teachers with high and low cognitive dissonance are respectively 101.70 and 118.54 and respective standard deviation scores are 21.711 and 14.950.

The calculated t-ratio between the mean score of prospective teachers in relation to their cognitive dissonance is 4.332 which is significant at .01 level.

Thus the third hypothesis stating that "There exists no significant difference in the Mobile Phone Addiction of prospective teachers in relation to their cognitive dissonance." is rejected.

**Conclusions**

1. There was no significant difference in the mobile phone addiction among prospective teachers studying in Government and private colleges of education.
2. Significant differences were found in cognitive dissonance of prospective teachers in Government and private colleges of education.
3. Mobile Phone Addiction of prospective teachers was found to be significantly related to their cognitive dissonance.
References


HANDWRITING ANALYSIS IN RELATION TO PERSONALITY AND SELF-DISCLOSURE OF PROSPECTIVE SECONDARY SCHOOL TEACHERS OPTING TEACHING OF ENGLISH

Renu Verma* & Vishav Jyoti Bajaj**

Abstract

The study aimed to examine the handwriting in relation to Personality and Self-Disclosure of prospective secondary school teachers opting Teaching of English. Handwriting and its Relationship to Eysenck's Extraversion-Introversion and Sinha's Self Disclosure inventory was used on 200 prospective secondary school teachers opting Teaching of English subject. Scores on the both the inventories were co-related with the handwriting characteristics of: slants to the right, left or upright; size of handwriting; formulation of angle, the sharp points; space between lines and words; final stroke of letter 'e'; t-bars cross the t stem; loops of lower parts of y and g. No significant correlations between the handwriting measures and introversion-extraversion were found but the handwriting had a significant influence on the prospective teachers opting teaching of English on neuroticism and Lie Score of the personality at 0.01 level of significance. Significant results at 0.05 level of significance were found in case of Money and Economic Affairs, Friend, Husband/Wife (Dimensions of Self-Disclosure). Significant results at 0.01 level of significance were found in case of Occupation, Hopes and Fears, Mental Conflicts, Interests, Feelings and Ideas, Mother/Mother-in-law, Father/Father-in-law, Brother/Brother-in-law (Dimension of Self-Disclosure) and handwriting.

Introduction

Handwriting is a complex human activity that entails an intrinsic blend of cognitive, kinesthetic and perceptual motor components. The "print out" left by handwriting depicts the flavour, outlook and colour of an individual's "modus operandi". Thus, the handwriting becomes a polygraph which points a picture of person "behind the pen".

*Dean, Govt. College of Education, Chandigarh
**Science Mistress, Govt. High School, Khera, Fatehgarh Sahib
Handwriting analysis as a "science of the future" plays a significant impact on parents and teachers to evaluate qualities of children in terms of personality, character, emotions, intellect, self awareness, social adjustments, reliability, aptitudes, creativity and many other traits.

Analyzing personality and self-disclosure through handwriting is much the same way as viewing a Monet's painting. It is the classic impressionistic painting, where we realize that painting is made up of thousands of small dots blended to create a dynamic, clear portrait. Similarly the individual strokes of the pen has myriad of meanings

Handwriting is a very personal and individual trade mark of personality. It is the barometer of the personality, is also mobile and volatile. It grows and changes with the individual so that as the person matures, the handwriting develops noticeably through the stages from childhood to adolescence, adulthood and eventually old age.

Principles of Handwriting Analysis

(a) Principle of Neutralization

The principle of neutralization says that, one graphological sign may neutralize or cancel out the effect of another graphological sign if both signs are present in equal numbers. If one sign indicates selfishness and other unselfishness, it means that the person possesses both characteristics in average proportions so that actually they neutralize each other.

(b) Principle of support

When a person is strongly endowed with a particular character trait there will be two or more signs in the handwriting indicating this fact. This is known as the principle of support. The more signs that are present tending to support the existence of a trait of character, the stronger is that particular trait.

The Three Zones of Handwriting- divisions of the personality

There are three zones to examine in handwriting. These zones reflect imagination and desires. This information also provides us with another key to the writer's personality. The zones indicate three different areas of thought and are dependent on emotional energy (pressure or force applied while writing), as well as how much or how hard the writer concentrates in these areas.

The upper zones is the area in which the extended up-strokes are found in the tall letters like b, d, f, h, l, t, etc. The upper zone reveals intellectual thought, abstract thinking, daydreaming, psychic abilities, and imagination. The upper zone indicates philosophical imagination.

The middle zone is the central region occupied by letters with neither long up-strokes
nor long down-strokes, such as a, c, e, m, n, o, etc. The middle zone deals with the day today aspects of life like home, family, paying the bills, work and social concerns. The middle zone points to our approach to daily life.

The lower case is the area occupied by the extended down-strokes of letters such as g, j, p, q, etc. The lower zone emphasizes physical and material drives such as physical abilities, sex drive, appetite, and the desire for material wealth. The lower zone reveals activities essential to survival. For example

Hence, we can judge the personality of an individual through handwriting by looking at the zones where the writing is mainly concentrated, and where the emphasis is. By Looking for any encroachment from upper case to the line above or from lower case to the line below - it's a sure indication that the encroaching case is dominant. Also by looking at the central case to see if there is an upward or downward pull. An upward pull is best spotted if we see an arched pattern running through the central case. A downward pull is best spotted by seeing a pattern of troughs through the central case. The pull pattern in the central case also indicates the emphasis of the personality.

Figure 1.1 Showing Three Zones of Handwriting.
<table>
<thead>
<tr>
<th><strong>Examples of Handwriting Traits</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>ANALYTICAL THINKING</strong></td>
</tr>
<tr>
<td>v-wedges for m, n-bottom</td>
</tr>
<tr>
<td>baseline intersections</td>
</tr>
<tr>
<td>sorts and separates information</td>
</tr>
<tr>
<td>in assessing their value,</td>
</tr>
<tr>
<td>evaluates information</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>BLUNT</strong></td>
</tr>
<tr>
<td>increasingly heavy downward</td>
</tr>
<tr>
<td>and forward middle final</td>
</tr>
<tr>
<td>brings matters to a conclusion</td>
</tr>
<tr>
<td>and thrusts it upon others</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>BROADMINDED</strong></td>
</tr>
<tr>
<td>wide e-loop</td>
</tr>
<tr>
<td>liberal self-viewpoints, free of</td>
</tr>
<tr>
<td>bigotry</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>CONCENTRATION</strong></td>
</tr>
<tr>
<td>small writing</td>
</tr>
<tr>
<td>focuses attention on one activity</td>
</tr>
<tr>
<td>ignoring all other influences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>CULTURAL REFINEMENT</strong></td>
</tr>
<tr>
<td>middle letter printed as capital</td>
</tr>
<tr>
<td>integration and discrimination</td>
</tr>
<tr>
<td>of creative artistic and</td>
</tr>
<tr>
<td>structural systems into one's</td>
</tr>
<tr>
<td>mode of living</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>**EMOTIONAL INTENSITY, MUCH</td>
</tr>
<tr>
<td>AVAILABLE**</td>
</tr>
<tr>
<td>heavy average stroke pressure</td>
</tr>
<tr>
<td>possesses strong libido and</td>
</tr>
<tr>
<td>passions, abundance of available</td>
</tr>
<tr>
<td>energy and vitality, proactive</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>FORGETFUL</strong></td>
</tr>
<tr>
<td>missing t-bars</td>
</tr>
<tr>
<td>inability to recall information</td>
</tr>
<tr>
<td>or planned action, absentmindedness</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>HUMOR</strong></td>
</tr>
<tr>
<td>initial wavy upper area</td>
</tr>
<tr>
<td>down stroke to baseline</td>
</tr>
<tr>
<td>the contrast between reality</td>
</tr>
<tr>
<td>and assumed values provokes</td>
</tr>
<tr>
<td>amusement</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>REBELLIOUS</strong></td>
</tr>
<tr>
<td>inflated triangular forward</td>
</tr>
<tr>
<td>inverted upper circle</td>
</tr>
<tr>
<td>open hostility towards authority</td>
</tr>
<tr>
<td>and for any form of discipline,</td>
</tr>
<tr>
<td>belligerent</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>VANITY</strong></td>
</tr>
<tr>
<td>tall t, d-stem height</td>
</tr>
<tr>
<td>excessively high regard of ones</td>
</tr>
<tr>
<td>conduct demonstrated through a</td>
</tr>
<tr>
<td>sense of superiority</td>
</tr>
</tbody>
</table>
Significance of Handwriting analysis

1. It is of an invaluable aid to the Human Resource department as it proves helpful in evaluating applicants.
2. It provides knowledge of strengths; weakness, aptitudes and talents one possesses, which are helpful in overcoming fears and frustrations.
3. It is helpful in giving awareness regarding one's soul mates, their mental, emotional, social and physical drives.
4. It provides better understanding of children's behaviour to a parent or a teacher.
5. It is helpful in right job selection that allows an individual to use his talents, strengths and satisfies his life style.
6. It is helpful in examining forged documents, signatures, wills, contracts; which ultimately solves many criminal cases.
7. Handwriting will reveal the nature of one's present and past growth.
8. The new principle adds to the science of Graphology, known as Psychographology which identifies the personality problems.
9. It is helpful in maintaining family peace by calming down the over aggressive, extra antagonistic or supersensitive attitude of the member.

Thus, the nature of handwriting itself conveys the impression of having potential diagnostic value. That is, handwriting bears the richness of features that would be necessary to reflect the many facets of personality (Ben-Shakhar et al., 1986).

Statement of the Problem: "Handwriting Analysis in Relation to Personality and Self Disclosure of prospective secondary school teachers opting Teaching of English".

Objectives of the Study

(1) To study the co-relation between Handwriting and Extraversion (Dimension of Personality) of prospective secondary school teachers opting teaching of English.
(2) To study the co-relation between Handwriting and Neuroticism (Dimension of Personality) of prospective secondary school teachers opting teaching of English.
(3) To study the co-relation between Handwriting and Lie Score (Dimension of Personality) of prospective secondary school teachers opting teaching of English.
(4) To study the co-relation between Handwriting and Self-Disclosure of the prospective secondary school teachers opting teaching of English.
(5) To study the co-relation between Extraversion and Self-Disclosure of prospective secondary school teachers handwriting patterns in terms of Personality.
To study the co-relation between Neuroticism and Self-Disclosure of prospective secondary school teachers handwriting patterns in terms of Self-disclosure.

To study the co-relation between Lie Score and Self-Disclosure of prospective secondary school teachers opting teaching of English.

To study the differences between the personality(dimensions) of Punjab and Haryana prospective secondary school teachers opting teaching of English.

To study the differences between the Self-Disclosure(dimensions) of Punjab and Haryana prospective secondary school teachers opting teaching of English.

Hypotheses of the Study

The present study was conducted to test the following hypotheses:

1. There is no significant relationship between the Handwriting and Extraversion (Dimension of Personality) of prospective secondary school teachers opting teaching of English.

2. There is no significant relationship between the Handwriting and Neuroticism (Dimension of Personality) of prospective secondary school teachers opting teaching of English.

3. There is no significant relationship between the Handwriting and Lie Score (Dimension of Personality) of prospective secondary school teachers opting teaching of English.

4. There is no significant relationship between the Handwriting and Self-disclosure of prospective secondary school teachers opting teaching of English.

5. There is no significant relationship between Extraversion (Dimension of Personality) and Self-disclosure of prospective secondary school teachers opting teaching of English.

6. There is no significant relationship between Neuroticism (Dimension of Personality) and Self-disclosure of prospective secondary school teachers opting teaching of English.

7. There is no significant relationship between Lie Score (Dimension of Personality) and Self-disclosure of prospective secondary school teachers opting teaching of English.

8. The prospective secondary school teachers of Punjab and Haryana opting teaching of English do not differ significantly on the dimensions of Personality.

9. The prospective secondary school teachers of Punjab and Haryana opting teaching of English do not differ significantly on the dimensions of Self-disclosure.

Delimitations of the Study

1. The present study is confined to analysis of Handwriting in English only of 200 prospective secondary school teacher opting teaching of English.

2. The present study is confined to Education Colleges located in Punjab and Haryana States only.
(3) Only few handwriting traits were taken up for study.
   · Handwriting slant.
   · Handwriting size.
   · Handwriting having spacing in words.
   · Handwriting having spacing in lines
   · Handwriting having variation in slant.
   · Handwritings having variation in size.
   · Angular handwriting.
   · Type of e, y and t bars.

Sample
The descriptive survey method was employed to conduct the research. A sample of 200 prospective secondary school teachers opting teaching of English studying in various colleges of Punjab and Haryana were selected by random sampling technique. Every effort was made to make the sample fairly representative of the population..

Tools Employed
The following tools were used for the collection of the data.
1. Handwriting Scale (AGIF Associazione italo-francese di Grafologia, 2006)

Analysis & Interpretation
In order to draw inferences, t-test was applied and Coefficients of Correlation were calculated as required. The results of the analysis are as follows:

Table of correlations

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Value of 'r'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Handwriting and Extraversion</td>
<td>-0.005</td>
</tr>
<tr>
<td>2.</td>
<td>Handwriting and Neuroticism</td>
<td>0.100</td>
</tr>
<tr>
<td>3.</td>
<td>Handwriting and Lie-Score</td>
<td>0.116</td>
</tr>
<tr>
<td>4.</td>
<td>Handwriting and Self-Disclosure</td>
<td>-0.039</td>
</tr>
<tr>
<td>5.</td>
<td>Extraversion and Self-Disclosure</td>
<td>0.066</td>
</tr>
<tr>
<td>6.</td>
<td>Neuroticism and Self-Disclosure</td>
<td>-0.005</td>
</tr>
<tr>
<td>7.</td>
<td>Lie-Score and Self-Disclosure</td>
<td>0.057</td>
</tr>
</tbody>
</table>
Table of t-Test

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Value of t-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Extraversion (Dimension of Personality)</td>
<td>-0.813</td>
</tr>
<tr>
<td>2.</td>
<td>Neuroticism (Dimension of Personality)</td>
<td>2.213**</td>
</tr>
<tr>
<td>3.</td>
<td>Lie Score (Dimension of Personality)</td>
<td>-4.508**</td>
</tr>
<tr>
<td>4.</td>
<td>Money and Economic Affairs (Dimension of Self-Disclosure)</td>
<td>-1.700*</td>
</tr>
<tr>
<td>5.</td>
<td>Personality Aspects (Dimension of Self-Disclosure)</td>
<td>-1.329</td>
</tr>
<tr>
<td>6.</td>
<td>Occupation (Dimension of Self-Disclosure)</td>
<td>-3.151**</td>
</tr>
<tr>
<td>7.</td>
<td>Interests, Feelings and Ideas (Dimension of Self-Disclosure)</td>
<td>-1.978**</td>
</tr>
<tr>
<td>8.</td>
<td>Religion (Dimension of Self-Disclosure)</td>
<td>-1.238</td>
</tr>
<tr>
<td>9.</td>
<td>Hopes and Fears (Dimension of Self-Disclosure)</td>
<td>-2.468**</td>
</tr>
<tr>
<td>10.</td>
<td>Mental Conflicts (Dimension of Self-Disclosure)</td>
<td>-2.809**</td>
</tr>
<tr>
<td>11.</td>
<td>Sex (Dimension of Self-Disclosure)</td>
<td>-0.484</td>
</tr>
<tr>
<td>12.</td>
<td>Mother/ Mother-in-law (Dimension of Self-Disclosure)</td>
<td>-2.709**</td>
</tr>
<tr>
<td>13.</td>
<td>Father/ Father-in-law (Dimension of Self-Disclosure)</td>
<td>-3.080**</td>
</tr>
<tr>
<td>14.</td>
<td>Brother/ Brother-in-law (Dimension of Self-Disclosure)</td>
<td>-3.476**</td>
</tr>
<tr>
<td>15.</td>
<td>Sister/ Sister-in-law (Dimension of Self-Disclosure)</td>
<td>-0.099</td>
</tr>
<tr>
<td>16.</td>
<td>Friend (Dimension of Self-Disclosure)</td>
<td>-1.929*</td>
</tr>
<tr>
<td>17.</td>
<td>Husband/ Wife (Dimension of Self-Disclosure)</td>
<td>1.899*</td>
</tr>
<tr>
<td>18.</td>
<td>Children (Dimension of Self-Disclosure)</td>
<td>0.300</td>
</tr>
<tr>
<td>19.</td>
<td>Neighbour (Dimension of Self-Disclosure)</td>
<td>-1.377</td>
</tr>
</tbody>
</table>

* t-value is significant at 0.05 Level  ** t-value is significant at 0.01 Level
Testing of Hypotheses

1. The coefficient of correlation between Handwriting and Extraversion (Dimension of Personality) of prospective secondary school teachers opting teaching of English was found to be -0.005, which is not significant at 0.05 level of confidence. Therefore, Hypothesis I, "There is no significant relationship between the Handwriting and Extraversion (Dimension of Personality) of prospective secondary school teachers opting teaching of English" is accepted.

2. The coefficient of correlation between Handwriting and Neuroticism (Dimension of Personality) of prospective secondary school teachers opting teaching of English was found to be 0.100, which is not significant at 0.05 level of confidence. Therefore, Hypothesis II, "There is no significant relationship between the Handwriting and Neuroticism (Dimension of Personality) of prospective secondary school teachers opting teaching of English" is accepted.

3. The coefficient of correlation between Handwriting and Lie Score (Dimension of Personality) of prospective secondary school teachers opting teaching of English was found to be 0.116, which is not significant at 0.05 level of confidence. Therefore, Hypothesis III, "There is no significant relationship between the Handwriting and Lie Score (Dimension of Personality) of prospective secondary school teachers opting teaching of English" is accepted.

4. The coefficient of correlation between Handwriting and Self-disclosure of Prospective secondary school teachers opting teaching of English was found to be -0.039, which is not significant at 0.05 level of confidence. Therefore, Hypothesis IV, "There is no significant relationship between the Handwriting and Self-disclosure of Prospective secondary school teachers opting teaching of English" is accepted.

5. The coefficient of correlation between Extraversion (Dimension of Personality) and Self-disclosure of prospective secondary school teachers opting teaching of English was found to be 0.066, which is not significant at 0.05 level of confidence. Therefore, Hypothesis V, "There is no significant relationship between Extraversion (Dimension of Personality) and Self-disclosure of prospective secondary school teachers opting teaching of English" is accepted.

6. The coefficient of correlation between Neuroticism (Dimension of Personality) and Self-disclosure of Prospective secondary school teachers opting teaching of English was found to be -0.005, which is not significant at 0.05 level of confidence. Therefore, Hypothesis VI, "There is no significant relationship between Neuroticism (Dimension of Personality) and Self-disclosure of Prospective secondary school teachers opting teaching of English" is accepted.

7. The coefficient of correlation between Lie Score (Dimension of Personality) and Self-disclosure of Prospective secondary school teachers opting teaching of English was found to be 0.057, which is not significant at 0.05 level of confidence. Therefore, Hypothesis VII, "There is no significant relationship between Lie Score (Dimension of Personality) and Self-disclosure of Prospective secondary school teachers opting teaching of English" is accepted.
8. The t-value for significance of difference between the means of prospective secondary school teachers of Punjab and Haryana opting teaching of English on the variable of Extraversion (Dimension of Personality) was found to be -0.813, 2.213 on Neuroticism and -4.508 on Lie Score. This is quite evident that Extraversion Dimension is not significant but Neuroticism and Lie Score are significant at 0.01 level of confidence. This shows that prospective teachers from Punjab and Haryana do not differ in Extraversion Dimension but do differ in their Neurotic and Lie score behavior. Hence the Hypothesis, "The prospective secondary school teachers of Punjab and Haryana opting teaching of English do not differ significantly on the Dimensions of Personality is partially accepted. This means that two of the three personality dimensions are more in the behavior of the teachers of both the states, may be due to the environment or the social set up.

9. Again the t-table shows the difference between the mean score for prospective secondary school teachers opting teaching of English on the variable of Self-disclosure dimensions. Out of the 16 dimensions, money & economic affairs, friend and husband wife (03) are significant at 0.05 level of confidence which shows that the teachers of Punjab and Haryana differ in their self-disclosure dimensions but do not differ in the dimensions of personality, religion, sister, sister-in-law, children and neighbor(06). This means that they are same on these dimensions. These dimensions are common to both the state teachers. Out of the 16 dimensions the left (07) are of occupation, interest feelings and ideas, hopes and fears, mental conflicts, mother, mother-in-law, father, father-in-law, brother, brother-in-law which are significant at 0.01 level of confidence. This means that the prospective teachers of Punjab and Haryana secondary schools opting teaching of English differ significantly on these dimensions in self-disclosure. It means that the hypothesis, "The prospective secondary school teachers of Punjab and Haryana opting teaching of English will not differ significantly on the dimensions of Self-disclosure" is partially accepted and retained.

References


ENVIRONMENTAL AWARENESS OF PUPIL TEACHERS IN RELATION TO SOCIAL AND SPIRITUAL INTELLIGENCE

Dr. Sheojee Singh* & Rashmi**

Abstract

Environment is a key contributor to our life, work and aspirations. Teachers, being regarded as the standard bearers of society and role model for their students are generally assumed to have significantly higher levels of environmental awareness alongwith significantly higher levels of social and spiritual intelligence. This study tries to find out the correlation among these three variables for pre-service teachers in order to authenticate this general assumption. The findings of this study do not exhibit any significant correlation among these variables so far as the present sample is concerned.

Key Words: Environmental awareness, critical thinking skills, social intelligence, spiritual intelligence.

Introduction:

Environmental awareness is the awareness of biotic and abiotic components of our surrounding. It includes the comprehensive understanding of environmental problems and aims to develop critical thinking and problem-solving skill among the pupils. Environment sustains life forms on Earth. Bartosh (2003) asserts environmental education as a lifelong process that is interdisciplinary and holistic in nature and application. It concerns the interrelationship between human and natural systems and encourages the development of an environmental ethic, awareness, understanding of environmental problems, development of critical thinking and problem solving skills.

It is our foremost duty to conserve our environmental resources. The ultimate goal of environmental awareness whether it is formal or non-formal is to create awareness among the citizens of a country to protect and conserve the environment. Environment is the sum total of conditions that surround us at a given point of time and space. It is comprised of the interacting systems of physical, biological and cultural elements, which are interlinked both individually and collectively. Environment is the sum total of conditions in which an organism has to survive or maintain its life process. It influences the growth and development of living forms. Environmental awareness means ability to emotionally understand the surrounding world, including the laws of the natural environment, sensitivity to all the changes occurring in the environment, understanding of cause-and-effect relationships between the quality of the environment and human behavior, an understanding of how the environment works as a system, and a sense of responsibility for the common heritage of the earth, such as natural resources - with the aim of preserving them for future generations.

*Associate Professor, Govt. College of Education, Chandigarh
**Alumnus, G.C.E., Chandigarh
Social intelligence includes an awareness of situations and the social dynamics that govern them and knowledge of interaction styles and strategies that can help a person achieve his or her objectives in dealing with others. It also involves a certain amount of self-insight and a consciousness of one's own perceptions and reaction patterns. Many studies have pointed out varying levels of environmental awareness, social intelligence and spiritual intelligence among teachers. Banga and Rajni (2016) found that the mean environmental awareness score of science students do not show much difference as compared to mean environmental scores of arts students. Panth, Verma and Gupta (2015) reported that girls and boys differed significantly in attitude scale and its three areas -social change, liberalism, nationalism. Ghosh K. (2014), reported significant differences in environmental awareness among secondary school students with respect to the settlement. The students of rural and urban secondary school were not equally aware about the environment. Ali and Sinha (2013) reported that there is urgent need to inculcate the values of environmental protection and social intelligence among pre-service teachers. Sivamoorthy, Nalini and Kumar (2013) reported the urgency of making efforts to provide the necessary facilities for promoting environment awareness and friendly approach to safeguard the environment.

Emergence of the problem

The study has emerged out of the experiences of the investigators during teaching practices of B. Ed. and their own experiences about the surroundings, as the people who pretend to be socially and spiritually intelligent, they also throw waste on the road side, they use polythene bags, they misuse water, they throw their waste at nearby temple or park areas rather than throwing it in the dustbin. So, the study is intended to understand whether those who reportedly have higher levels of social and spiritual intelligence are aware of environmental issues and concerns or not. Curriculum and teachers should provide knowledge regarding concepts, problem and protection of environment and it will be possible only if our teachers are well aware of concept and true purposes of environmental education. Unless the teacher is aware about the environmental concepts and problems, he/she cannot do justice to create awakening about environment and its problems among students. The findings of the study may be useful to teachers and authorities in a way to make them realize the value of educating the teachers about the various problems of environment with which we want our next generations to fight and overcome it. So it is very important to know the level of environmental awareness of pupil teachers along with their social and spiritual intelligence.

Objective of the study

The objectives of this study were:

1. To study the environmental awareness of pupil teachers.
2. To study the relationship of environmental awareness of pupil teachers with their social intelligence.
3. To study the relationship of environmental awareness of pupil teachers with their spiritual intelligence.

4. To study the relationship of environmental awareness of pupil teachers with their social and spiritual intelligence.

Hypothesis:

Hypothesis 1: There exists no significant correlation between environmental awareness and social intelligence of pupil teachers.

Hypothesis 2: There exists no significant correlation between environmental awareness and spiritual intelligence of pupil teachers.

Hypothesis 3: There exists no significant correlation between social intelligence and spiritual intelligence of pupil teachers.

Sample:

A sample of 100 students was taken for present study from Govt. college of education, sector-20D, Chandigarh and Dev Samaj college of education sector-36 Chandigarh.

Tools used

1. Environmental Awareness Ability measure scale by Dr. Praveen Kumar Jha (1998)

2. Social Intelligence Scale by Dr. N.K. Chadha and Usha Ganesan, (2007)

3. Spiritual Intelligence Scale by Dr. Santosh Dhar & Upinder Dhar, (2005)

Statistical Technique

In the present study, the following statistical techniques were used to process the data and arrive at logical conclusions:

- Descriptive statistics such as Mean, Median, Mode, Skewness and kurtosis were used to study the nature of data.
- Pearson's Co-efficient of Correlation was used to find the relationship between variables.

Delimitations of the study:

The present study was delimited to only Pupil teachers of Government college of education, Sec 20 and Dev Samaj College of education, Sec 36 Chandigarh.
Findings and Conclusion:

Coefficient of pearson's correlation between environmental awareness and social intelligence:

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>df</th>
<th>Coefficient of Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Awareness and Social Intelligence</td>
<td>100</td>
<td>98</td>
<td>0.058</td>
</tr>
</tbody>
</table>

Table value at 0.05 level of significance = .195
There was a non-significant positive correlation between environmental awareness and social intelligence.

Coefficient of pearson's correlation between environmental awareness and spiritual intelligence:

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>df</th>
<th>Coefficient of Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Awareness and Spiritual Intelligence</td>
<td>100</td>
<td>98</td>
<td>0.031</td>
</tr>
</tbody>
</table>

Table value at 0.05 level of significance = .195
There was a non-significant positive relationship between environmental awareness and spiritual intelligence.

Table: 3 Coefficient of pearson's correlation between social intelligence and spiritual intelligence:

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>df</th>
<th>Coefficient of Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social intelligence and Spiritual Intelligence</td>
<td>100</td>
<td>98</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Table value at 0.05 level of significance = .195 indicating that there was no significant relationship found between social intelligence and spiritual intelligence of pupil teachers in this study.
Educational implication:

This study does not point out any significant correlation among the variables environmental awareness, social intelligence and spiritual intelligence among the pre-service teachers, indicating that there may not be directly perceived impact among the three for the sample of this study. Hence, it implies no direct component for these areas at present in the curriculum, but the growing complexity of life, the mounting crisis of natural and social resources does point out to the urgency of such components in teacher education curricula. Teacher training programs should include the necessary knowledge, skills, values commitment among the teachers so that they can become effective environmental educators. A lifelong education is needed as a response to change in a rapidly changing world. Pupil teachers need to improve their social intelligence, as much as possible. Pupil teachers training programs should also develop spiritual intelligence in them.

References:


EFFECTS OF YOGIC TRAINING ON SELECTED HEMATOLOGICAL VARIABLES AMONG COLLEGE STUDENTS

Dr. Neelam Paul* & Sunil Rayat **

Abstract

Yoga, is a practice of mental and physical exercise techniques, aiming to acquire good health in human beings. For thousands of years, Yoga an ancient holistic relaxation practice has been used as an effective therapeutic tool that counteracts the adverse clinical conditions of human beings. However, the underlying molecular mechanisms that explain these clinical benefits are still an enigma. The efficacy of Yoga and Meditation as an adjunct to routine management of various diseases and disorder is a great challenge in the present scenario. Ayurvedic knowledge of Yoga is much more incompatible with its understanding of biochemical and hematological changes. Exploring the biochemical association with various Yogic postures and practices will definitely improve the practice as therapeutic adjuvant and thus, will improve the quality of life. The aim of present study was to investigate whether regular practice of Yoga for one month can improve hematological parameters. The study group, comprised Govt. college Nagrota Bagwan male students aged between 18 -25 years. They were trained for one month of Yoga. Assessments of various parameters were done before and after Yoga practices, were significantly modulated, statistically by using student's test. Regular practice of yoga for one month significantly improved the R.B.C., W.B.C., Platelet count and Hb content (P<000). Conclusion:- Significant effect of the one month yoga training was found on RBC and WBC and Hemoglobin content.

Keywords :– Yoga, hematological parameters.

INTRODUCTION

Yoga is a practice of mental and physical exercise techniques, aiming to acquire good health in human beings. Holistic health, integrative treatment and mind, body medicine are some of the current buzz words in health care originated actually from yoga, which took its birth some 6000 years ago in India and is one of the elements of Ayurvedic medicine as the healing science. Yoga practices are gaining popularity and have the potential to make a significant contribution to the field of health sciences. Having a wide array of practice, all essentially including breathing exercises, physical postures and meditation, the science, and art of yoga is reaching new heights.
Associated with a series of behavioral modifications that contribute to a healthy lifestyle, traditional yoga is a philosophy for living. Recently, scientists have explored its consistent beneficial biochemical, physiological, psychological effects in human beings. Yoga based training normalizes the functions of the autonomic nervous system by maintaining both sympathetic and parasympathetic indices toward normal. It is found that yoga has an immediate effect on the HPA axis (hypothalamic pituitary axis) response to stress. Though precise mechanism has not yet been established, it's being hypothesized that some yoga exercises via vague stimulation, lead to a shift toward parasympathetic nervous system predominance. A significant effect of yoga has been noticed in decreasing the blood glucose level, the heart rate, and systolic and diastolic blood pressure.

A comprehensive and ancient holistic health system, Yoga is a physical and mental discipline that forms part of Ayurvedic medicine. Given the limited information available on the hematological and biochemical changes associated with the extended practice of Yoga, studies on hematological and biochemical modulation in regular yoga practitioners need extensive research exposure to recommend the use of yoga as a complementary therapy in those cases where the above-mentioned parameters are altered.

**Procedure**

The study was carried out in Govt. college Nagrota Bagwan male students. Study group comprised 10 male subjects of 18-25 years. Hematological parameters like total RBC count, total W.B.C count and hemoglobin content were determined by improved Version of automated hematology auto-analyzer. For this hemogram study, 3 ml of blood was collected in EDTA Vial under aseptic precautions.

Study group underwent yoga practices for 35 minutes twice a day in the presence of a trained yoga teacher for 4 weeks. The first observation of the study group was taken before start of yoga practice. Second observation was carried out after one month of yoga practice from the start of study. The study protocol was explained to the subjects and written consent obtained. All the volunteers were clinically examined to rule out any systemic diseases. All subjects were non-alcoholic and non-smokers. They were not taking any drugs, and they had similar dietary habits as well as physical and mental activities at work and home. They were not practicing any known stress relieving or relaxation technique previously. They carried out yogasanas, pranayama and meditation for 35 minutes, twice a day, in morning and evening for one month, under supervision, in a prescribed manner. The schedule consisted of.
· Yogasanas- -10 minutes.
· Pranayama- -10 minutes.
· Meditation- -15 minutes.

The Asanas practiced were:- Ardhachakrasana, Tadasana, Paschimottasana, Utthita Trikonasana, Vajrasana, Salamba Sarvangasana and Halasana.

The Pranayama performed was:- Anulom Vilom

The volunteers practiced these exercises early in the morning and in evening, in a quiet, well ventilated room or in open air space sitting in a comfortable posture.

The Meditation performed was:- for 15 minute.

Collection of blood sample for Hematological Variables.

All of the subjects of study groups were asked to report at 9 am. Taking all aseptic precautions, 3 ml venous blood sample was drawn from the antecubital vein of each subject at first, before start of yoga practice, second blood sample was taken after 1 month of yoga practice from the start of study.

Statistics

The data was analyzed statistically by using statistical software SPSS. Statistical analysis of total RBC Count, total W.B.C Count and hemoglobin content/dl, were done using student’ t test and p < 0.01 was considered as significant.

Results

Table No. 1, results showed that the values of all hematological parameters were modulated after 1 month of Yoga practice as compared to basal readings, were more significantly changed (p < 0.000).

The effect of 01 month of yoga in male study group

The Total RBC count/ c.mm increased from mean value 4.39 ± 0.112 to 4.87 ± 0 .0324 (p <0.000) statistically more significant & was due to the effects of regular practices of yoga.

The Total WBC count/ c.mm decreased from mean value 8312 ± 32.21 to 7268 ± 52.12 (p <0.000) statistically more significant & was due to the effects of regular practices of yoga.

The HB content gm / dl increased from mean value 8.43 ± 0.235 to 10.2 ± 0.321 (p <0.000) statistically more significant & was due to the effects of regular practices of yoga.
Table (01): showing changes in Total RBC Count/ c.mm, Total WBC Count/ c.mm and HB content/ dl before and after one month of Yoga practices in males.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Parameters</th>
<th>Before Yoga training Mean Value and S.D.</th>
<th>After 1 month Yoga training Mean Value and S.D.</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total RBC count/ c.mm</td>
<td>4.39 ± 0.112</td>
<td>4.87 ± 0.0312</td>
<td>P&lt;0.000</td>
</tr>
<tr>
<td>2</td>
<td>Total WBC count/ c.mm</td>
<td>8313 ± 32.12</td>
<td>7268 ± 52.21</td>
<td>P&lt;0.000</td>
</tr>
<tr>
<td>3</td>
<td>HB content gm/dl</td>
<td>8.43 ± 0.235</td>
<td>10.2 ± 0.321</td>
<td>P&lt;0.000</td>
</tr>
</tbody>
</table>

Graph (01): showing changes in Total RBC Count/ c.mm, Total WBC Count/ c.mm and HB content/ dl before and after one month of Yoga practices in males

Discussion
On Analyzing the effect of Yoga on hematological parameters in normal subjects of Govt. college Nagrota Bagwan students of age between 18-25 years, in our study, total RBC Count, total W.B.C Count and hemoglobin content/dl count were studied in study group before Yoga and after one months of Yoga (Asana, Pranayama and Meditation).
The study group students showed the effect of Yoga on total RBC count which increased (<0.000), whereas total WBC count decreased (<0.000) and hemoglobin content/dl was increased (<0.000), and all these parameters were modulated due to regular practices of yoga. Practice of Yugasana improves biochemical profile indicating anti-stress and antioxidant effect, important in production of degenerative disorders. Earlier studies have shown significant improvement in RBC with practice of yogasana for about 4 weeks. Apparent increase in the concentration of red blood corpuscles is due to mobilization of plasma from blood to tissue fluid. Besides this, Yogic Asanas, Pranayama and exercise makes a greater amount of oxygen supply thus putting into circulation the red blood corpuscles stored in spleen and accessory spleen. Asanas and exercise also increase the myoglobin pigment which is helpful to supply more amount of oxygen. Yogic Asanas and Pranayamas minimize all types of stress of body. (Bal, 2015) Leucocytes count increase only when there is stress and allergy but the effect of Yogic Asanas decreases total leucocytes count indicating anti-stress and allergy mechanisms of the body whether it is physical, physiological or psychological. Yoga Asanas significantly increase hemoglobin (Hb) content. It can be hypothesized that it is due to anti-stress and antioxidant effect of Yoga. The effect of Yoga on anemic patients was to significantly increase hemoglobin content due to increased red blood cell count that can be explained by two different mechanisms; it may be due to hypoxia that release more erythropoietin during Yoga practices and second is that yoga practices increased release of iron stores from reticulo endothelial cells and splenic contraction enhance the release of reserved RBCs. Asanas minimize all types of stress whether it is physical, physiological or psychological as revealed by decreased leukocyte count after yoga. Decline in total WBC count may be due to the concept that hypoxia induced during Yoga, increase erythroied series in bone marrow causes relative decrease in WBC count or Yoga may transited the WBC in their resting condition and decrease various cytokines which are responsible for leucopoiesis. Significant improvement in red blood cells count is due to effect of yoga. Cardioprotectant factor of yoga practice increase in hemoglobin may be justified by the anti-stress effect produced by parasympathetic dominance, packed cell volume suggested that stress-induced pro inflammatory cytokine production may stimulate the proliferation of hematopoietic cells. Yoga is being used increasingly in the medical field as a healing modality for adult patients experiencing serious illness involving alterations in the hematological profile of the patients including for those undergoing chemotherapy and radiation treatment for cancer. Documented scientific evidence strongly indicates that yoga has promotive, preventive as well as curative potential (Purshitet at 201). As a non-pharmaco therapeutic and safe modality it can be used as an effective lifestyle adjunct to medical treatment to reduce drug dosage and improve quality of life of patients. It is to be emphasized that yoga is very effective for prevention as well as management of all pervading stress and stress related disorders (Mathenest at 1995).
Conclusion

Yoga practices hold great promise and potential in the field of medical science. Yoga therapy will definitely emerge as a major branch of medical treatment and eventually become a standard of care and practice in coming few years. India has made great progress in yogic science research as evidenced by a number of scientific and clinical papers in various journals. Although Yoga as therapy is still at the stage of clinical research, advances have been made in understanding how to use these practices for treating various diseases via correlating its biochemical, hematological spectrum. As an improvement of study design of clinical studies trying to identify disease spectrum of specific yoga activity. Increased international cooperation and pooling of the patient clinical data from different parts of the world. Standardization and further development of reliable yoga strategy for healing purposes will plan. Reinforcement of the biochemical and hematological screening focused approach in order to identify the particular yoga techniques.

References
TEACHING EFFICACY OF PRE-SERVICE TEACHERS IN RELATION TO ATTITUDE TOWARDS INCLUSIVE EDUCATION

Dr. Balwinder Kaur* & Ms. Poonam Devi**

Abstract

Inclusive education means the act of ensuring that all children of society despite their differences receive the opportunity of being the part of the same classroom as other children of their age. It is based on a system of values and beliefs centred on the best interests of the students which promotes social cohesion, belonging and active participation in learning, a complete school experience and positive interactions with peers and others in the school community. So the present study focussed on the inclusive education. The paper aimed to study the relationship of pre-service teacher's attitude and teaching efficacy towards inclusive education and to compare the attitude and teaching efficacy of pre-service teachers towards inclusive education in terms of Government and private colleges of education. Descriptive survey method was employed by selecting 100 pre-service teachers 50 from Government and 50 from private education colleges of Panjab university situated in urban area of Chandigarh, UT. No significant correlation was found between attitude and teaching efficacy of pre-service teachers towards inclusive education and no significant difference was found in the teaching efficacy and attitude of pre-service teachers towards inclusive education in Government and private educational colleges.

Key Words: Attitude, Teaching Efficacy, Pre Service Teachers, Inclusive Education

Introduction

The term 'inclusive education' was formally introduced at the UNESCO World Conference on special needs in education held in Spain in 1994. Inclusion means enabling all children to participate fully in the life and work of mainstream settings in fulfilling their needs, seen as a continuing process of breaking down barriers to learning. Any child may experience a special need during the course of educational years (UNESCO). Making the school system flexible and adopting an inclusive approach leads to reforming the school system as an inclusive child-

*Associate Professor, Government College of Education, Chandigarh
**Research Scholar, P.U. Chandigarh

The Educational Beacon
oriented approach. The main objective of inclusive education is to give many possible opportunities to students to physical, mental and social disabilities as well as talented students to receive quality education that is suitable to their needs or a system which appreciates diversity and principle of non-discrimination. The National Curriculum Framework on school education, 2005 provides guidelines for making the curriculum flexible and appropriate to accommodate the diversity of school children including those with disability in both cognitive and non-cognitive areas. Given that regular teachers are the key service providers in teaching students with special needs in the inclusive classroom, their attitude towards inclusion is a contributing factor to its success or failure. Teachers who are ill prepared or uncomfortable with the concept of inclusion may pass that discontent on to the students, which in turn can undermine the confidence and success of those students. Conversely, teachers who support and believe in the concept of inclusion can provide special education students with confidence and a comfortable learning environment. There is evidence to suggest that many teachers do not feel equipped to teach children with disabilities and complain that they need more time to instruct these students. Teacher education programs play an important role in improving the self-efficacy of prospective teachers (Pendergast, Garvis & Keogh, 2011). Prospective teachers need to gain both theoretical and practical knowledge about how to teach at school level (Forlin, 2010). Training is an important element in shaping self-efficacy of prospective teachers. Thus, there is a need to measure the personal and teaching efficacy beliefs of pre-service teachers before and after the teaching profession. Teacher education programs play an important role in improving the self-efficacy of prospective teachers (Pendergast, Garvis & Keogh, 2011).

Teacher Attitude towards Inclusive Education

According to Skinner (2004) attitude has been defined as an idea with emotional content, important beliefs, prejudices, biases, predispositions, appreciations and as states of readiness or set. It is formed by direct experience as well as by implicit learning and may reflect personality (Zimbardo and Lieppe, 1991).

One of the most significant stipulations that allow for successful inclusion of special education students is the attitude of the general education teacher regarding the inclusion of special education students into their classroom. Classrooms are now becoming more diverse with respect to students' abilities, therefore sensitivity and awareness on the part of general education teacher is essential to promote successful inclusion. The empirical evidences in the area of inclusive education clearly indicate that teachers' attitudes are the key factor for making inclusive education a real success. Ferris (1996) compared the attitudes of general and special secondary educators towards inclusion practices. Results showed that special educators were significantly more positive about including students with disabilities in general classes. Costello and Boyle (2013) found that pre-service secondary teachers held positive attitude towards inclusive education. There was a significant decline in positive attitude through the years of study. Pre-service secondary teachers enrolled in postgraduate programs were more inclusive than those
enrolled in undergraduate courses. Attitude towards training and perceived competence were less positive than other attitude scales for all participants, suggesting a concern regarding training effectiveness. Replication of the study is recommended across additional Australian and international universities to determine differences in training content and experiences which may have impact on attitude towards training and perceived competence. Mangope, Mannathoko and Kuyini (2013) investigated pre-service physical education teachers and inclusive education: attitude, concern and perceived skill needs. The results of the study have shown that physical education (PE) pre-service student teachers have moderately positive attitude towards inclusion. Participants were also more concerned about the lack of knowledge and skills required for inclusion and that resources and pedagogical knowledge on inclusion were perceived as the required skills for the success of inclusion in Botswana.

**Teachers teaching efficacy towards inclusive education**

According to Tschannen-Moran, Woolfolk and Hoy (1998) a teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context, is called teaching efficacy.

Hoy (2000) says that personal teaching efficacy, relates to a teacher's own feeling of confidence in regard to teaching abilities. The second, often called general teaching efficacy, "appears to reflect a general belief about the power of teaching to reach difficult children.

According to Eggen and Kauchak (2010) teaching efficacy is a teacher's belief that he or she can cause all students to learn regardless of their prior knowledge or ability. In a study about the environmental factors influencing the development of teaching efficacy, Moran & Hoy (2002) reported that efficacy was related to perceived support (e.g. resources and interpersonal support from colleagues and school administrators) for novice teachers (less than five years' experience) but not for experienced teachers (more than five years' experience). The authors underscored that promoting teacher efficacy may be most critical during the first few years of teaching. It is equally imperative to foster high teaching self-efficacy in pre-service teachers, particularly from within the context of positive inclusive practices.

Ahsan, Sharma, Deppeler and Joanne (2012) in their study 'Exploring Pre-Service Teachers Perceived Teaching-Efficacy, Attitude and Concern about inclusive education in Bangladesh' found that variables such as length of training, gender, interaction with persons with disabilities, knowledge about local legislation, and level of training involved had significant relationship with participants' perceived teaching-efficacy, attitude and concern. In addition, it was also found that pre-service teachers' perceived teaching-efficacy is correlated to their attitude towards inclusive
education. This study also revealed that pre-service teachers having higher perceived teaching-ef ficacy showed lower level of concern towards inclusive education. Ahsan, Deppeler and Sharma (2013) conducted a research study predicting Pre-Service Teachers preparedness for inclusive education: Bangladeshi Pre-Service teachers attitude and perceived teaching-efficacy for inclusive education. Phase 1 employed two standardized scales that were used with 1623 pre-service teachers from 16 teacher education institutions to measure their attitude and perceived teaching-efficacy for inclusive education. The findings of Phase 1 indicated that the level and length of training, along with gender, influenced both teacher attitude and teaching-efficacy. In Phase 2, semi-structured interviews with six administrative heads of the pre-service teacher education institutions were conducted in order to better understand these findings. Outcomes of Phase 2 indicated that curriculum, teacher-related variables and a number of contextual variables may explain the differences in the findings of this study that were in sharp contrast to those from previous international researches.

Statement of the problem

Teaching Efficacy of Pre-service Teachers in relation to Attitude towards Inclusive Education

Objectives

1. To compare the attitude and teaching efficacy of pre service teachers towards inclusive education of Government and private colleges of education.

2. To study the relationship between attitude and teaching efficacy of pre service teachers towards inclusive education

Hypotheses

The following hypotheses were formulated in light of available literature:

1. There is no significant correlation between attitude and teaching efficacy of pre service teachers towards inclusive education

2. There is no significant difference in the attitude of pre service teachers towards inclusive education of Government and private college of education.

3. There is no significant difference in the teaching efficacy of pre service teachers towards inclusive education of Government and private college of education.

Delimitation

The present study was delimited to educational colleges of Chandigarh.
Tools used

The following tools were constructed by the investigator and used in the present study:

- Pre-service Teachers Teaching efficacy scale towards Inclusive Education
- Pre-service Teachers Attitude towards Inclusive Education (adapted from attitude towards inclusive education by Vishal Sood and Arti Anand) (2011).

First draft and try out

A performa was developed to identify the pre-service teacher's beliefs and expectation indicating their teaching efficacy towards inclusive education and was administered to the initial sample (60 pre-service teachers). However, after contemplation of preliminary results, 13 items were excluded.

The final draft of the performa was developed in a manner to bring about a comprehensive and accurate picture of the pre-service teachers teaching efficacy towards inclusive education by utilizing minimum time and effort. After collecting general information like teacher name, age, and name of institution, 50 items were related to general teaching efficacy and self-efficacy towards inclusive education.


The teacher attitudes towards inclusive education scale (TAIES) was chosen as an appropriate measure of attitudes towards inclusive education. Developed by Sood, Vishal and Anand, Arti (2011) to measure the attitude of qualified teachers towards inclusive education. This resulted in questions that were fundamentally unchanged except for the conditions appropriate to a pre-service teacher rather than a qualified teacher. Similar to the original survey, a three-point Likert scale was used for all scale questions, with answers ranging from 1 (agree) to 3 (disagree). An advantage of a three-point scale was that participants have the option to choose middle (or undecided) score, and in effect are required to agree undecided or disagree with each statement. After adjustment of the reversed questions, the scores for each individual question were summed and averaged for each participant, resulting in a Total Inclusion Score (TIS). Higher scores are indicative of more positive attitudes, which was also consistent with the TAIS.

Sample

The sample comprised of 100 pupil teachers from Government and Private education college of Chandigarh. The study was confined to only urban areas of Chandigarh and teachers of government and private college of education were considered for the study. Out of these 100 teachers, 50 were taken from private college and 50 from the Government college. The investigator used cluster sampling technique for selecting the sample from Chandigarh, urban area.
Analysis and Interpretation

Hypothesis-I There is no significant correlation between attitude and teaching efficacy of pre service teachers towards inclusive education

Table 1.1 : Table showing coefficient of correlation between attitude and teaching efficacy of pre service teaching towards inclusive education

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>N</th>
<th>MEAN</th>
<th>MEDIAN</th>
<th>S.D.</th>
<th>r</th>
<th>level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Efficacy</td>
<td>100</td>
<td>130.93</td>
<td>131.5</td>
<td>15.2</td>
<td>.19</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Attitude towards Teaching Profession</td>
<td>100</td>
<td>114.77</td>
<td>116</td>
<td>10.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation

Table 1.1 shows the value of calculated coefficient of correlation between attitude and teaching efficacy of pre service teachers towards inclusive education and that is .19 which is lower than the table value of 0.195 at 0.05 level of significance. It shows that the value of calculated coefficient of correlation is not significant. So it can be said that there is no significant correlation between attitude and teaching efficacy of pre service teachers towards inclusive education is accepted

Hypothesis II-There is no significant difference in the attitude of pre service teachers towards inclusive education of Government and private college of education.

Table 1.2 mean, S.D. and t-value of attitude of pre service teachers towards inclusive education

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>N</th>
<th>MEAN</th>
<th>S.D.</th>
<th>t-value</th>
<th>level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government College</td>
<td>50</td>
<td>132.6</td>
<td>16.8</td>
<td>.25</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Private College</td>
<td>50</td>
<td>129.2</td>
<td>13.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1.2 reveals difference in the attitude of pre service teachers towards inclusive education of Government and private college of education. Calculated t-value, which is (0.25) lower than 1.98 as well as 2.63, the critical values required to reach at 0.05 and 0.01 levels of significance, respectively. Thus, we can simply imply that there is no significant difference in the attitude of pre service teachers towards inclusive education of Government and private college of education. Hence, the hypothesis- II that there is no significant difference in the attitude of pre service teachers towards inclusive education in terms of Government and private college of education is accepted.

Table 1.3 mean, S.D. and t-value of teaching efficacy of pre service teachers towards inclusive education

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>N</th>
<th>MEAN</th>
<th>S.D.</th>
<th>t-value</th>
<th>level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government College</td>
<td>50</td>
<td>112.9</td>
<td>12.5</td>
<td>0.09</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Private College</td>
<td>50</td>
<td>116.6</td>
<td>8.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.3 reveals difference in the teaching efficacy of pre service teachers towards inclusive education of Government and private college of education. Calculated t-value, which is (0.09) lower than 1.98 as well as 2.63, the critical values required to reach at 0.05 and 0.01 levels of significance, respectively. Thus, we can simply infer that there is no significant difference in the teaching efficacy of pre service teachers towards inclusive education of Government and private college of education. Hence, the hypothesis- III that there is no significant difference in the teaching efficacy of pre service teachers towards inclusive education of Government and private college of education is accepted.

Conclusion

From the above analysis, it is concluded that teaching efficacy has no relationship with attitude of pre-service teachers towards inclusive education. Moreover no difference was found in the attitude and teaching efficacy of pre service teachers towards inclusive education of Government and private colleges of education. So it can be said that attitude and teaching efficacy of Government and private educational college pupil teachers is same.
References


EFFECT OF CONCEPT ATTAINMENT MODEL ON ACADEMIC ACHIEVEMENT IN SOCIAL STUDIES

Dr. Sapna Nanda*

Abstract

Concept Attainment learning is a pedagogical practice that promotes inductive - deductive thinking and learning across different curriculum areas and classroom settings. Attainment, a close relative to inductive thinking, focuses on the decision making and categorization processes leading up to creation and understanding of new concepts. However, while the benefits of implementing Concept Attainment learning are widely acknowledged, many schools and teachers still experience difficulties in knowing how to embed this practice into their teaching curricula. In the present study, pre-test and post-test experimental design was used to assess the effectiveness of Concept Attainment learning in Social Studies on the academic achievement of secondary school students. A sample of 60 students, randomly selected from one of the government schools of Chandigarh, was divided equally into control and experimental groups of 30 each by equating them on the basis of their pre-test scores of academic achievement. After the intervention, the subjects of control group revealed no significant improvement in the percent scores of academic achievement, the t-value being 0.55 which is not significant at 0.05 level, (P>0.05). However, the subjects of experimental group revealed a highly significant improvement in mean percent scores of academic achievement, as evident from the t-value of 11.8 which is significant at 0.01 level (P<0.01). Findings of this study lead one to conclude that Concept Attainment Model is well recognized as a pedagogical practice that promotes learning, higher level thinking, and a greater understanding of children with diverse learning.

Keywords: Concept Attainment learning, Academic Achievement, Social Studies

Introduction

Teaching is complex activity, which includes a cluster of different roles and responsibilities. A teacher has to master multiple roles in order to become more professional. The professional competence can be expanded in two ways; first by increasing the range of teaching strategies that are needed to be employed; second by becoming increasingly skillful in the case of these strategies because the purpose of teaching is to maximize learning. Teaching models are the best way to transit effective learning (Bhargava, 2013).

*Associate Professor, Government College of Education, Chandigarh
Amongst various models of teaching, the concept attainment model was developed by J.S Bruner in 1956. Usually, it is named as Bruner's Concept Attainment Model. The model emerged out of the study of thinking process in human beings. It is based on the assumption that a human being is endowed with the capacity to discriminate and to categorize things in groups. This model is used for teaching concepts to the students. Concept attainment is, thus, an ability of cognition. Concept attainment is an indirect instructional strategy that uses a structured inquiry process and is based on the work of Bruner (1997).

In concept attainment model, students figure out the attributes of a group or category that has already been formed by the teacher. While doing so, students compare and contrast examples that contain the attributes of the concept, then it is the search for and identification of attributes that can be used to distinguish examples of a given group or category from the non-examples. The concept attainment is a meaningful construct and multidimensional (Gogna, 2015).

Despite varied statements about the aims of education, the academic achievement of pupil continuous to be a primary concern and the most important goal of education. In general, academic achievement is considered to be the knowledge attained and skills developed in the subject in which one is imparted training in school. Academic achievement is the measure of attainment of concepts and perhaps none would deny the importance of academic achievement in child's success.

**Statement of the Problem**

The statement of problem is as under:

**EFFECT OF CONCEPT ATTAINMENT MODEL ON ACADEMIC ACHIEVEMENT IN SOCIAL STUDIES**

**Objectives of the Study**

The objectives of the present study were as under:

1. To study the academic achievement in Social Studies of secondary school students.

2. To develop and impart modules in Social Studies using concept attainment model for secondary school students.

3. To assess the effect of concept attainment model on academic achievement in Social Studies of secondary school students.
Hypotheses of the Study

The hypotheses of the present study were as under:

1. There is no significant difference in academic achievement in Social Studies of students of control and experimental group.

2. There is no significant effect of concept attainment model on academic achievement in Social Studies of secondary school students.

Design of the Study

Pre-test and post-test experimental design was used in the present study to assess the effect of concept attainment model in Social Studies on the academic achievement of secondary school students.

Sample of the Study

In the present study, one of the Government schools of the Chandigarh administration, namely Government Model High School, Sector 20-D, Chandigarh was randomly selected. There were 100 students in class IX. From those 100 students, investigator selected 60 students randomly. Then, pre-test of academic achievement was conducted on the selected sample of 60 students. On the basis of scoring of the pre-test, investigator equated the two groups of 30 each i.e. experimental and control groups. Then, the intervention constited of imparting modules based on concept attainment model in Social Studies to the subjects of experimental group and control group was taught the same content by traditional method. After the intervention, post-test of academic achievement was administered again on the subjects of both the control and experimental groups.

Tools Used for the Study

Following tools were used for the present study:

1. Self prepared Academic Achievement Test in Social Studies.

2. Self developed Modules of Social Studies using Concept Attainment Model.

Procedure of Data Collection

The study was conducted on 60 students of Government Model High School, Sector 20-D, Chandigarh. The data from the selected sample was collected personally by the investigator after taking the permission from the principal of the school.
Before conducting the experiment, sympathetic and friendly attitude was adopted to establish rapport with them. The subjects were made to understand the significance of the study and ensured that the test will be used only for research purpose and not to evaluate their performance. Students were also assured of the confidentiality of the information given by them. They were asked to be honest and free while answering the test.

For data collection, following steps was followed:

**Step 1:-Pre-test:** Academic Achievement test was administered on the students of both the experimental and control groups.

**Step 2:-Intervention:** At this stage, teaching was done through 15 modules of Social Studies based on Concept Attainment Model to the subjects of experimental group, on the topics taken from C.B.S.E affiliated syllabus of Social Studies textbook for class IX. At the same time, subjects of control group were taught the same content through traditional teaching approach. This process continued for one month in which alternatively classes were taken by the investigator for both the groups.

**Step 3:-Post-test:** After one month of intervention, post-test on academic achievement was again administered on the students of both the experimental and control groups i.e. taught through concept attainment model and the group taught through traditional teaching approach respectively.

**Step 4:-** After that, scoring was done. Raw data was subjected to statistical analysis to draw the inferences.

**Statistical Techniques**

The following statistical techniques were employed to analyze the data:

1. Descriptive statistical measures such as mean, median and standard deviation were computed in both the groups separately.

2. t-values were computed to determine the significance of difference between the mean percent scores of academic achievement in group taught through concept attainment model and group taught through traditional teaching approach.
Results & Discussion

Table 1

Showing Measures of Central Tendencies of Percent Scores of Academic Achievement of Subjects of Control and Experimental Groups

<table>
<thead>
<tr>
<th>Measures of Central Tendencies</th>
<th>Control Group (n=30)</th>
<th>Experimental Group (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test (n=30)</td>
<td>Post-test (n=30)</td>
</tr>
<tr>
<td>Minimum</td>
<td>18.00</td>
<td>17.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>40.00</td>
<td>45.00</td>
</tr>
<tr>
<td>Range</td>
<td>22.00</td>
<td>28.00</td>
</tr>
<tr>
<td>Mean</td>
<td>28.96</td>
<td>29.53</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>8.53</td>
<td>7.06</td>
</tr>
<tr>
<td>t-Value</td>
<td>0.55*</td>
<td>11.8**</td>
</tr>
</tbody>
</table>

*P<0.01

Table 1 shows the measures of central tendencies of scores of percent scores of academic achievement of subjects of control and experimental groups. As seen in the table, there is no significant difference in mean percent scores of academic achievement of control and experimental group during pre-test, the t-value being 0.19, which is not significant at 0.05 level (p>0.05).

As seen in the table, the subjects of control group revealed no significant improvement in the mean percent scores of Academic Achievement during post-test, the t-value being 0.55 which is not significant at 0.05 level (p>0.05). Since no treatment was given to subjects of control group whatever the marginal improvement was there, that could be attributed to sharing of information off campus, their previous knowledge and information gathered from internet, visit to library regularly, influenced by other teachers, information given in traditional classrooms, reading other relevant books of Social Studies, help given by parents, their tuition teachers about new concepts that they might have read in newspapers, magazines and journals for new information.
So far as the subjects of experimental group were concerned, a highly significant improvement in mean percent scores of academic achievement was observed during post-test, as evident from the t-value being 11.8 which is significant at 0.01 level (p<0.01). The probable reasons for this significant improvement in mean percent scores of academic achievement could be the effect of intervention, comprising of modules based on concept attainment model, which led to an increase in their motivation level, thereby increasing their interest in subject like Social Studies. Concept attainment model helps to make connections between what students know and what they will be learning. It helps students how to sort out relevant information. It extends their knowledge of a concept by classifying more than one example of that concept. Through this model, concept is learned more thoroughly and academic achievement is improved.

In an analytical study conducted by Portwood (1995) to determine if generalities examples and practice presentation form display theory that would affect the learning of concept - classification, procedure- using and principle - using tasks among Malaysian students. The result of the study indicated that significant differences did exist among the treatment groups within the presentation forms for the principle - using tasks.

Another study carried out by Mason (1997) also found that student's performance at school level depend on solving algorithm and conceptual problems whose solution requires some underlying concepts and application and manipulation of certain mechanism underlying Science formulae without understanding underlying Scientific concepts.

In a similar study, Bindu (2002) conducted an experimental study on effectiveness of Concept Attainment Model of teaching on achievement in Chemistry of secondary school students. Result of the study revealed that concept attainment model is more effective than conventional method in terms of achievement in Chemistry of secondary school Students.

Another study carried out by Chaurasia (2015) predicted intelligence, concept attainment in Science and learning style as predictors of performance in Science among IX grade students. The findings of the study revealed that intelligence and concept attainment in Science are positively related to performance Science. It was concluded that intelligence and ability to identify concept belonging to examples emerged as the best predictors of Science performance.

Concept attainment model of teaching was, thus, found to be superior and effective in comparison to traditional methods. Concept attainment model encourages the students to engage in learning activities with maximum enthusiasm and this will help them to understand the subject matter more. The method also helps to correlate the theoretical concepts and its application, which is not so effective in the conventional methods. The Concept attainment model helps the students to learn the theory and apply the newly acquired knowledge simultaneously. Concept attainment model is, thus, strategy to encourage critical thinking skills. The importance of concept attainment model in contrast to the traditional classroom teaching as an effective approach in teaching cannot be undermined.
References

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CORRELATIONAL STUDY OF LEARNING STYLES AND SECOND LANGUAGE ACHIEVEMENT AMONG SECONDARY SCHOOL STUDENTS

Dr. Kusum*

Abstract

One of the most significant issues in learning to learn is for individuals to take responsibility for their own learning. When learners take the responsibility of their own learning, they attribute meaning to the process of learning, leading to effective learning. The purpose of this study was to determine the relationship between learning style and achievement in second language among secondary school students in Punjab. The study objectives were to: identify the learning style preference among secondary school students; and to determine the relationship between learning styles and academic achievement of male and female the students. The data collection instrument was the Kolb's on learning styles. This was used to identify the learning style preference among the students based on Visual (V), Auditory (A), Reading (R) and Kinaesthetic (K) modalities. The second language achievement referred to achievement in Hindi language in their academic performance. The findings indicate that majority of the students are multimodal learners, followed by bimodal (VA) learners and thirdly by unimodal (V), learners. The least preferred learning styles are reading and kinaesthetic moddities which were preferred by only 2 female students. There was no significant difference in learning style preference among male and female students and among high and low academic achievement groups. There was strong positive and statistically significant relationship between learning styles and second language achievement for the multimodal learners, and among male and female students.

Introduction

Language Learning has, for the past decades, been the centre of interest in educational research. Exploring the issue of language achievement has extended beyond simple issues of intelligence and prior academic achievement into how learners interact with the learning material. Several factors have been identified in explaining academic achievement: demographic status (Ray, 2010), intelligence (Deary et.al); behavioural characteristics (Lane et.al); and psychological factors such as attributes (Erdogan et.al ) self-esteem (Reasoner, 2005) self-efficacy (Olatunde, 2009) and self-concept (Holliday, 2009).

*Assistant Professor, Government College of Education, Chandigarh
A specific attention has been given to Hindi language perhaps due to its wide application in the Punjab. Hindi is a compulsory subject taught in secondary schools. Second Language is an important aspect of life in all beings especially with the rise of globalization where the human race needs a common and identifiable language for communication (Li & Dan, 2006). Many of the courses in higher education also require good performance in Hindi subject since the subject is the medium of instruction and the national official language. For these reasons, achievement in Hindi subject has been and continues to be researched on and understood in light of the aforementioned factors affecting achievement. A number of learning-related concepts, such as perception of academic control and achievement motivation which have been a focus of attention when attempting to identify factors affecting learning-related performance (Cano-Garcia & Hughes, 2000). One concept in particular which has provided some valuable insights into learning in both academic and other educational settings is learning style. Learning style has been defined as a consistent way of functioning that reflects the underlying causes of learning behaviour (Keefe, 1987). Learning style is both a characteristic which indicates how a student learns and likes to learn, as well as instructional strategy informing the cognition, context and content of learning. Previous studies have reported that students’ learning performance could be improved if proper learning style dimensions could be taken into consideration when developing any learning or instructional process (Graf, Liu, & Kinshuk, 2010). There is general acceptance that the manner in which individuals choose to or are inclined to approach a learning situation has an impact on performance and achievement of learning outcomes. Whilst- and perhaps because-learning style has been the focus of such a vast number of research and practitioner-based studies in the area, there exist a variety of definitions, theoretical propositions, models, interpretations and measures of the construct. To some extent, this can be considered a natural consequence of extensive empirical investigation and is to be expected with any continually developing concept which proves useful in gaining understanding of such a crucial and prevailing endeavour as learning.

**Review of related research**

Kopsovich (2001) conducted a research on the relationship between learning styles of students and their Mathematics scores on the Texas assessment of academic skills test and established that the learning style preferences of all students in the area of persistence significantly impacted their mathematic achievement scores. Gender and ethnicity were mitigating factors in the findings. The Pearson Product Moment Correlation coefficient and the Point-biserial correlation analysis was applied to the data collected from 500 randomly selected fifth grade students attending a North Texas Intermediate school. There was a significant relationship of 0.542 at 0.05 level of significance. Part of the data was the student’s responses to the Learning style inventory by Dunn, Dunn and Price. In summary, the author suggests that supplying the teachers with information concerning students’ learning style preferences will benefit student achievement.
Rebecca (2003) carried out a research on "Language learning styles and strategies," the author synthesizes research from various parts of the world on two key variables affecting language learning: styles, i.e., the general approaches to learning a language; and strategies, the specific behaviours or thoughts learners use to enhance their language learning. These factors influence the student's ability to learn in a particular instructional framework.

Gan et al. (2004) carried out a qualitative investigation into the attitudes and strategies of nine successful and nine unsuccessful Chinese learners of English as a foreign language. In this study, attitudes towards the learning of the target language rather than specific strategies seemed to differentiate the successful from the unsuccessful learners.

Li Jie & Qin Xiaqing (2006) in their research focuses on the relationship between learning styles and language learning strategies in the EFL context in China. The analyses show that learning styles have a significant influence on learners' learning strategy choices. There is evidence that the Judging scale correlates positively with seven sets of learning strategies. Thus it turns out to be the most influential learning style variable affecting learners' learning strategy choices. Compared with low achievers, high achievers are more capable of exercising strategies that are associated with their non-preferred styles.

Warn (2009) conducted a research to determine if there is any difference in the students' learning style for subjects with different assessment orientation (theoretical versus computational) and if there is any association between students' learning style and their academic performance in two final year subjects, with and without controlling for their previous academic achievement. Kolb's (1976) Learning Style Inventory (LSI) was used to gauge the learning style of the final year accounting students of an institute of higher learning. He found that there was a difference between learning style for subjects with different assessment orientation. He also found that there was no significant association between the students' learning style and their academic performance, with or without controlling for their previous academic achievement.

Habibah Elias (2010) investigated the impact of learning styles on the academic achievement of secondary school students. The Kolb Learning Style Inventory (1999) was administered in eight public schools in Tehran. The mean of test scores in five subjects, namely English, science, mathematics, history and geography, was calculated for each student and used as a measure of academic achievement. The results of the analyses of variance showed that there was a statistically significant difference in the academic achievement of the students that correspond to the four learning styles.

Rozalina Khalid (2013) verified the statement that learning styles influence the academic achievements of students' in the arts and science streams. The Pearson Correlation analysis showed no significant relationship between learning styles as a whole with academic achievements, except for avoidance. The main findings also showed no significant relationship between learning styles and academic achievements.
Objectives
1. To identify the learning style preferences among students.
2. To determine the learning styles on the basis of gender.
3. To determine the achievement levels of students in Hindi Language with different learning styles.
4. To determine the relationship between learning style preference and achievement in Hindi language on basis of gender.

Hypotheses
1. There is no significant difference in learning styles preferences of male and female students.
2. There is no significant difference in academic achievement between male and female students.
3. There is no significant correlation between learning style preference and achievement of male and female students in Hindi language.

Design of the study
Descriptive survey method of research was used.

Sample of the study
The sample of study consisted of 150 secondary students of Govt. Secondary School of Chandigarh studying in class IX and X.

<table>
<thead>
<tr>
<th></th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>Male</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
</table>

Tools used
1. VARK online Questionnaire by Kolb was used to determine the learning styles of the students (2017).
2. Achievement in Hindi was taken from the marks obtained by students in final exams at secondary level.
Statistical techniques

The statistical techniques used in this study were percentage and Pearson Product Moment Correlation coefficient and calculated relationship between learning style and the average scores in Hindi.

Results and discussion

Table-1: Overall Learning Style Preference among the Students

<table>
<thead>
<tr>
<th></th>
<th>Visual</th>
<th>Auditory</th>
<th>Reading</th>
<th>Kinaesthetic</th>
<th>VA</th>
<th>AR</th>
<th>RK</th>
<th>KV</th>
<th>KA</th>
<th>VR</th>
<th>VARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>15</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>45</td>
<td>9</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>59</td>
</tr>
<tr>
<td>%</td>
<td>10.6</td>
<td>2.0</td>
<td>0.8</td>
<td>0.6</td>
<td>30.0</td>
<td>6.2</td>
<td>0.5</td>
<td>5.0</td>
<td>2.7</td>
<td>2.0</td>
<td>39.6</td>
</tr>
</tbody>
</table>

Graphical Representation of Overall Learning Style Preference among the Students
Table-2: Learning Style Preference on the basis of gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th></th>
<th></th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Visual</td>
<td>7</td>
<td>4.6</td>
<td>8</td>
<td>5.3</td>
</tr>
<tr>
<td>Auditory</td>
<td>2</td>
<td>1.3</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Reading</td>
<td>00</td>
<td>0</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Kinaesthetic</td>
<td>00</td>
<td>0</td>
<td>1</td>
<td>6.6</td>
</tr>
<tr>
<td>VA</td>
<td>23</td>
<td>15.3</td>
<td>22</td>
<td>14.7</td>
</tr>
<tr>
<td>AR</td>
<td>04</td>
<td>2.7</td>
<td>05</td>
<td>3.3</td>
</tr>
<tr>
<td>RK</td>
<td>00</td>
<td>0</td>
<td>02</td>
<td>1.3</td>
</tr>
<tr>
<td>KV</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3.3</td>
</tr>
<tr>
<td>KA</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>VR</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>VARK</td>
<td>30</td>
<td>20.3</td>
<td>29</td>
<td>19.3</td>
</tr>
</tbody>
</table>

Graphical Representation Learning Style Preference on the basis of gender
Table-3: Achievement levels of students in Hindi Language with different Learning Styles

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>High Achievers</th>
<th>Low Achiever</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Visual</td>
<td>11</td>
<td>7.3</td>
</tr>
<tr>
<td>Auditory</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reading</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Kinaesthetic</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>VA</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>AR</td>
<td>0.7</td>
<td>4.7</td>
</tr>
<tr>
<td>RK</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>KV</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>KA</td>
<td>0</td>
<td>1.3</td>
</tr>
<tr>
<td>VR</td>
<td>1</td>
<td>6.67</td>
</tr>
<tr>
<td>VARK</td>
<td>39</td>
<td>26.3</td>
</tr>
</tbody>
</table>

Graphical Representation of Achievement levels of students in Hindi Language with different Learning Styles

![Graphical Representation of Achievement levels of students in Hindi Language with different Learning Styles](image-url)
### Table-4: Correlation between learning style preference and achievement in Hindi Language

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>Overall</th>
<th>Male</th>
<th>Female</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.396</td>
<td>.373</td>
<td>.509</td>
<td>Correlation is significant at the 0.01 level (2-tailed)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.033</td>
<td>.155</td>
<td>.076</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Auditory</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.777</td>
<td>.917</td>
<td>.843</td>
<td>Correlation is significant at the 0.01 level (2-tailed)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.023</td>
<td>.083</td>
<td>.157</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Reading</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.b</td>
<td>1.000</td>
<td>Correlation is significant at the 0.05 level (2-tailed)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Kinaesthetic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.b*</td>
<td>1.000</td>
<td>Correlation is significant at the 0.05 level (2-tailed)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>VA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.246</td>
<td>.225</td>
<td>.267</td>
<td>Correlation is significant at the 0.01 level (2-tailed)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.014</td>
<td>.115</td>
<td>.064</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>45</td>
<td>23</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td><strong>AR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.396</td>
<td>.373</td>
<td>.509</td>
<td>Correlation is significant at the 0.01 level (2-tailed)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.033</td>
<td>.155</td>
<td>.076</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>RK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.b*</td>
<td>1.000</td>
<td>Correlation is significant at the 0.01 level</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scatter diagram of Correlation between learning style preference and achievement in Hindi Language on basis of gender.

<table>
<thead>
<tr>
<th></th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>KV</td>
<td>.666</td>
<td>.002</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>.775</td>
<td>.002</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>.541</td>
<td>.268</td>
<td>5</td>
</tr>
<tr>
<td>KA</td>
<td>.462</td>
<td>.178</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>.147</td>
<td>.753</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>.895</td>
<td>.294</td>
<td>1</td>
</tr>
<tr>
<td>VR</td>
<td>1.3</td>
<td>.777</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.000</td>
<td>1.000</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>.666</td>
<td>.238</td>
<td>2</td>
</tr>
<tr>
<td>VARK</td>
<td>.738</td>
<td>.000</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>.754</td>
<td>.000</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>.743</td>
<td>.000</td>
<td>29</td>
</tr>
</tbody>
</table>

b* too small to be computed
1. Several learning style preferences dimensions were identified in this study: Multimodal learners prefer Visual/Auditory/Reading/Kinaesthetic (VARK) dimensions; bimodal, those who prefer Visual/Auditory (VA), Visual/Kinaesthetic (VK) and Auditory/Kinaesthetic (AK); and unimodal, preferring single learning style dimension Visual (V), Auditory (A) and Kinaesthetic (K).

2. Majority (39.6%) of the secondary school students are multimodal learners (having preferences for visual, auditory, reading style and kinaesthetic learning style modals), followed by the bimodal learners preferring visual and auditory learning styles with (30%) and unimodal learners preferring only visual learning style dimension. The least preferred learning style are reading and kinaesthetic learning style dimension which had a preference of 0.6% among the secondary school students.

3. The relationship among the multimodal (VARK) male and female learners is significant at 0.05 level. This shows that there is a positive relationship between learning style preference and achievement in Hindi language of male and female students.

Educational Implications

The present study yielded some important insights into learning style preferences among secondary school students and the following recommendations are made:

1. Teachers/instructors need to take into account their students' diverse learning styles, design instructional methods that take care of those diversities and remain sensitive of such during the instruction process.

2. Teachers should also help their students to understand their learning style preferences and make use of such to develop life-long learners.

3. School administrators need to provide various learning materials which can bring diversity in the classroom by employing visual, auditory, reading and kinaesthetic materials such as use of technology and students project writing and presentation among other methods.

References


Habibah, E. (2010). Academic Achievement of Students with Different Learning Styles. University Putra Malaysia, Malaysia :


MAPPING THE RESEARCH PRODUCTIVITY IN THE DISCIPLINE OF EDUCATION : A QUANTITATIVE STUDY

Mrs. Atasi Sinhababu

Abstract

The study has been conducted with 4,09,511 original contributions published in the highly reputed scholarly journals in the discipline of Education during 1989-2018. In this paper the author aims to examine the growth of literature in the field of Education. Quantitative methods of research was employed which involves variables such as total research output, citations received reflecting the impact, country level contribution, language distribution, Open Access literature, etc. The objectives of the study have been framed considering these aspects. Findings of the study will help in understanding the current status and trends of research productivity of the world as-well-as of India. The parameters studied include the global research productivity in the discipline of Education in terms of Open Access (OA) literature. It identifies the highly productive authors, top contributing countries, preferred languages and highly cited papers in the discipline of Education. The paper also highlights the current status of research productivity in the discipline of Education in India. The major findings of the study reveal that 2016 has witnessed the highest research productivity in the discipline of Education at global level. The contribution of USA in terms of research productivity in Education is highest followed by England; Australia and Canada respectively.

Keywords: Research Productivity, Education, Citation analysis; highly Cited Authors; Bibliometrics, Scientometrics, Publication Productivity, Author Productivity

Introduction:

In scientometrics and bibliometrics approaches scientific literature itself becomes the subject of analysis. These are considered as a science of science. Scientometrics and bibliometrics often involve the monitoring of research, the assessment of the scientific contribution of authors, journals or specific works, as well as the analysis of the dissemination process of scientific knowledge(Analytics, 2016). These fields of study enable gathering of information produced by the activity of researchers' communications, and involve techniques such as citation analysis, social network analysis, co-word and content analysis, as well as text-mining to achieve quantitative analysis of research output. Bibliometric studies focus on authorship, measure the contribution of journal and research organizations, content analysis of words in titles, abstracts, the full text of books, journal articles or conference proceedings, or keywords assigned to published articles by editors or librarians. Scientometrics aims to measure the evolution of a scientific domain, the impact of scholarly publications, the patterns of authorship, and the

*Librarian, Government College of Education, Chandigarh
process of scientific knowledge production. The present paper applies relevant bibliometric and scientometric techniques to evaluate the research productivity in the field of Education at global level and in India.

**Research Design:**

**Statement of the Problem:**
It is quite significant to measure and analyse the growth of literature in any discipline through quantitative methods involving variables like total research output, citations received reflecting the impact, country level contribution, language distribution, Open Access literature, etc. It is in the light of these dimensions that the study "Mapping the Research Productivity in the Discipline of Education: A Quantitative Study" has been undertaken and the objectives of the study have been framed.

**Objectives of the Study:**
The main objectives of the study are as follows:

1. To analyse the global research productivity and its growth trend in the discipline of Education in terms of publications and citations received.
2. To analyse the global research productivity in the discipline of Education in terms of Open Access (OA) literature.
3. To identify the highly productive authors and highly cited papers in the discipline of Education.
4. To identify the top contributing countries and preferred languages in the field of Education.
5. To assess the current status of research productivity in the discipline of Education in India.

**Scope & Limitation of Study**
This Study is limited to search results on the subject "Education" in the premium database Web of Science (WoS) during 1989 to 2018.

**Methods and Materials:**
For extracting the primary data, Web of Science has been used. Web of Science is an online subscription-based scientific citation indexing service originally produced by the Institute for Scientific Information, now maintained by Clarivate Analytics that provides a comprehensive citation search. Author has used the advanced search feature of the database Web of Science (WoS) for obtaining the data. The results obtained were refined to get the desired level of relevant data. For extracting the data query run was - WC= ("Education & Educational Research" OR "Education, Scientific Disciplines" OR "Education, Special") OR SU=(Education & Educational Research). Total number of results obtained initially after executing the above said query was 4,09,511. The records retrieved were recorded and tabulated. Finally, the collected data was analysed for generating information.
Results and Discussion:

Year-wise Growth of Publications

Figure 1

Figure above reflects the Research Productivity of the last 10 years (2008-2017). The year 2016 has witnessed the highest research productivity with 35,538 research papers very closely followed by 35,306 papers in 2017. It is quite evident that by and large there is rise in the publications in the discipline of Education. It is also evident from the above figure that during the year 2008 to 2014 the growth rate in the research productivity is almost constant without any noticeable rise or decline. The global research productivity picked the momentum from the year 2015.

Country-wise Distribution of Publications

Figure 2
Figure above presents the global ranking of top 10 countries with respect to research productivity in Education. The contribution of USA in terms of research productivity in Education is highest (1,80,954) followed by England (40,016); Australia (22,196) and Canada (19,260) respectively. It is worth noting that USA is leading with quite a high margin as the difference between the number of publications by USA and England (1st and 2nd position in the top 10 countries) is quite significant (1,76,9524).

![Research Productivity: Language](image)

**Figure 3**

The primary language in which the global research productivity has been reported was found to be English (3,84,172) followed by Spanish (11,394), German (4869), Portuguese (4753) and Turkish (1298) respectively.

**Highly Cited Articles: Highly productive authors**

<table>
<thead>
<tr>
<th>S No</th>
<th>Title</th>
<th>Author</th>
<th>Journal</th>
<th>Publication Year</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Teachers beliefs and educational-research - cleaning up a messy construct</td>
<td>Pajares, MF</td>
<td>Review of Educational Research</td>
<td>1992</td>
<td>1942</td>
</tr>
<tr>
<td></td>
<td>The power of feedback</td>
<td>Hattie, J; Timperley, H</td>
<td>Review of Educational Research</td>
<td>2007</td>
<td>1931</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------</td>
<td>------------------------</td>
<td>--------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>5.</td>
<td>School engagement: Potential of the concept, state of the evidence</td>
<td>Fredricks, JA; Blumenfeld, PC; Paris, AH</td>
<td>Review of Educational Research</td>
<td>2004</td>
<td>1629</td>
</tr>
<tr>
<td>6.</td>
<td>Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching</td>
<td>Kirschner, PA; Sweller, J; Clark, RE</td>
<td>Educational Psychologist</td>
<td>2006</td>
<td>1624</td>
</tr>
<tr>
<td>7.</td>
<td>Perceived self-efficacy in cognitive-development and functioning</td>
<td>Bandura, A</td>
<td>Educational Psychologist</td>
<td>1993</td>
<td>1503</td>
</tr>
<tr>
<td>8.</td>
<td>Technological pedagogical content knowledge: A framework for teacher knowledge</td>
<td>Mishra, P; Koehler, MJ</td>
<td>Teachers College Record</td>
<td>2006</td>
<td>1459</td>
</tr>
</tbody>
</table>
The paper which has received highest citation (1965) globally was found to be "Computational Tools for Probing Interactions in Multiple Linear Regression, Multilevel Modeling, and Latent Curve Analysis". This paper is authored by Preacher, KJ; Curran, PJ and Bauer, DJ and was published in the Journal of Educational and Behavioral Statistics in 2006. This paper has been cited 3048 times in Google Scholar. It is pertinent to note that the journal Review of Educational Research appears twice in terms of high citations. One of its articles titled Teachers beliefs and educational-research - cleaning up a messy construct (1992) has been cited 1942 times while the article "The Power of Feedback (2007) has been cited 1931 times. These two articles occupy 2nd and 3rd position in the top 10 highly cited papers in the discipline of Education. Two of the articles published in Journal of Educational and Behavioral Statistics have occupied 1st and 4th position in this list. Similarity, the journal Educational Psychologist appears twice in the list of top 10 highly cited articles at 6th and 7th positions with 1624 citations 1503 citations respectively.

Open Access Scholarly Literature in Education:

Open access (OA) is precisely meant for free access to scholarly literature without any barrier of price and copyright. It responds to free distribution and free access to scholarly research articles without any knowledge divide that helps to create a more equitable world. Upon analysing the data extracted from the abstracting & indexing database Web of Science (WoS), it was noted that there are 56,468 OA articles in the discipline of Education. These OA documents can be broadly categorized into:

Fully published articles that are available freely from the publisher are identified as Gold open access.
Green open access are either final published articles or peer-reviewed accepted manuscripts available without charge from a repository. A freely accessible version of an article located in a subject-based repository such as PubMed Central or in an institutional repository. This version of the article may vary from a peer-reviewed accepted manuscript to the final published version based on the journal's policies. Because the accepted manuscript may vary from the final published version, they are labelled distinctly as Green Accepted and Green Published respectively.

i. Freely available final, peer-reviewed manuscripts available from a repository fall under Green Accepted open access category.

ii. Published articles freely available from a repository are considered as Green Published open access category

Figure 4
Total number of publications authored by the researchers and scholars of the world as reported by the database Web of Science (WoS) are 4,09,511 out of which 56,468 (13.79%) have been published in Open Access journals while 86.21% have been published in subscription based journals.
The status of OA research in Education has been presented below -

![Open Access Types in Education](image)

**Figure 5**

Total number of research papers in the discipline of Education accessible freely under gold OA is significantly high (52,164; 92.38%) than green accepted (2,363; 4.18%) and green published (1,941; 3.44%). This implies that OA journals are the major carriers for the dissemination of OA research in the subject of Education than the digital repositories.

**Research Productivity in Education: India**

![Research Productivity in Education](image)

**Figure 6**
Total number of publications authored by Indian researchers and scholars as reported by the database Web of Science (WoS) is 2,572. The number of publications in the discipline of Education from 1989 till 2006 is quite insignificant. However, the research productivity is considerable during 2007 to 2014. A noticeable growth in the research productivity is visible from 2015 to 2017 and is expected to rise further in 2018.

The h-index of total research output by Indian authors in Education was found to be 35. The average citations per item of the same came out to be 3.38. The total no of citation received by the Indian researcher in domain of Education is 8,681 (Without self citations = 8,287).

Above graph indicates consistent and continuous rise of citation received by the Indian authors in the discipline of Education. It can be inferred that the growth rate of citations is quite satisfactory.

<table>
<thead>
<tr>
<th>S N</th>
<th>Title</th>
<th>Author</th>
<th>Journal</th>
<th>Publication Year</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prevalence of intellectual disability: A meta-analysis of population-based studies</td>
<td>Maulik, PK; Mascarenhas, MN ; Mathers, CD ; Dua, T ; Saxena, S</td>
<td>Research in Developmental Disabilities</td>
<td>2011</td>
<td>282</td>
</tr>
</tbody>
</table>
2. The Sonagachi Project: A sustainable community intervention program
Jana, S; Basu, I; Rotheram-Borus, MJ; Newman, PA
Aids Education and Prevention 2004 217

3. A review of rubric use in higher education
Reddy, YM; Andrade, H
Assessment & Evaluation in Higher Education 2010 138

4. How Do Corporations Embed Sustainability Across the Organization?
Haugh, HM; Talwar, A
Academy of Management Learning & Education 2010 86

5. Misconceptions of students and teachers in chemical-equilibrium
Banerjee, AC
International Journal of Science Education 1991 69

The paper which has received highest citation (282) was found to be "Prevalence of intellectual disability: A meta-analysis of population-based studies". This paper is authored by Maulik, PK; Mascarenhas, MN; Mathers, CD; Dua, T; Saxena, S and was published in the journal Research in Developmental Disabilities in 2011. The article entitled "The Sonagachi Project: A sustainable community intervention program" (2004) has been cited 217 times while the article "A review of rubric use in higher education"(2010) has been cited 138 times. These two articles occupy 2nd and 3rd position in the top 5 highly cited papers by the Indian authors in the discipline of Education. The other two articles "How to corporation Embed Sustainability across the Organization?" and "Misconceptions of students and teachers in chemical-equilibrium" are in 4th and 5th position with 86 and 69 citations respectively.

Open Access Publication:
Out of the total no of publication in Education originating from India (2572), the number of research papers published under Open Access is 455.
It can be observed from the above figure that 17.69% of the published literature in the field of education can be freely accessed as they belong to the category of Open Access (OA) while 82.31% of the research publications are paid. Out of this 17.69% of the OA literature in the field of Education 97.14% are covered under Gold OA, 1.54% belongs to Green Published OA while 1.32% belongs to Green Accepted OA (Fig.9).

![Open Access Types in Education: India](image)

**Figure 9**

![No. of Publications](image)

**Figure 10**

Figure no. 10, depicts the current status of research productivity in the discipline of Education during the last five years (2014-2018). Maximum no of publications (336) were reported in the year 2016, closely followed by 334 publications in the year 2017 and 278 publications in the
year 2015. There is a sharp rise in research productivity from 2014 to 2015. As on May 2018, 77 papers were published, it can be expected that many more publications can be there during the remaining part of this year (June -December 2018).
The figure above represents the most preferred journals in education by the Indian author. Indian authors published maximum number of articles in The "Resonance Journal of Science Education" having 279 (52%) articles, followed by "British Journal of Educational Technology" (71) (13%); "MIER Journal of Educational Studies Trends and Practices" (38) (7%) and Journal of Intellectual Disability Research (35) (7%) publications by the students, research scholars and teachers of education in India. It is to be noted that "Resonance Journal of Science Education" is a very popular and well recognised Indian Journal in the field of Education published by the Indian Academy of Sciences, Bengaluru, India.

**Major Findings**:  
1. The highest research productivity has been witnessed with 35,538 research papers in the year 2016  
2. The contribution of USA in terms of research productivity in Education is the highest  
3. The highest citation received globally is 1965 in the discipline of Education in 2006.  
4. English is the primary language in which the global research productivity has been reported the highest.  
5. (92.38%) research papers in the discipline of Education can be accessed freely under gold OA.  
6. Total no. of publications authored by Indian researchers and scholars as reported by the database Web of Science (WoS) is 2,572.  
7. Out of the total no of publication in Education originating from India (2572), no of research papers published under Open Access is 455  
8. The h-index of total research output by Indian authors in Education was found to be 35.  
9. The highest citation received by Indian author is 282 in the discipline of Education.  
10. Maximum no of publications (336) were reported in the year 2016  
11. "Resonance Journal of Science Education" having 279 (52%) articles is the most preferred journals in education by the Indian author.

**Conclusion**: The present study has provided a clear insight about the Research productivity in the discipline of Education by Indian scholars, researchers and teachers as well as on a global level. Results of the present study show that India has no rank in the global ranking of top 10 countries with respect to research productivity in Education. However, results are on the basis of data retrieved from the premium database Web of Science (WoS), it can be inferred that
Indian authors published their articles that are not indexed by the database. Therefore, it is suggested to all the Indian students, researchers and academicians to publish articles in those enriched journals which are approved by the UGC (University Grant Commission).

**References**

1. https://clarivate.libguides.com/woscc
RISK TAKING BEHAVIOUR OF PROSPECTIVE TEACHERS IN RELATION TO ANXIETY AND EMOTIONAL INTELLIGENCE

Dr. Punam Bansal* & Ms. Kanishka Sharma**

Abstract

The present study was conducted on a sample of 100 prospective teachers to investigate the relationship between risk taking behaviour, anxiety and emotional intelligence. Three standardized tools; Risk Taking Questionnaire (RTQ) by Sinha and Arora (1983), Comprehensive Anxiety Test (CA-Test) by Bharadwaj, Sharma and Bhargava (2006) and Emotional Intelligence Test by Soni and Sharma (2009) were employed to collect data. The data were analyzed by computing the Pearson's product moment correlation. The analysis of data revealed significant relationship between the anxiety and risk-taking behaviour, Emotional intelligence and risk-taking behaviour and anxiety and Emotional Intelligence of prospective teachers. The findings of the study imply that the ability of taking calculated risk, balancing the level of anxiety and developing emotional intelligence skills of prospective teachers are the issues of immediate concern to be addressed in today's complex social world.

Key Words: prospective teachers, risk-taking behaviour, anxiety, emotional intelligence

1. Introduction

Risk taking is an integral part of life, but few people know how to manage it properly. The word risk has a slightly negative connotation to it- it implies danger, tension and possible loss. But risk also has a positive side, the chance of hitting a big win, of getting more on the back side than invest on the front side. Risk taking refers to a "developmental trait that consists of moving toward something without being concerned of the consequences" (Alshalabi, 2003). Risk-taking, with regard to teaching learning situation may be defined as the willingness to venture into the unknown, the eagerness to try something different without being worried about success or failure. Learning is the reward of taking risks (Brown, 2001). Only great teachers can sacrifice their comfort zone and take calculated risks to bring a revolution for the benefit of humanity as a whole. In the present scenario, the prospective teachers generally feel high level of anxiety due to strong competition. The presence of some degree of fear or anxiety is not necessarily a completely undesirable factor. This strong emotion is an obstacle in the proper functioning of
the mind if it persists for a longer time and it also affects risk taking nature and emotional intelligence of the prospective teachers. Thus, it creates disequilibrium as anxiety is considered as a block to an activity. American Psychological Association (2013) states anxiety is an intense emotional response caused by the preconscious recognition that a repressed conflict is about to emerge into consciousness. According to National Institute of Mental Health (NIMH, 2006) an anxiety disorder is a serious condition characterized by extreme chronic anxiety which disturbs mood, thought, behaviour and physiological activity. Developed emotional intelligence skills are integral components of a strong mental health. According to Mayor and Salovey (2004) "emotional intelligence is the capacity to reason about emotions, and of emotions to enhance thinking". Emotional intelligence is "an integration of interconnected emotional and social competencies and skills determining how successfully we comprehend and convey ourselves, realize others and communicate with them, and deal with daily necessities and problems" (cited in: Ghanizadeh & Moafian, 2011). Risk taking behaviour, anxiety and emotional intelligence are the constructs related to affective domain and deal with emotions while learning is in progress. There is every possibility that educators with high emotional intelligence skills have higher risk taking potentials and are able to develop professional and personal strength, as well as improve the areas of weakness by controlling their anxiety levels.

2. Objectives of the Study

1. To study the relationship of risk taking behaviour with anxiety level of prospective teachers.
2. To study the relationship of risk taking behaviour with emotional intelligence of prospective teachers.
3. To study the relationship of level of anxiety with emotional intelligence of prospective teachers.

3. HYPOTHESES OF THE STUDY

H01: There is no significant relationship between risk taking behaviour and level of anxiety of prospective teachers.

H02: There is no significant relationship between risk taking behaviour and emotional intelligence of prospective teachers.

H03: There is no significant relationship between level of anxiety and emotional intelligence of prospective teachers.
4. Methodology

4.1 Method

Descriptive survey method has been used for the present study.

4.2. Sample

The sample consisted of 100 prospective teachers from Government College of Education, Sector - 20 D, Chandigarh and Dev Samaj College of Education, Sector - 36 B, Chandigarh by employing purposive sampling.

4.3 Tools Used

1. Risk Taking Questionnaire (RTQ) developed and standardized by Sinha and Arora (1983)

2. Comprehensive Anxiety Test (CA- Test) developed and standardized by Bharadwaj, Sharma and Bhargava (2006)

3. Emotional Intelligence Test by Soni and Sharma (2009)

4.4 Procedure of Data Collection and Analysis

The investigators personally collected the data for the present study from the colleges of education in Chandigarh. In the present study, three standardized tools were administered on prospective teachers to study the relationship of risk-taking behaviour with level of anxiety and emotional intelligence and also to study the relationship between level of anxiety and emotional intelligence. Instructions for each test as specified in the manual were given to respondents before administering the tests. The scoring of all the tests was done as per the instructions given in the manual or scoring guide of various tests used.

4.5 Statistical Techniques

To find out the relationship of risk- taking behaviour with level of anxiety and emotional intelligence of prospective teachers and also to find out the relationship between level of anxiety and emotional intelligence, the Pearson's product moment correlation was computed.
5. Results and Discussion

In order to test all the three hypotheses, product moment coefficient of correlation were computed between risk taking behaviour, anxiety and emotional intelligence. Results are shown in Table 1.

Table 1 showing coefficient of correlation between risk-taking behaviour, anxiety and emotional intelligence

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>CORRELATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RISK-TAKING</td>
</tr>
<tr>
<td></td>
<td>BEHAVIOUR</td>
</tr>
<tr>
<td>Risk-Taking</td>
<td>1</td>
</tr>
<tr>
<td>Behaviour</td>
<td>.545**</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.545**</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>.275**</td>
</tr>
<tr>
<td></td>
<td>ANXIETY</td>
</tr>
<tr>
<td></td>
<td>.309**</td>
</tr>
<tr>
<td></td>
<td>.309**</td>
</tr>
<tr>
<td></td>
<td>EMOTIONAL</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Interpretation and discussion based on table 1

5.1 Table 1 shows that the value of coefficient of correlation (r) between risk-taking behaviour and anxiety level of prospective teachers is 0.545 which is significant at 0.01 level. Therefore, the null hypothesis H01 stating "There is no significant relationship between risk taking behaviour and level of anxiety of prospective teachers" is rejected.

Hence, there exists significant relationship between risk taking behaviour and anxiety.

The finding is supported by the study conducted Halebian (2006). This study revealed that anxiety would be positively related to decision risk in a competitive context. Hence, it may be concluded that a risk taking person has more anxiety. It implies that risk taking behaviour and anxiety level go together.

5.2 Table 1 shows that the value of coefficient of correlation (r) between Risk-Taking behaviour and emotional intelligence of prospective teachers is 0.275 which is significant at 0.01 level.
Therefore, the null hypothesis H02 stating "There is no significant relationship between risk-taking behaviour and emotional intelligence of prospective Teachers" is rejected.

The result that risk-taking behaviour has a significant relationship with emotional intelligence is supported by the studies conducted by Leoni (2004), Ebrahimi and Yarahmadzehi (2015) and Kaur (2017). Leoni (2004), in her study reflects on the need for teachers to take risks if they were to encourage creative risk-taking in their students. Ebrahimi and Yarahmadzehi (2015) investigated that enhancing students' EQ may increase risk-taking which in turn increases class participation and learning. It implies that calculated risks taken by emotionally intelligent individual, in anticipation of the positive results depending on the circumstances. Kaur (2017) in her study found significant relationship between risk taking behaviour and emotional intelligence of female secondary school students.

5.3 Table 1 reveals that the value of coefficient of correlation (r) between anxiety level and emotional intelligence of prospective teachers is 0.309 which is significant at 0.01 level.

Therefore, the null hypothesis H03 "there is no significant relationship between level of anxiety and emotional intelligence of prospective teachers" is rejected. It may therefore be concluded that there exists a significant relationship between anxiety level and emotional intelligence of prospective teachers.

The result that level of anxiety has a significant relationship with emotional intelligence is also supported by the findings of the study conducted by Kumar and Rooprai (2009). Kumar and Rooprai (2009) in their study on the role of emotional intelligence in managing stress and anxiety at workplace indicated that there was a significant relationship between emotional intelligence and the variables of stress and anxiety.

**Educational implications**

This research helps in highlighting the potential iconic qualities, which should be possessed ideally by a prospective teacher. The ability of taking calculated risk, balancing the level of anxiety and issue of emotional well-being of teachers are being addressed more and more these days.

Teachers who take risks in their profession play significant role. Emotionally intelligent teachers help students with enhanced innovation, increased performance, effective use of time and resources, improved leadership qualities and improve team work. It may further lead to attentive behaviour, sustained intellectual engagement, intrinsic motivation and enjoyment of challenging academic activities.
The present study revealed that teachers who take risks are more emotionally profound, which is the key of success in teaching profession.

There was significant interaction found between risk-taking behaviour and emotional intelligence. Hence, it is essential to develop risk taking behaviour in student teachers during pre-service training programs. A teacher who takes risk is more confident in life about bringing positive results. The administrators, teachers and prospective teachers should shoulder the responsibility of developing the behaviour of students to take risk.

The present study provides a dimension to the concept of risk-taking behaviour. It may be incorporated in the teacher education curriculum by exposing them to real life situations as it is becoming a core skill.

The present study provides a dimension to the concept of balanced anxiety level in prospective teachers. Proper balanced level of anxiety enables a teacher to take risk in teaching which results in effective functioning of teaching learning process.

An emotionally intelligent teacher can motivate the students to make decisions about subject choices and routes. It can help them to evaluate alternative courses of action and can build confidence in them.

The present study will therefore, provide an added dimension to the empirical base for a comprehensive understanding of the correlates of risk-taking behaviour.

References


STRESS AMONG STUDENTS OF GOVERNMENT HIGH SCHOOL KOTLA NIHANG, ROOPNAGAR

Ms. Harmandeep Kaur* & Dr. (Mrs.) Harsh Batra**

Abstract

The present investigation was primarily conducted to study stress among students of Government High School Kotla Nihang, Roopnagar. Sample for the study consisted of 160 students of Government High School Kotla Nihang, Roopnagar. Stress scale by Lakshmi and Narain (2014) was used to collect data. Descriptive statistical techniques (percentage, mean and Standard deviation) and inferential statistical techniques (t-test, one way ANOVA and Turkey post hoc test) were used to analyse the data. The major findings of the study revealed that 62.5 percent students had moderate level of stress. There was no significant difference in stress among female and male students (t=.883, p>0.05), but there was significant difference in stress found among students of different grades (F=3.36, p<0.05). On applying Turkey post hoc test it was found that Mean score for stress of 7 grade students of Government High School Kotla Nihang, Roopnagar was statistically significantly but lower than mean score of 9 and 8 grade students.

Key words : stress

Introduction

With knowledge expansion a situation of stress among students as well as teachers has emerged. Auerbach and Grambling (1998) defined stress as an unpleasant state of emotional and physiological arousal that individuals experience in situations that they perceive as dangerous or threatening to their well-being. Situations, events or processes that cause stress are called stressors. Selye (1956) defined stress as the nonspecific response of the body to any demand. Lazarus and Cohen (1977) defined stressors as demands made by the internal or external environment that upset balance thus affecting physical and psychological well-being and requiring action to restore balance. Stress is seen as a necessary evil. It has both positive as well as negative effects. Among positive effects, individual is motivated to aspire high, adapt to new environment and think creatively to meet goals. Negative effects include negative thoughts, unable inability to concentrate, short memory or difficulty in remembering. Huli (2014) noted that disturbed family dynamics, peer pressure, inability to cope with studies, drug abuse, lack of competence are major reasons for stress among adolescence.

Review of literature

*Research Scholar Deptt. of Edu. P.U., Chandigarh
**Principal, Government College of Education, Chandigarh
Kumar and Akoijam (2017) conducted a cross-sectional study to determine stress among 750 higher secondary school students from seven schools of Imphal that were randomly selected. They found that 21.1% of students had stress. Prevalence of Stress among female students was higher than male students. Prevalence of stress was significantly higher among 12th standard students than other grades.

Prabu (2015) studied academic stress among higher secondary students through normative survey method. This study was conducted on 250 students studying in higher secondary schools situated in Namakkal District of Tamil Nadu, India selected through simple random sampling technique. Investigator found that that the higher secondary students had moderate level of academic stress. There was no significant difference among stress scores of male and female students.

Akande, Olowonirejuaro and Okwara-Kalu (2014) conducted a descriptive study to investigate level and sources of stress among 540 secondary school students in the Federal Capital Territory (FCT) Abuja. Questionnaire developed by the researchers was used to collect relevant data. The results indicated that 45.6% secondary school students had a medium level of stress and some of the significant sources of stress include: academic, intra-personal and environmental. There was a significant difference in the level of stress among male and female students. Male students had lower stress than female students.

Deb, Strodl and Sun (2012) studied academic-related stress among private secondary school students in India. Sample consisted of 400 adolescent students (208 males and 192 females) studying in 10 and 12 grades of five private secondary schools in Kolkata. Multi-stage sampling technique was used. Findings revealed that majority of students had high level of stress. 10 grade students reported higher levels of stress than those of 12 grade.

Shahmohammadi (2011) analyzed stress among the 100 students studying in 11th and 12th class of government secondary schools located in Tehran. This study revealed that majority of the secondary students (73.9 percent) were not stressed and female students had lower stress levels than males.

From above review of literature it is found that result of one study is contradictory to other. Regarding level of stress it was reported by Prabu (2015) and Akande, Olowonirejuaro and Okwara-Kalu (2014), that students had moderate and medium level of academic stress while Deb, Strodl and Sun (2012) found that students had high level of stress. Shahmohammadi (2011) found that majority of the secondary students were not stressed. Regarding gender differences Kumar and Akoijam (2017) found that stress in female students was higher whereas Shahmohammadi (2011) found that female students had lower stress. Whereas Prabu (2015)
reported no significant difference in stress scores of male and female students. Kumar and Akoijam (2017) revealed that 12th standard students had higher stress while Deb, Strodl and Sun (2012) reported that 10 grade students had higher levels of stress than those of 12 grade.

**Need and Importance of Study**

Stress inhibits and slows down learning among students. In school life, students are exposed to diverse experiences some of which can cause stress among them. Over burden of homework, assignments, projects, less achievement than peer groups, not performing as per parent expectations are some of situations that can cause stress. Education is seen as a tool to enable person to modify its behavior so as to adapt to the present situation. Thus the investigator is interested to find out whether students are learning to respond to life events without stress or not.

**Objectives of the Study**

1. To study level of stress among students of Government High School Kotla Nihang, Roopnagar
2. To compare stress among male and female students of Government High School Kotla Nihang, Roopnagar
3. To compare the stress among students of different grades of Government High School Kotla Nihang, Roopnagar

**Hypothesis of the study**

1. There is no significant difference in stress among male and female students of Government High School Kotla Nihang, Roopnagar
2. There is no significant difference in stress among students of different grades of Government High School Kotla Nihang, Roopnagar

**Research Design**

Descriptive method of research was used.

**Sample**

Sample consisted of 160 students of different grades of Government High School Kotla Nihang, Roopnagar. Government High School Kotla Nihang, Roopnagar was selected through purposive sampling and 160 students out of 263 students were selected through random sampling. Investigator selected Government high school, Kotla Nihang, Roopnagar as its result was found to be down year by year. Also there were reported cases of theft, suicide, low achievement, dropout, truancy, runaway marriages among students. Hence investigators wanted to know if these event were a result of stress among students.
Table 1 table showing distribution of sample

<table>
<thead>
<tr>
<th>Gender (N=80)</th>
<th>Grade</th>
<th>students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

**Tool used**

The data was collected from students of Government High School Kotla Nihang, Roopnagar using stress scale by Lakshmi and Narain (2014). It consisted of 45 items with 2 options of yes and no. It included 43 positive statement and 2 negative statements. Each positive statement is given a score of 1 on every yes option while a score of 1 was given for option no for the negative items. The maximum score that can be obtained was 45 and the minimum possible score was 0. Though there is no time limit to complete the scale but it normally takes 20 to 30 minutes to complete it.

**Statistical Techniques used**

The data collected was analyzed by employing descriptive and inferential statistics. Mean, Standard deviation, were used to study the general nature of the distribution of the scores with respect to stress among students. Skewness was used to see the departure of the sample from Normal Probability Curve. Percentage was calculated to find levels of stress among students. t-test was employed to find the significant difference in the mean score of stress among male and female students. One way ANOVA and Turkey post hoc test was used to find the significant difference in the mean score of stress of students studying in different grades.
Data Analysis and Interpretation

Table 2 - Descriptive Statistics for Stress among Students

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>160</td>
<td>21.33</td>
<td>5.28</td>
<td>-.212</td>
</tr>
</tbody>
</table>

Table 2 shows that the mean score of stress among students of Government High School Kotla Nihang, Roopnagar was 21.33. The value of standard deviation (5.28) represented the scattered scores from the mean position (21.33). The skewness of total sample was -.212 (slightly negatively skewed) indicating almost normal distribution of scores of stress among students.

Table 3 Categorization of students with respect to scores of stress

<table>
<thead>
<tr>
<th>Scores</th>
<th>Level of stress</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td>25-45</td>
<td>High</td>
<td>47</td>
<td>29.4</td>
</tr>
<tr>
<td>14-24</td>
<td>Moderate</td>
<td>100</td>
<td>62.5</td>
</tr>
<tr>
<td>0-13</td>
<td>Low</td>
<td>13</td>
<td>8.1</td>
</tr>
</tbody>
</table>

Table 3 revealed that majority of students (62.5%) had moderate level of stress while 29.4% of students had high level of stress. Only 8.1% of students had low level of stress. This showed that students of Government high school, Kotla Nihang, Roopnagar perceive academic achievements, completion of tasks and challenges in their life as stressful situations. They find a gap between demands of their parents and their ability to meet those demands. They failed to reach their goals and are tensed about their future rather than focusing on their present needs and goals.

Table 4 Mean Differentials and t-ratio for Stress among Male and Female Students.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=80</td>
<td>N=80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>S.D.</td>
<td>M</td>
<td>S.D.</td>
</tr>
<tr>
<td>Stress</td>
<td>21.70</td>
<td>4.85</td>
<td>20.96</td>
<td>5.68</td>
</tr>
</tbody>
</table>

Table 4 shows that mean score of stress among male students (21.70) was higher than mean score of stress among female students (20.96). But t-value between among male and female students was .883 which was not significant as p value is less than 0.05. Hence the difference between the
mean scores of stress among male and female students is not significant. Therefore null hypothesis "There is no significant difference in stress among male and female students of Government High School Kotla Nihang, Roopnagar" is not rejected.

Table 5 F-ratio for stress among students of different grades

<table>
<thead>
<tr>
<th>variable</th>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>Between</td>
<td>267.36</td>
<td>3</td>
<td>89.123</td>
<td>3.36</td>
<td>.021</td>
</tr>
<tr>
<td></td>
<td>groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>Within</td>
<td>4168.075</td>
<td>156</td>
<td>26.718</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td>Total</td>
<td>4435.444</td>
<td>159</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows that there was statistically significant difference between mean scores of stress among students of different grades (7, 8, 9 and 10) as determined by one-way ANOVA (F=3.36, p<.05). Thus the null hypothesis "There is no significant difference in stress among students of different grades of Government High School Kotla Nihang, Roopnagar" rejected. To find out the exact significant difference in mean scores of stress among the students of 7, 8, 9 and 10 grades, Turkey post hoc test was employed.

Table 6 Mean difference for stress among students of different grades based on Turkey post hoc test

<table>
<thead>
<tr>
<th>variable</th>
<th>grade</th>
<th>Mean difference (x)</th>
<th>Significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>10</td>
<td>.275</td>
<td>.995</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>.250</td>
<td>.996</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>2.80</td>
<td>.077</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>.025</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>3.07</td>
<td>0.042</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>3.05</td>
<td>0.045</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6 revealed that on basis of Turkey post hoc test, the difference in mean scores for stress was significant for students of 8 and 7 grade ($x=3.07$, $p=.045$ which is less than .05) and for students of 9 and 7 grade ($x=3.07$, $p=.042$) while there was no significant difference in mean scores of stress among students of 10 and 9 grade ($x=.275$, $p=.995$), 10 and 8 grade ($x=-.250$, $p=.996$), 10 and 7 grade ($x=2.80$, $p=.077$), 9 and 8 grade ($x=.025$, $p=1.00$).

Findings of the study

On the basis of analysis of data and interpretation of results obtained through descriptive and inferential statistics, the following conclusions were drawn-

- Majority of students (62.5%) of Government High School Kotla Nihang, Roopnagar had moderate level of stress while 29.4% of students had high level of stress. Only 8.1% of students had low level of stress.
- There was no significant difference in stress among male and female students.
- Mean scores for stress of students of 7 grade was statistically lower than mean scores of 9 and 8 grade students while there was no significant difference in mean scores of stress among students of 10 and 9 grade, 10 and 8 grade, 10 and 7 grade, 9 and 8 grade.

Conclusion

Present study revealed that 62.5% students of Government high school Kotla Nihang, Ropar had moderate level of stress. This is in accordance with finding of study conducted by Prabu (2015). There was significant difference in stress among students of different grades. According to another finding of this study, there is no significant difference in stress among male and female students. Agarwal (2011) and Prabu (2015) also found similar results. The study suggests teaching stress management skills and stress coping techniques along with regular curriculum in educational institutions on larger perspective. Parents and teachers of Government high school Kotla Nihang, Roopnagar must not compel students to score higher marks. Teachers and parents should not compare students as each child is unique having different capability. Students must take failures as seeds of future success. They must make time schedule to finish homework and other academic assignments in time. This will help in reducing stress among students.

References


STUDY OF ATTITUDE TOWARDS MORAL VALUES AMONG ELEMENTARY SCHOOL STUDENTS OF DELHI

Mr. Harish Dahiya*

Abstract

Society is not formed of individuals who live for themselves only but of those who care about the society, who live for the society. Such individuals can be raised by imparting moral education. The present study was an effort to examine the standards of moral values among elementary school students of Delhi. The present study consists of a sample of 200 elementary school students which were taken from various Govt. & Private schools of Delhi. Randomly selected students were examined by using 'Moral Values Scale' by Dr. A. Sen Gupta and Prof. A. K Singh (2011). Their attitude towards four dimensions of moral values (i.e lying, dishonesty, stealing and cheating) of elementary students was studied. The data was collected and subjected to statistical analyses by the use of SPSS software. The major finding of the study was that Private elementary school students of class VI of Delhi have shown more positive attitude towards moral values as compared to Govt. elementary school students of class VI of Delhi, so it may be inferred that private school students have more positive outlook towards life as compared to students of Govt. schools.

Introduction

Education plays very important role in the development of the society. The actual purpose of education is to develop new generation's intellectual abilities and along with that to make them good human beings which can be done by imparting knowledge of moral values. They can become a good & responsible citizen only when they acquire both the qualities. But now-a-days because of cut throat competition everyone is focusing on improving intellectual abilities and importance of moral education is getting reduced. Children are gaining knowledge but they are not trained to be morally sound.

*Assistant Professor, Oxford Girls College of Education Uklana Mandi Hissar.
Moral values

The Psychologist's concept of moral behaviour is much like the Layman's and psychoanalyst's concept of conscience or moral character (Donelson 1973). The word moral is derived from the Latin word "mos" that means custom, practice or rule, a way of accomplishing things.

Piaget (1928) was the first psychologist who interpreted the children's concept of moral rules or values. A moral value plays an important role in shaping personality of the children.

Kohlberg (1963) inferred morality from a person's intrinsically motivated resistance to temptation and from his guilt feelings that follows act of transgression when he understands and also accepts prevailing standards of morality of the specific society.

Sinha and Verma (1992) say "by morality we mean internalization of a set of ideas, values, virtues sanctioned by society that become an integral part of the individual self through the process of development. It is sum total of an individual's way of behaving that is judged through person's ethical rightness or wrongness".

Objectives

1. To find out difference in attitude towards lying (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.
2. To find out difference in attitude towards dishonesty (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.
3. To find out difference in attitude towards stealing (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.
4. To find out difference in attitude towards cheating (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.
5. To find out difference in attitude towards moral value (total) among class VI students of Private & Government elementary schools of Delhi.

Hypothesis

1. There is no significant difference in attitude towards lying (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.
2. There is no significant difference in attitude towards dishonesty (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.
3. There is no significant difference in attitude towards stealing (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

4. There is no significant difference in attitude towards cheating (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

5. There is no significant difference in attitude towards moral value (total) among class VI students of Private & Government elementary schools of Delhi.

Operational Definition of the terms used

Attitude - State of mind and the scores obtained by students on moral value scale designed by Dr. A. Sen Gupta and Prof. A.K Singh.

Moral Value - relating to principles of right or wrong in behaviour which is described by four dimensions i.e Lying, Dishonesty, Stealing and Cheating.

Delimitations of the study

Every research work is delimited. This is because it is very difficult for a researcher to touch all the areas for his/her study in short disposal. So, the delimitations for the present study can be enumerated as:

- **Age group of students** - Elementary school students of 10 - 11 years age group.
- **No. of school included** - 2 (1 government school and 1 private school)
- **No. of students included** - 200 (100 students of government school & 100 students of private school)
- **Area covered** - Vikas Puri (Delhi).

Tools

A standardized test *Moral Values Scale* (2011) by Dr. A. Sen Gupta and Prof. A. K Singh. The questionnaire comprises of 36 items which measures attitude of adolescents towards four dimensions of moral values (i.e lying, dishonesty, stealing and cheating).

Data Collection

The data was collected personally by the investigator from the students of Govt. and Private elementary Schools of Delhi using random sampling. Aggregate scores in the four dimensions of moral values (i.e lying, dishonesty, stealing and cheating) were scored separately as directed by the manual. The analyses of the obtained scores were done by using descriptive and inferential statistics. The statistical software SPSS was used to perform the statistical analysis.
Descriptive Statistics

1. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards lying (dimension of moral value) of class VI students (N = 100) of Government Elementary schools of Delhi is given table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>6.31</td>
</tr>
</tbody>
</table>

2. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards lying (dimension of moral value) of class VI students (N = 100) of Private Elementary schools of Delhi is given in table 2.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>7.09</td>
</tr>
</tbody>
</table>

3. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards dishonesty (dimension of moral value) of class VI students (N = 100) of Govt. Elementary schools of Delhi is given table 3.

<table>
<thead>
<tr>
<th>Table 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>7.46</td>
</tr>
</tbody>
</table>

4. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards dishonesty (dimension of moral value) of class VI students (N = 100) of Private Elementary schools of Delhi is given in table 4.

<table>
<thead>
<tr>
<th>Table 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>8.46</td>
</tr>
</tbody>
</table>
5. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards stealing (dimension of moral value) of class VI students (N = 100) of Govt. Elementary schools of Delhi is given in table 5.

### Table 5

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.33</td>
<td>8</td>
<td>1.435</td>
<td>-0.915</td>
<td>0.440</td>
</tr>
</tbody>
</table>

6. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards stealing (dimension of moral value) of class VI students (N = 100) of Private Elementary schools of Delhi is given in table 6.

### Table 6

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.36</td>
<td>9</td>
<td>0.98</td>
<td>-2.162</td>
<td>6.323</td>
</tr>
</tbody>
</table>

7. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards cheating (dimension of moral value) of class VI students (N = 100) of Govt. Elementary schools of Delhi is given in table 7.

### Table 7

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.44</td>
<td>7</td>
<td>1.725</td>
<td>-1.023</td>
<td>0.484</td>
</tr>
</tbody>
</table>

8. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards cheating (dimension of moral value) of class VI students (N = 100) of Private Elementary schools of Delhi is given in table 8.

### Table 8

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.55</td>
<td>8</td>
<td>0.88</td>
<td>-1.152</td>
<td>2.163</td>
</tr>
</tbody>
</table>
9. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards moral value (total) of class VI students (N = 100) of Govt. Elementary schools of Delhi is given in table 9.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.54</td>
<td>29</td>
<td>4.825</td>
<td>-1.024</td>
<td>0.875</td>
</tr>
</tbody>
</table>

10. The computed value of Mean, Median, S.D, Skewness and Kurtosis of scores of attitude towards moral value (total) of class VI students (N = 100) of Private Elementary schools of Delhi is given in table 10.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.44</td>
<td>32</td>
<td>2.289</td>
<td>-1.311</td>
<td>2.388</td>
</tr>
</tbody>
</table>

INFERENTIAL STATISTICS

Hypothesis I : t-value to find significant difference between mean scores of attitude towards lying (dimension of moral value) among students of class VI students of Private & Government Elementary schools of Delhi.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D</th>
<th>df</th>
<th>t - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>100</td>
<td>7.09</td>
<td>1.016</td>
<td>198</td>
<td>4.070</td>
</tr>
<tr>
<td>2</td>
<td>Govt.</td>
<td>100</td>
<td>6.31</td>
<td>1.624</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11 revealed that t-value between mean scores of attitude towards lying (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi is 4.070 which is significant at 0.01 level. This means there is a significant difference between mean scores of attitude towards lying (dimension of moral value) among class VI students of Private & Government Elementary schools of Delhi.

Therefore the null hypothesis 1 stating that "there is no significant difference in attitude towards lying (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi" is not accepted.
Hypothesis II: t-value to find significant difference between mean scores of attitude towards dishonesty (dimension of moral value) among students of class VI students of Private & Government elementary schools of Delhi.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D</th>
<th>df</th>
<th>t - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>100</td>
<td>8.46</td>
<td>0.688</td>
<td>198</td>
<td>6.059</td>
</tr>
<tr>
<td>2</td>
<td>Govt.</td>
<td>100</td>
<td>7.46</td>
<td>1.500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12 revealed that the t-value between mean scores of attitude towards dishonesty (dimension of moral value) among class VI students of Private & Government Elementary schools of Delhi is 6.059 which is significant at 0.01 level. This means there is a significant difference between mean scores of attitude towards dishonesty (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

Therefore the null hypothesis 2 stating that "there is no significant difference in attitude towards dishonesty (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi" is not accepted.

Hypothesis III: t-value to find significant difference between mean scores of attitude towards stealing (dimension of moral value) among students of class VI students of Private & Government elementary schools of Delhi.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D</th>
<th>df</th>
<th>t - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>100</td>
<td>8.36</td>
<td>0.979</td>
<td>198</td>
<td>5.925</td>
</tr>
<tr>
<td>2</td>
<td>Govt.</td>
<td>100</td>
<td>7.33</td>
<td>1.435</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13 revealed that the t-value between mean scores of attitude towards stealing (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi is 5.925 which is significant at 0.01 level. This means there is a significant difference between mean scores of attitude towards stealing (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

Therefore the null hypothesis 3 stating that "there is no significant difference in attitude towards stealing (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi" is not accepted.
Hypothesis IV: t-value to find significant difference between mean scores of attitude towards cheating (dimension of moral value) among students of class VI students of Private & Government Elementary schools of Delhi.

Table 14

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>100</td>
<td>7.55</td>
<td>0.884</td>
<td>198</td>
<td>5.731</td>
</tr>
<tr>
<td>2</td>
<td>Govt.</td>
<td>100</td>
<td>6.44</td>
<td>1.725</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 14 revealed that the t-value between mean scores of attitude towards cheating (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi is 5.731 which is significant at 0.01 level. This means there is a significant difference between mean scores of attitude towards cheating (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

Therefore the null hypothesis 4 stating that "there is no significant difference in attitude towards cheating (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi" is not accepted.

Hypothesis V: t-value to find significant difference between mean scores of attitude towards moral value (Total) among students of class VI students of Private & Government Elementary schools of Delhi.

Table 15

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>100</td>
<td>31.44</td>
<td>2.288</td>
<td>198</td>
<td>7.303</td>
</tr>
<tr>
<td>2</td>
<td>Govt.</td>
<td>100</td>
<td>27.54</td>
<td>4.825</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15 revealed that the t-value between mean scores of attitude towards Moral value (total) among class VI students of Private & Government elementary schools of Delhi is 7.303 which is significant at 0.01 level. This means there is a significant difference between mean scores of attitude towards Moral Value (total) among class VI students of Private & Government elementary schools of Delhi.

Therefore the null hypothesis 5 stating that "there is no significant difference in attitude towards Moral value (Total) among class VI students of Private & Government elementary schools of Delhi" is not accepted.
RESULTS AND CONCLUSION

The following conclusions have been drawn:

1. There is significant difference in attitude towards lying (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

2. There is significant difference in attitude towards dishonesty (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

3. There is significant difference in attitude towards stealing (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

4. There is significant difference in attitude towards cheating (dimension of moral value) among class VI students of Private & Government elementary schools of Delhi.

5. There is significant difference in attitude towards moral value (Total) among class VI students of Private & Government elementary schools of Delhi.

So it is concluded that there exists significant difference in attitude towards moral value (Total) among class VI students of Private & Government elementary schools of Delhi.

It can be concluded on basis of descriptive and Inferential statistics that Private elementary school students of Class VI have shown more positive attitude towards Moral Values (i.e. lying, dishonesty, stealing and cheating) as compared to Govt. Elementary school students of class VI, so it may be considered that they have more positive outlook towards life. This result shows that there is more conducive environment and all-round better development of child in Private elementary schools of Delhi as compared to Govt. ones.

REFERENCES


TO STUDY GENDER DIFFERENCES IN MOBILE PHONE ADDICTION AMONG ADOLESCENTS

Dr Nisha Singh*

Abstract

Adolescents tend to be more technology savvy and mobile phone is such a technological tool used by them for many purposes. However, excessive use of this tool may cause addiction among adolescents. The present research was carried out to study mobile phone addiction among adolescents and gender differences. A sample of 100 adolescents (50 boys and 50 Girls) was drawn. Descriptive survey method was used. The data were collected by mobile phone addiction Scale developed by Velayudhan & Srividya (2012). The results of independent t-test showed significant difference in Mobile Phone Addiction of adolescent boys and girls. Findings of the study might help in extending appropriate interventions for adolescents so that they can successfully adjust themselves in family, workplace and society as a whole and prove to be productive citizens Introduction of the nation.

Introduction

The development in technology has resulted in invention of many electronic gadgets, and mobile phone is one of them. In addition to being a widely used means of communication, mobile phones are technologically rich and offer many functions namely calling, messaging, internet surfing, online shopping and so on. Adolescents are technology savvy and mobile phone is a desirable object for them, because it favors personal autonomy, and provides identity and prestige in comparison with their peers. All these characteristics are useful to explain the very intense link between mobile phones and adolescents, and understand the significance that this instrument has acquired for them. While mobile phones are extremely attractive as a tool for communication, there has been an increased risk in its problematic use. This problematic use has become apparent resulting in "Mobile Phone Addiction".

Emergence of the study

Adolescence is most crucial stage of life which lays foundation for success in future life and mobile phone addiction may prove detrimental at this stage. The mobile phone addiction may lead to enormous problems namely sleep disturbances, lack of concentration, ineffective communication skill, loneliness etcetera in adolescents. The investigator observed that adolescents spend most of their time on mobile phones and it seemed to her that they are getting addicted to mobile phones. Thus investigator felt curious to know whether adolescents have mobile phone addiction and does any gender difference exist in this center.

*Assistant Professor, Government College of Education, Chandigarh
Statement of the Problem
To study gender differences in mobile phone addiction among adolescents

Operational Definitions:
Mobile Phone addiction: Mobile phone addiction can be defined as problematic, prolonged and dysfunctional use of mobile phones.
Adolescent: An individual belonging to age group of 13 to 19 years and going through the transitional stage from childhood to adulthood

Objectives of the Study:
• To study mobile phone addiction among adolescents.
• To study gender difference in mobile phone addiction among adolescents.

Hypotheses of the Study:
Ho: There is no significant difference between mean scores of mobile phone addiction of adolescent boys and girls.

Delimitations of the Study
The present study was delimited only to adolescents (boys and girls) of Chandigarh studying in class XII (16-18 years) who have their own smart mobile phones. The study was delimited only to variable of mobile phone addiction.

Design of the Study
Descriptive survey method was used to study the level of mobile phone addiction, and to find out gender differences in mobile phone addiction among adolescents.

Sample of the Study
A sample of 100 adolescents (50 boys and 50 girls) was drawn from two randomly selected Government Senior Secondary schools of Union territory of Chandigarh.

Tools Used in the Study
• Mobile phone Addiction Scale (2012) by Velayudhan & Srividya
Procedure for Data Collection

A total of 100 adolescents were selected for collecting the data. During data collection, firstly investigator gave a brief introduction of the scale to the students. Secondly, the investigator distributed mobile phone addiction scale to the adolescents and read the instructions given in the questionnaire. Questionnaires were collected from the adolescents after they had filled it up. The scoring was done according to the manual of the scale and the obtained data were subjected to statistical analysis.

Statistical Techniques

Mean, Median, Standard Deviation, Skewness, Kurtosis were worked out to study the general nature of data and independent t-test was used to study the gender differences in mobile phone addiction among adolescents.

Findings and Conclusions

The mean, median, standard deviation, skewness, kurtosis were worked out for variable of mobile phone addiction.

Table 1  Descriptive Statistics of Scores of Mobile Phone Addiction among Adolescents

<table>
<thead>
<tr>
<th></th>
<th>Boys (N=50)</th>
<th>Girls (N=50)</th>
<th>Total (N=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>108.76</td>
<td>100.36</td>
<td>104.56</td>
</tr>
<tr>
<td>Median</td>
<td>109</td>
<td>99</td>
<td>105</td>
</tr>
<tr>
<td>S.D.</td>
<td>14.43</td>
<td>13.24</td>
<td>14.41</td>
</tr>
</tbody>
</table>

Table 1 shows that mean score of mobile phone addiction of adolescents was 104.56 which indicated that adolescents have moderate level of mobile phone addiction. The Mean score of mobile phone addiction for boys and girls were 108.76 and 100.36 respectively which showed that boys have higher levels of mobile phone addiction than girls.

Results and Interpretation Based on Inferential Statistics

The independent t-test was applied to ascertain the significance of difference between mean scores of mobile phone addiction of adolescent boys and girls.
Table 2  Significance of difference between mean scores of mobile phone addiction among adolescent boys and girls

<table>
<thead>
<tr>
<th>Variable</th>
<th>Boys</th>
<th>Girls</th>
<th>SE</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Phone Addiction</td>
<td>Mean 108.76</td>
<td>Mean 100.36</td>
<td>S.D. 14.43</td>
<td>S.D. 13.25</td>
</tr>
</tbody>
</table>

** Significant at 0.01 level     df= 98

Table 2 reveals that the obtained t- value (=3.04) is more than the tabular t- value (=2.63), which is required to be significant at 0.01 level. It indicated that mean scores of mobile phone addiction of adolescent boys and girls differ significantly.

Conclusions:

There is significant difference in mobile phone addiction among adolescent boys and girls. Thus the hypothesis that "There is no significant difference between mean scores of mobile phone addiction of adolescent boys and girls" is rejected which indicated that adolescent boys and girls differ significantly in their mobile phone addiction. The above result is in contrast with the findings of research conducted by Bhardwaj and Ashok, 2015 which suggested that no gender difference exists in mobile phone addiction among adolescents. But the findings of the study carried out by Kim, Lee and Choi, 2015 were in line with these results that the boys and girls differ in their mobile phone addictions.

Educational Implications

- Awareness can be brought regarding psychological and physiological harms of mobile phone addiction in the adolescents and they can be motivated to use the mobile phone appropriately and judiciously.
- Counselors may use the findings for designing interventions for adolescents having mobile phone addiction.
- Findings can also be utilized for creating awareness among people of all age groups who are addicted to mobile phones.
Suggestions for further studies

Following suggestions are proposed by the investigator for future research work

- Study may be conducted on large sample in order to get better understanding as well as for generalization of the results of the study
- Study can be undertaken by relating mobile phone addiction with variables like anxiety, social isolation, depression, communication skills, study habits, academic achievement etc
- The study can be conducted on different age groups and other demographical variables

References


http://www.unicef.org/india/media_6785.htm

TEACHING EFFECTIVENESS IN RELATION TO JOB SATISFACTION OF TIBETAN TEACHERS WORKING IN HIMACHAL PRADESH

Sherab Wangmo* & Dr. Vandana Aggarwal**

Abstract

Amongst an array of factors affecting teaching effectiveness of a teacher, job satisfaction remains a major influencing one. Job satisfaction in turn may be affected by infrastructure, facilities and environment of the school as well as the salaries given to the teachers. Tibetan schools in India are being run by nongovernmental organization called SOS (Save Our Souls). Due to many limitations, of which funds being the major issue, the infrastructures, facilities and salaries of teachers are not up to the level of government run or government aided schools of India. The teachers teaching in these schools are of Tibetan origin. The present study was intended to find out the correlation between teaching effectiveness and job satisfaction of Tibetan teachers. The sample comprised of 100 Tibetan teachers teaching in different Tibetan schools in Himachal Pradesh. Data was collected by using Kulsum teacher effectiveness scale (2000) and Teachers job satisfaction scale (Mudgil, Muhar and Bhatia, 1991). Findings revealed a significant correlation between teaching effectiveness and job satisfaction of Tibetan teachers.

Keywords: Teaching Effectiveness, Job Satisfaction, Tibetan Teachers.

Introduction

Education is a powerful instrument of social, political and economic development of a country and is deeply concerned with its future progress. It is an indisputable universal fact that a teacher plays a pivotal role in education of individuals in diverse teaching learning situations. Even a balanced curriculum remains dead unless quickened into life by an effective teacher. The success or failure of an education system in accomplishing the aims and objectives of education mainly depends upon how effectively the teachers have assumed their roles and duties while infrastructure and facilities have a marginal influence.

Teaching effectiveness is the ability of the teacher to teach his or her students effectively. An effective teacher is required to acquire adequate knowledge, skills, interest and influencing personality. Anderson (1991) stated that an effective teacher is one who quite consistently achieves goals which either directly or indirectly focuses on the learning of their students.

Teacher Effectiveness means "the ability of a teacher to create a meeting and an interaction between physical, intellectual sociological and psychological interest of the students and some given subject..."
ability of the teacher to relate the learning activities to the developmental process of the learners and to their current and immediate interest and needs (Dictionary of Education, 2002). Shan (1991) studied determiners of Teacher Effectiveness and found that Teacher Effectiveness was significantly attested by teaching aptitude, job satisfaction, job attitude, job motivation, personality, self concept, intelligence and organizational climate. Usop (2013) mentioned that there are many factors that influence the teacher's job performance such as aptitude, attitude, subject mastery, teaching methodology, personal characteristics, the classroom environment, general mental ability, personality and relations with students. For development of quality teachers one has to understand the factors associated with it. Ayan and Kocacik (2010) observed that teachers are loaded with important responsibilities in educational process. The productivity and effectiveness of them are influenced by promotion, charging, job security, technological level, course load and working schedule which all are determined mostly by their institutions and influenced by non-cognitive characteristics such as age, gender, family structure.

Job satisfaction is the extent to which a person is attracted toward his job and activities associated with it as well as extent to which he is attracted to his employing organization. Blum and Naylor (1968) defined job satisfaction as general attitude which is the result of many specific attitudes in three areas, namely specific job factors, individual characteristics and group relationship, outside the job. Job satisfaction among school teachers has been considered as a vital factor for the improvement of the education system and thus has got an unshakeable place in educational researches (Namdeo, 2011). Huang et.al. (2013) found that teacher job satisfaction has a positively significant effect on teaching quality assurance. Results of a study conducted by Beri (2016) revealed that teaching effectiveness had no effect on job satisfaction of teachers.

The effectiveness in teaching is directly or indirectly influenced by various factors which can be related to teacher's personality, attitude and aptitude etc. It is evident from previous researches that Job satisfaction is one such factor which also has an effect on teaching effectiveness. Job satisfaction and teaching effectiveness of teachers in turn may be affected by infrastructure, facilities and environment of the school as well as the salaries given to the teachers. Tibetan schools in India are affiliated to CBSE and follow NCERT curriculums and are being run by nongovernmental organization called SOS (Save Our Souls) with modest infrastructures, and facilities. Salaries given to the teachers are very low as compared to Government and Government aided schools of India. The low salaries, scanty facilities and their status of displaced foreign refugees may be influencing their teaching effectiveness. Though many studies have been carried out on job satisfaction of teachers in relation to teaching effectiveness in general, no such studies have been reported particularly on Tibetan teachers. This reason motivated the investigator to study whether there is any correlation of teaching effectiveness with job satisfaction of Tibetan teachers working in Himachal Pradesh.
Objectives

To study the teaching effectiveness of Tibetan teachers.
To study the job satisfaction level of Tibetan teachers.
To study the correlation between teaching effectiveness and job satisfaction of Tibetan teachers.

Hypothesis

There is no significant relationship between teaching effectiveness and job satisfaction of Tibetan teachers.

Delimitation of the Study

Sample comprised of hundred Tibetan teachers working in various Tibetan schools located in Himachal Pradesh.

Methodology

Research Method

Descriptive survey method was used in the present study.

Tools Used

(1) Kulsum teacher effectiveness scale by Dr. Umme Kulsum (2000)
(2) Teachers job satisfaction scale by Yudhvirendra Mudgil, R.S. Muhar and P.Bhatia. (1991)

Sample

For the present study, the sample of 100 Tibetan teachers was selected randomly from Tibetan schools in Himachal Pradesh.

Collection of Data

Both the test were administered on 100 Tibetan teachers of 4 different Tibetan schools for measuring their teaching effectiveness and job satisfaction after seeking permission from the principals. The data for the present research was personally collected by the investigator.

List of schools from where data was collected

<table>
<thead>
<tr>
<th>S.No</th>
<th>NAME OF THE SCHOOL</th>
<th>SAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T.C.V. Upper, Dharamsala cantt, Distt. Kangra</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Himachal Pradesh</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>T.C.V. Gopalpur, Village Darati, P.O. Chachian,</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Distt. Kangra, Himachal Pradesh</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>T.C.V. Suja, P.O. Matroo, Distt. Mandi, Himachal Pradesh</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>T.C.V. Chauntra, Teh. Jogindernagar, Distt. Mandi,</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Himachal Pradesh</td>
<td></td>
</tr>
</tbody>
</table>
Statistical Techniques Used

Data was analysed by employing descriptive statistics such as Mean, Median and Standard Deviation, Skewness, Kurtosis. Pearson's Product Moment Correlation was computed to determine the correlation between teaching effectiveness and job satisfaction of Tibetan teachers.

Results & Discussion

Discussion on the basis of Descriptive Statistics

Table 1: Mean, Median, Standard Deviation, Skewness and Kurtosis of Teaching Effectiveness scores.

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>483.430</td>
<td>480.00</td>
<td>45.396</td>
<td>.269</td>
<td>-.586</td>
</tr>
</tbody>
</table>

Table 1 shows the values of mean, median, standard deviation, Skewness and Kurtosis of scores of Teaching Effectiveness of total sample. The calculated values of mean 483.430 and median 480.00 are very close to each other, thus inferring normal distribution of scores.

Table 2: Mean, Median, Standard Deviation, Skewness and Kurtosis of Job Satisfaction scores.

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>251.300</td>
<td>253.00</td>
<td>10.479</td>
<td>-.402</td>
<td>.336</td>
</tr>
</tbody>
</table>

Table 2 shows the values of Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Job Satisfaction of total sample. The calculated values of mean 251.300 and median 253.00 are very close to each other, thus inferring normal distribution of scores.

Discussion on the basis of Inferential Statistics

Table 3: Coefficient of correlation between Teaching Effectiveness and Job Satisfaction and of the total sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient of Correlation (r)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Effectiveness</td>
<td>.274*</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3 shows that the value of coefficient of correlation is .274* which is significant at 0.01 level, inferring that the correlation between the teaching effectiveness and job satisfaction and of Tibetan teachers is highly significant. Hence, the hypothesis that "there is no significant correlation between job satisfaction and teaching effectiveness" is not retained. This finding is in consonance with the findings of some previous researches (Friedman and Rosenman, 1974; Selvam, 2012; Roshan and Sarabjit, 2012 and Huang et.al. 2013). Contrary finding by Beri (2016) indicated no significant correlation between teaching effectiveness and job satisfaction of teachers.

Conclusion

On the basis of the above finding, we may conclude that there exists significant correlation between teaching effectiveness and job satisfaction of Tibetan teachers working in Himachal Pradesh.

EDUCATIONAL IMPLICATIONS

The present study depicts that there is significant positive correlation between teaching effectiveness and job satisfaction of Tibetan teachers. This implies that to bring about effectiveness in teaching, it is imperative to create facilitative and supporting environment for teachers which in turn will lead to their job satisfaction. Tibetan teachers who are serving in comparatively tougher climatic conditions of Himachal Pradesh with meager salaries and modest facilities need to be given better facilities and good salaries to enhance their job performance. While this study is no panacea, it has certainly a wide scope to sensitize educational leaders to create job satisfaction that allows teachers to be more successful in their profession which will surely lead to create an educational environment conducive to accomplishing the real aim of education.

References


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GENDER DIFFERENCES IN BOYS' AND GIRLS' PERCEPTION OF CLASSROOM ENVIRONMENT OF GOVERNMENT AND PRIVATE SCHOOLS OF CHANDIGARH

Dr. Kiranjit Kaur*

Abstract

This study was based on a survey of secondary school students' perception of their classroom environment. Students of both the gender constitute the population of this study. Sample of the study was 925 students i.e. 453 Government school students (223 males and 230 females) and 472 private school students (241 males and 231 females) of 9th grade selected randomly from 10 private and 10 Government schools located in Chandigarh. Classroom environment Scale developed by Moos and Trickett (1987) was used for data collection. Descriptive statistics and t-test with P < 0.05 level of significance were used for data analysis.

Introduction

The classroom is a learning environment where interactions occur among students and teachers and learning takes place (Talton & Simpson, 1987). The quality of the classroom environment in schools has a considerable influence on pupils learning. That is, they learn more when they perceive the classroom atmosphere more positively. The basic purpose of any educational institution should be to provide an environment favorable to learning as reflected in its milieu or ethos or tone or culture. The environment is both physical and mental. The Secondary Education Commission (1952-53) states that the first concern of the school should be to provide for its pupils a rich, pleasant and stimulating environment which will evoke their manifold interests and make life a joyful experience. A positive learning environment can shape students' outcomes in cognitive, motivational, affective, and behavioral domains (Fraser & Fisher, 1982).

Wagner (2002) investigated gender differences in students' mathematics achievement and perceptions of the classroom environment in single-sex mathematics classrooms in one urban, ethnically diverse, middle school. Ethnic and achievement-level differences were also explored. Several significant gender effects were found in students' perceptions of the classroom environment. Davis (2008) investigated the perceptions of the classroom learning environment as seen by African American students attending schools in rural southeastern United States. An analysis of variance was performed which compared the mean scores of students in relation to school model attended, gender, age, and interaction of each across the three dimension of relationship, personal growth/goal orientation, and system maintenance and change. The results of the ANOVA indicted that with the exception of gender and personal growth/goal orientation there is no significant difference when it comes to

*Associate Professor, Dev Samaj College of Education, Chandigarh
students perceptions. Opolot-Okurut (2010) studied secondary students' perceptions of mathematics classroom learning environment and their associations with their motivation towards mathematics. The results indicated a statistically significant difference in student perceptions between different school types. Student perceptions on some scales were significantly associated with student motivation. Swindell (2010) in his study, differences in the middle school classroom examining learning environments of boys and girls from different socioeconomic backgrounds found that girls do not like science and that boys are lovers of science and this could be because of their different perceptions of their learning environment. Socioeconomic status has not been having an association with perceived learning environments. Prince (2012) examined the relationship of gender, parental education, aspirations, and mathematics achievement of students from three rural public high schools in the Southeast region of the United States. A multiple regression revealed that parental education level and gender did not predict mathematics achievement while the number of books in the home did.

Murugan and Rajoo (2013) studied perceptions of students' studying in Sipitang, Sabah, Malaysia with regard to mathematics classroom environment and mathematics achievement. Findings showed that students had a moderate perception of their mathematics classroom environment. Mathematics achievement was low, with female students achieving better than males in their mathematics assessment. There was no significant difference in perception of mathematic learning environment based on gender. No significant correlations were found between mathematics classroom learning environment and mathematics achievement.

**Design of Study**

A systematic procedure to collect data, which helps to test hypotheses of the study under investigation, was adopted. The method was essentially descriptive survey method.

**Sample**

In the present study, 925, 9th class students i.e. 453 government school students and 472 private school students selected randomly from 10 private and 10 government schools located in Chandigarh. Two -stage random sampling technique was employed.

**Hypotheses**

There exists no significant difference in the perception of classroom environment of ninth class male and female adolescents studying in Government schools.

There exists no significant difference in the perception of classroom environment of ninth class male and female adolescents studying in private schools.

**Analysis and interpretation of data**

Descriptive statistics and t-test with P < 0.05 level of significance were used for data analysis.
### Table 1

Mean Differentials in the Perception of Classroom Environment of Ninth Class Male and Female Adolescents Studying in Government Schools

<table>
<thead>
<tr>
<th>Dimensions of Classroom Environment</th>
<th>M (Male) (N=223)</th>
<th>M (Female) (N=230)</th>
<th>SD (Male)</th>
<th>SD (Female)</th>
<th>t value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>5.52</td>
<td>5.70</td>
<td>1.59</td>
<td>1.73</td>
<td>1.14</td>
<td>NS</td>
</tr>
<tr>
<td>Affiliation</td>
<td>5.94</td>
<td>6.01</td>
<td>1.75</td>
<td>1.70</td>
<td>.438</td>
<td>NS</td>
</tr>
<tr>
<td>Teacher support</td>
<td>5.25</td>
<td>5.66</td>
<td>1.80</td>
<td>1.70</td>
<td>2.48</td>
<td>0.05</td>
</tr>
<tr>
<td>Task orientation</td>
<td>5.16</td>
<td>5.54</td>
<td>1.60</td>
<td>1.63</td>
<td>2.47</td>
<td>0.05</td>
</tr>
<tr>
<td>Competition</td>
<td>5.91</td>
<td>6.46</td>
<td>1.74</td>
<td>1.63</td>
<td>3.44</td>
<td>0.01</td>
</tr>
<tr>
<td>Order and organization</td>
<td>5.39</td>
<td>5.81</td>
<td>1.68</td>
<td>1.89</td>
<td>2.47</td>
<td>0.05</td>
</tr>
<tr>
<td>Rule clarity</td>
<td>6.30</td>
<td>6.62</td>
<td>1.87</td>
<td>1.58</td>
<td>1.94</td>
<td>NS</td>
</tr>
<tr>
<td>Teacher control</td>
<td>4.98</td>
<td>5.52</td>
<td>1.72</td>
<td>1.79</td>
<td>3.41</td>
<td>0.01</td>
</tr>
<tr>
<td>Innovation</td>
<td>5.29</td>
<td>5.53</td>
<td>1.77</td>
<td>1.77</td>
<td>1.46</td>
<td>NS</td>
</tr>
<tr>
<td>Classroom environment (total)</td>
<td>49.78</td>
<td>52.91</td>
<td>8.59</td>
<td>9.02</td>
<td>3.77</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Results entered in Table 1 show that the mean differentials between the perceptions of male and female adolescents with regard to competition, teacher control dimensions of classroom environment and classroom environment (total) were significant at .01 level of significance and with regard to teacher support, task orientation, order and organization dimensions of classroom environment were significant at .05 level of significance, whereas the mean differentials between male and female adolescents with regard to involvement, affiliation, rule clarity, and innovation dimensions of classroom environment were not significant at any level of significance.

The results show that the female adolescents studying in Government schools scored higher than male adolescents in teacher support dimension of classroom environment. This suggests that female adolescents of Government schools are supported and trusted by teachers more than male adolescents. Further, the female adolescents have higher scores on task orientation dimension of classroom environment than male adolescents. This suggests that female students lay more emphasis on completing planned activities in the classroom than male students.
The results reported in the Table 1 also reveal that female adolescents scored higher in the competition dimension of classroom environment than male adolescents studying in Government schools. This indicates that female adolescents compete with each other for grades and recognition, and work hard to achieve good grades more than the male adolescents. Further, higher mean score of female adolescents in the order and organization dimension of classroom environment than male adolescents indicates that female adolescents behave in an orderly and polite manner and organize assignments more effectively than their male counterparts. Higher mean score of female adolescents than male Government school adolescents in the teacher control dimension of classroom environment suggests that teachers are more strict with female students than male students.

However, the mean differentials between male and female adolescents in involvement, affiliation, rule clarity and innovation dimensions of classroom environment were not significant. This suggests that both male and female adolescents are equally involved and attentive in classroom activities. They equally enjoy working together and follow rules in the classrooms. Since the mean score of total classroom environment of female adolescents was higher than the mean score of male adolescents, it suggests that female adolescents studying in Government schools perceive their classroom environment more positively than their male counterparts.

On the basis of above discussion of results, it can be concluded that female adolescents are more supported and trusted by teachers, complete beforehand activities, work harder to achieve good grades and are more organized than male adolescents. Further female adolescents think that with them teachers are more strict in the classroom than their male counterparts. However, male and female adolescents don't differ with regard to their perception of involvement, affiliation, rule clarity and innovation dimensions of classroom environment.

Hence, Hypothesis 1, namely, "There exits no significant difference in the perception of classroom environment of ninth class male and female adolescents studying in government schools" has been partially accepted. These findings are in line with the findings of Pitchford (2013); Wagner (2002); Waxman and Huang (1998) who have reported significant gender effects in students' perceptions of the classroom environment but are contradictory to the findings by Murugan and Rajoo (2013) who have reported no significant difference in perception of mathematics learning environment based on gender.
Table 2

Mean Differentials in the Perception of Classroom Environment of Ninth Class Male and Female Adolescents Studying in Private Schools

<table>
<thead>
<tr>
<th>Dimensions of Classroom Environment</th>
<th>M1 (N=241)</th>
<th>M2 (N=231)</th>
<th>SD1</th>
<th>SD2</th>
<th>t-value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>5.68</td>
<td>5.76</td>
<td>1.69</td>
<td>1.75</td>
<td>.487</td>
<td>NS</td>
</tr>
<tr>
<td>Affiliation</td>
<td>6.26</td>
<td>6.41</td>
<td>1.81</td>
<td>1.65</td>
<td>.935</td>
<td>NS</td>
</tr>
<tr>
<td>Teacher support</td>
<td>5.52</td>
<td>5.74</td>
<td>1.78</td>
<td>1.63</td>
<td>1.420</td>
<td>NS</td>
</tr>
<tr>
<td>Task orientation</td>
<td>5.72</td>
<td>5.96</td>
<td>1.77</td>
<td>1.70</td>
<td>1.49</td>
<td>NS</td>
</tr>
<tr>
<td>Competition</td>
<td>6.49</td>
<td>6.71</td>
<td>1.62</td>
<td>1.86</td>
<td>1.33</td>
<td>NS</td>
</tr>
<tr>
<td>Order and organization</td>
<td>5.59</td>
<td>5.84</td>
<td>1.59</td>
<td>1.77</td>
<td>1.58</td>
<td>NS</td>
</tr>
<tr>
<td>Rule clarity</td>
<td>6.24</td>
<td>6.53</td>
<td>1.72</td>
<td>1.67</td>
<td>1.88</td>
<td>NS</td>
</tr>
<tr>
<td>Teacher control</td>
<td>5.68</td>
<td>5.89</td>
<td>1.66</td>
<td>1.56</td>
<td>1.41</td>
<td>NS</td>
</tr>
<tr>
<td>Innovation</td>
<td>5.79</td>
<td>5.52</td>
<td>1.90</td>
<td>1.68</td>
<td>1.62</td>
<td>NS</td>
</tr>
<tr>
<td>Classroom environment (total)</td>
<td>52.97</td>
<td>54.36</td>
<td>8.65</td>
<td>7.52</td>
<td>1.86</td>
<td>NS</td>
</tr>
</tbody>
</table>

Results entered in Table 2 show that the mean differentials between male and female adolescents with regard to different dimensions of classroom environment i.e. involvement, affiliation, teacher support, task orientation, competition, order and organization, rule clarity, teacher control, innovation, and classroom environment (total) were statistically insignificant. This indicates that the perception of male and female adolescents studying in private schools does not differ significantly with regard to these dimensions of classroom environment because in private schools both male and female adolescents get identical opportunities as far as classroom activities are concerned. Thus, they perceive their classroom environment equally. Hence, Hypothesis 2, namely, "There exists no significant difference in the perception of class room environment of ninth class male and female adolescents studying in private schools" is accepted. The results reported by Owens and Straton (1980) and Swindell (2010) do not support the present findings. They have reported significant difference in the perception of male and female adolescents with regard to classroom environment.
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TEACHER EFFECTIVENESS OF SECONDARY SCHOOL TEACHERS IN RELATION TO THEIR SELF ESTEEM AND DIGITAL COMPETENCE

Ramkrishna* and Dr. Vijay Phogat**

Abstract

Quality of teaching-learning is a direct indicator of the effectiveness of teachers. The present study aimed at finding the relationship of teacher effectiveness with self esteem and digital competence for which 150 a random sample of 150 teachers from 10 schools of Saran district of Bihar were administered the Kulsum Teacher Effectiveness Scale, Coopersmith's Self Esteem Inventory and Digital Competence Scale. The analysis of the data and the result indicated significant positive correlation between teacher effectiveness and self esteem as well as between teacher effectiveness and digital competence of secondary school teachers. The result can be used to devise various ways and means for enhancing the effectiveness of teachers.

Introduction

Effective teachers add confidence and charisma to their students along with imparting essential skills for knowledge acquisition and enhancement of their learning in a more satisfying, joyful and meaningful ways. The role of teachers is quite challenging in the sense that it demands not only a high level of intelligence owing to tremendous information-explosion, but also a higher self esteem and technological empowerment with emotional stability so as to be able to help their students choose the best pathways of learning such as blended learning, online learning and learning at one's own convenience. As Hay (2015) opines, 'teachers of the twenty first century have to possess technology and research skills, apart from the usual pedagogical skills. They have to become lifelong learners and keep on upgrading their professional skills so that they are able to bridge theory and practice and create a high quality learning environment in the classroom. Advanced nations have been built with the support of accomplished professional teachers who are knowledgeable, resourceful and technologically-oriented.

These days it is essential for a teacher to use digital technology in order to enhance the effectiveness of his teaching for ensuring optimum learning for his students. An effective teacher is mission driven, feeling a call to teach and has as a passion to help students learn and grow as articulated beautifully by Fried (1995): "To be a passionate teacher is to be someone in love with a field of knowledge, deeply stirred by issues and ideas that challenge our world, drawn to the dilemmas and potentials

*Research scholar, Punjab University Chandigarh
**Assistant Professor, Government College of Education, Chandigarh
of the young people who come into class each day—or captivated by all of these." Moreover, an
effective teacher is more realistic, practical and caring to the students as asserted by Ewan thus,
The highly effective teacher is positive and real, demonstrating the qualities of caring, empathy,
respect, and fairness in relationships with students, parents and colleagues because good teaching
cannot be reduced to technique; it comes from the identity and integrity of the teacher.' The three
more facets of the classroom, which an effective teacher is supposed to have complete control
over, are: management and organization of the classroom, the engagement of students and the
management of time. A teacher must create an environment which permits children to make
continuous attempts to link the use of language with life's experiences and objects (Kumar, 1994).
Thus, by involving students in the production of knowledge they are more likely to be embedded
in the teaching and learning process and develop cognitive abilities that deepen their learning,
leading to a lifelong interest in learning, which improves motivation and therefore aids retention
(Stevenson, 2014).

The world Bank Report (2017) asserts that although the recent expansion in education (nay,
schooling) worldwide is quite impressive by historical standards, the learning outcomes are poor,
levels of learning are low and there is higher level of inequality in educational achievements of
different strata of society. Even this report shows relatively slow progress so far as achievement in
learning is concerned, particularly in third world countries. It further shows how schooling is not
the same as learning and that children learn very little in many educational systems around the
world; even after several years of schooling, millions of students lack basic literacy and numeracy
skills. All these aspects of quality learning ultimately converge to the key players in the system of
education and point to the urgency of enhancing teacher effectiveness through various strategies
like increasing their level of teacher effectiveness, empowering them with higher standards of digital
competence and ensuring better standards of job satisfaction leading ultimately to higher self esteem
among the teachers so as to make them play prominent roles in changing the learning paradigm for
their students.

Rationale of the study

The role of teachers has undergone drastic change over the last decades from that of knowledge
providers to facilitators of students' intellectual empowerment. The effectiveness of teachers has
been put continuously to test by the changing demands of society in its many phases of transition.
In fact, effective teachers have always been in great demand for social development and
transformation. But, teacher effectiveness is itself dependent on a number of factors—chief among
them being their self confidence in carrying out their work with missionary zeal emanating from
their self-esteem. Thus, effectiveness of teachers is very significant as for their role as agents of
meaningful knowledge transmission, which in turn depends on their self esteem as well as
digital expertise.
Objectives of the study

To study the teacher effectiveness, self esteem and digital competence of secondary school teachers.

To study the correlation between teacher effectiveness and self esteem of secondary school teachers.

To study the correlation between teacher effectiveness and digital competence of secondary school teachers.

Hypotheses of the study

There is no significant correlation between teacher effectiveness and self esteem of secondary school teachers.

There is no significant correlation between teacher effectiveness and digital competence of secondary school teachers.

Design and procedure of the study

The present study was designed to determine the relationship between teacher effectiveness, self esteem and digital competence of secondary school teachers and involved descriptive survey method.

Sample

It was conducted on a sample of 150 teachers of Government high schools from 10 schools of Saran district of Bihar in November 2017.

Tools used in the study

Following tools have been used for data collection in the present study

1. Kulsum Teacher Effectiveness Scale (Umme Kulsum, 2010).
2. Coopersmith's Self Esteem Inventory (adapted by Vishalakshi, 2013).
3. Digital Competence Scale (developed by the investigator).

Statistical techniques used

Following statistical techniques has been used for analyzing and interpreting the data:

1. Descriptive statistics (such as mean, median, S.D., Skewness and Kurtosis) was computed to study the nature of distribution of scores for all the variables.
2. The coefficient of correlations were computed in order to estimate the degree of correlation of the variables.

Analysis and interpretation of the results

The data collected was analysed by employing descriptive and inferential statistics and the results were interpreted.
Table-1

Mean, Median and S.D of teacher effectiveness, self esteem and digital competence of secondary school teachers:

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>N</th>
<th>MEAN</th>
<th>MEDIAN</th>
<th>S.D.</th>
<th>SKEWNESS</th>
<th>KURTOSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHER EFFECTIVENESS</td>
<td>150</td>
<td>375.50</td>
<td>379.54</td>
<td>106.96</td>
<td>0.11</td>
<td>0.25</td>
</tr>
<tr>
<td>SELF ESTEEM</td>
<td>150</td>
<td>190.25</td>
<td>189.08</td>
<td>34.25</td>
<td>0.10</td>
<td>0.23</td>
</tr>
<tr>
<td>DIGITAL COMPETENCE</td>
<td>150</td>
<td>54.21</td>
<td>57.84</td>
<td>12.39</td>
<td>0.38</td>
<td>-0.31</td>
</tr>
</tbody>
</table>

Table-2

Co-relation of Teacher Effectiveness and self esteem of secondary school teachers of the sample:

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>df at (N-2)</th>
<th>r-VALUE</th>
<th>SIGNIFICANT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHER EFFECTIVENESS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SELF ESTEEM</td>
<td>148</td>
<td>.542</td>
<td>**S</td>
</tr>
</tbody>
</table>

**S= Correlation is significant at the 0.01 level

Table 2 above shows the relationship between teacher effectiveness and self esteem of secondary school teachers of the sample. The coefficient of correlation between teacher effectiveness and self esteem of secondary school teachers was found to be 0.542 which is significant at 0.01 level. It shows that there is a significant positive relationship between teacher effectiveness and self esteem.

Table-3

Relationship between Teacher Effectiveness and digital competence of secondary school teachers of the sample:

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>df at (N-2)</th>
<th>r-VALUE</th>
<th>SIGNIFICANT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHER EFFECTIVENESS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIGITAL COMPETENCE</td>
<td>148</td>
<td>.321</td>
<td>*S</td>
</tr>
</tbody>
</table>

*S= Correlation is significant at the 0.05 level
Table 3 shows the relationship between teacher effectiveness and digital competence of secondary school teachers. The coefficient of correlation computed between teacher effectiveness and digital competence of secondary school teachers was found to be 0.321 which is not significant at 0.01 level, but significant at 0.05 level. This means that teacher effectiveness and digital competence are positively correlated for secondary school teachers.

**Major findings**

On the basis of analysis of the data and interpretation of the results of the present study, following conclusions were drawn:

- There is a significant positive correlation between teacher effectiveness and self esteem of secondary school teachers.
- There is a significant positive correlation between teacher effectiveness and digital competence of secondary school teachers.

**Conclusion**

According to the results of the present study, it is recommended that steps should be taken to ensure maximum self esteem and digital competence among teachers in order to enhance their effectiveness. So the Government and institution should try to improve the self esteem and digital competence of the secondary school teachers. This will help this country to emerge as the next economic and knowledge super-power paving the way for re-claiming the position of JAGADGURU (World Teacher) for India.

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PERCEPTION OF SECONDARY SCHOOL STUDENTS REGARDING CURRICULUM TRANSACTION OF PUNJABI POEM

Vineet Sharma*

Abstract

The study was undertaken with objective to examine the student's perception regarding Curriculum Transaction of Punjabi Poem (CTPP) at secondary stage. Total sample of 1200 students from 60 schools was taken through stratified random sampling technique from three regions of Punjab i.e. District Barnala; Malwa region, District Jalandhar; Doaba region, District Amritsar; Majha region. Perception about Curriculum Transaction of Punjabi Poem scale developed by Dr. Tirath Singh (2014) was used. It was found that both Punjabi and English medium, students studying in Govt and aided schools, students studying in Govt and private schools, students studying in aided and private schools, students with parent's qualification, as illiterate and upto 9th class more than matric had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem. No interaction effect was found.

Introduction

Curriculum transaction is the effective and desired implementation of the curriculum contents on the basis of aims and objectives specified in the curriculum. Curriculum transaction incorporates decisions about the contents and effective planning for providing learning experiences to.

Teaching of poetry embodies the beauty of the language, thought and feelings. It uplifts the human soul and brings music and joy into life. Poetry is the musical and metrical form of language and it brings students in touch with the very best of human nature. It develops the aesthetic pleasure and students enjoy the lyricism which is inherent in poetry. Poetry plays an important role in the several curriculums. It helps in the all around development of the student, particularly the emotional, imaginative, intellectual and aesthetic sides. It enriches the expression of students and introduces a variety of language pattern. Poetry is the blossom and fragrance of all human knowledge, human thoughts, human passion and emotions. Poetry embodies light in expression, stretched, between thought, feeling and form, poet works at the frontier of knowledge. Ted Hughes in his important and international book 'Poetry in Making' describes two aspect of poetry. Hughes claims that poetry is possessed of certain wisdom, something

*Research scholar, Punjab University Chandigarh
special, something that are curious to learn. His claim is that the latent talent for self expression in any child is immeasurable. There recognitions are at the heart of reading and writing poetry in schools. The activities in the classroom need to reflect a desire to promote both in a collaborative endeavor between the teachers and taught.

**Literature reviewed**

Literature was reviewed with respect to Curriculum Transaction of poetry, but the researcher could not find any research on curriculum transaction of Punjabi poetry. Even in Hindi language no research was found on the same topic. A single research study was found which addresses the issue related to poetry as the nature of poetry, history of poetry, the language of poetry, poetry teaching: techniques and methods. Some of the studies were found related to curriculum transaction of English grammar and English stories. Bilingual methods were more effective instructional strategies for teaching English language and bilingual students have more positive attitude towards language (Peal et al., 1962; Sabharwal, 1978; Murphy, 1968; Morgan, 1971). Mother language has also been found to helpful in all round development of children (Riestra et al., 1964; Mishra, 1968). Gardner and Smythe (1975) found more positive attitudes towards the speaking language. Kumar (1978) and Oad (1980) found that remedial material was found to be effective in reducing the frequency of errors in language learning. Bhatnagar (2003) examined the curriculum aspects and transactional modes of Hindi language at secondary level and reveled that these should be more stress on practice grammar and using new teaching devices. Jones (2012) studied the relationship between language attitude and the involvement of stakeholders and found that stakeholders also play their important towards the attitude of learning language. Sharma (1968) studied that the mother tongue being the medium of instruction.

**Objectives**

1 To study the perception of secondary school students regarding Curriculum Transaction of Punjabi Poem (CTPP).

2 To study the influence of medium, type of school, father qualification and their various interactions on perception regarding (CTPP).

**METHOD**

In order to examine Curriculum Transaction in relation to Punjabi language total 60 schools and 1200 students of ninth class were taken through stratified random sampling technique from three regions of Punjab i.e. district Barnala; (Malwa) region, district Jalandhar;(Doaba) Region, District Amritsar;(Majha) Region.
Tool

Perception about Curriculum Transaction of Punjabi Poem (Poem (Kavita)) scale was developed by Dr. Tirath Singh (2014) was used. The scale contains 25 items with five response categories ie SA, A, UND, D, SD. Scoring was 5 4 3 2 1 for positive items and reverse for negative items. The reliability (cronbach alpha) of the scale was .82 and Content validity was ensured.

Data collection

The scale was distributed to the students of 9th class on a one to one basis and filled in front of the researcher to avoid any confusion and to get honest answers. After collecting data scoring was done according manual. Data was entered into spreadsheet for statistical analysis. Analysis was done on the basis of objectives.

Analysis and Interpretation

Table 1- Variablewise comparison of perception regarding CTPP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Punjabi</td>
<td>1,064</td>
<td>77.40</td>
<td>14.706</td>
<td>19.0</td>
<td>-2.333</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>136</td>
<td>80.54</td>
<td>15.122</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td>Type of School (TOS)</td>
<td>Govt</td>
<td>480</td>
<td>78.21</td>
<td>14.520</td>
<td>18.6</td>
<td>-.007</td>
</tr>
<tr>
<td></td>
<td>Aided</td>
<td>240</td>
<td>78.22</td>
<td>13.793</td>
<td>17.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>480</td>
<td>77.07</td>
<td>15.503</td>
<td>20.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aided</td>
<td>240</td>
<td>78.22</td>
<td>13.793</td>
<td>17.6</td>
<td>.973</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>480</td>
<td>77.07</td>
<td>15.503</td>
<td>20.1</td>
<td></td>
</tr>
<tr>
<td>Father Qualification (FQ)</td>
<td>Illiterate</td>
<td>377</td>
<td>78.32</td>
<td>15.684</td>
<td>20.0</td>
<td>.271</td>
</tr>
<tr>
<td></td>
<td>School Education</td>
<td>449</td>
<td>78.04</td>
<td>14.279</td>
<td>18.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illiterate</td>
<td>377</td>
<td>78.32</td>
<td>15.684</td>
<td>20.0</td>
<td>1.327</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>374</td>
<td>76.86</td>
<td>14.430</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>School Education</td>
<td>449</td>
<td>78.04</td>
<td>14.279</td>
<td>18.3</td>
<td>1.172</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>374</td>
<td>76.86</td>
<td>14.430</td>
<td>18.8</td>
<td></td>
</tr>
</tbody>
</table>

Note=Criterion of neutral perception=81 total number of items (25) is multiplied by number of mid response category (3) i.e. 25X3= 75. Hence mean score less than 81 indicate unfavorable/negative perception and higher mean score indicate favorable/positive perception.
Table-I shows significant difference (-2.333) between Punjabi and English medium students. In the light of this null Hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of medium, is rejected. It may be concluded that both Punjabi and English medium students had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

Table-I shows no significant difference (t value .007) between students studying in Govt School and aided school. In the light of this, null Hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of type of school, is not rejected. It may be concluded that both students studying in Govt and aided schools had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

Table-I shows no significant difference (t value 1.178) between students studying in Govt school and private school. In the light of this null hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of type of school, is not rejected. It may be concluded that both students studying in Govt and private schools had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

Table-I shows no significant difference (t value .973) between students studying in aided school and private school. In the light of this null hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of type of school, is not rejected. It may be concluded that both students studying in aided and private schools had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

Table-I shows significant difference (.271) in the perception of students having parent's (father) qualification illiterate and upto 9th class. In the light of this null hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of parent's (father) qualification, is not rejected. It may be concluded that students with illiterate and upto 9th class parent's (father) qualification had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

Table-I shows significant difference (1.327) in the perception of students having parent's (father) qualification illiterate and more than matric. In the light of this null Hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of parent's (father) Qualification, is not rejected. It may be concluded that students with parent's (father) qualification from illiterate and more than matric had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.
Table-I shows significant difference (1.172) in the perception of students having parent's (father) qualification upto 9th class and more than matric. In the light of this null hypothesis that there is no significant difference in mean score of perception regarding Curriculum Transaction of Punjabi Poem on the basis of parent's (father) qualification, is not rejected. It may be concluded that students having parent's (father) qualification upto 9th class and more than matric had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

Findings

➢ Both Punjabi and English medium students had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

➢ Students studying in Govt and aided schools had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

➢ Students studying in Govt and private schools had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

➢ Students studying in aided and private schools had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

➢ Student's with illiterate and upto 9th class parent's (father) qualification had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

➢ Student's with illiterate and more than matric parent's (father) qualification had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

➢ Student's with parent's (father qualification) upto 9th class and more than matric had equal favorable level of perception regarding Curriculum Transaction of Punjabi Poem.

REFERENCES


CREATING A NEED BASED GROUP GUIDANCE PROGRAM FOR THE PARENTS OF INTELLECTUALLY CHALLENGED

Dr. Ravneet Chawla*

Abstract

Guidance, as one of the branches of applied psychology, enables or assists the individual to solve educational, vocational and psychological problems. The objectives of the study were: to identify areas of guidance for the trainable intellectually disabled individuals; to establish the parents' perspective on working with their wards under training for learning vocational skills on behavioural as well skill aspects, and to tabulate guidance schedule after the above have been identified and links established between areas, perspective and workability. 50 intellectually challenged individuals and their 50 corresponding parents (mothers) were selected; the wards were undergoing vocational training. Chronologically they were all above 16 years from Chandigarh and surrounding areas only. The tools included self developed information sheet about IQ, age and the family history. Observation schedules were used at the institutions they were being trained under and further, individually at home. Inputs were added from significant others. The inputs from parents and from stakeholders definitely have a scope for policy and day to day programs to be included.

Keywords: intellectually challenged, trainable mentally retarded individuals, guidance schedule

Introduction

Guidance, as one of the branches of applied psychology, enables or assists the individual to solve educational, vocational and psychological problems. The study here is in context of special population based on intellectual limitations. The work has been done in bringing them to a functionally literate level and then to train them on doable skills after the relevant screening is done and feasibility established. The movement of the parents of intellectually disabled has resulted in three important gains. Traditionally, these were under the term mental retardation. The article uses the term only for technical reference, and further deals with the development characteristics, potential for education and training, and social and vocational adequacy. The guidance for parent training began by involving parents in the educational curriculum of their children followed by other early education programmes. Some evidences came in which it was indicated that parents' attitude, verbal behaviour, social responsiveness, participation with the mentally retarded individuals and the aspect of home environment improves as a consequence of parents' participation in early intervention. Therefore, guidance is also required for the parents of intellectually retarded. Every institutional assisted program allows specific programs based on identifying special needs. Aggarwal (2007) suggested career conferences for special children be organized to gather inputs from various researchers working in the area.

*Assistant Professor, Government College of Education, Chandigarh

The Educational Beacon

Individuals with intellectual limitations can learn new skills, but they develop more slowly than those with average intelligence and adaptive skills. There are different degrees of retardation, ranging from mild to profound. A person's level of intellectual retardation can be defined by their intelligence (IQ), or by the types and amount of support they need. According to American Association on Mental Retardation (1992), mental retardation refers to substantial limitations in present functioning. It is characterized by significantly sub-average general intellectual functioning existing concurrently with related limitations. Banik and Mishra (1997) stated mental deficiency be a condition of sub normal mental development present at birth or during early childhood and characterized mainly by limited intelligence and social inadequacy. According to Stedman's Medical Dictionary (2001), mental retardation means a sub-normal intellectual development or functioning that is the result of congenital causes, brain injury or disease and is characterized by any of various deficiencies, ranging from impaired learning ability to social and vocational inadequacy. According to Sahu (2002), mental retardation refers to significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during the development periods. Thus, mental retardation refers to the significantly sub-average general intellectual functioning of an individual, which results in mal-adapted behaviour, low sociability and dependency on others even to fulfill their basic needs.

For a scientific diagnosis of mental retardation, therefore, there are four approaches, namely, a medical examination by the doctor to ascertain the exact line of medical treatment needed, a psychological or psychometric examination to assess intelligence and other abilities or aptitudes, report from the school attended on history and on other achievements and then establishing practical method for further training or for remedial treatment.

Specific Characteristics of Trainable Mentally Retarded Individuals include dependence on parents, though they can be trained according to the necessities of life, lack of speech, verbal expression, are trainable but not educable; there is a marked delay in development; they understand the spoken words, protect themselves against danger and perform routine tasks under supervision, can develop some language and some habits, and cannot be taught much by way of reading or writing, counting money. There is delay that is noted in feeding, dressing, washing and in acquiring control over bodily functions, their speech is very limited, they are slow in motor co-ordination and they learn to talk and carry on a simple conversation.

Functional development of people with mental retardation shows that adults with mild retardation can attain literacy, self-help skills, good speech and semi-skilled work, adults with moderate retardation can attain literacy, self-help skills, domestic speech, unskilled work with or without supervision, and that adults with severe retardation can acquire self-help skills, minimum speech and assisted household chores.
Vocational Training and Education of Mentally Retarded Individuals, is based on an understanding of these factors and on willingness too. They need repetitive kinds of activities (Agrawal, 2007). They are capable of deriving benefit from education, though they differ from that of normal children. The educational programme for the trainable mentally retarded emphasizes physical, psychological and social rather than intellectual skills. Self-sufficiency and independence are stressed so that the burden which they impose on their parents and on the community is minimized.

Role of the Parents: The education of the trainable mentally retarded individuals requires some specific characteristics in parents which include that the parent/caretaker must have special training in the education of mentally retarded children, have empathetic attitude towards the trainable mentally retarded individuals, should work in cooperation with teachers and others associated closely in day to day life, should be mentally healthy and resourceful, should seek guidance to help their mentally retarded child/ward for better adjustment in life and vocation, should protect, support, encourage and keep their ward motivated and interested in the chosen vocation and should help the child psychologically and physically to improve so as to enhance performance in daily life.

Objectives

To identify areas of guidance for the trainable intellectually disabled individuals.

To establish the parents' perspective on working with their wards under training for learning vocational skills on behavioural as well skill aspects.

To tabulate a guidance module after the above have been identified and links established between areas, perspective and workability.

Sample

50 intellectually challenged individuals and their 50 corresponding parents (mothers) were selected. They all were familiar with previous classroom experiences and reached a learning readiness in the instruction format having studied in special classes to their best potential. The vocational training level was a second phase of their classroom learning experience. Chronologically they were all above 16 years, 32 percent of them were boys and remaining were girls. The locale was Chandigarh and surrounding areas only.

Tools used

Information sheet was self developed by the author. It reflected the details of each case in terms of IQ and age and the family history.
Observation schedules were used for each child on behavioural aspects. Observations were done at the institutions, they were being trained under and further, individually at home. Inputs were added from significant others including parents, siblings, trainers and supporting staff.

**Results and Discussions**

The researcher did informal rapport building with the trainees and the staff after due permissions. The open ended observations were done to understand the behaviour and the learning process of the trainees, It was observed that the cases in the sample had certain common behavioural issues that were hindering their conduct and that showed how they are different from the normal population. These were to do with the following:

- Odd Behaviour
- Aggressive/Destructive Behaviour
- Stressful and Anxious Behaviour
- Display of Fear and Depressive Behaviour
- Emotionally Unstable Behaviour
- Insecure and Compulsive Behaviour
- Withdrawal and Alienated Behaviour
- Behaviour Related to Physical Well-being and Conduct Disorder

Observations at the training centre also established the need to focus on certain physical parameters. These were:

- Motor variable including Weight and Strength - Arm Strength and Abdominal Strength; and on Agility

- Psycho-motor Vocational Performance was also observed on the training aspects depending on the training they were under (carpentry, book binding, candle making, baking, caning of chairs, candle making).

Observations and group meetings were held with the parents of the trainees. It was found that the parents had issues on areas that were further in need of study. These were to have better understanding of their marital adjustment and the care taking roles of their special wards. In specific, group meetings with mothers were done and discussions were done on global issues regarding their wards' phase of training and how to make it progressive. Participative suggestions were taken from the staff that spent lot of time with them and offered care giving too. The mannerisms of the special individuals under study were taken note of.
The following Group Guidance Schedule was evolved out of the observations made and linking it with theoretical understanding of the relevant concepts as discussed.

**GROUP GUIDANCE SCHEDULE FOR VOCATIONAL GUIDANCE FOR MOTHERS OF MENTALLY RETARDED INDIVIDUALS (DURATION 35-45 MINUTES)**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Group Guidance Steps</th>
<th>Duration (approx.)</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Explaining the purpose</td>
<td>2 minutes</td>
<td>Initiate the group guidance session by briefly explaining the purpose of meeting of the counsellor i.e. vocational guidance to the mothers of mentally retarded individuals for management of their wards during vocational training.</td>
</tr>
<tr>
<td>2.</td>
<td>Brainstorming and clarifying options</td>
<td>4 minutes</td>
<td>Work out a list of all the possible job options open to their wards and help the mothers to clarify the job option for action.</td>
</tr>
<tr>
<td>3.</td>
<td>Familiarizing with the rules</td>
<td>4 minutes</td>
<td>Subjects to be familiarized with the following rules:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Group guidance is a cooperative job. Work together to help each other in understanding of how to solve problems relating to vocation and vocational training of the mentally retarded individuals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Look at problems of mentally retarded individuals faced during their vocational training.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>3. Try to listen to others and mentally retarded individuals patiently.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Stick to topic, do not get side tracked.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>5. Speak freely whenever anyone has something to say related to vocation and problems of one's mentally retarded ward.</td>
</tr>
</tbody>
</table>
6. Have trust in other members of the group.

7. Do not feel that one has to come to group solutions or agreement. The purpose of group is to explore problems relating to vocation and problems faced by mentally retarded individuals during training together.

8. Let others know that they are not alone in what they feel; if one has experienced the same feelings/problems, tell them.

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<tbody>
<tr>
<td>4. Clarifying and developing plan of action</td>
<td>4 minutes</td>
<td>Help the mothers of mentally retarded individuals to clarify the problems for action and also assist them to think possible consequences of their action.</td>
</tr>
<tr>
<td>5. Eliciting the problems of mentally retarded individuals faced by the mothers</td>
<td>7 minutes</td>
<td>Make mothers feel free to express vocational problems of their mentally retarded children. Help the parents by accepting and facilitating to express their problems relating to vocational training of their mentally retarded wards and causing other problems.</td>
</tr>
<tr>
<td>6. Guiding the mothers of mentally retarded individuals by using information/content related to vocational management</td>
<td>7 minutes</td>
<td>Explain the following (A) Quick tips (B) Steps to be followed Define the problems of mentally retarded individuals Make concerted effort to avoid the problems of mentally retarded individuals Add miscellaneous information to the problems of mentally retarded individuals.</td>
</tr>
<tr>
<td>7. Facilitating assertion</td>
<td>5 minutes</td>
<td>Help the mothers of mentally retarded individuals to carry out the plan of action to avoid problems they have identified and to improve psycho-motor performance needed during vocational training.</td>
</tr>
</tbody>
</table>
This was then tried and applied to the parents once every fortnight for three months and effective changes in the output of the sample under study were found in their performance levels. The developed table was validated on content from the experts in the special education, in human development and in counselling and the final content is based on the suggestions incorporated on the basis of all the above.

**Conclusions and way forward**

The major purpose of vocational guidance in the context of the present study is to further help the intellectually challenged to develop and optimize his/her basic skills which are important to create awareness for successful work and perform on the job earnestly in a neat and systematic manner in co-operation with others and so on. The relevant potentialities of the different subjects can be tapped for developing the required psycho-motor performance and relevant information to the chosen occupational division that leads to enhancement in performance during training/employment.

The affective bonds among the members in the family and a concern for each other facilitates the process of counselling. Family relations are broadly of two types - the parent-child relations and the husband-wife relations. When the members of the family are disunited, tension, distress and misery are the natural outcomes. The family counsellor should help find ways and means of reducing, if not eliminating, the strife, mutual distrust and ill-will among the members of the family (Mukherjee, 2008).

The parent-child relationship comes under stresses and strains for very simple reasons. Each family has its own ethics and provides to its member a philosophy of life which is communicated through non-verbal and informal means (Sheshadari, Verma & Pershad,
1983). Many a time parents forget that mentally retarded children/wards cannot be judged from their own standards of morality, decency or culture and be unrealistic in their demands which cause frustration to both.

Parents' guidance deals with the area of parent-child relationships concerning the dimension of dependence-independence. Most parents are deeply concerned about the well-being of their children/wards and are afraid that if left to themselves, they may harm themselves (Rimmer, Heller & Valerio, 2004). Hence they become over-protective.

The presumption that they know what is best for their children/ward can lead to conflicts. Parents' guidance is aimed at helping parents become sensitive to the possible adverse effect of their behaviour on their children/wards.

The defensive reactions of the parent can be surmounted by persuading the parent to talk. His inhibitions can be overcome if the parent is made to feel that the counsellor will be helping in the resolution of his ward's problems. Parents can share their ward's personality problems to resolve blocks in his training.

References


GUIDELINES

Format & Style

Manuscripts:
All manuscripts must be printed in Times New Roman (font size 12) in double space on one side of A4 paper with margins of at least one inch on all the four sides. Authors should submit one soft copy along with the hard copy 'by post' or "by e-mail" to the editor.

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Each figure/table should be numbered, titled. The position of figure or table should be indicated in the text on a separate line with the words "Table 1 about here'.

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