RESEARCH AND REFLECTIONS ON EDUCATION

a peer reviewed and refereed quarterly journal

ISSN 0974-648X

UGC- CARE Approved

Volume : 18 No : 04 Rs.50 Oct - Dec 2020

St. Xavier's College of Education

(Autonomous)

[Re-accredited (3rd cycle) at 'A' Grade by NAAC with CGPA : 3.67]

PALAYAMKOTTAI - 627 002. TAMIL NADU.

Email:rresxce@gmail.com Web: www.sxcejournal.com

St. Xavier's College of Education (Autonomous), Palayamkottai - 627 002.

Telephone	:	0462 - 2577630, 4264495
Fax	:	0462 - 2577631
e-mail	:	rresxce@gmail.com
College Website	:	www.sxcedn.edu.in
Journal website	:	www.sxcejournal.com

Dear Readers!

Beginning from children up to elderly persons, two words are frequently uttered; they are: tension and torture. We understand, if these words are to be used by the aged and adults, there must be some bitter experiences but how to justify if these are to come out of the little ones? Do they mean to say, they are exposed to very bitter and horrible events at their tender age or the challenges are beyond their capacity? Another word that is very much linked with today's younger generation is 'stress'. The word 'stress' has become very common to the extent that there are courses to train the students in stress management.

True, there are situations in many families which lead to mental and physical illness; but among the students of the educational institutions this term 'stress' is commonly heard. Some say, the academic expectations of the educational institutions seem to be demanding a huge measure of energy, space and time. The student community consequently becomes the casualty, being unable to decide what to do or how to go about. Stress is the outcome of inability to cope with new challenges and expectations; when it is beyond our capacity to bear the workload or to face the challenges, the psychological inability damages our positive self-image and the personality slowly withers out.

Enumerating the academic stressors such as the subject-related assignments and projects, evaluations, and other extension activities are these days considered to be exhausting the student community. Pascoe, Hetrick & Parker(2019),pointing out the survey conducted by the Organisation for Economic Co-operation and Development (OECD, 2017) revealed that out of 540,000 student respondents of 15–16 age group from 72 countries, 66% of students registered stress about poor grades and 59% often worried on taking a test. It was also reported that girls consistently were feeling greater anxiety relating to schoolwork compared to boys (https://www.tandfonline.com/toc/rady20/current). Higher the stress, lower the academic achievement. Therefore, how do we perceive and resolve the issue of academic stress?

Mathew Lynch (2019), quoting American Psychological Association says that 'Eustress is the fuel for personal motivation. It can help students make decisions and improve their academic performance' (https://www.theedadvocate.org/surprising-ways-stress-benefits-students). Combining the academic demands and pandemic threats, as the psychologists suggest, we need to train the students in creating a growth mind-set which will enable them to accept the failure as the opportunity to work hard and climb further in the ladder of success; in fact, they are the man-making exercises and life-orienting process. It is said that many long-term health-related behaviours and patterns, both positive and negative, are established during adolescence and early adulthood (Sawyer et al., 2012) and hence efforts could be made to improve young people's academic stress-related coping abilities in the academic campuses. More and more mentoring and counselling along with peer guidance will certainly make a way for confidence and endurance.

We request you dear readers, to go through the papers and articles of this issue and send your feedback to make this journal more relevant and standard. Your support is very much solicited.

Thanking you
Editorial Board

RESEARCH AND REFLECTIONS ON EDUCATION

(A Quarterly Journal)

Reg.No : TNENG / 2003 / 10220

ISSN : 0974-648X

CONTENT

FOSTERING CREATIVITY THROUGH SCHOOL CURRICULUM : TECHNICAL ISSUES

UGC CARE APPROVED

ABSTRACT

Creativity is a psychological and non-observable trait, and this trait is found in every individual in a higher or lower degree. This is the unique trait of the individual and is responsible for almost all the progress and development of this world. A lot of issues relating to 'whether creativity can be fostered ?' have been discussed by several researchers, experts, specialists and intelligentsia in the fields of education, psychology and creativity starting from the twentieth century to till today; and now most of the researchers, experts, specialists and intelligentsia in the fields of education, psychology and creativity are agreed on the point that creativity is both arts as well as science and teaching-learning plays a lot of roles for fostering the creative talents of the individuals. In this paper, some important issues relating to the fostering of creativity through school curriculum have been analyzed; and the solutions of such issues have been materialized through practical evidence, research-based findings and discussions.

Keywords : *Creativity, School, Curriculum.*

Introduction

Creativity is a psychological and non-observable trait, and this trait is found in every individual in a higher or lower degree. It is very difficult to define the meaning of creativity in clear-cut terms. However, the meaning of creativity is best understood in terms of its different constituent factors like fluency, flexibility, originality, elaboration, curiosity, imagination, sensitivity, etc. This creativity has also many kindred concepts like free-thinking, open thinking, flexible thinking, etc. Bartlett (1958) describes creativity as 'open thinking' and Guilford (1967) describes creativity as 'divergent production ability'. The term creativity is widely accepted by most of the psychologists and educators as divergent thinking ability, which is mostly characterized by fluency, flexibility, originality and elaboration. Torrance (1962, p. 72) defines creativity in terms of divergent thinking, which involves fluency, flexibility, originality and production of many new ideas. Fluency, flexibility and originality are considered as important divergent production abilities, which contribute to the more complex construction of creativity (Guilford, 1967).This creativity is the unique trait of the individual and is responsible for almost all the progress and development of this world. Now, we are marching towards the postmodernism, and the role of the creative abilities of the individual in the path of achievement of postmodernism is more vital. It is an unarguable and unchallengeable fact that those countries have become nearer to the climax of development, which has used the creative talents of their people in the best possible manner.

The development of creative abilities or fostering of creative abilities of an individual is more vital for the progress and prosperity of his/her self and ultimately for the progress and prosperity of his/her society. In this context, Anna Craft (2000) in her book 'Creativity across the Primary Curriculum' argued that "the end of the twentieth century is witnessing a massive shift in attitude to and importance of creativity and imagination in every lives and domain of knowledge. We need transformation both at personal and system-level (p. 144)". But, this 'fostering of creativity' or 'developing of creativity' especially through school curriculum is facing/has faced a lot of issue points and challenges; and some of such important issue points and challenges are discussed here below along with their realistic solutions.

Technical Issues in the Process of Developing Creativity through School Curriculum

Dr.Tapan Kumar Basantia
Associate Professor, School of Education, Central University of South Bihar, Gaya- 824236 (Bihar), India.

'Teaching for development of creative abilities/ fostering creative abilities through school curriculum' has been facing long term debatable issues or questions since the beginning years of the twentieth century to till now. Some of such debatable questions are:

1. Can creativity be taught?

2. Whether creative ability can be taught formally as a subject in our school or creative ability can be infused along with other abilities and it can be achieved/ developed through different formal school subjects/ content areas (i.e. social studies, mathematics, science, language, etc.) taught in our schools?

3. Whether separate groups of contents/ subject matters would be developed by the curriculum planners for the teaching of creative ability or creative ability would be developed through the existing school subjects like languages, sciences, social sciences, art and craft, etc.?

4. Whether creative ability can be developed through all the school subjects (social studies, mathematics, languages, etc.) or it can be developed through some specific school subjects?

Some of the realistic solutions to the above questions are given below :

Regarding the first question, one can easily conclude the findings of the many research studies that creativity can be taught through different curricular and co-curricular programmes of our schools. After creativity has been considered as a science by the researchers, experts, specialists and intelligentsia in the field creativity, the problem of 'Can creativity be taught?' has been solved in many extents. Now, most of the educationists, psychologists and experts in the field of creativity are of opinion that creativity can be taught through our school curriculum.

Many of the researches have been conducted on different strategies/ methodologies/ programmes relating to our school curriculum for fostering the creative abilities of the students/ children and results of such studies are found to be much encouraging for fostering the creative abilities of the students/ children. For example, Maltzman, Bogartz and Breger (1958) demonstrated an increase in the originality of responses to the "unusual uses" test with appropriate training, and Maltzman and others also demonstrated in a second study (Maltzman, Simon, Raskin and Licht, 1960) that this effect persisted over time and didn't just apply to immediate re-administration of the test. Torrance (1961) reported the result of a study, which has been conducted by him with the primary school children. He set out to show whether children in first three grades could be taught to produce ideas by the use of appropriate teaching methods and he found that in the second and third grades, trained children consistently surpassed untrained on all measures of creativity which he employed. The brainstorming strategy of Parnes and Meadow (1959, 1960), certain curricular activities of Shan (1989), instructional materials of Tripathy and Shukla (1990), synatics method of teaching of Kumari (1990), structured creative teaching programme of Jawaharlal (1990), autonomous creativity cultivation programme (ACCP) of Mandal (1992), instructional materials of Gulati (1995), developed instructional materials of Sharma (1995), exposure to the computer of Bansal and Agarwal (1997), promised reward of Eisenberger, Armeli and Pretz (1998), the creative training programme of Fleith (1999), the unstructured play of Haward-Jones et al. (2002), pretend play of Singer and Lythcott (2002), organised creative activities of Mishra and Basantia (2003), creativity science programme of Gomes (2005) and many other such programmes/ strategies/ methods provided fruitful results for developing the creative abilities of the specified target groups. The experts in the field of creativity like Jeffery and Woods (1997, p.31), Moore (1961), Orstein (1961) and many others emphasized for making the creativity of the existing classroomcentred and stated the multiple implications of this creativity centred classroom. And, from these discussions, it is clear that creativity can be taught.

Regarding the second question, it would be easier, better and meaningful to accept that 'creative ability can be infused along with other abilities and it can be achieved/ developed through different formal school subjects/ content areas (i.e. social studies, mathematics, science, language, etc.) taught in our schools'. Croplay (1970, p. 83) supporting this context told, "attempts to teach creativity formally as a subject in the school curriculum are unlikely

to meet with much success". Croplay tried to prove his statement showing two reasons. Firstly, the exact nature of creativity is still unknown (just as the exact nature of intelligence is unknown, for the matter). Secondly, creativity is best thought of as a complex process, which involves a cluster of techniques and a characteristic approach to problems; rather than as a thing or quality. Teaching for creativity, then, involves an emphasis on the findings of the solution to new problems through a reappraisal of the known, the extending of thinking into 'illogical' and divergent areas, the deducing of previously unseen relationships between apparently separate domains of experience, and so on, rather than the transmission of known corpus of knowledge about creativity, or teaching of a definable creative skill. Therefore, the challenges have been taken by many scholars/ researchers/ teachers/ experts to infuse creative ability along with many other abilities and to teach such abilities through the different school subjects like social studies, sciences, mathematics, languages, etc. The studies of Torrance (1961) and Lazarowitz and Huppert (1980) and many other studies provide successful evidence that creativity can be developed through different school subjects.

The third question states, whether separate groups of contents/ subject matters would be developed by the curriculum planners for the teaching of creative ability or creative ability would be developed among our school children/ student through the existing subjects like languages, sciences, social sciences, art and craft, etc. which are traditionally taught in the classroom? To answer this question, the following discussion will be more helpful.

It is a commonly observed fact that creative ability is one type of human behaviour just as many other types of human behaviour like knowledge, understanding, skill, value, attitude, personality, etc. But, the special nature of this creative ability is that it is a type of ability which is reflected in each domain of human behaviour (both in cognitive and non-cognitive domains) but in a differential or special form. This form is nothing but divergent thinking form. For this reason, the meaning of creativity is very much closure to divergent thinking ability and this view is supported by Guliford (1967) and Torrance (1963). This is an ability which not only affects almost all areas of human behaviour but this ability touches almost all applicability areas of human life, almost all fields of study as well as all the areas of knowledge. It will be easier, better, feasible and economical if a teacher will teach/develop the creative abilities among our school students through the existing school subjects i.e. language, literature, science, mathematics, social sciences, etc. The experts in many cases have taken challenges to infuse/include creative ability along with many other cognitive and non-cognitive abilities and to develop creative ability along with many other cognitive and non-cognitive abilities through the teaching of existing school subjects/ content matters/ topics like social studies, general sciences, mathematics, etc. in the schools due to these reasons:

i) We know that creativity is one important aspect of behaviour like other aspects of behaviour. Since, the same school subjects/ content materials (social studies, mathematics, general sciences, languages, literature, art and craft, etc.) are used for the development of different aspects of human behaviour, so, it would be psychologically viable to use same content materials/subject matters for the development of creative abilitieswhich are used for the development of different other aspects of behaviour.

ii) Every school subject/content indeed has some areas which can facilitate divergent thinking along with convergent thinking. We know creativity is very much related to divergent thinking. So, that teaching would be effective/psychological/meaningful/broad-based which facilitates convergent as well as divergent thinking simultaneously. So, from that ground, it would be better if the same subjects/ content materials would be used for the development of both divergent and convergent thinking.

iii) It is true that if the teacher would teach separate contents/subjects for the development of the creative ability of the individual, then, it would create following problems in the teaching-learning process

in our educational system, especially at the school stage.

- Excess fragmentation of the subject matters or development of separate content matters for the teaching of separate abilities creates unsound development of children's mind and mental buzzing among them.
- It goes against the integrated development of the learners.
- It helps the learner to achieve fragmented development of his/her abilities but not the holistic development of his/her abilities.
- It may go against the achievement of broad-based and integrated knowledge and skill among the students.
- Emphasis on specialized subject matters for the development of the specialized abilities many a time paralyses our educational system. This type of emphasis makes our students unable to recognize and use our knowledge at newer and different situations.

iv) Preparing separate content materials/ subject matters for the teaching of creative ability may suffer from the following technical difficulties/ problems-

- Development of creative ability through the teaching of separate contents has less feasibility for our school system. Because the development of creative ability through the teaching of separate contents requires more time/ more periods in the school and more number of teachers. But, in our schools, the numbers of teachers found are very less than the required number of teachers in many cases. Further, in modern days, the schooling hour in a day is very less also and within this short period, it is very difficult to provide specific periods for the development of creative ability through the teaching of separate school subjects.
- Since the school children aren't mature enough, so, it is not so good to teach separate subjects for the development of creative abilities, rather, it will be good to develop creative ability along with other abilities through the teaching of same school subjects.
- Providing additional contents for the development of creative abilities becomes a burden for young students/learners.

To sum up, one can say it would be better if the existing school subjects will be used for the development of the creative ability of the children instead of providing separate contents (other than the existing school subjects) for the development of creative ability.

Regarding the fourth question, it is a generally accepted fact that creativity can be developed through all the existing school subjects. All the school subjects starting from language, literature to science, art and craft have their own divergent/creative thinking area but the ranges of scope for creative thinking vary from subject to subject. The subjects like language, literature, social studies, art and craft etc. provide greater scope to the students to develop their creative abilities than subjects like science, mathematics etc. Supporting this view, back in the 1970s, Hudson (1973) suggested that the children who excel in science, mathematics and technology also do well on a traditional IQ test, where there is only one answer. Put another way, they are good at convergent thinking, which involves just one solution to the problem. In contrast, those children who are divergent thinkers find several possibilities for each question, tend to excel in the arts. Hudson's thesis was that the arts and sciences demand a different kind of thinking. One implication of his view is that science, math, technology, etc. provide less scope for divergent thinking than the arts subjects like literature, modern language, history, etc. Here is given one example which states how the arts subjects provide great scope for creative thinking. For example, take the subject 'social studies'. The teaching of social studies is concerned with diverse physical, social, historical, economics, civics and environmental characteristics which can facilitate the divergent/creative thinking of the learners. The subject social studies are such a subject which provides greater scope to the learners to solve the same problem in different ways. The indicators of creative abilities such as fluency, flexibility, originality, elaboration, etc. can be more facilitated through the subject social studies. While the subject social studies will be taught, the students must be

encouraged to answer the question divergently. For example, if a question will be asked like this – 'Suggest as many as ways through which we can protect our environment?', then, this question will yield/elicit divergent answers. Some of the possible answers for this question are the protection of the environment through afforestation, protection of the environment through the use of compressed natural gas (CNG) in the motor vehicles, protection of the environment through creating awareness among people through mass awareness programmes and so on.

All the above-mentioned issues relating to fostering of creativity through school curriculum are related to each other in one way or other. The solution to one issue also related to the solution of other issues. For example, the solution of the second issue i.e. 'Whether creative ability can be taught formally as a subject in our school or creative ability can be infused along with other abilities and it can be achieved/ developed through different formal school subjects/ content areas (social studies, mathematics, science, language etc.) taught in our schools?' related with the solution of the first issue i.e. 'Can creativity be taught?' The solutions of such issues have been materialized through practical evidence, research-based findings and discussions in this paper. The scholars, researchers, readers, users, etc. working in the area of fostering of creativity through school curriculum should be much aware of these issues and their proper solutions.

Conclusion

'Whether creativity can be fostered?' is a significant area of debate and discussion in the field of creativity. A lot of issues relating to 'whether creativity can be fostered ?' have been discussed by several researchers, experts, specialists and intelligentsia in the fields of education, psychology and creativity starting from the twentieth century to till today; and now most of the researchers, experts, specialists and intelligentsia in the fields of education, psychology and creativity are agreed on the point that creativity is both arts as well as science and teaching-learning plays a lot of roles for fostering the creative talents of the individuals. To substantiate the facts that creativity can be fostered and teaching-learning plays a lot of roles for fostering the creative talents of the individuals, several practical pieces of evidence, research-based findings and discussions have been presented in this paper.

References

1. *Bartlett, F. (1958).Thinking.New York:Basic books.*
2. *Bansal, I., &Agarwal, S. (1997). Role of computers in the enhancement of creativity among young children.Psycho-lingua, 27(2), 111 – 114.*
3. *Craft, A. (2000).Creativity Across the Primary Curriculum-Framing and Developing Practice. 11 New Fetter Lane, London EC4P4EE: Routledge.*
4. *Croplay, A.J. (1970). Creativity-Third impression. London: Longman Group Limited.*
5. *Eisenberger, R., Armeli, S., &Prez, J. (1998). Can the promise of reward increase creativity? Journal of Personality and Social Psychology, 74(3), 704 – 714.*
6. *Fleith, D. (1999). Effect of creativity training programme on creative abilities and self-concept in mono-lingual and bi-lingual elementary classrooms. In DissertationAbstract International – A, 60 (4), p.1009.*
7. *Gulati, S. (1995). Instructional materials to promote children's creativity in classroom : Studying the effectiveness of materials fostering creativity. Indian Educational Review, 30(2), 59 – 72.*
8. *Gomes, J.J.M. (2005). Using a creativity focused science programme to foster general creativity in young children - A teacher action research study. In Dissertation Abstract International - A, 66(3), p.887.*
9. *Guilford, J.P. (1967). Creativity- yesterday, today and tomorrow.Journal of Creative Behaviour, 1, 3-14.*
10. *Hudson, L. (1973). Originality. London: Oxford University Press.*
11. *Haward – Jones, P.A., Tylor, J.R., & Sutton, L. (2002).The effect of play on creativity of young children during subsequent activity.Early Child Development and Care,172(4), 323-328.*
12. *Jeffrey, B., & Woods, P. (1997). The relevance of creative teaching : Pupils view. In A. Pollard, D. Thiessen& A. Filer (Eds.), Children and their Curriculum: ThePerspectives of Primary and Elementary School Children. London: Falmer Press.*

13. *Jawaharlal, J.R. (1990). Evolving educational programmes for fostering creativity among primary school children.M.Phil. Education.Madurai Kamraj University, Madurai.*

12. *Kumari, S. (1990).Instructional and nurturing effects of the synetic model of teaching on creative ability in languages.Ph.D. Education.Kurukhetra University, Kurukhetra.*

13. *Lazarowitz, R., & Huppert, Y. (1980).Developing creativity thinking skills in secondary school biology students.The American Biology Teacher, 42 (4), 226 – 228.*

14. *Mishra, S., &Basantia, T.K. (2003).Modalities of teachers' empowerment for development of abilities in elementary school children.The Primary Teacher, 28(4), 43-47.*

15. *Moore, O.K. (1961). Orthographic symbols and the preschool child – A new approach. In E.P. Torrance (Ed.), New Educational ideas : Second Minnesota Conference on Gifted children. Minneapolis: Centre for continuation study.*

16. *Maltzman, I., Bogartz, W., &Breger, L. (1958).A procedure for increasing word association originality and its transfer effects.Journal of Experimental Psychology, 56, 392-8.*

17. *Maltzman, I., Simon, S., Raskin, D., &Licht, L. (1960). Experimental Studies in the training of originality. Psychological Monographs, 74(6:Whole No.493).*

18. *Mandal, J.M. (1992).A study to evolve an autonomous creativity cultivation programme for school students and to assess effectiveness of the programme.Independent study.University of Calcutta.*

19. *Orstein, J.A. (1961). New recruits for science.Parents' Mag., 36, 101-3.*

20. *Parnes, S. J., & Meadow, A. (1959) Effect of brain storming instructions on creative problem solving by trained and untrained subjects. Journal of Educational Psychology, 50(4), 171-176.*

21. *Parnes, S.J., & Meadow, A. (1960).Evaluation of persistence of effects produced by a creative problem solving course.Psychological Reports, 7, 357-361.*

22. *Shan, H.R. (1989). Effectiveness of certain curricular activities in the development of creative thinking of high school students of the backward hilly region of Jammu.Ph.D. Education.Himachal Pradesh University, Shimla.*

23. *Sharma, D. (1995). Developing instructional materials for facilitating creativity among elementary school children.Ph.D. Education. Devi AhalyaViswaVidyalaya, Indore.*

24. *Singer, J.L., &Lythcott, M.A. (2002).Fostering school achievement and creativity through socio-dramatic play in the classroom.Research In the Schools, 9 (2), 43 – 52.*

25. *Tripathy, S.N., &Sukla, M. (1990). Development of instructional materials for promoting creativity, and its effectiveness.Independent study.Regional College of Education, Bhopal.*

26. *Torrance E.P. (1961).Priming creative thinking in the primary grades.Elementary school Journal, 62, 34-41.*

27. *Torrance, E.P. (1963). Education and the Creative Potential. Minneapolis: University of Minnesota Press.*

28. *Torrance, E.P. (1962). Guiding Creative Talent. Englewood Cliffs, N.J.:Prentice Hall, Inc.*

UGC CARE APPROVED

This journal is available online visit www.sxcejournal.com

Owned & Published by Rev. Dr. S. Sebastian,S.J. from St. Xavier's College of Education, Palayamkottai, Tirunelveli -2. Printed by G. Kanagasabapathi at Muthuletchumi Press, 123-G, Trivandrum Road, Palayamkottai - 627 002.
Editor : **Rev. Dr. S. Sebastian, S.J.**

OPINION OF VIII STANDARD STUDENTS ABOUT ACTIVITY-BASED TEACHING PROGRAM IN SCHOOLS OF VADODARA CITY

UGC CARE APPROVED

ABSTRACT

Activity based teaching provides an opportunity for acquiring knowledge. "Well-planned activities which are directly related to the objectives are central to the entire process. For every objective, there should be as many alternative activity choices as possible relating to each objective to cater to different abilities and interest of students." (Dhand, 1995) In the secondary school standard VIII is a very crucial stage. According to NCF (2000) "this is the stage after which majority of the learners will enter the world of work. Practical activities to be chosen should have relevance for future life through the acquisition of skills and values. Critical, creative and generative thinking has to be developed." Thus, it is the best period to provide an opportunity for the students to enhance their abilities in the Gujarati language through activity-based teaching programme and check its effectiveness as compared to the traditional method. The investigator prepared the programme and implemented in the experimental group. Opinionnaire was given to them at the end of the program and the analysis of which is given here in this paper. The investigator further analyzed the most liked and least liked activities by the students. This will give insight into the selection of activities in future.

Keywords : *Activity Based Teaching, National Education Policy, GSEB*

Introduction

Language education is required to develop communicative and expressive skills. According to draft National Education Policy (2019), Indian languages are some of the most expressive and scientific in the world, containing much of the world's great literature and knowledge. They are also truly functional languages, spoken by people, and represent the culture and heritage of entire regions and generations. True inclusion and preservation of culture and traditions of each region, and true understanding by all students in schools, can be achieved only when suitable respect is given to all Indian languages, including tribal languages. NEP (2019)

In Indian schools education, there is teaching four languages i.e. regional language, mother tongue, National language, and international language. Draft of National Education Policy 2019 promoting Indian language. The objective is to ensure the preservation, growth, and vibrancy of all Indian languages. Mother tongue plays a vital role to enhance creativity, explanation, perception, understanding, analytical and analysis skills. According to NEP (2019), To learn well own mother tongues as well as other Indian languages for national unity and integration for India's rich cultural heritage and traditions.

The objective of the Study

To study the Opinion of grade VIII students of Vadodara city about the developed activity-based program.

Operationalization of the Term used in the study

Activity-Based Programme for Gujarati subject: In the present study, an activity-based program in Gujarati subject for the students of standard VIII and implemented a developed program for teaching selected units from the Gujarat Secondary and Higher Secondary Education Board (GSEB) Textbook. This program includes the activities such as Game with words, Game with sentences, use the blackboard own way, letter writing in a postcard, present

Ms. Megha Tadvi
Assistant Professor, Department of Education, Indian Institute of Teacher Education Gandhinagar
Dr. Jyotsna Amin
Assistant Professor, Department of Education, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara.

on ideas, strip story, drama, collect information and present own way.

Delimitation of the study

The proposed study was delimited to Gujarati medium schools of Vadodara city following the Gujarat state board syllabus.

Population and sample

All the students of standard VIII of Gujarati medium schools of Vadodara city following the GSEB syllabus formed the population of the present study.

In the present study, purposive sampling technique was used. The students of standard VIII of division C from Shree Ambe Vidhyalaya School were selected, whereas for the control group was selected the students of standard VIII of granted class from Shree Narayana Vidhyalaya school of Baroda city. The actual numbers of students of standard VIII of Shree Ambe Vidyalaya school were (51) but out of 51 total 45 students were attend pre-test and post-test whereas the actual numbers of the students of standard VIII of Shree Narayana Vidhyalaya were (59) but out of 59 students total 46 students attend the pre-test and post-test. Thus, the sample size was 91. The opinion was collected from the students of the experimental group only.

Tool used

The opinionnaire was prepared to know the opinions of the students towards the ABPGS for Gujarati teaching. The opinionnaire was designed based on some criteria such as interest of students, involvement of students, actual learning, classroom arrangements and management during implementation, behavioral changes of students, selecting activities and appropriateness of implementation. Close-ended 18 statements and 4 open-ended questions were used for data collection from the experimental group at Shree Ambe Vidyalaya School. It was validated by five experts in the area of education.

Data Analysis and Interpretation

Analysis of close-ended statements of opinionnaire about ABPGS program:

Opinionnaire was administered to the students to know their opinion about Gujarati teaching through the Activity-Based Programme. 18 close-ended statements and 4 open-ended questions were used for data collection from the experimental group to study the effectiveness of developed Activity-based program and teaching Gujarati through the Activity-based program after the intervention. The data obtained through the opinionnaire were analyzed using frequency and percentage. Qualitative responses were analyzed using content analysis. The following paragraph explains the 18 statements with the opinions of the students.

- Activity-Based teaching Approach is easy to understand the content. Regarding this statement 57.3 % of students strongly agreed, 40% agreed, and 2.5 % of students disagreed.
- I like the Activity Based teaching Approach for Gujarati subject. Regarding this statement 87.5 % of students strongly agreed, 5 % agreed and 7.5 % were undecided.
- Use of teaching aids for Activity Based teaching Approach is helpful to understand the content easily. Regarding this statement 67.5 % of students strongly agreed, 27.5 % agreed, 2.5 % were undecided and 2.5 % disagreed.
- Activity-based Gujarati teaching is very useful for me. Regarding this statement 67.5 % of students strongly agreed, 22.5 % agreed, 2.5 % undecided, 2.5% disagreed and 5% strongly disagreed.
- I would like to learn through this activity-based teaching in the future. Regarding this statement 57.5% of students strongly agreed, 40% agreed and 2.5 % undecided.
- I am inspired by learning more due to an activity-based teaching program. Regarding this statement 62.5% of students strongly agreed, 27.5 % agreed, 7.5 % undecided and 2.5 % disagreed.
- The teaching approach of a teacher is easy to understand. Regarding this statement 70 % of students strongly agreed, 22.5 % agreed, 5 % undecided and 2.5 % disagreed.
- I like the teaching style of the teacher. Regarding this statement 45 % of students strongly agreed, 45 %

agreed, 2.5 % undecided, 5 % disagreed and 2.5% strongly disagreed.

- Activity-Based teaching helps me to enhance my thinking and imagination power. Regarding this statement 67.5 % of students strongly agreed, 15 % agreed, 7.5 % undecided, 7.5 % disagreed and 2.5% strongly disagreed.
- Activity-Based Approach for teaching Gujarati helps to enhance interest in learning Gujarati. Regarding this statement 42.5 % of students strongly agreed, 42.5 % agreed, 10 % undecided and 5 % strongly disagreed.
- An activity-based teaching approach helps me to enhance vocabulary knowledge. Regarding this statement 70 % of students strongly agreed, 17.5 % agreed, 5 % undecided and 7.5 % strongly disagreed.
- The activity-based approach helps to enhance sentence framing and presentation skill. Regarding this statement 45 % of students strongly agreed, 42.5 % agreed, 10 % undecided and 2.5 % disagreed.
- The activity-based teaching approach helps to inspire for extra reading. Regarding this statement 62.5 % of students strongly agreed, 22.5 % agreed, 10% undecided, 2.5 % disagreed and 2.5 % strongly disagreed.
- Game with sentences helps to understand the poem 'hamna-hamna' in an easy way. Regarding this statement 62.5 % of students strongly agreed, 20 % agreed, 10 % undecided and 2.5 % disagreed and 5 % strongly disagreed.
- Inactivity 'Use the blackboard in my own way 'I like to present my ideas on the blackboard. Regarding this statement 70 % strongly agreed, 22.5 % agreed, 5 % undecided and 2.5 % disagreed.
- I can present my ideas for story writing due to the activity of 'strep story'. Regarding this statement 62.5 % of students strongly agreed, 27.5 % agreed, 7.5 % undecided and 2.5 % disagreed.
- I like the power-point presentation which shows for to understand 'Matino Sparsh: Jiji no Sparsh' pross. Regarding this statement 60 % of students strongly agreed, 27.5 % agreed, 7.55 % undecided and 2.5 % strongly disagreed.

- Letter writing is easy to understand due to 'formal and informal letter writing'. Regarding this statement 55 % of students strongly agreed, 33 % agreed and 15 % undecided.

Thus, the interpretation of the opinion of the students on the Activity-based program in Gujarati subject for Gujarati teaching was positive.

Data analysis of the open-ended statements

There were four open-ended statements in the opinionnaire and the analysis of which is presented below graphically here.

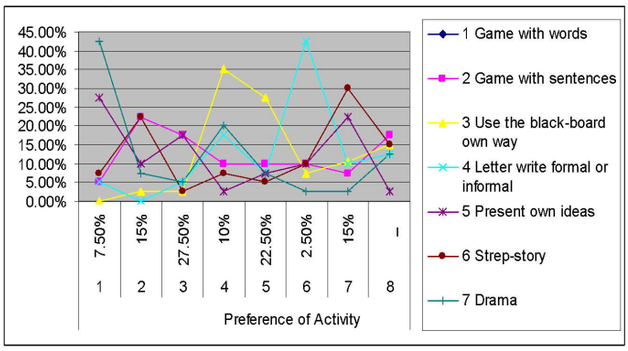


Fig 1 : Preferences given by students on each of the activities

- The above figure, is the result of the analysis of students' opinions on the statement "provide your preferences about each of the activity and rate them in order of your choice." It is clear from the table, that drama activity is the most liked activity by the majority of the students that is 42.5% in the next order, the activity presents their idea is rated first by 27% of the students.
- Games with sentences, strep story and collect information and present own way were given the second rank by the majority of the students (22.5 %). 27.5 % of students preferred games with words as their third choice.
- A thorough analysis of the table depicts that there is a common liking for the activities game with sentences, collect information and present own way and strep story. The variations in the order of preference can be attributed to multiple learning styles of the learners. Fig 1 visually presents the order of preference and the percentage of students opted for the order.

Analysis of students' opinions about the most liked activities

Table 1

Students choice about most liked activities

Activity. no	Activities	% of students
6	Strep-story	47.50%
1	Game with words	42.50%
2	Game with sentences	42.50%
5	Present own ideas	37.50%
7	Drama	37.50%
3	Use the black-board own way	25%
4	Letter writing formal or informal	25%
8	Collect information & present own way	15%

From the table 1, it is clear that activity number 6 is the most liked activity by 47.5 % of the students and games with words and games with sentences were liked by 42.5 % of the students. Present own ideas and drama activities were most liked by 37.5 % of the students equally. Likewise, the use of blackboard and letter writing was liked by 25 % of students equally. Collect information and present their way was the first choice of 15 % of the students. This shows that instead of writing, students enjoyed stories, games, and drama most.

Analysis of opinion of the students about least like some of the activities.

From the table 2, it is clear that the activity of collecting information and present own way is least liked activity by 7.5% of the students. Game with sentences, letter writing and drama were least liked activity by 2.5 % of the students. Present own ideas, strep story and use the blackboard own way were most liked activities of the students.

Table 2

Responses of the students about least liked activities

S. No	Activities	%of students'
8	Collect information & present own way	7.50%
2	Game with sentences	5%
1	Game with words	2.50%
4	Letter writing formal or informal	2.50%
7	Drama	2.50%
3	Use the black-board own way	-
5	Present own ideas	-
6	Strep-story	-

Major Findings

1. The opinion of the students regarding open-ended statement shows that 40% students suggested debate, 5% students suggested Discussion, 12.5% students suggested Kavi-sanmelan, 7.5 % students suggested meeting with poet, scholars, and experts in language, 10% students suggested Kavyapathan and 2.5% students suggested role-play activities for Gujarati teaching.
2. Analysis and interpretation of achievement scores lead the investigator to conclude that the developed ABPGS for Gujarati teaching is effective and it is important to gain better achievement by both the experimental group and control group.
3. From the above findings, the investigator concludes that most of the students of the experimental group enjoyed learning through developed ABPGS and it made a great impact on their achievement and motivation.
4. In addition to the achievement of objectives of Gujarati teaching, the developed ABPGS helped the learners in developing the skill of using language differently.

Discussion of the result

The present study was one of the effort to bring some change in language educational scenario. Following implications can be drawn from the study. The activity-based teaching-learning process makes a student-centred classroom climate. It can make an interactive and innovative environment for learning. It is also possible for Gujarati teaching in other standards as well as other subjects at a different level. It can help to change the educational scenario in a positive direction. This study leads to the use of the different methods of teaching in the classroom which can provide innovations and an effective impact on the learner as well as on teachers. It helps to provide an opportunity for a collaborative and co-operative environment for learning. The present study helps to enhance the potential and abilities. In the process of the present study, the investigator found that further investigation which can be possible for Gujarati language and another language teaching as well as classroom research.

Continued on Page 15

ACADEMIC STRESS AMONG HIGH SCHOOL STUDENTS

UGC CARE APPROVED

ABSTRACT

The present study was explored to find out Academic Stress among high school students. Survey method was used. A simple random sample of 207 high school students were chosen from Coimbatore district, Tamilnadu. Data were analyzed with descriptive and inferential statistics. Findings revealed that the academic stress level of high school students is moderate and they do not differ in their academic stress with respect to gender, type of school and residency. However, students from Tamil medium and English medium differ in their academic stress.

Keywords : *Stress, Stressors, Academic Stress*

Introduction

As the world is moving at a fast pace, competition and ambition for achievements become the need of the hour. The high societal expectations on students to perform various undefined, inconsistent and unachievable roles in the present socio-cultural, economic, and bureaucratic contexts of the society cause heavy stress on students. The eventual rat race has made stress an occurrence of daily lives, not even sparing our children. Just as adults face stress at work and households, children too are stressed at their schools. Academic stress is defined as stress that comes from schooling and education. The stressors may be increased in homework load, high expectations from teachers and parents, lack of social support, tight schedules, or strict school authorities.

Not all stress is bad. Researchers agree that a moderate amount of stress is essential to keep people motivated and responsible and also helpful for people in having a more sustainable and prosperous life. However, when there are chronic or high levels of anxiety it may manifest as a stress-related disease; physically as tension, headaches, and heart diseases and mentally as anxiety and mood disorders etc. In extreme cases, may even end in suicides. India has one of the highest rates of suicides among youth. Many studies done on stress among high school students showed that students with higher stress will have poor academic performance along with some physical or mental health problems. Children are the pillars of our future generations and we are duty-bound to guide them. So, understanding academic stress gains importance when we are concerned with each child's individual abilities to cope with stress, which in turn paves way for a productive life later on in adulthood.

With this background, researchers conducted this study intending to assess the level of academic stress among high school students in Coimbatore district.

Need and significance of the study

In today's highly competitive world, students face various academic problems including exam stress, disinterest in attending classes and inability to understand the subject. Academic stress is the feeling of anxiety or apprehension over one's performance in academic activities. It can lead to students being unable to perform to the best of their abilities in examinations. At school there is a range of academic pressure feel, derived from a need for perfection, worry over grades, parental pressure, competition, sports, or a tough class load. The nervous breakdowns, panic attacks, burnouts, and depression are also apparent in many younger students. The same situation is not always stressful for all people, and all people do not undergo the same feelings or off-putting thoughts when stressed. Students were considered to be the future pillars who take the responsibilities to take our country to the next phase they should be in a better way. To know this, the investigator decided to analysis academic stress among high school students.

Arulpriya
M.Ed. Student, Department of Education, Bharathiar University, Coimbatore, Tamil Nadu.
Dr. S. Arulsamy
Associate Professor, Department of Education, Bharathiar University, Coimbatore, Tamil Nadu

Objectives of the Study

1. To study the academic stress of high school students in Coimbatore District.
2. To study the significant difference in the academic stress of high school students with respect to gender, residency, and type of school.

Hypotheses

1. There is no significant difference in the academic stress of high school students with respect to gender.
2. There is no significant difference in the academic stress of high school students with respect to residency.
3. There is no significant difference in the academic stress of high school students with respect to type of school.
4. There is no significant difference in the academic stress of high school students with respect to medium of instruction.

Methodology

Population and Sample: Normative Survey method was employed to collect data for the present study. A sample of 207 high school students was selected by using simple random sampling technique from four schools in Coimbatore district.

Description of the Tool: Academic Stress Assessment Scale was developed and validated by researchers to measure the Academic Stress among high school students. The five-point rating scale was used. After collecting the items for the tool, the researcher did a pilot study which is concerned with refining the items in the tool.

Item Analysis: The questionnaire was given to 100 high school students. The researcher did the analysis using the SPSS package. The item analysis procedure resulted in the elimination of 10 items from the questionnaire. Each of the items was responded on a five-point scale. The options were Always, Very often, Sometimes, Rarely and Never, Responses to the statements were scored by following Likert Method.

Validity and Reliability: To establish the content validity, the modification given by experts was implemented in the tool and it was tested by item analysis. The reliability of the tool was established by Cronbach's Alpha method using SPSS package. The reliability of the academic stress assessment tool based on Cronbach's Alpha method was 0.904 which indicates high reliability.

Analysis of Data

The level of academic stress of high school students (N=207) in Coimbatore District is moderate (189.02).

Hypothesis 1: There is no significant difference in the academic stress of high school students with respect to gender.

Table 1

Difference in Academic Stress among high school students with respect to gender

Gender	N	Mean	SD	Calculated 't' value	df	p-value	Remark
Male	110	184.23	37.23	1.941	205	0.053	NS
Female	97	193.81	33.36				

The above table-1 indicates that the calculated 't' value (1.941) is less than the table value (1.96)at 0.05 significant level and so the hypothesis 1, there is no significant difference in the Academic Stress of high school students with respect to Gender is rejected.

Hypothesis 2 : There is no significant difference in the academic stress of high school students with respect to residency.

Table 2

Difference in Academic Stress among high school students with respect to residency

Variable	Source of Variance	Sum of Squares	df	Mean Square	Calculated 'F' value	p-value	Remark
Residency	Between	8401.15	2	4,200.58	3.37	0.04	S
	Within	254242.6	204	1,246.28			

The above table-2 shows that the calculated 'F' value (3.370) is greater than the table value (2.30) at 0.05 level, hence the formulated hypothesis 2 is rejected and so it is concluded that there is a significant difference in the academic stress of high school students with respect to residency.

Table 3

Scheffe Test- Academic Stress among high school students with respect to Residency

Type of school			Mean difference	p-value	Remark
Rural	Urban	Semi-Urban			
175.85	198.15		22.3	0.005*	S
175.85		191.94	16.06	0.029*	S
	198.15	191.94	6.21	0.621	NS

The above table 3 shows that the mean difference between rural and urban residents(22.3) is significant at 0.05 level and also it shows that the mean difference between rural and semi-urban residents(16.06) is also significant at 0.05 level. The mean difference between urban and semi-urban residents (6.21) is not significant at the 0.05 level. Hence it is concluded that the significant difference exists between rural and urban residents and also rural and semi-urban residents. By observing the mean scores, it is described that urban students have more academic stress than the semi-urban and rural students and also the rural students have less academic stress than their counterparts.

Hypothesis 3 : There is no significant difference in the academic stress of high school students with respect to type of school.

Table 4

Difference in Academic Stress among high school students with respect to type of school

Variable	Source of Variance	Sum of Squares	df	Mean Square	Calculated 'F' value	p-value	Remark
Types of School	Between	8787.31	2	4393.66	3.53	0.03	S
	Within	253856.4	204	1244.39			

The above table-4 shows that the calculated 'F' value (3.53) is greater than the table value (2.30) at 0.05 level, hence the formulated hypothesis 3 is rejected and so it is concluded that there is a significant difference in the academic stress of high school students with respect to type of school.

Table 5

Scheffe Test-Academic Stress among high school students with respect to the type of school

Type of school			MD	p-value	Remark
Government	Aided	Private			
195.2	191		4.2	0.782	NS
195.2		179.73	15.47	0.038*	S
	191	179.73	11.27	0.177	NS

The above table 5 shows that the mean difference between government and aided school(4.20) and the mean difference between aided and private schools(11.27) are not significant at 0.05 level and it is also observed that the mean difference between government and private school(15.47) is significant at the 0.05 level. Hence it is concluded that a significant difference exists between government and private school students. By observing the mean scores, the government school students have more academic stress than private and aided school students and private school students to have less academic stress than their counterparts.

Hypothesis 4 : There is no significant difference in the academic stress of the high school students with respect to medium of instruction.

Table 6

Difference in Academic Stress among high school students with respect to medium of instruction

Medium of instruction	N	Mean	SD	Calculated 't' value	df	p-value	Remark
Tamil	137	192.96	37.248	2.416	205	0.017*	S
English	70	180.43	31.088				

The above table-6 indicates that the calculated 't' value is 2.416 is greater than the table 't'- value (1.96) at 0.05 significant level, hence the hypothesis that there is no significant difference in the Academic Stress of the high school students with respect to medium of instruction is rejected.

Educational Implications

Academic Stress of students is found to be a considerable factor in Academic Achievement. The overall Academic Stress consists of learning difficulties, attitude towards school, time management, exam stress, peer group relation. The school should arrange the necessary environmental conditions to reduce the student's Academic Stress. The teachers should concentrate on reducing Academic Stress by grabbing the individual attention of the students while handling the respective classes. The education given in the classroom should reflect the application of life skills which enables them to face this highly competitive world. It should not be conducted only in the viewpoint of examinations. The guidance provided to parents and teachers can be reducing the stress level.

Conclusion

The purpose of the present investigation was to study the academic stress among high school students in Coimbatore district- with reference to some selected variables. The students at this age experience major physical

and emotional changes that can result in significant mental stress. This study shows that the level of stress among high school students is moderate. Parents and teachers should take the necessary steps to reduce the stress among the high school students. The above findings are an original contribution to the existing knowledge. This study might enable teachers and administrators to look for ways of reducing academic stress among high school students in Coimbatore District.

Reference

1. *Bartwal, R.S. and Raj, A. (2014). Academic Stress among School Going Adolescents in Relation to their Social Intelligence. Indian Streams Research Journal. 4(2): 1-6.*
2. *Kumar, S. and Singh, A.P. (2004).Stress state and its relationship with academic performance among students. Recent Trends in Human Stress Management. 55-66.*
3. *Mathew, B. and Jayan, C. (2006). Academic stress and coping styles among plus-two students. Indian Psychol. Rev., 66(1): 41-48.*
4. *Suresh Prabu P. (2015) A Study on Academic Stress among Higher Secondary Students, International Journal of Humanities and Social Science Invention. 4(10):63-68.*

Continuation of Page 11

OPINION OF VIII STANDARD STUDENTS...

Conclusion

"If a child can't learn the way we teach. maybe we should teach the way to learn" said Ignacio Estrada. To make an effective and meaningful teaching-learning process, a teacher need to understand the interest, attitude, and ability of the students. Investigator recalled the duration of the school education (standard VIII) and strongly feels that it is the best period in the students' life to encourage and modify the hidden potential abilities of the students. So, it is essential to provide them with an opportunity to draw out their potentials and abilities. Activity-Based teaching can provide the stage for that. At the end the investigator is coming out with satisfaction about fulfilling the desirable possibilities which they want to bring among the students. The present study would not only improve academic achievement but enhance communication skills, understand nature, structure, and forms of language, the importance of mother tongue and improve creativity and thinking ability. The investigator accepts that 'Action speaks louder than words.' This investigation proves the essential need for activity-based language teaching.

References

1. *Al-Kahatani, H. (2000). Relative Effectiveness of Teaching English Language using Direct Method: Communicative Approach and Bilingual Method on learning of English among IX standard students. In the Sixth Survey of Research in Education. New Delhi: NCERT.*
2. *Amin, J. A. (2011). Development and implementation of an activity-based science teaching program for pre-service student teachers. An Unpublished PhD thesis, Vadodara: CASE.*
3. *Bernstein, L. (1970). In Dhand, H. (1995). Learning Centres: An Innovative Approach. New Delhi: APH Publishing Corporation.*
4. *Blake (1977) In Dhand, H. (1995). Learning Centres: An Innovative Approach. New Delhi: APH Publishing Corporation*
5. *Dewy. J. (1882) In Aggarwal, J. C. (2006) Basic Ideas in Education. Delhi: Shipra Publication.*
6. *Dhand, H. (1995). Learning Centres: An Innovative Approach. New Delhi: APH Publishing Corporation*
7. *Maheta, A. (1998). An exploratory study of Gujarati language teaching in upper primary schools of Baroda city. An Unpublished Ph.D. thesis, The M.S.University of Baroda. Vadodara: CASE.*
8. *Mathrani D. K. (2008). A Study of Effectiveness of Project-based learning in teaching 'organization of commerce' at standard XI. An unpublished M.Ed. Dissertation. The M.S.University of Baroda. Vadodara: CASE.*
9. *National Council of Educational Research and Training. (2000). National curriculum FrameWork 2000. New Delhi: NCERT.*
10. *National Council of Educational Research and Training. (2005). National curriculum FrameWork 2005. New Delhi: NCERT.*

EFFECTIVENESS OF CONCEPT ATTAINMENT MODEL ON ACHIEVEMENT, STRESS AND ATTITUDE TOWARDS MATHEMATICS

UGC CARE APPROVED

ABSTRACT

This study aimed at finding the Impact of Concept Attainment Model on Achievement, Stress and Attitude towards Mathematics of 10th Grade students. Sample of 100 Students of 10th Grade was selected randomly from Tikota Village of Vijayapur District. 50 Students were randomly selected for Controlled and Experimental group. Here experimental-control (pre-test post-test) parallel group design was used. The collected data analyzed with help of Differential analyses. The study reveals that the gain of achievement and Attitude towards Mathematics of experimental group is higher than the control group and gain of Stress in Mathematics of the experimental group is lower than the control group.

Key Words : *Concept Attainment Model, Achievement, Stress, Attitude towards Mathematics.*

Introduction

Able teachers always find ways and means to improve their teaching techniques. The improvement of a teacher by employing newer methods of teaching is a need of the locus. The ways the knowledge, skills and values are delivered to the learner have a meaning both for a teacher and the student.

The emphasis of the most recent concept of teaching is upon 'know-how' rather than 'know what. In the modern world, knowledge increases at a terrific pace and social change are very rapid. In the present context, instructional strategies are being developed for effective teaching of Mathematics. The models can create the most suitable environment and stimuli the students to solve problems of the subject Mathematics. The Concept Attainment Model (CAM) is designed and developed to teach concepts and to help students to become more efficient at learning. The CAM developed by Bruner succeeded in the learning of the concepts. So a genuine interest was aroused in the minds of Research Investigator to Investigate the Effectiveness of Concept Attainment Model-CAM on Secondary School Students with Special Reference to Academic Achievement, Attitude towards Mathematics and Stress.

Concept Attainment Model

Teaching models are prescriptive teaching strategies designed to accomplish particular instructional goals. They are perspective regarding the teacher's responsibilities during the planning; implementing and assessment stages of instruction are clearly defined.

The concept attainment model is an inductive teaching strategy designed to help students of all ages reinforce their understanding of concepts and practice hypotheses testing. The models utilise positive and negative examples to illustrate concepts of simple and complex.

The design of this model first suggested by Joyce and Weils (1972) is based on the work of Bruner, Good now, and Austin (1956), who investigated how different variables affect the concept learning process. The concept attainment model is useful for giving students experience with the scientific method and particularly with hypotheses testing.

Objectives

The main objective of the study was to find out the effectiveness of CAM on achievement, Attitude and Stress of 10th-grade students. This is further explicated by the following specific objectives:

1. To study the effectiveness of the Concept Attainment Model (CAM) and Traditional Method (TM) of instruction on the achievement of 10th grades.

Dr. Jyoti S. Pattanshetti
Assistant Professor, B.L.D.E.A's J.S.S. College of Education, P.G.Studies and Research Centre in Education Vijayapur

Null Hypothesis

1. There is no significant difference between control and experiment groups with respect to pre-test, post-test and gain scores on achievement in Mathematics of 10th standard students of secondary schools

Methodology

In this study experimental-control (pre-test post-test) parallel group design was used. The study was completed in two stages: Pre-test stage and Post-test stage. The study was conducted in the Government High School Tikota Tq. Vijayapur of Vijayapur District. The sample selected was purposive but representative of the population. 100 Pupils 10th Grade Students were selected based on intelligence by administering R.P.M (Raven's Progressive Mattresses) and were randomly assigned to two groups (based on Intelligence namely, above Average, Average and Below Average) to be taught through two different methods.

Tools Used

To collect the data about achievement, Attitude towards Mathematics and Stress towards Mathematics, the following tools were used in the Present Study.

1. Achievement test developed and standardized by the investigator.
2. Attitude towards Mathematics scale developed and validated by Gakhar and Rajni
3. Mathematics Stress (Anxiety) Scale developed and validated by Ayatollah Karimi and Venkatesan

Result and Discussion

Comparison of experiment and control groups was made using the pre-test and post-test scores of achievement, attitude towards Mathematics and Stress of 10th-grade students.

Hypothesis 1 : There is no significant difference between control and experiment groups with respect to pre-test, post-test and gain scores of achievement in Mathematics of 10th standard students at secondary schools

To verify this hypothesis, the unpaired 't' test was applied and the results are presented in the following table.

Table 1

Difference between control and experiment groups with respect to pre-test, post-test and gain scores of achievement in Mathematics of 10th standard students at secondary schools

Variable	Groups	Mean	SD	Calculated 't' value	P-value	Remark
Pretest	Control	55.32	8.6	0.0427	0.966	S
	Experiment	55.24	10.07			
Posttest	Control	56.28	9.17	18.0736	0.0001	S
	Experiment	88.16	8.45			
Gain	Control	0.96	3.53	17.8895	0.0001	S
	Experiment	32.92	12.13			

From the above table1, it can be observed that,

1. With regard to pre-test, the control and experimental groups do not differ significantly in the achievement in Mathematics ($t=0.0427$, $p>0.05$) at 5% level of significance. Hence the null hypothesis is not rejected. It can be concluded that the Control and Experimental groups have similar pre-test scores with regard to achievement in Mathematics of 10th standard students at secondary schools.
2. Control and Experimental groups differ significantly with respect to post-test scores of achievement in Mathematics of 10th standard students ($t=18.0736$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected. It can be concluded that the students of Experimental groups scored significantly high on post achievement test when compared to students of Control group.
3. Control and Experimental groups differ significantly with respect to gain scores of pre and post-test of achievement in Mathematics of 10th standard students at secondary schools ($t=17.8895$, $p<0.05$) at 5% level of significance. Hence the null hypothesis is rejected. It can be concluded that the gain scores of achievement in Mathematics of 10th standard students of secondary schools are significantly higher among students of experimental group when compared to students of control group.

The mean of pre-test, post-test and gain scores are also presented in the following figure.

Continued on Page 26

ROLE OF ASHRAM SCHOOLS IN TRIBAL EDUCATION: A STUDY IN ADILABAD DISTRICT OF TELANGANA STATE

UGC CARE APPROVED

ABSTRACT

The purpose of establishing the Ashram School was to meet the needs of tribal students who left the school in remote areas of the country as they are unable to follow modern trends and technologies. Even in these modern days, they are adopting olden techniques for their day to day life. Ashram schools are residential schools, in which free boarding and lodging along with other facilities and incentives are provided to the tribal students. In these schools apart from educational activities, students are given physical education, meditation, sight-seeing, sports, games, and other extra co-curricular activities such as painting, music, drawing, dance and handicrafts. In Adilabad district 127 Ashram schools are there under the control of ITDA (Integrated Tribal Development Agency). These schools run classes from third to tenth. At present 39147 students (boys and girls) are getting free education with hostel facilities. The present study was based on primary and secondary data. The researcher collected data from ITDA and Ashram schools. The researcher selected schools randomly from Adilabad District and this study is delimited to Adilabad district Ashrams schools only.

Keywords : *ITDA, Ashram Schools, Education, Teaching-Learning Processes, Teachers and Students.*

Introduction

The term ashram school is derived from the term ashram, which has its origin in ancient India. In ancient days, students use to learn or get education at teachers' (Guru) home only. The teachers provided all types of support to the students for their learning. In the early stage, the individuals belonging to SC and ST people, communities had undergone problems in getting education in common schools, hence these ashram schools were established for SC and ST people and from then ashram schools are playing a very significant role in providing educational opportunities to SC an STs. The initiation of Ashram schools began in 1922 in Gujarat for the educational upliftment of the tribals. From the beginning, boarding and lodging were provided at free of cost to the tribal students. In those days ashram schools were established in natural surroundings, in the places such as forests with the motive of depicting traditional ashramas.

Ashram schools were established in the year 1961 on experiment basis. The formulation of appropriate measures for adequate functioning led to their success. Slowly ashram schools were much popularized and so the government started ashram schools at large number for the upliftment of tribal people. Thus ashram schools played a vital role in providing solutions for the problems such as high rate of absenteeism, drop out, inadequate performance in-class assignments and tests, low enrolment and deprived sense of students. The education provided to the students includes, academic concepts, vocational training, handicrafts and training in the areas of agriculture, horticulture, spinning and other trades. The main purpose of training is to make the individuals capable of getting employment opportunities or self-employed.

Method

The researcher collected secondary data from Integrated Tribal Development Agency (ITDA) at Utnoor. For getting primary data, researcher visited ashram schools of Adilabad district and collected data with help of stratified random sampling. The researcher randomly visited schools and collected data from the head of the school, teachers and students also.

Ghodam Srinivas
Doctoral Research Scholar at Department of Education and Education Technology, School of Social Sciences, University of Hyderabad, Hyderabad

Population

The population of the present study includes all the Ashram schools at Telangane state, India.

Delimitation of the study

Present study is delimited to Ashram schools of Adilabad district of Telangana state, India

Objectives of the study

1. To know the concept of Ashram schools.
2. To know the status of Ashram schools
3. To know the infrastructure facilities available in Ashram schools
4. To know the teaching-learning process followed in ashram schools
5. To know the role of ashram schools in tribal Education
6. To know about the Integrated Tribal Development Agency

Review of related literature

Kamat et al, (2008) investigated that marginalization and oppression were the basic causes for the low literacy rate of tribal students, even the educated tribal students were unable to get employment. So the government must take special attention to these issues. D'Souza (1980) found that the differential utilisation of educational facilities provided could be attributed to the prevalent socio-economic variance in the home environment. Sachidananda (1967) opined that in modern society the major link of education to the social structure was through the economy and this was a linkage of both stimulus and response. Shweta et al, (2009) advocated that the tribal education-related issues, were due to internal and external factors. There is a need for recognition of tribal culture, cognitive strength of children, curriculum, context and learning ability of tribal children. Kabita Kumari (2014) found that there was an increasing status of tribal literacy rates from 1961 to 2011 (8.54 per cent to 63 per cent). There was an increase in the Gross Enrolment for the classes one to fifth but there is a slow increase in the girl children enrolment ratios. The author suggested that appointment of sufficient female teaching faculty, awakening the tribal parents, focusing on girl children education and giving importance for higher education may serve objectives of tribal education. Haseena (2014) revealed that the causes for drop-outs were their economic backwardness, social customs, lack of awareness about education, cultural ethos and distance between home and schools. Saraswati (2016) found that due to ashram schools, model schools and Ekalavya schools literacy rate of the tribal population was increasing gradually.

ITDA

ITDA (Integrated Tribal Development Agency) was established for the integrated development of tribal people. It is implementing various development programmes for tribal people. The main objective of Integrated Tribal Development Agency is socio-economic development of tribal people with the help of various tribal welfare development schemes and protection of tribal communities against exploitation.

Objectives of ITDA

1. Rapid development in the socio-economic status of tribals to bring them to the mainstream economic development of society
2. Narrowing down the disparities in the levels of development of tribal and non-tribal areas
3. Increasing productivity in the fields of agriculture, horticulture, animal husbandry, forestry and mini industries and eradicating the poverty of tribal people
4. Elimination of exploitation of tribals in respect of alienation of land, money lending, debt bondage, forest and excise.

Ashram schools in Telangana state

Ashram schools which were designed to meet the requirements of tribal people, was introduced in the year 1961 by the state government in Telangana state. These ashram schools are the outcome of the report of various committees and commissions that have gone into the questions of improvement of education in tribal areas. Ashram schools in Telangana state are specially meant for tribal students only with free lodging, meals and all education-related needs. Presently in Telangana state 302 ashram schools are run with 84,740 students(boys and girls), apart from the 1,406 Government primary schools, 62 best available schools, 2 public schools at Hyderabad running the under the control of ITDA.

Table 1
Distribution of Schools

S No	Name of the District	No of Schools	No of girl students studying in Ashram schools in the academic year 2019-2020	No of boy students studying in Ashram schools in the academic year 2019-2020	Total Number of Students
1	Adilabad	51	8795	10350	19145
2	Ashifabad (Komaram Bheemu)	46	6321	6006	12327
3	Nirmal	14	1745	2435	4180
4	Mancherial	16	1784	1711	3495
5	Total Number	127	18645	20502	39147

(Source:http://twd.telangana.gov.in/educational-institutions)

At present in united Adilabad district, 127 ashram schools are there with 39147 students. Among them, 18645 are girls and 20502 are boys. These ashram schools are having classes from third to tenth standards.

Educational status in ashram schools

The construction of ashram schools for the primary, middle, secondary and senior secondary stages of education and up-gradation of education of the ST boys and girls was the main area of concern of the Centrally Sponsored Scheme of Establishment of Ashram Schools in Tribal Sub-Plan Areas, 2008. Educational status in ashram schools are the same as non-ashram schools but recently Government of Telangana modified a little concerning conduction of classes from third to tenth, whereas non-ashram schools run classes from sixth to tenth. Syllabus textbooks, examination pattern were same for ashram schools and non ashram schools. In ashram schools vacant posts are temporarily adjusted by contract residential teachers, whereas in non-ashram schools they are adjusted with vidya volunteers.

Infrastructure facilities in Ashram schools

Now a day's government is providing enough facilities for ashram schools such as well furnished buildings, beds, two pairs of uniforms, textbooks, reference books study materials, gym facilities, veg and non-veg meals, fruits, computer labs and digital classes for the tribal welfare.

Each dormitory can accommodate 10 and 25 students depending on the availability of rooms and the students. In every dormitory there are sufficient cots and bedsheets. Mostly, every individual gets separate Cot. The mattresses/bed covers and blankets are either provided by the school or brought from home and they are not cleaned for months. Dormitory rooms are not cleaned properly. Mosquito nets have been provided but not for all. All students get the tin box to keep their belongings. There are no study tables and chairs in the hostel. So the students read and study in classrooms only.

Teaching and learning process in Ashram schools

The teaching and learning process in ashram schools are like non-asham schools only but ashram schools are residential schools, and the teachers are having supervising duties and students need to attend study hours daily. Majority of the ashram schools use Telugu as medium of instruction. Progression of the students is based on their attendance except for tenth standard. For class tenth as usual board examination is conducted by the Board of secondary examination Hyderabad. Recently there are so many teacher posts are vacant. In that vacancies contract residential teachers are working but they are not payed properly so it has its own effects on the teaching-learning process and the very important thing is that those contract residential teachers are getting transfer every year and so it seriously effect the students' learning. Sometimes those contract teachers are transferred two to three times in a year and this makes them uninterested in their teaching activities. Homework or assignments are regarded as significant in ashram schools. There are students, who are not very attentive in class; they are more interested in interacting with their friends during the class hours and take pleasure.

Role of Ashram schools in tribal education

Ashram schools play a very important role in the education of tribals. Three hundred and seven ashram schools are run in Telangana state. In these tribal welfare ashram schools 84740 (Boys and girls) tribal students are getting free education. In united Adilabad district at present 127 ashram schools are there, in those schools 39147 (boys and girls) students are getting free education.

These ashram schools are mostly located in the agency area of united Adilabad District. Tribals are the underprivileged people of our nation India and they have a very little contact with the modern society. They don't want to communicate with strangers or those who are new for them. Since three decades, these ashram schools educate tribal students and most of them are first-generation learners and slowly they are getting employment opportunities in those schools because preference is given to the educated people in the agency area. Due this employment opportunities their economical status is slowly getting up.

Table 2
The increasing rate of literacy of STs (1961-2011)

Year	Rural			Urban			Combined		
	Female	Male	Total	Femal	Male	Total	Female	Male	Total
1961	2.9	13.37	8.16	13.45	37.09	22.4	3.16	13.83	8.53
1971	4.36	16.92	10.68	19.64	37.09	28.8	4.85	17.63	11.3
1981	6.81	22.94	14.92	27.32	47.6	37.9	8.04	24.52	16.4
1991	16.02	38.45	27.38	45.66	66.56	56.6	18.19	40.65	29.6
2001	32.44	57.39	45.02	59.87	77.77	69.1	34.76	59.17	47.1
2011	46.9	66.8	56.9	70.3	83.2	76.8	49.35	68.53	59
% increase	44.57	16.4	26.39	17.42	6.98	11.2	41.97	15.82	25.2

(Source : Census of India, Office of Registrar General, India.)

Ashram schools were started in sixties, from then the literacy rate of tribal people is gradually increasing. This proves that, ashram schools have played a significant role in providing education to tribal people.

Conclusion

Ashram schools are inter-village schools. They are established in the areas where ordinary schools cannot be established. In most cases, backward tribal groups need to be covered. Besides the formal education, ashram schools give importance to physical activities, sports, games, dance, music, artworks and handicrafts. These activities stimulate the mind-sets of the students and they become more motivated towards learning. For the success of the schools, besides academic concepts, cultural activities are also organized in the schools and so ashram schools are viewed as cultural centres.

Ashram schools are having some problems which need to be rectified or eradicated. For instance, there is a lack of medical facilities, water shortage, and deficiency in electricity and also adequate dress materials are not provided to the students. These deficiencies proved to be the barriers for the tribal students for their acquisition of education and an increase in the enrolment of students but there is no doubt that ashram schools are playing a vital role in providing educational opportunities for tribal students. As we know that there is a positive relationship between education and development of the community, hope the educational opportunities provided to the tribal students would develop their socio-economic status. With this, the achievement of the integral development of the country is also possible.

Reference

1. *Dongre, A. R., Deshmukh, P. R., & Garg, B. S. (2011). Health needs of ashram Schools in rural Wardha. Online Journal of Health and Allied Sciences, 10(1).*
2. *Das, A. R., Naidu, R. V. K., & Sreedhar, N. (2003). Who Joins Ashram Schools?(A Study of Ashram Schools in Karnataka). The Anthropologist, 5(3), 155-159.*
3. *India. Dept. of Education. (1986). National Policy on Education, 1986. Ministry of Human Resource Development, Government of India, Department of Education.*
4. *Gautam, V. (2003). Education of tribal children in India and the issue of Medium of Instruction: A Janshala experience. UN/Government Janshala Programme. New Delhi.*

ENHANCING SELF-REGULATION SKILL AND LEARNING ACHIEVEMENT IN SCIENCE THROUGH BRAIN BASED LEARNING (BBL) STRATEGIES

UGC CARE APPROVED

ABSTRACT

This study was executed as an experimental method and a pretest-posttest control group design. The total population was stratified and the sample size consisted of 96 (+ 2 Science) first-year students, who were selected randomly and were placed in two groups of control and experiment (each group, 48 students). The researcher taught the experimental group through lessons designed based on brain-based learning principles for 12 weeks. The achievement test was used for collecting the data. The collected data were analyzed by using the statistical technique i.e. analysis of covariance (ANCOVA) test. The results of the ANCOVA analysis test indicated that brain-based learning affects self-regulation & learning achievement in science. According to different researches, Brain-based Learning can be used as an intervention therapy for enhancing learning achievement in science of higher secondary students. This study also highlights the implications of different headings.

Keywords: *Brain-Based Learning, self-regulation Skills, Learning Achievement, Learning Style*

Introduction

Constructivist theory is the foundation of the present study. According to Jensen, 2008b, Gardner's theory of multiple intelligences is the stepping stone of brain-based learning whereas behaviourists approach of Skinner and Pavlov are the bases of teacher-centred instruction i.e. instruction for the control group. The constructivist theoretical perspective of education is the foundation for brain-based instruction (Bush, 2006). Brain-based instruction uses orchestrated immersion as a central component of student learning (Jensen, 2008b). Orchestrated immersion is using student knowledge as it applies to real-life situations (Jensen, 2008b). Brain-based instruction allows the use of multiple intelligences to work seamlessly with orchestrated immersion and active processing. Brain-based instruction stems from the research of Gardner's multiple intelligence theory, as Gardner used brain-based evidence for his theory of multiple intelligences (Jensen, 2008b). Brain-Based Learning (BBL) theory encompasses the functional and structural aspects of the human brain. Learning will occur till the human brain is not inhibited from the normal information process.

Brain-based instruction goes beyond the multiple intelligence theory; brain-based instruction includes the physical environment and reactions to learning to aid in increasing learning (Jensen, 2008b). Brain-based instruction has a focus on orchestrated immersion as one of three components, so students actively engage in learning (Wilmes, Harrington, Kohler-Evans, & Sumpter, 2008). Apart from orchestrated immersion, the two other components of brain-based instruction are relaxed alertness and active processing. As learning is a natural process it will occur with instinct but concerning different intensity called individual differences. Now the question may arise that if learning is a natural phenomenon then why learning is not at all same for all? Why individual differences exist in learning? The answer is that new learning must compatible with brain processes. BBL includes different activities which can engage both rights and left hemispheres of the brain, which leads to meaningful learning experiences as well as permanent neural connections.

Dr. Jagannath Kunar
Lecturer, Dept. of Education,
RIHS, Bhograi, Balasore, Odisha-756036

The current study uses this content specific theory as the theory relates to the constructivist theory and brain-based instruction. Currently, many teachers continue to use teacher-centred instruction even though the evidence is available to suggest a constructivist approach is more effective (Beauchman, 2005).

Significance of the Study

The previous research studies of (Kingir, Sevgi et.al, 2013; McClelland, Megan M.; Cameron, Claire E. 2011; Bakracevic Vukman, Karin; Licardo, Marta, 2010; Jakubowski, Terrance G. & Dembo, Myron H, 2002) who claimed that the relationships between the social-cognitive factors and academic achievement were mediated by self-regulation and science achievement. Though the works were done related to self –regulation problems of adolescent, none of the researches were related to applications of brain-based learning for enhancing achievement and self-regulation. Hence, the researcher decided to study the effect of brain-based learning strategies for elevating the self-regulation problems of adolescents. Furthermore, there has not been a study published on how brain-based instructional strategies specifically affect achievement in secondary school science in India.

Objectives of the study

1. To compare mean scores of self-regulation skill of brain-based learning(BBL) group and conventional method group by taking pre- self-regulation skill as a covariate.
2. To compare mean scores of achievement in Science of brain-based learning group and conventional method group by taking pre- achievement in Science as a covariate.
3. To study the effect of treatment, gender and their interaction on self-regulation skill by taking pre- self-regulation skill as a covariate.
4. To study the effect of treatment, gender and their interaction on achievement in Science by taking pre- achievement in Science as a covariate.

Hypotheses of the Study

Basing on objectives, the following null hypotheses have been formulated:

1. There is no significant difference in mean scores of self-regulation skill of Brain-Based Learning (BBL) group and conventional method group by taking pre- self-regulation skill as a covariate.
2. There is no significant difference in mean scores of achievement in Science of BBL group and conventional method group by taking pre- achievement in Science as a covariate.
3. There is no significant effect of treatment in terms of gender and their interaction on self-regulation skill by taking pre- self-regulation skill as a covariate.
4. There is no significant effect of treatment in terms of gender and their interaction on achievement in Science by taking pre- achievement in Science as a covariate.

Methodology of the study

Keeping the requirement of the study, pre-test post-test control group design was adopted. There were two sections (A & B) having 128 students in each section. The researcher had randomly selected section B for the study by employing a lottery method. After verification of the attendance, it was found that 96 students of section B had been attending the classes regularly. Finally, the researcher included all 96 students of Section-B in the study after getting their consent for participation in the experiment. The researcher taught the experimental group through lessons designed based on BBL principles for 12 weeks. After the intervention was over, experimental and control groups were exposed to post-test ,to determine the impact of BBL strategies as an instructional tool on self-regulation skill as well as learning achievement in Science of the students. The data collected from both the experimental and control groups in the pretest and posttest were analyzed by using t-test, two way ANCOVA.

Analysis and interpretation

Effect of BBL on Self-regulation Skills of Students: The adjusted F-value for treatment is 10.57, and its significance value with df =(1, 93) is 0.002. This value is lesser than 0.01 which is significant at 0.01 level of significance. It indicates that the adjusted mean score of self-regulation of student taught through BBL and conventional method differ significantly when pre- self-

regulation was taken as covariate. The BBL strategy was found to be significantly superior to the traditional method in enhancing self-regulation skill. The effectiveness of BBL on self-regulation was found to be effective as well as superior to traditional method when groups were formed randomly. This finding is supported by research findings that, the BBL affects self-regulated learning of Sadrabad, Ghavam and Radmanesh (2015); Lipsett (2011). Hence, it can be concluded that BBL strategies enhance self-regulation skills.

Effect of Brain-Based Learning on Learning Achievement of Student in Science: The adjusted F-value for the treatment group is 40.598, and its significance value with df = (1.93) is 0.000. This value is lesser than 0.01 which is significant at 0.01 level of significance. It indicates that the adjusted mean score of learning achievement of students in Science taught through BBL and conventional method differ significantly when pre- learning achievement score was taken as covariate. The BBL was found to be significantly superior to the traditional method in enhancing learning achievement in Science when pre- achievement score of Science was taken as covariate. Findings of the present study is in accordance with the earlier research studies conducted by Mojavezi and Tamiz (2012); Gozuyesil and Dikici (2014); Akyurek, Erkan; Afacan, Ozlem (2013); Duman (2010).

Effect of Treatment, Gender and their Interaction on Self-Regulation Skill: The third objective of the study was to study the effect of treatment in terms of gender and their interaction on self-regulation skills by taking pre-self-regulation skill as a covariate. It was found that the self-regulation skill of students was found to be dependent on their gender.

Table-1
Summary of One – Way ANCOVA of Self-Regulation Scores by Taking Pre-Self-Regulation as Covariate

Source of variation	df	SS y.x	MSS y.x	F y.x	Exact significance	Significance Level
Treatment	1	52.613	1076.186	11.000	.001**	< 0.01
Error	91	8902.652	97.831			
Total	96	895699.000				

**Significant at 0.01 level

Both male and female students were benefited from the Brain-Based Learning in enhancing self-regulation skill in comparison to conventional method when groups were matched statistically i.e. the adjusted F-value for treatment is 11.000, whose significance value with df = (1, 91) is 0.001. This value is lesser than 0.01 which is significant at 0.01 level of significance. It indicates that the adjusted mean score of self-regulation of male and female students differ significantly. Weis et al. (2013) reported that a significant sex difference favouring girls in behavioural self-regulation.

It may be because of the hormonal structure difference between male and female. Neuropsychology suggests that the difference may be due to the difference in the maturity of boys and girls. From the social and societal viewpoint, it may be because the girls, more often, are in the company of adults which stimulates the self-regulation to a greater extent.

This finding indicates that gender may be kept in mind while developing the BBL package to enhance self-regulation skill. The BBL package may not be the same for both male and female to content, sequence, examples, etc.

Effect of Treatment, Gender and their Interaction on Learning Achievement in Science: The fourth objective of the study was to study the effect of treatment in terms of gender and their interaction on learning achievement in Science by taking pre-learning achievement in Science as a covariate.

Table -2
Summary of One – Way ANCOVA of Achievement Scores in Science by Taking Pre- Achievement as Covariate

Source of variation	df	SS y.x	MSS y.x	F y.x	Exact significance	Significance Level
Treatment	1	30.300	1271.24	40.86	.000**	< 0.01
Error	91	2831.117	31.111			
Total	96	84989.000				

**Significant at 0.01 level

It was found that the learning achievement of students in Science was found to be dependent on their gender. Both

male and female students of the experimental group were benefited from the BBL in comparison to conventional method when groups were matched statistically i.e. the adjusted F-value for treatment is 40.86, whose significance value with df = (1, 91) is 0.00. This value is lesser than 0.01 which was significant at 0.01level of significance. It indicates that the adjusted mean score of learning achievement in Science of male and female students differ significantly.

As per global educational statistics, there is a clear gender gap in academic achievement between female and male with girls are ahead of boys in terms of subject grades Clark, Lee, Goodman and Yacco, (2008). From a theoretical point of view, this difference may be due to factors like personal/cognitive factors, their behavioural factors and environmental factors (Bandura, 1986) that influence them. Further, this difference of achievement i.e. female students appeared to be significantly higher in learning achievement may be due to greater parental control, longer attention span, emotional maturity & greater focus of female students.

This finding indicates that gender may be kept in mind while developing the BBL package on learning achievement in Science. The BBL package may not the same for both male and female students concerning content, sequence, examples, etc. There was no gender bias in developing the BBL package for this study.

Implications

The present study revealed that the BBL strategies had enhanced the learning achievement of students in Science as well as self-regulation skills irrespective of their gender. Thus, findings of the study would help the learners not only to regulate their self but also they can utilize maximum faculty of the brain for conceptual understanding as well as constructive thinking to generate linkage for assimilation and enhance the capacity of accommodation for a new concept. Thus BBL on Science can be very useful for the learner in the vital stage of adolescence. Secondly, teacher education must be planned with the BBL curriculum. This gives scope to pre and in-service teachers to apply the understanding of BBL in real classroom situations. The teachers who are in the field of Science teaching may utilize BBL package to enhance self-regulation among the teenage group, as a result, the understanding and planned to learn can be reflected on their achievement. Thirdly, the Head of the school must provide flexibility to the teacher to apply BBL strategies. The principal can also organize the workshop on the use of BBL so that the working teacher can get new ideas and way in using BBL strategies.

Conclusion

Conventional teacher cantered classroom instruction has been the norms for the instructional method as far as the classroom is concerned. This norm has been changing to more learner cantered method; BBL strategies are one such method currently used as an intervention for the experimental group. By examining the effect of BBL on learners' achievement as compared with a conventional method on learners' achievement, it is possible to establish the impact of BBL on instructional leadership. Evaluating the benefits of using BBL strategies might lead to further changes in the teacher education programme to veteran teachers' professional development.

References

1. *Akyurek, Erkan; Afacan, Ozlem. (2013). Effect of brain-based learning approach on students' motivation and attitudes levels in science class. Mevlana International Journal of Education(MIJE), 3(1), 104-119.*
2. *Bakracevic , V. Karin & Licardo, Marta, (2010). How cognitive, metacognitive, motivational and emotional self-regulation influence school performance in adolescence and early adulthood, Educational Studies, 36 (3),259-268*
3. *Bandura, A. (1986). Social foundations of thought and action. Englewood Cliffs, NJ: Prentice Hall.*
4. *Beauchman, M. L. T. (2005). The knowledge base and instructional practices of two highly qualified experienced secondary mathematics teacher. Dissertation Abstract International, 66 (11), 202. (UMI No:3194138).*
5. *Bush, G. (2006). Learning about learning: From theories to trends. Teacher librarian.34 (2), 14-19.*
6. *Clark, M.A., Lee, S.M., Goodman, W.& Yacco, S. (2008). Examining male underachievement in public education: Action research at a district level. NASSP Bulletin, 92(2), 111–132. doi:10.1177/0192636508321155.*

7. *Duman, B. (2010).The effects of brain-based learning on the academic achievement of students with different learning styles.Educational Sciences: Theory & Practice,10 (4) 2077-2103.*

8. *Jakubowski, Terrance G. & Dembo, Myron H, (2002). The Relationship of Self-Efficacy, Identity Style, and Stage of Change with Academic Self-Regulation, Journal of College Reading and Learning, 35 (1), 7- 24.*

9. *Jensen, E. (2008b). A fresh look at brain-based education.Phi Delta Kappan, 89(6), 409-417.*

10. *Kingir, Sevgi et.al. (2013). Relationships among constructivist learning environment, perceptions, motivational belief, self-regulation and science achievement research in science and technological education, v31n3p205-226.*

11. *Lipsett, A. B. (2011). Supporting emotional regulation in elementary school: Brain-based strategies and classroom interventions to promote self-regulation. LearningLandscapes, 5(1),157-175. https://doi.org/10.36510/learnland.v5i1.539.*

12. *McClelland, Megan M.; Cameron, Claire E. (2011).Self-regulation in early childhood: improving conceptual clarity and developing ecologically valid measures, Child Development Perspectives ,6 (2), 136-142.*

13. *Mojavezi, A. &Tamiz, M. P. (2012).The impact of teacher self-efficacy on the students' motivation and achievement.Theory and Practice in Language Studies,2,483-491. https://doi.org/10.4304/tpls.2.3.483-491.*

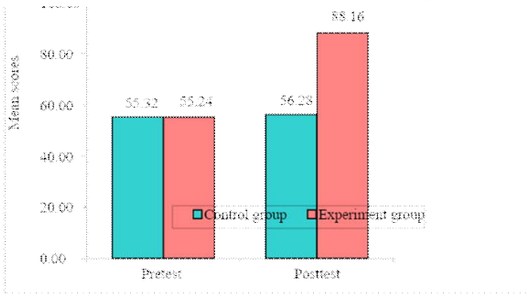
14. *Sadrabad, A., Khalili, G., Soghra, E. &Radmanesh, H. (2015). The study of the effectiveness of brain-based learning on self- regulated learning among girl students of first grade in high school of Yazd , Biological Forum – An International Journal 7(2): (Special Issue-I) 61-68*

15. *Wilmes, B., Harrington, L., Kohler-Evans, P., &Sumpter, d. (2008). Coming to our senses: incorporating brain research findings into classroom instruction. Education, 128 (4), 659-666.*

Continuation of Page 17

EFFECTIVENESS OF CONCEPT...

Figure No. 1: Comparison of Control and experiment groups with respect to pretest, posttest and gain scrores of acheievement in Mathematics of 10th standard students of secondary schools



Educational Implications

CAM provides a chance to analyze the students thinking process and to help them develop more effective strategies for thinking and concept attainment. In this study, CAM has been found to facilitate achievement of learners in Mathematics, apart from that this study facilitates to reduce the Stress (Anxiety) among the secondary school students. This has an important implication for teaching Mathematics to the school children. Therefore, the Mathematics teachers may be trained in using CAM for the teaching of Mathematics.

Keeping in view the limitations of the present study, and the constraints under which it was conducted, the findings do not warrant wide generalization. It is, therefore, suggested that replication of this study on a larger sample of different age-groups, grade levels, subject areas, sex, socio-economic status and intelligence level, be made to arrive at more reliable and precise results.

Reference

1. *Chitriv, U.G.(1983)Evaluating differential effectiveness of Ausubel and Bruner strategies for acquisition of concepts in mathematics. In Ausuble v/s Bruner model for teaching in school. New Delhi: Sterling publisher's Pvt. Ltd.*
2. *Chitrive, U.G.(1983). "Evaluating Differential Effectiveness of Ausubel and Bruner Strategies for Acquisition of concept in Mathematics. "Ph.D. Dissertation, Nagpur, Nagpur University.*
3. *Joyce, Bruce. And Weil, Marsha. (2005).Models of teaching (5 ed).Prentice-Hall of India Pvt. Ltd.*
4. *Sharma, V.(1986).Effectiveness of the Concept attainment model and their reaction. Trend report and abstract. Devi Ahiliya vidyalaya, Indore.*

ATTITUDE OF IN-SERVICE TEACHERS TOWARDS IN-SERVICE TEACHER TRAINING PROGRAMMES CONDUCTED BY DIETS IN HIMACHAL PRADESH

UGC CARE APPROVED

ABSTRACT

In-service teacher training programmes are of immense significance in the field of teacher education. In-service teacher training programmes refresh, rejuvenate and update the knowledge of in-service teachers to enhance their teaching abilities and potentialities. This study is an attempt to study the attitude of in-service teachers towards the in-service teacher training programmes conducted by DIETs. A sample of 60 head teachers and 480 in-service teachers was selected from 4 Districts namely, Shimla, Solan, Bilaspur and Kinnaur of Himachal Pradesh. The attitude scale was developed and standardised by the investigators themselves for the use of data collection. The study shows that in-service teacher training programmes are of utmost importance in the teaching-learning scenario. It was found in the present study that the majority of head teachers and in-service teachers had a favourable attitude towards in-service teacher training programmes.

Keywords: Attitude, In-service teacher training programmes, District Institutes of Education & Training (DIETs), Himachal Pradesh.

Introduction

With the advent of District Institutes of Education and Training (DIETs) by the recommendation of the National Policy of Education (1986), there has been a great strengthening of teacher education. The in-service teacher training programmes conducted by DIETs aim towards improving the knowledge and educational capacities of teachers, develop special talents of teachers, raise the cultural and professional standard of teachers, make teachers ready to understand the challenging new situations faced by them and maintaining knowledge and skills of teachers.

Surapuramath, K. A. (2012)conducted a study on attitude of teachers towards in-service training programmes of Sarva Shiksha Abhiyan (SSA) and revealed that: (i) there is no significant difference between rural and urban teachers' attitude towards in-service training programs of SSA ; (ii) there is no significant difference between male and female teachers' attitude towards in-service training programs of SSA and; (iii) there is no significant difference between 1-10 years and 11-20 years of teaching experience teachers' attitude towards in-service training programs of SSA.Inyega, J. O., &Inyega, H. N (2017) in their study on teachers' attitude towards teaching following in-service teacher education program in Kenya found that needs- and participatory-oriented in-service professional development programs for teachers is beneficial and leads to positive change in teachers' attitude towards teaching and learning objectives, use of appropriate teaching strategies and approaches, work planning, ability to overcome teaching limitations, and conducting practical work in chemistry. Khan, Z. N. (2017)in their study on the attitude of teachers towards in-service training for the improvement in the quality of teaching at school level found that: (i) the central school teachers were satisfied with the quality of teaching-learning method during training period while state school teachers were not much more satisfied with teaching-learning method and; (ii) the central school teachers were satisfied with the

Dr. Prabha Jishtu
Professor, Department of Education, HPU Shimla, India.
Ms Nancy Grover
Research Scholar, Department of Education, HPU Shimla, India.

quality of teaching-learning materials provided during training period while state school teachers were not much satisfied with teaching-learning materials and they were unable to generate motivation and develop competencies and skills in the teachers. Goswami, A. (2019) in his study on the effectiveness of teachers training programme at the elementary school stage in Assam found that all elementary school teachers have shown positive and significantly favourable attitude towards the in-service teacher training programmes in Assam. Bangan, G. C. (2019) in a study on the effectiveness of in-service training to the professional growth of teachers found that in-service training is true of great advantage to teachers for the improvement of their teaching career. Sedega,et al.(2019) in a study on the perception of teachers on the effectiveness of in-service education and training at the basic schools in Akatsi district found that: (i) the teachers in the Akatsi district have been attending in-service education and training programmes regularly and they are constantly being refreshed and updated their knowledge and skills and;. (ii) the teachers have indicated that in-service teacher training programmes are beneficial to their professional development.

Need and significance of the study

This study is an attempt to know the attitude of the head teachers and in-service teachers towards in-service teacher training programmes. In-service Teacher Training Programs are of utmost significance as these programs update, refresh and rejuvenate the teachers so that they can give their best to the learners. District Institutes of Education and Training (DIETs) organize regular in-service training to the elementary teachers for updating their knowledge, skill and attitude from time to time. For the professional growth and development of teachers, DIETs are playing an eminent role in providing training programmes to the in-service teachers. The present study throws light on the in-service teacher training programmes conducted by DIETs and in turn the attitude of head teachers and in-service teachers towards these programmes.

Objectives

1. To study the attitude of head teachers and in-service teachers towards in-service teacher training programmes.
2. To study the attitude of male in-service teachers and female in-service teachers towards in-service teacher training programmes.
3. To study the attitude of male head teachers and female head teachers towards in-service teacher training programmes.

Hypotheses

1. There is no significant difference between the attitude of head teachers and in-service teachers towards in-service teacher training programmes.
2. There is no significant difference between the attitude of male in-service teachers and female in-service teachers towards in-service teacher training programmes.
3. There is no significant difference between the attitude of male head teachers and female head teachers towards in-service teacher training programmes.

Methodology

For fulfilling the objectives as mentioned above, the survey method of research was used in the present study.

Sample

The sample consisted of 60 head teachers of upper primary schools and 480 upper primary in-service teachers from the four districts namely, Shimla, Solan, Bilaspur and Kinnaur of Himachal Pradesh. The subjects were selected through random sampling technique.

Tool

The attitude scale was self-developed and standardised by the investigators themselves for the head teachers and in-service teachers. The attitude scale consists of 35 items (26 positive and 9 negative items).To assess the reliability, the attitude scale was administered on 116 upper-primary in-service teachers of Himachal Pradesh. Spilt-half method of reliability coefficient of correlation was found to be 0.99. From subject experts and Senior Professors of the Department of Education of Himachal Pradesh University, content validity was assured.

Norms

The percentile norms for all 540 in-service teachers (60 head teachers and 480 in-service teachers) were

calculated. Teachers with high scores can be considered to have a favourable attitude towards in-service teacher training programmes and vice-versa. The corresponding grouping such as most favourable, favourable, average, below average and poor attitude towards in-service teacher training programmes in terms of percentile norms for interpretation is presented in table-1:

Table-1
Norms Scores, Percentile Range and Attitude Level (N=540)

Scores	Percentile Range	Attitude Level
157 and Above	80 or Above	Most Favourable
143-156	60.00 to 79.99	Favourable
129-142	40.00 to 59.99	Average
115-128	20.00 to 39.99	Below Average
Below 115	Below 20	Poor

Procedure

The attitude scale was administered to the head teachers and the in-service teachers of upper primary schools. The respondents were given detailed instructions as how to respond on a Likert Scale regarding various items of the attitude scale. They were also assured that there is no right or wrong response, they are free to respond according to the first thought which comes to their mind.

Analysis and interpretation of data

For the present investigation, the obtained information regarding the attitude of head teachers and in-service teachers towards in-service teacher training programmes was put to hypotheses testing.

Hypothesis-1: There is no significant difference between the attitude of head teachers and in-service teachers towards in-service teacher training programmes.

Table 2
Summary of Mean Scores, SD, SEd and 't'-value for the attitude of Head Teachers and In-Service Teachers towards In-Service Teacher Training Programmes

Groups	N	Mean	SD	SEd	Calculated 't' value	Re mark
Head Teachers	60	149.57	8.43	1.38	1.12	Not Signifi cant
In-Service Teachers	480	148.02	18.52			

The table 2 reveals that the computed 't' value came out to be 1.12 which is lower than the table 't' value1.96 at 0.05 level of confidence and 2.59 at 0.01 level of confidence for the degree of freedom 538. Hence, the formulated hypothesis 1 "There is no significant difference between the attitude of head teachers and in-service teachers towards in-service teacher training programmes" is accepted. From this, it is interpreted that the mean score of the attitude of head teachers and in-service teachers are 149.57 and 148.02 respectively, which in the case of head teachers is slightly higher than the in-service teachers. Hence, according to the norms for interpretation of raw scores of attitude scale (Table-1), both head teachers and in-service teachers show a favourable attitude towards in-service teacher training programmes.

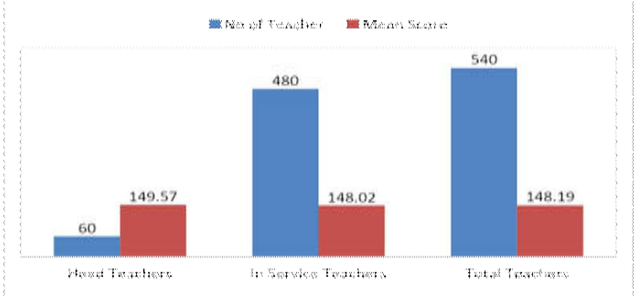


Figure-1: Showing the Number of Head Teachers and In-service Teachers and their Mean Scores

Hypothesis 2: There is no significant difference between the attitude of male in-service and female in-service teachers towards in-service teacher training programmes.

Table 3
Summary of Mean Scores, SD, SEd and 't'-value for the attitude of Male In-Service Teachers and Female In-Service Teachers towards In-Service Teacher Training Programmes

Groups	N	Mean	SD	SEd	't'	Remark
Male In-Service Teachers	144	152.03	16.78	1.7	3.29	Significant
Female In-Service Teachers	336	146.30	18.96			

The table 3 reveals that the computed 't' value came out to be 3.29 which is greater than the table 't' value 1.96 at 0.05 level of confidence and 2.59 at 0.01 level of confidence for the degree of freedom 478. Hence, the formulated hypothesis 2 "There is no significant difference between the attitude of male and female in-service teachers towards in-service teacher training programmes" is rejected. From this, it is interpreted that the attitude mean score of male and female teachers is 152.03 and 146.30 respectively, which in the case of male in-service teachers is higher than the female in-service teachers. Hence, according to the norms for interpretation of raw scores of attitude scale (Table-1), both male and female in-service teachers show a favourable attitude towards in-service teacher training programmes.

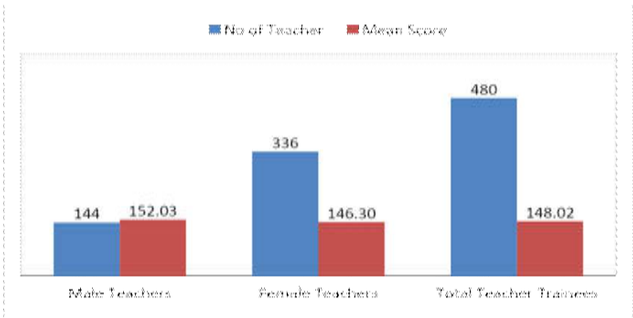


Figure-2 Showing the number of male and female in-service teachers and their mean scores

Hypothesis-3: There is no significant difference between the attitude of male head teachers and female head teachers towards in-service teacher training programmes.

Table 4

Summary of Mean Scores, SD, SEd and 't'-value for the attitude of Male and Female Head Teachers towards In-Service Teacher Training Programmes

Groups	N	Mean	SD	SEd	Calculated 't' value	Remark
Male In-Service Head Teachers	24	150.96	8.36	2.22	1.05	Not Significant
Female In-Service Head Teachers	36	148.64	8.48			

The table 4 reveals that the computed 't' value came out to be 1.05 which is lower than the table 't' value 2.00 at 0.05 level of confidence and 2.66 at 0.01 level of confidence for the degree of freedom 58. Hence, the formulated hypothesis3 "There is no significant difference between the attitude of male and female in-service head teachers towards in-service teacher training programmes" is accepted. From this, it is interpreted that the attitude mean score of male and female head teachers is 150.96 and 148.64 respectively, which in the case of male head teachers is a little higher than the female head teachers. Hence, according to the norms for interpretation of raw scores of attitude scale (Table-1) both male and female head, in-service teachers show favourable attitude towards in-service teacher training programmes.

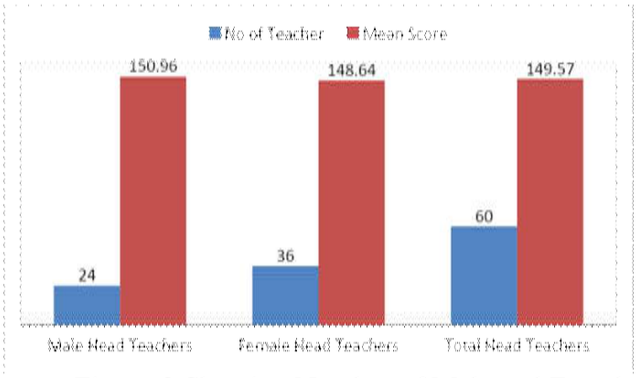


Figure-3 Showing Number of Male and Female Head Teachers and their Mean Scores

Major findings of the study

1. There is no significant difference between the attitude of head teachers and in-service teachers towards in-service teacher training programmes. Both head teachers and in-service teachers show a favourable attitude towards in-service teacher training programmes.
2. There is a significant difference between the attitude of male and female in-service teachers towards in-service teacher training programmes. Both male and female in-service teachers show a favourable attitude towards in-service teacher training programmes. However, with male in-service teachers slightly on the higher side.
3. There is no significant difference between the attitude of male and female in-service head teachers towards in-service teacher training programmes. Both male and female head in-service teachers show a favourable attitude towards in-service teacher training programmes.

Continued on Page 39

EFFECTIVENESS OF PEER TUTORING IN IMPROVING LANGUAGE SKILLS OF STUDENT TEACHERS

UGC CARE APPROVED

ABSTRACT

The article is based on a study intended to understand the effectiveness of peer tutoring programme on language skills among 18 students of English pedagogy in the teacher education programme of Mysore district, Karnataka State. Peer teaching is a process in which students with more abilities facilitate less able students to make them understand the subject matters in pairs or small groups. The method adopted was Quazi experimental study with single group pre-test post-test design. The investigator collected the data using the content competency test, observation, speaking skill test and writing skill analysis. Post-test was conducted on speaking skill, writing skill and language competency using language competency test after the intervention programme for three months. T-test was conducted to compare the means of pre and post-tests. Results indicated that peer tutoring was effective in developing speaking skill, writing skill and language competency. The participants had poor confidence level before the programme and the intervention activities helped to remove stage fear and developed confidence in trainees.

Keywords: *Peer tutoring; Language skills; English Pedagogy; Tutee*

Introduction

The study of language lays the basic foundation for all other learning. Language makes people civilized human who can communicate with members of the community. The English language is a powerful vehicle of communication which serves as a link language in a multilingual and multicultural society like India and also as a global linguistic moderator. In India, classrooms are heterogeneous with different ability groups, especially in small towns or villages. In most of the rural parts of India, the teaching-learning process is done in the vernacular language. The ratio of students to teachers is high, leading to the ineffective acquisition of language skill. The rural atmosphere does not support with a favourable opportunity to speak and learn English as the class size is big and lack of facilities. Individual attention is not possible for the students because of the large class size. As compared to the learners from urban areas, learners from rural areas encounter more challenges during the process of language acquisition. The situation is not different in many teacher education institutions. There is a dearth of English teachers in the country which led to the increasing number of student teachers opting English pedagogy. But unfortunately, 60 percentages of students are unable to communicate through speaking and writing fluently in English. Some of the students may not have studied English as the main subject but because of dual methodology, they are forced to learn English pedagogy.

A wide variety of instructional methods, approaches, and strategies have to be established to promote the motivation of students in language learning. Actively engaging student teachers in class periods are one of the initiatives that teacher educators have to start with to help learners be responsible for their learning and to motivate them to learn and preserve the skills they acquired. Besides, it is helpful if a profound understanding of their subject matters in a constructive approach is developed. Bonwell and Eison (1991) define active learning as " anything that involves students in doing things and thinking about the things they are doing". One of the types of active learning is "cooperative learning" in which a group of students work on a common

Asha P Pathrose
Assistant Professor,
St. Joseph's College of Education, Mysuru, Karnataka

task. According to Richards and Schmidt (1985) cooperative learning is "an approach to teaching and learning in which classrooms are organized so that students can work together in small cooperative teams". It has revealed that with cooperative learning students have the opportunities to give and receive information when needed through arguments and discussions to comprehend the ideas and the matters.

One method of cooperative learning in English is Peer Tutoring. C. Mercer and A. Mercer (2005) stated that Peer Tutoring is a teaching technique in which the teacher makes pairs of the students as a tutor and tutee to promote learning. Zhao (2010) reported that peer tutoring has been extensively used in English writing. Researchers like Cho and Schunn (2007) asserted that success in any discipline depends upon the effective writing skills of students. It means that writing skill needs regular practice to develop skill gradually. According to Kapka and Oberman (2001) practice means repetition, and adopting appropriate teaching technique would make students writing skills better. Plutsky and Wilson (2004) stated that Peer tutoring plays a crucial role in improving the English writing skills as well as the academic achievement of students. Moreover, Maarof., et.al (2011) defined the process of acquiring writing skills by revising and analyzing the drafts, correction of the mistakes by peers. This makes the learners self-directed.

Conceptual framework

Peer teaching is a teaching model that can be employed in Pedagogy of English classes to engage students throughout class activities, and make them converse about the materials in or outside the classroom, where students understand the subjects better, and they enlighten their peers who haven't understood the subject matter or unable to comprehend the explanations given by their teachers completely. The teacher can act as facilitator and assessor and learners can teach other learners during the session. It can be out of class meeting time when learners learn from their peers without their teacher. The traditional way of teaching provides little opportunity for students to engage with the subjects, understand key points, and communicate with each other. To learn better and be an active part of the learning process as they have to play an active participatory role.

The pioneer's of peer tutoring Goldschmidt and Goldschmidt, (1976) classified peer teaching under two main categories and five different types which are as follows

1. Near-peers : A near-peer is an individual who has recently gone through experiences that his or her pupils who are one or two stages behind now and soon will be facing those experiences. A 'near-peer' falls in between a Peer and an Expert in a learning spectrum. They are:

a. Student-teacher : are students who are successful in the course, and who are helpful as they provide a means to supplement a large lecture course with a small discussion group.

b. Tutors : They are successful students who grasp things faster. They teach other students on a one-to-one basis and help them to master skills.

2. Co-peers : A peer is someone who is at the same level as you in the class who is of similar age group. They are:

a. Partnerships refer to one-to-one relationships in which two students interact as teacher and learner.

b. Workgroups refer to those student groups sharing a common task.

The term "co-peer" is used to highlight the collegial status of students who teach each other are at the same level and the roles of teacher and learner are interchangeable, whereas, near-peers facilitate fellow students who are sometimes more advanced or are close to their of educational level. According to (Butchart et al. 2009) peer teaching is a simple and effective technique that can be used to make lectures more engaging, interactive and effective learning experiences.

Review of related literature

Several studies have been conducted to explore the use of peer teaching in different fields including English language teaching. Some of the studies are as follows: Fagen, et al. (2002) surveyed a large number of teachers who implemented collaborative strategies and peer instruction in their classrooms. The findings of the study reported that the respondents stated several challenges. They were mainly doubtful of the benefits of student discussions as they think that these discussions take away their lecture time. It is

difficult for students to teach their peers inside the classroom as the quantity of material need to be covered in a course often makes it difficult to allocate class time. Some students are not familiar with active class participation, so they feel less comfortable and it is probably difficult to fully engage them in class discussions. On the contrary, they declared that students who are assigned with extra work before attending classes and had warm-up activities were successful in their learning and are actively engaged in classroom tasks because discussion and persuading peers about an idea is going to bring about an active atmosphere in-class lecturing. Another advantage is that students do not merely learn the resources which they are given as a curriculum but also apply it in life. Dumont (2013) claims that peer teaching can be used with any topic, concept, or idea. It has appeared in our practice that it was relevant to ask grammar questions and basic language concepts about writing and levels of language.

Lelis (2017) in her study made an effort to know how pot graduate students' perceive and engage with peer learning activities. The study indicated that students who performed as a tutor considered the method undeniably positive. Yaman (2017) in a multiple case study also explored the effect of peer teaching, when it is implemented and found out that peers were interdependence to each other and they were scaffolding each another for learning. Recently, a study by (Zambrano and Gisbert, 2017) explored the explicit representation of teachers about peer teaching and teacher collaboration at the start of implementation of a cooperative program to improve reading competence in the classroom. Finding revealed that peer teaching improved reading skill.

Objective of the Study

The objective of this study is to introduce the idea of peer teaching, benefits of this teaching model, and to develop an understanding on how and when to implement peer tutoring in English Pedagogy as a method in Teacher Education Colleges and institutes to help learners enhance their English skills.

Methods and material

The method adopted was Quazi experimental study with single group pre-test post-test design. Data was collected from a sample consisting of 18 B.Ed trainee students who were selected based on the observation of their micro-teaching workshop and language competency objective test conducted on them. The test consisted of questions from Grammar- tense, vocabulary development, parts of speech, direct-indirect speech, and, unity and coherence. Each MCQ consist of four possible distracters. After the pre-test, the sample was facilitated with peer tutoring for 3 months. Peer tutoring was conducted by peers who have already acquired and they tutored their peers adopting different techniques like reading and discussion of storybooks, grammar learning through activity method, speaking skill practice taking small topics and picture narration and writing skill by practicing to write sentences, stories and short narratives. Thus when they were taught by peer group they were interested to learn and acquire language skills effectively. After three months, Post-test was conducted on speaking skill, writing skill and language competency using language competency test.

Comparison of pretest and post-test score after the intervention

Hypothesis framed for finding out the effectiveness of peer tutoring on the acquisition of language skills is:

There is a significant mean difference between the pre-test score and post-test scores of trainee teachers after the intervention.

The null hypothesis formulated for testing is: There is no significant mean difference between the pre-test score and post-test score of trainee teachers after the intervention.

To verify the hypothesis that there is a difference between the pre-test score and post-test score of trainee teachers, a t-test (independent sample) is found after finding the difference between the mean score of pre-test and post-test. The results of the analysis are given in the table below.

Table1

Comparison of pretest and post-test scores after the intervention

Group	N	Mean	SD	Calculated 't' value	Remark
Pre-test	18	12.4	2.52	1.8	NS
Post-Test	18	16.2	1.44		

From the table 1, it is observed that the t-value is significant for the groups which indicate that there is a significant difference between the mean scores of pre-test and post-test. Hence the null hypothesis, there is no significant mean difference in the pre-test score and the post-test scores, is rejected. The alternate hypothesis is accepted. The mean score of the post-test is significantly higher than the pre-test.

Discussion of findings

The 't'-value shows that there is a significant difference in the pre-test score and post-test score, which shows that peer tutoring was effective in improving students language skills and competencies. The perspective of students towards peer tutoring changed. They realized that they are mutually benefitted. They mainly enjoyed learning in an informal setup. Learning outside the four walls and being with nature and healthy discussion and arguments (debate) helped them to get rid of the inferiority complex and hesitation to speak the language. The practice was done in the appropriate time and based on the individual pace of learning.

It's very useful because either when you are taught by your peer or you teach your peer, in both cases you are only two students, so you study according to your level. Thus students will try to make each other understand the subject. It is very useful as peers can get benefitted from each other, and share different ideas. They make understand each other better, since their ideas, ages and levels are close to each other". Each of the peer's shares their knowledge and the total shared knowledge is gained through learning from teachers, thus we can say peer teaching is a building, its base is teachers' teaching". This model enhances student-centered teaching, makes students more active, helps students (particularly the shy ones) to participate and get engaged more in classroom activities. And students no longer will be passive during classroom tasks they will be assigned to.

Conclusion

Peer teaching has already been implemented as it is a positive way that students. Students can work cooperatively to understand the English subjects need comprehension. The reasons for not using the model are students' dependence on teachers'. The model should be popularized among teacher education institutes. The model allows student-centred instruction and increases student engagement in-class activities.

It is a way through which students can learn from each other's teaching. Since students almost have the same level of proficiency and common learning problems and learning goals, it will be effective. Using peer teaching out of class meeting time help to save time and teachers can concentrate on higher-order skills.

References

1. *Chiu Suk Mei Eva ., Wong Pik Lo Morgan?(2017). Peer Tutoring in Speaking*
2. *Ehly, S.W and Larsen, S. C. (1980). Peer tutoring for individualized instruction. Boston: Allen and Bacon, Inc.*
3. *Gok, T. (2012). The effects of peer instruction on students' conceptual learning and*
4. *Action Research Study of the Effectiveness of the Peer Tutoring Program at One*
5. *Suburban Middle School, 16(1). GSCA Journal., 21-31*
6. *Humair Akhtar., Muhammad Saeed Khan and Saddaf Ayub (2019). Peer Tutoring: An Effective Technique to Enhance Students' English Writing Skills, Global Social Sciences Review (GSSR) Vol. IV, No.III (Summer 2019)|Page:299– 305*
7. *Hemn Adil Karim and Aso Ali Mohammed (2018). Implementing Peer Teaching to Enhance English Students' Language Learning: Kurdish EFL Teachers' and Students' Perspectives.*
8. *Lelis, C. (2017). Participation Ahead: Perceptions of Masters' degree students on Reciprocal Peer Learning Activities 10(2). Journal of Learning Design. 14-24*
9. *Keith Topping (2005) Trends in Peer Learning; Educational Psychology 25(6):631-645. DOI: 10.1080/ 01443410500345172*
10. *Zhao (2010). Peer Tutoring: investigating learners' use and understanding of peer and teacher feedback on writing: A comparative study in a Chinese English writing classroom As*sessing Writing 15(1):3-17

MOOCS FOR PROFESSIONAL DEVELOPMENT OF TEACHERS: CHALLENGES AND PROSPECTIVES

UGC CARE APPROVED

ABSTRACT

From the creation of the earth, education leads human being towards positive development. Education is a never-ending process. Therefore human being always explores alternative ways and means to continue education in different situations. Through continuing education, only professionals can constantly improve their skills and become more proficient at their jobs. In the context of teaching professions, everybody wants the best teachers in the world. Considering the significance of professional development in different sphere of life Massive Open Online Courses have developed as an alternative strategy to accommodate the educational demands of the masses. Different universities of the world accept this approach to provide educational opportunities to the masses through the online system. SWAYAM is the world's biggest MOOC platform initiated by the Government of India to consolidate the education governing bodies under one umbrella and make quality education accessible to country's residents free of cost. Though there are various issues concerned about the quality of content, methodology, evaluation, learning results, lack of feedback and credibility still the courses have larger acceptability among the masses. In this context, the present study has been undertaken to explore the significance of MOOCs for the professional development of teachers with special reference to issues, challenges and prospective associated with MOOCs.

Keywords: *MOOCs, Professional Development, Prospectives*

Introduction

In the present day, it is a big challenge to meet the educational requirements of common masses based on their needs. Therefore alternative strategies like online education platforms and distance education systems have developed to meet the requirements of the different categories of learners. These systems can cater to the requirements of different category of learners. Their knowledge and skills can be updated through continuing education programmes. This system can be used as complementary to conventional higher education and has been playing a significant role in increasing the equity, access and quality of higher education. Through this access can be provided to higher education and professional education to a large majority of people working in different sectors of society. Virtual Education can be considered as one of the best possible solutions, supported by the widespread of Information and Communication Technologies (ICT) to address this demand for education. MOOCs are a unique initiative of virtual teaching-learning environments (VTLEs).

MOOCs

Massive Open Online Course (MOOC) is an online course aiming at unlimited participation and open access. In addition to traditional course materials, MOOCs also provide interactive courses with user forums to support community interactions among students, professors, and teaching assistants as well as immediate feedback to quick quizzes and assignments. MOOCs are emerged from the Open Course Ware, first created by the Massachusetts Institute of Technology (MIT) in 2001. The term MOOC was coined during the course "Connectivism and Connective Knowledge" by Dave Cormier, from the University of Prince Edward Island (Canada). It encourages the learners to

Dr. Latika Kumari Mishra
Asst. Regional Director, IGNOU Regional Centre, Koraput, Odisha.

participate in different programmes as per their requirements, interest, knowledge and skills. All the MOOCs are designed with some learning objectives to be achieved by students after certain activities within a given period. Further, the educational resources (videos, lecture notes) are open and accessible for all the participants. Another important feature of the course is online as it can be done remotely through the internet and does not require physical attendance. It is also called as massive as it allows access to a very large number of students, much larger than a face-to-face class, or a traditional online course.

The rationale of the study

Teaching profession requires continuous learning. Prof R. N. Tagore rightly said A lamp can only light another lamp when it continues to burn in its flame. The society expects teachers to be updated and well trained for continually renewing their knowledge and skills They need to keep on acquiring and updating knowledge before going to their classroom. Teachers are the medium who can carry the knowledge from one decade to another, from one era to another and bring new concepts to old theories and ideas. Therefore they must keep themselves to pace on this path of change for the implementation of different innovations in the teaching-learning process.

Considering these requirements of teachers and other professions Massive Open Online Courses (MOOCs) developed which allow participants free access and unrestricted participation to any course of their choice. MOOCs can provide an informal platform to the teachers to enhance their professional growth and abilities after fulfilling their personal and professional commitments. Teachers can acquire knowledge that was unknown to them about their day-to-day lessons and interaction in the classroom with learners. They can use this platform as a useful classroom resource base. MOOC content is often available for teachers to adapt to their teaching. MOOCs, provide scope to teachers to understand how learning works, they can be motivated to keep their professional qualifications active, as well as to adjust the content and the process to meet their needs. This platform will help the teachers to expand their vision and horizons about their role as 'professional teachers' and their subjects or contents. It also offers the platform for teachers to enter an online teacher community, where they can receive and provide support on the various varied topics.

But the application of MOOC system to the area of teachers' professional development is still in the primary stage in India, and need to carry on systematic analysis for the effective application of MOOC to teacher professional development. In this context, this study has been undertaken to study the use of this platform by the teachers and their perception and experiences regarding the strengths and challenges associated with MOOCs.

Statement of the Problem

For a quality education system, we need quality teachers and the quality of teachers depends upon their professional competencies and abilities. MOOC offers various opportunities to learn through emerging technologies and exploring knowledge. MOOCs are helpful for teachers who want to enrich their teaching practice for their professional development.

Objectives

The current study is undertaken with the following objectives:

1. To study the use of MOOC platform by the teaching communities for their professional development
2. To study the perception of teachers regarding the issues and challenges associated with the MOOCs
3. To study the strengths and perspective of MOOCs towards meeting the expectations of teachers for their professional development.

Methodology

To meet the purpose of the present study descriptive survey method was used.

Sample

For this study, a sample of 60 teachers, including assistant professors, school teachers and teacher educators were selected by following purposive and incidental sampling techniques to know their perceptions towards the potentiality of MOOCs for their professional development.

Tools used for Collection and Analysis of Data

A self-constructed questionnaire with 25 close-ended

and open-ended questions was used to collect necessary information and perception of stakeholders regarding the use of MOOCs for their professional development. The main objective of the questionnaire was to explore the perceptions and opinion of teachers regarding the challenges experienced by them while pursuing different MOOCs. Some of the questions were also asked to know the strengths and perspective of MOOCs for the development of professional competencies of teachers. Different qualitative and quantitative techniques were used to analyse the data.

Findings and Discussions

The data collected from the stakeholders was analysed based on different objectives of the study. For the analysis of the data simple statistical techniques were used.

Use of MOOC platform by the teaching communities for their professional development

This section presents information about the enrolment of teachers in various MOOCs and their course completion scenarios. However, during the interaction, the respondents replied that they have very less information regarding such online courses. They also responded that there is no formal system to obtain such information for the teachers regarding various online courses offered by different agencies, institutions and governments. Whatever information they received regarding these courses were from their colleagues and friends who have IT competencies and equipment. The scenario of enrolment into various courses and completion of courses are presented in the following figures.

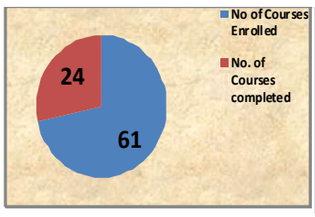


Figure-1: Enrolment and Course Completion status of Teachers

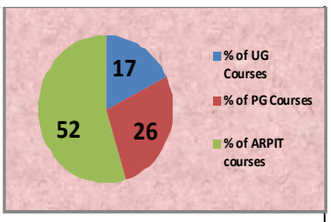


Figure-2: Course wise Percentages of Enrolment of Teachers

Figure 1 indicates that 40 teachers have enrolled themselves in 61 online courses offered under SWAYAM platform of Govt. of India. However out of 61 courses enrolled by the respondents only 24 courses completed by them which indicates 61% dropout in the completion of online courses.

Figure 2 presents the percentages of enrolment of teachers in different courses. As high as 52 % of teachers have enrolled in Professional development courses, i.e. ARPIT (Annual Refresher Programme in Teaching. Only 17 percentages of them have enrolled in UG courses and 26 of them in PG courses offered under SWAYAM platform to enhance their academic qualifications. On enquiry, it is revealed that teachers particularly those who are in the higher education sector have enrolled themselves in ARPIT courses to get the benefits of their promotion. But around 50% of them had not completed their courses due to different reasons.

Perception of teachers regarding the issues and challenges associated with the MOOCs

Massive Open Online Courses (MOOCs) are developed to offer high-quality education to learners of different backgrounds through online mode. But inspite of all these attempts there are various issues and challenges have been observed and experienced by the participants in due course of time. Some of the important challenges as perceived by the teachers are as follows:

- MOOC is meant to meet the requirements of a larger audience, who are more heterogeneous. As a result, it becomes very difficult to address the particular needs of different learners.
- Some of the teachers viewed that assessment is a very critical factor that has a direct impact on completion criteria for the MOOC courses. As MOOCs have no established evaluation criteria.
- The next important challenge of MOOC course is accreditation as there is no system of credit recognition.
- Few participants viewed that there is no systematic tracking and feedback system to review the progress of the learner and to push them accordingly for the successful completion of the courses.
- Around 50% teachers opined that they enroll themselves in MOOCs but completion of the course is a great challenge for them. Most of them viewed that they dropped from courses even from the very first week of attendance. Because there is no direct interaction system between the learners and the course providers to clarify their queries.

- Learner support services are not so strong in the MOOC system as result learners withdraw themselves from the track after enrolling themselves in the course.
- Around 70% of the teachers viewed that the length of the course materials is very high, particularly the number of videos are too high and it is very difficult to watch all these videos while pursuing these courses.

Strengths and prospective of MOOCs for the professional development of Teachers

Inspite of various challenges MOOCs have been proved as an alternative option to meet the expectations of teachers. Therefore the government of India build "Swayam" platform to address many issues of education with special reference to access, cost, the flexibility of time etc. from school level to university level. Some of the major strengths and prospective of MOOCs for the professional development of teachers are as follows:

- MOOCs can reach a large number of learners. The target audience can be extended beyond the corporate training environment or the academic campus.
- The real benefit is that MOOCs give learners the opportunity to engage with each other and the online material and interchange opinions about a particular topic.
- MOOCs deliver high-quality content at free of cost to anyone with a computer and Internet connection. Therefore MOOCs have been perceived as a value addition to educational provision.
- Lack of infrastructure in specific geographical regions is the real challenge.
- Professors and instructors from leading Indian Educational Institutions are coming together to create courses by using the platform features such as Course Builder, Integrated Content Library, Advanced Grading Options and Discussion Forums.
- The teachers get access to flexible self-paced learning and can connect to top educators in the country.
- Through MOOCs, teachers can empower themselves to learn from their location instead of travelling great distances for studying.
- One teacher can now teach many students from this platform.
- More than 2000 courses are available in India based on the requirements of different categories of learners and teachers for their professional development.
- High-quality learning experience using multimedia on any time, anywhere

Conclusion

Professional development training can help teachers to become better at planning their time and staying organized. This in due course makes teachers more efficient and gives them extra time to focus on students. Professional development nurtures the talents of teachers. Massive Open Online Courses (MOOCs) proved as a cost and resource-effective mean to complement the traditional methods of professional development of teachers because MOOCs facilitate mass training of teachers as per their convenience. However, the teachers of different levels have to be trained on the use of MOOCs. Of course, very limited data are available at present regarding the efficiency and effectiveness of MOOCs. It is necessary to evaluate the applicability of MOOCs, its strengths and weaknesses to address the needs of different categories of learners, including teachers.

References

1. *Arya, U. (2017). The Rise of MOOCs (Massive Open Online Courses) and Other Similar Online Courses Variants – Analysis of Textual Incidences in Cyberspace. The Journal of Content, Community & Communication Amity School of CommunicationVol. 6. Retrieved from https://www.amity.edu/gwalior/JCCC/pdf/JCC-Journal-December-2017-26-35.pdf*
2. *Nath, S.(2019). MOOC in Indian School Education Scenario: A Study towards Understanding the Preparedness In Terms Of Awareness among Teachers of Indian Schools. International Journal of Innovative Studies in Sociology and Humanities (IJISSH). Retrieved from www.ijissh.org*
3. *Sak Onkvisit, Howard Combs (2014): MOOCs (Massive Open Online Courses): Devil or Angel? E-Leader, Bangtok.*

4. *Prasad, P., Sunitha, K., & Padmaja,B.(2019). Factors Affecting Students Continue Intention to Use MOOCs, Benefits and Drawbacks. International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8, Issue. Retrieved from https://www.ijitee.org/wp-content/uploads/papers/v8i6s4/F11540486S419.pdf*

5. *Yuan, L., & Powell, S. (2013). MOOCs and open education: Implications for higher education. A white paper. Lancaster, UK: Centre for Educational Technology and InteropenabilityStandards. Retrieved from http://publications.cetis.ac.uk/2013/667*

6. *Zawacki-Richter, O., Bozkurt, A., Alturki, U., & Aldraiweesh, A. (2018). What Research Says About MOOCs – An Explorative Content Analysis. The International Review of Research in Open and Distributed Learning, 19(1). Retrieved from https://doi.org/10.19173/irrodl.v19i1.3356*

7. *Zhu, M., Sari, A. & Bonk, C. (2018). A Systematic Review of MOOC Research Methods and Topics: Comparing 2014-2016 and 2016-2017,Proceedings of EdMedia: World Conference on Educational Media and Technology (pp. 1673-1682). Amsterdam, Netherlands: Association for the Advancement of Computing in Education(AACE). Retrieved rom https://www.learntechlib.org/primary/p/184395/.https://swayam.gov.in/ https://swayam.gov.in/courses/5215-student-assessment-and-evaluation.*

Continuation of Page 30

ATTITUDE OF IN-SERVICE TEACHERS...

Educational implications

In-service teacher training programmes are of immense significance for promoting the teaching expertise, professional competency, teaching skills, teaching proficiency and teaching-learning scenario. Updating and refreshing of teachers' knowledge are met through these programmes. Teachers feel rejuvenated and re-energised after attending these programmes. Hence, these programmes should be obligatory for the teachers to enhance their professionalism in a better and progressive way.

Conclusion

The favourable attitude of head teachers and in-service teachers as explored through this research highlight the relevance of in-service teacher training programmes in the present professional front of the teachers. In-service teacher training programmes are very beneficial for the head teachers and in-service teachers as these programmes help in enhancing the teaching potentialities and capabilities of teachers.

References

1. *Bangan, G. C. (2019). The Effectiveness of In-Service Training to the Professional Growth of Teachers in Sta. Cruz Elementary School. International Journal of Engineering Science and Computing, 9(3).*

2. *Goswami, A. (2015). Effectiveness of teachers training programme at the elementary school stage in Assam (Unpublished doctoral dissertation). Rajiv Gandhi University.*

3. *Inyega, J. O., &Inyega, H. N (2017). Teachers Attitude towards Teaching Following In-Service Teacher Education Program in Kenya. International Journal for Innovation Education and Research,5(4),93-102.*

4. *Khan, Z. N. (2017). Attitude of Teachers towards In-service Training for the Improvement in Quality of Teaching at School Level. International Education & Research Journal, 3(8).*

5. *Mangal, S. K. (2008). Statistics in Psychology and Education (2nd ed.). New Delhi: Prentice Hall of India Private Limited.*

6. *Sedega, B. C., Mishiwo, M., S, J. E., &Dorkenoo, B. A. (2018). Perception of Teachers on the Effectiveness of Inservice Education and Training at the Basic Schools in Akatsi District of Ghana. British Journal of Education, 6(12), 50–68.*

7. *Sharma, R. A. (2010). Teacher Education and Pedagogical Training (2010th ed.). Meerut, U.P: R. Lall Book Depot.*

8. *Surapuramath, K. A. (2012). A Study of Attitude of Teachers towards In-services Training Programmes of Sarva Shiksha Abhiyan. Paripex - Indian Journal of Research, 1(12).*

MIGRATION PROBLEM: A CASE STUDY OF ASSAM

UGC CARE APPROVED

ABSTRACT

Illegal migration from Bangladesh is no longer a regional problem that can be pushed under the carpet. These migrants are now spread in several states and distant places. Because of the Assam agitation, many people think that the problem of infiltration of Bangladeshi nationals into India is a peculiar problem of Assam. But one needs to understand that this is a national problem with grave security implications that affects national integration too. Illegal migrants from Bangladesh have been using Assam as a corridor to migrate to other parts of the country. In this paper, an attempt is made to understand how unabated infiltration in Assam from Bangladesh has posed a threat to the identity of the indigenous people of Assam and to discuss the effects of large scale migration on the present-day demographic texture of the state.

Keywords: *Illegal migration, Assam, Identity, Bangladesh, Population.*

Introduction

One of the most pernicious issues causing serious misgivings in the Assamese mind is the problem of unabated illegal immigration from the landmass now called Bangladesh. With Indo-Bangladesh international borders via Assam, Meghalaya and Tripura kept wide open even after six decades of independence and thereby facilitating the free passage of swarms of illegal Bangladeshi nationals, the illegal Bangladeshis have already become the majority in few districts of Assam.

History of Infiltration in independent Assam

Bangladesh came into existence in December 1971 but infiltration into India from the region started much before that. The flow of Muslim peasants from Eastern Bengal to Assam was encouraged by the British officials from the first decade of the twentieth century as there was abundant wasteland waiting to be cultivated and the government needed revenue from the settlement of wasteland. Before partition when the Muslim league raised the demand for Pakistan, a political programme was adopted by the Muslim league in Assam to occupy all vacant land and the immigrants from East Bengal, mainly Muslims, were instigated to squat on government land. The Muslim League's design was to make Assam a Muslim majority state so that region could be included into Pakistan. These are historical facts. After partition, the boundary between India and Pakistan was demarcated hastily on the Eastern border and this border remained porous with the movement of people from East Pakistan to India taking place freely as no legal arrangements to restrict such movement except a loosely enforced permit system was there till October 1952. Only from this time, the passport system got introduced between India and Pakistan. Subsequent events show that such travel restrictions could hardly be a deterrent against illegal movement of Pakistan nationals from the other side of the border. As a result, the nation's security was jeopardised.

The size of illegal migration

Specific data on the migration of illegal migrants from Bangladesh into Assam are not available even today. The explanation for non-availability is to be found in the Preamble of the Illegal Migrants Determination by Tribunals (IMDT) Act, 1983. It reads, "..... a good number of foreigners who migrated into India across the borders of the eastern and north-eastern regions of the country on or after the 25th day of March 1971, have by taking advantage of the circumstances of such migration and their ethnic similarities and other connections with the people of India and without

Dr. Nazmul Hussain Laskar
Assistant Professor & Head, Department of Political Science, Dr Gour Mohan Roy College, Monteswar, Purba Bardhaman- 713145 (West Bengal)

having in their possession any lawful authority so to do, illegally remained in India." Except for refugees from Bangladesh who were settled on humanitarian considerations in India by the Government, the influx of illegal migrants in the state has developed into a problem of gigantic proportions.

Of the official documents, the report of Lt. General S.K.Sinha, the then Governor of Assam submitted in 1997 to the Home Ministry, Government of India stated that 10 million illegal migrants were residing in India1. It is also estimated that out of which, West Bengal and Assam alone shares 5.4 million and 4 millions respectively2. Hiteswar Saikia, the then Chief Minister of Assam informed the Assam Assembly on April 10, 1992, that, there were 3 million Bangladeshi illegal migrants in Assam3.

Pranati Dutta of the Indian Statistical Institute of Kolkata who wrote a paper in 2004 based on a qualitative research project undertaken by her and three other scholars funded by the Government of India gave an estimate of 15 million Bangladesh nationals illegally staying in India. Kanchan Laxman and Sanjay K. Jha in their joint paper ' India-Bangladesh: Restoring Sovereignty on Neglected Borders' gives an estimate of 20 million such Bangladeshi immigrants, of whom 10 million are supposedly in West Bengal and Assam. Rita Afsar4, a Bangladeshi Research Fellow in her paper presented in the 20th European Conference on the Modern South Asian Studies held in the University of Manchester, the UK in 2008, gave a figure of Bangladeshi immigrants in India estimated between 12 and 20 million based on Indian research sources but she cautioned against dependability of such figures. On the other hand, she admits that the 1991 population census of Bangladesh shows a missing population, initially estimated to be 10 million and subsequently revised to 8 million(6.27 million Muslims and 1.73 million Hindus). Moreover, Indian censuses have been showing a high rate of population increase in states bordering Bangladesh. The decadal growth of Muslim population in Assam and West Bengal has been unusually high and cannot be explained by natural causes of birth and death (Borpujari,1998,p.33). During 1971-91, Assam's population increased from 14.6 million to 22.4 million. While the Hindu population grew at the rate of 41.9 percent, that of the Muslims increased by 77.4 percent.

During 1981-91, three border districts of Assam, namely Dhubri (71 %), Cachar (56%), and Karimganj (58 %) had very high growth of Muslim population. During the next decade, (1991-2001), though Assam showed lower population growth compared to the overall growth of India's population, Census figures point to the fact that increase of Muslim population in nine districts were far higher than that of the non-Muslim population as shown below:

Table 1

Percentage Increase of Population

Districts of Assam	Muslim	Non-Muslim	Total
Barpeta	25.8	10.0	18.9
Cachar	24.6	16.0	18.9
Dhubri	29.5	7.1	22.9
Darrang	26.9	9.6	15.8
Goalpara	31.7	14.4	23.0
Hailakandi	27.2	13.3	20.9
Karimganj	29.4	14.5	21.9
Morigaon	27.2	16.3	21.2
Nagaon	32.1	11.3	22.2

Source: Census Report, 2011

Admittedly, the management of Indo- Bangla border has not been an easy task. It has a length of 4095 km and the border is shared by five states namely West Bengal, Assam, Meghalaya, Mizoram and Tripura, each with different characteristics of terrain. West Bengal has the longest length of this border (2216 km), the rest being shared by the remaining four north-eastern states. But of this length, 6.5 km are yet to be demarcated and this will leave a gaping hole, even if the rest of the border is completely fenced.

Why there is Illegal Migration in Assam?

Illegal migration from Bangladesh is induced by economic and environmental factors coupled with high population growth in that country and scarcity of living space. The recent trend of migration indicates that most migrants have been coming from the extremely poor segment of Bangladesh society. Some are jobless, some are poorly educated and others are uneducated. Many of them leave their native place as the very uneconomic holding of land

does not provide them sustenance of life. Population pressure is very acute in Bangladesh. The density of population rose from 285 per sq km in 1951(East Pakistan) to 975 per sq km in recent time. As per 2001 census, Bangladesh population was 129.2 million and the latest Bangladesh Plan projects that it will rise to 169.8 million by 2020, which means that the density of population will go beyond 1000 per sq k.m. Even now, the density is highest in the world. The man-land ratio is 0.15 acre per capita which is not favourable for sustainable food grain production for such a huge population. About 8 million hectares have already shown fertility decline. The disproportionate distribution of land is another reason for land scarcity. India itself has strong pull factors for the Bangladesh nationals living at the subsistence level, who have nothing to lose but everything to gain from cross-border migration. Even the Union Government recognises this. In an internal note prepared by the Home Ministry in March 1992, the following pull factors have been mentioned:

(a) Porous and the easily negotiable border with Bangladesh.

(b) Better economic opportunities.

(c) Religious elements encouraging immigration.

(d) Patronage extended by the vested political groups.

(e) Organised immigration by touts and anti-social.

However, in recent times, the illegal migrants have mainly been coming to Assam and West Bengal in search of low paid jobs in the labour market, particularly for those jobs for which the locals have an aversion. Moreover, a good percent of illegal Bangladeshi migrants use Assam and West Bengal only as a corridor to get dispersed to various urban cities in search of low paid jobs taking the help of local agents. They work as wage labourers in construction sites, brick kilns as well as in agricultural fields.

The problem of Identity Crisis

A six-year anti- foreigners' movement (1979-1985), spearheaded by the All Assam Students Union (AASU) and solidly supported by All Assam Gana Sangram Parishad (AAGSP) with the constituents Assam Sahitya Sabha (ASS), Assam Jatiyatabadi Dal (AJD) and Purbanchaliya Loka Parishad (PLP), succeeded in bringing into sharp focus of the country the crisis of identity of the indigenous people of Assam due to unabated illegal migration from Bangladesh, and urgency of finding out some solutions. Indeed, this movement which was primarily launched to drive out the illegal migrants from Assam is one of the largest mass-based movements in India's post-independence period (Hussain,1993. p.10).

The recent communal conflict between Muslims and Bodos in Bodoland Territorial Areas District5 is nothing but the conflict of interest between the native tribal people and the migrant Muslim community over land. The native tribal community must have felt that by tradition they had the right over the land for the community's shared use, even though this perception of the indigenous people had no legal backing as the domain right remained with the state government. Not only they felt a sense of deprivation when the land got occupied by a migrant community culturally quite different, but also the encroachment on an area which had earlier vast open land interfered with their daily movements and cattle grazing (Mishra, 2000.p.164). The undercurrent of tension was brewing for a long time though, in the last year from a few minor incidents, a serious flare-up arose in the area causing death to the displacement of people, both Muslims and Bodos. Many are still living in temporary camps under police protection.

There has been a lot of change in the religious composition of the state population from 1951 till 2001. The Hindus numbered 58.86 lakh and constituted 66.65 percent of the total population in 1951. The Muslims were 19.95 Lakh and constituted 22.60 percent of the total population in the same year. Their number grew to 172.96 Lakh and 82.40 Lakh respectively in 2001 showing the reduction in the proportionate size of the Hindu population and increase in the size of the Muslim population. To be precise, in 2001, the Hindus constitute 64.9 percent and the Muslims 30.9 percent of the total population. During the period 1951 to 2001, the Hindus have registered a growth rate of 193.8 percent whereas the Muslims 313.0 percent6. This religious break up is very relevant in the

context of migration to the state as because most of the migrants belong to the religious minority group. Indeed, politics in general and democracy, in particular, being a game of numbers, the indigenous people of Assam is losing the game very fast (Behera, 2000.p.16).

The intrusion of immigrants into the field of economic activities at the micro-level has accentuated the identity crisis for the young generation of indigenous stock. The worst effect of such large scale influx has been reflected in the work culture of the young generation of Assam. As it happened in the Southern states of the USA in the wake of the extensive prevalence of the slave trade during the mid 19th century, so also the easy availability of services of Bangladeshi infiltrators in abundance and that too at comparatively cheaper rates, is making the youths of Assam allergic to hard labour with the result that the areas of economic activities involving menial labour are slipping into the hands of the Bangladeshis. Needless to mention that nature abhors a vacuum and the vacuum created by the poor work culture of the Assamese youths that have been emerging over the years, is being filled up by the Bangladeshis most enthusiastically. Besides, the engagement of Bangladeshi labour both in the unskilled and semi-skilled sectors on a massive scale has added a new and serious dimension to the ever-growing unemployment problem in Assam. Illegal migrant workers have no demands and are not likely to form unions or create such other problems for their employers. Hence they become the objects of choice of contractors across the North East.

Moreover, migration and influx from Bangladesh have also impacted upon the linguistic status of Assam. The percentage of Assamese speaking people in Assam has dropped sharply from 57.81 in 1991 (which itself was about 3.08 percent less than that of 1971) to just about 49.4 percent in 2001. In real terms, the number of Assamese speaking population has increased by only 52,390 between 1991 and 2001 against an increase of 24, 86,806 Bengali speaking populations during the same period7.

What is the way out?

It has become vital that urgent measures are to be taken in hand to stop any fresh infiltration and neutralise the ill effects of the presence of a sizeable number of foreigners in our territory. The state can no longer afford to absorb more immigrants as in terms of population growth Assam has been one of the fastest-growing states in the country (Baruah, 1999.p.51).

The need of the hour is to prepare a National Register of Citizens (for the whole country and not for Assam alone) and this task needs to be completed during the next census in 2021. The National Register of Citizens should be computerised and made available to the jurisdictional police station to facilitate anti-infiltration inquiries. The government must provide multipurpose Identity Cards to all Indian citizens within a stipulated time not exceeding two years making registration of births compulsory and non-registration a criminal offence. The Citizen's Identity Card should be made tamper-proof by inserting the holder's biometric records in the card in an electronic chip.

To prevent fresh influx, the border protection should be made the responsibility of the Indian Army with the imposition of necessary legal and constitutional barriers preventing fresh influx. The BSF Border Outposts (BOP) on the India-Bangladesh border are far apart and cannot prevent infiltration properly. The distance between the two outposts should not be more than 3 km as on the India-Pakistan border. Insensitive and infiltration prone points electronic sensors should be mounted to prevent illegal entry of Bangladesh nationals.

Patrolling on the waterways along India-Bangladesh is very unsatisfactory. River routes are being traditionally used by Bangladesh nationals to cross over to India taking advantage of lax vigilance. The riverine portion of the border needs to be kept under constant patrolling with speedy and mechanised patrol boats. Floating BOPs should be established on the river Brahmaputra on urgent basis.

Border or fencing is not the full solution of the illegal migration problem of Assam. Even physical protection of the border (which is impossible) will not ensure total proof. Studies show that the informal and illegal trade takes place with prior information about the enforcement and security

agencies. It has been ascertained that about 60 percent of Bangladeshi traders paid bribes between 3 to 6 percent of their turnover while 78 percent of the Indian traders paid 1 to 3 percent of their total output8. There are lots of suggestions to curb immigration going beyond the fencing model of India vociferously supported by our ultra-nationalist leaders. Sanjay Hazarika is focussing on two issues- identity cards and work permits (Hazarika, 2004.p.86). Indeed they are vital suggestions which require further deliberations. The most important step shall perhaps be the legalisation of the border trade in the North East and Bangladesh and North East and Myanmar sector. Ultimately it is the government who is the loser from such illegal trade.

Conclusion

Thus, any solution of the vexed immigrants' issue from Bangladesh must address two areas- the issue of cultural interaction and co-existence or what some writers call 'assimilation' (Mishra, 2000. pp.169-171) of the immigrants with the Assamese culture and the issue of economic development of the border areas. What is required in tackling the illegal migration from Bangladesh to India in general and Assam, in particular, is not heavy doses emotions and ultra-nationalistic rhetoric but a creative or perhaps new way of looking at the problem. The state too instead of adopting a tribal to tribal approach should try to resolve the identity issues of the sub-national groups by involving the various representatives of the civil society groups (Mahanta, 2011, p.136).

The people of Assam should embark upon a new constitutional movement to neutralise the ill effects of the presence of an unwanted and hostile foreign population. Just like the Assamese people would have to live with floods for eternity, it would be unavoidable for us to master the art of living among seemingly hostile foreign elements and not losing our strength and identity.

Reference

1. *1.Lt.Gen.(retd.) S.K.Sinha, then Governor of Assam submitted his report to K.R.Narayanan, then President of India under D.o. No. GSAG 3/98 Dt.November 8, 1998. 2.India Today, August 10, 1998 issue has given the state-wise breakdown of illegal migrants.*
2. *Report published on April 11, 1992, in The Assam Tribune, A leading Newspaper of Assam.*
3. *4.Rita Afsar is a Bangladeshi Research Fellow in the Bangladesh Institute of Development Studies presented a paper for a panel discussion at the 20th European Conference on the Modern South Asian Studies held in the School of Arts, History and Culture, University of Manchester, the UK, held from July 7 to 11, 2008.*
4. *The Bodoland Territorial Council (BTC) is a territorial privilege established in India according to the Memorandum of Settlement of February 10, 2003. The area under the BTC jurisdiction is called the Bodoland Territorial Area District (BTAD). 6.Census Report, 2001.*
5. *7. Language-wise Census Report, Assam, 2001.*
6. *8.Report published in 2001 by the Indian Institute of Entrepreneurship, Guwahati, Assam.*
7. *Baruah, Sanjib(2004): Durable Disorder-Understanding politics in North East India, OUP, New Delhi.*
8. *Behera, Navnita Chadha(2000): State, Identity and Violence, Manohar Publishers, New Delhi.*
9. *Borpujari, H.K(1998): North-East India: Problems, Policies and Prospects Since Independence, Spectrum Publication, Guwahati.*
10. *Hazarika, Sanjay(2004): A Crisis of Identity in Peace Initiative- A North East Perspective, Don Bosco Institute, Guwahati, Assam.*
11. *Hussain, Monirul (1993): The Assam Movement: Class, Ideology and Identity, Konark Publishers, Delhi.*
12. *Mishra, Udayan (2000): The Periphery Strikes Back, Indian Institute of Advanced Study, Simla.*
13. *Mahanta, Nani Gopal (Ed) 2011): Quiet Invasion from the Invisible Front, Bani Mandir, Guwahati, Assam.*

SAGACITY REGARDING PERSPECTIVES OF HOME SCIENCE SUBJECT

UGC CARE APPROVED

ABSTRACT

Home Science/Community science is a subject concerned with educating individual, family and community by providing systematic and scientific education about the reciprocal relationships between family and environment. Home science integrates the submission of a range of sciences and humanities to advance human environment, family nutrition, fashion, management of resources and child development. Home Science/Community Science as a field of study is application-oriented and prepares one for many professions. The present research is a part of ICAR funded project with the aim of analysing the present status of home science students ultimately to develop industry-institute interface programme related to the subject. The data were collected from Home science graduates through google form and the results depict that negative mindset of people towards the subject, less number of colleges and non-inclusion of the subject in UPSC and competitive exams are the major causes behind less popularity of the subject. The results further focus that the home science subject should not be gender biased and adding more skills for personality grooming as well as for developing new learning option which could be of great help in making the subject popular and reduce dropouts.

Keywords- *Home Science, Community science, Dropouts, Sagacity, Skill education, Gender un-biasness*

Introduction

Community/Home science is the science of home and it includes all the things that concern the individual, family and resources. It is the culture for better living and the nucleus of this education is the family ecology. It also deals with reciprocal relationships between the families and its natural and man-made environment. It aims at getting the highest satisfaction for the individuals and their families through systematic use of the resources. It gives all information about the technical procedures concerned with making a home attractive, hygiene and beautiful. Community Science (earlier referred to as Home Science) is a science of Science), is a science of community and it includes the components that affect people, their home, family in which they live and its members and pertaining community and its resources. It is education which focuses on improving living through positive education and ecosystem for a better community. It deals with interrelationships of community-nature- environment (both natural and manmade). It supports an individual for getting maximum satisfaction and efficient utilization of resources scientifically. Not only utilization but it provides knowledge to the living beings regarding scientific procedures used in making a home/ community beautiful. Community science assimilates the fields such as humanities, social science and science to improve its core subjects like extension education in society, human development at various stages, family nutrition at lifespan, management of resources, knowledge of textile industries and child development. Home science integrates the submission of a range of sciences and humanities to advance human environment, family nutrition, fashion, management of resources and child development. Home Science/Community Science as a field of study is application-oriented and prepares one for many professions. Home science pass out students usually find job/employment

Vatta, L.
Assistant Professor (Development Communication and Extension), Department of Home Science, University of Rajasthan, Jaipur, Rajasthan.
Tiwari, S.
Project Assistant, ICAR project, Department of Home Science, University of Rajasthan, Jaipur, Rajasthan.

in Business, Teaching, Research, Institutional Management, Extension and community or Social Welfare (NGOs), and Industrial Concerns, Communication and Self Employment.

Significance of the study

Results of the study may help to find out the ways and means to strengthen the Home science subject and attract both male and female students by making the subject gender unbiased.

Objective

1. To identify the factors affecting the popularity of Home science Subject
2. To explore the suggestions for prospectus improvisation and making subject gender unbiased.

Methodology

The survey method was used in this study.

Development of tool

A tool was developed after extensive revision of researches, exploring reports of the previous projects, and in consultation with subject specialists which was further evaluated by five teachers teaching Home science subject in universities. The tool was developed both in Hindi and English languages, which was further converted in to electronic mode (Google form) for the convenient reach and paper saving. Each statement has two options viz Yes and No. "Yes" option was given one mark and "No" was assigned 0. Choice of adding other options also was given to respondents in case they want to add something which is not given as options.

Collections of Data

Two different streams are there in India namely M.Sc Home science and MA Home Science that offer Home Science Program. UGC gives approval for both streams. Those who register in B.Sc is eligible for M.Sc and those who enroll in B.A., can go for M.A., whereas, ICAR has approved only B.Sc and M.Sc Home Science/Community science. In India, UGC affiliated institutes are more in number as compared to ICAR affiliated academic institutes. As a result, more number of M.A. (Home Science) degree holders are increasing day by day when compared to M.Sc (Home Science) degree holders. In the initial stage, the researcher approached various colleges offering post-graduation degree in Home Science in Rajasthan but the enrolment ratio was very low in those colleges. So it was decided to approach more Home Science graduates and also like to explore the difference between opinion of M.A and M.Sc students. The tool was shared via various social platforms to gather more data.

Analysis of Data

The data were analyzed by simple frequency percentage method.

Results and Discussion

It is a debatable issue that most of the respondents feel that home science is providing very good job opportunities and whereas a good number of respondents say that it is just waste of time or just a degree and it does not provide them any career opportunities. This discussion section is divided into further sub- heads.

I. Background Information of respondents
II. Factors affecting the popularity of Home science as a Subject
III. Suggestion for prospectus improvisation
IV. The opinion behind making subject gender unbiased
V. Suggestions to reduce dropouts in Home science

I. Background information of the respondents

A total of 424 home science graduates were contacted. The background information included in this study were age, marital status, family type, years taken to attain graduation and source of motivation for opting homes science subject. It shows that most of the respondents belong to a very young category that is 20-25 years of age, followed by 26-30 years old. Most of the respondents (59%) were married whereas only 43% were unmarried. It gives a very strange picture that at one side the maximum respondents are from young age group (25 years) which is the age considered to be settled in a career, but most respondents are married. This indirectly shows that in India still girls get married without having a secured career. Since maximum respondents were less than 25 years of age, most of the respondents have taken less than 5 years to completion their graduation. When the respondents were asked about the source of inspiration to choose home

science as a subject, the maximum respondents (38%) have chosen home science because it was their own preferences. Whereas the data further shows that (30%) opined that it was suggested by parents. Teachers again have played a very good role in the shaping the career of the student and so 14% of students have chosen home science as they were inspired by their teachers. The students who were inspired by friends were less than 7 percent. An interesting fact is that (02%) of the students opined that social media have less impact or act as a least source of motivation.

II- Factors affecting the popularity of Home science as a Subject Increase of drop outs and low enrolment is a burning issue and it is a challenge to home science institutes. Probable reasons are low employment opportunities and misconception about the subject. The respondents were asked to the point out the factors affecting the popularity of home Science subject and responses are presented in the table-1.

Table 1

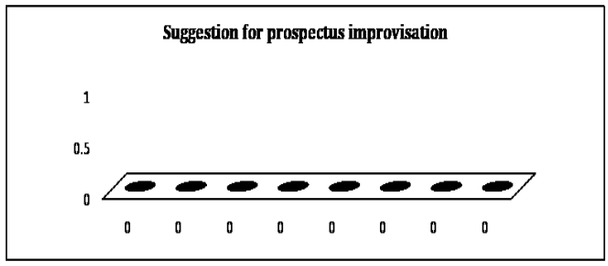
Factors affecting the popularity of Home Science as a Subject

Particular	Number	Percentage
Lack of job opportunities	325	77%
Negative mindset	343	81%
Lack of institutions nearby Home	325	77%
lack of Skill education	233	55%
Lack of knowledge	263	62%
Poor Economic Condition of institutes	175	41%
Home Science syllabus has not been included in competitive examination (like IAS and other UPSC)	330	78%
Gender bias at the time of admission	275	65%
Others (lack of awareness regarding Home science subject, the difference between B.A home science and B.sc. home science etc.)	70	17%

The presence of a wide variety of factors can be acknowledged in the fame of home science. Regarding the factors affecting the popularity of the subject Home Science, based on the responses it is made easy to conclude that about 60 to 80 percent of students have highlighted several factors that have undermined home science. The biggest reason is the negative ideology of the society that the home science subject is suitable for women students only. Eighty two percent of the respondents, have admitted that this negative ideology is the only reason for low popularity. With this, 77 to 78 percent of the respondents believe that the study of home science subject has not provided jobs or professional opportunities to the students. Besides the shortage of home science-related institutions the respondents also are of the opinion that the institutions that provide Home Science subject is not nearby their home. So they opt the other subjects available in that institution, instead of taking Home Science subject as the other institution far away.

III- Suggestion for prospectus improvisation- Lack of enrolment and less popularity are the concerns of every Home Science graduates. That is the reason they participated in this survey with zeal and with the hope that the results will bring out some positive outputs. To know more about what people think regarding improving the prospectus of the subject, they were requested to provide possible solutions.

Fig-1. Distribution of respondents based on the suggestion for prospectus improvisation

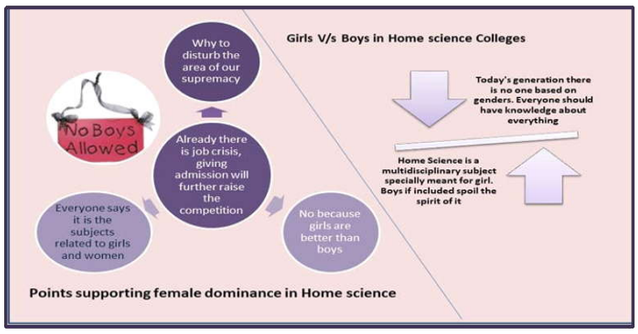


Number of students were consulted for finding out the ways for finding out the ways to make home science subject effective. Of this, 70 to 90 percent of the respondents stressed the need for changes in the nature and curriculum of the home science subject. 95% percent of the respondents believe that the home science curriculum should be free from gender bias, so as to attract the attention of the male. Eighty-one percent of the respondents suggest that skill and technical development should also be given due attention through practical work in home science. Along

with this, students should get practical experience through an internship at the undergraduate level. Almost the same number of respondents suggest that the creation of a home science curriculum emphasizing personal development, all-round development and confidence among the students is very essential. Along with this, 48% of the respondents suggested a change of the name of subject.

IV- Opinion behind making subject gender unbiased – Home science is considered as a women's subject. Now a days ICAR and various traditional universities started giving admission to boys to make it gender unbiased. In Rajasthan, this subject is offered in more than 100 colleges (including B.A and B.Sc.), out of this only two colleges of Agriculture University (Maharana Pratap University of Agriculture and Technology, Udaipur and Swami Keshwan and Rajasthan Agriculture University, Bikaner) are admitting boys in Home science.

Regarding this issue the respondents have mixed opinion. Some are in favour whereas the others are against. Though most of the respondents want it to be unbiased still they face some issues in giving admission to boys. The results are presented in figure-2



In a period like this where feminism is at its level best it is difficult to argue that a particular subject should not be gender-biased. Home science has always been considered as a favourite subject for women students. Strong points are made by the women students in support of this subject. Eze (2001) recommended that parents should encourage their sons and daughters to develop interest and select Home Economics as a subject of study in schools and colleges. There should be no sex discrimination in the activities given at home and college. Parents should encourage their sons to choose Home Science and related disciplines that give lot of career opportunities and high remuneration.

V- Suggestions to reduce dropouts in Home science - Regarding the subject home science, it is well known that students study the subject Home Science up to certain level, and after that they leave the subject and opt for the other subjects and take competitive examinations. To find a solution to this problem the respondents in the last part of the tool were requested to give their valuable suggestion to reduce dropouts.

Table 2

Suggestions to reduce dropouts in Home Science

S. NO	Particular	Number	Percentage %
1.	Providing more awareness about avenues of subject	394	93%
2.	Improving employment opportunities for home science students	403	95%
3.	Avoiding gender bias in the subject.	387	91%
4.	Others (provide awareness about the subject, redesign curriculum, provide more practical exposure etc.)	70	17%

91% of the respondents suggested that the government should create more employment opportunities related to the this subject. 93% of the respondents have emphasized the need to provide extreme awareness about the uniqueness of the subject home science. 91% of the respondents believe that gender bias is the reason why most of the students do not study this subject.

Conclusion

Education plays a crucial role in the life of an individual. Education is like a root of the tree in the life of a person which cannot be seen but that provides meaning and identity to the life of human beings. After considering the major findings, it is concluded that efforts must be made to provide genuine and factual information about Home/ Community Science. It is further suggested that the staff should provide all the information regarding the Job opportunities if the students opt Home science subject.

References

1. (PDF) THE FUTURE OF ACADEMIC-INDUSTRY COLLABORATION. Available from:https://www.researchgate.net/publication/241785533_THE_FUTURE OF_ACADEMIC-INDUSTRY_COLLABORATION [accessed Dec 25 2018].
2. http://www.ipan.in/the-need-for-industry-academia-partnerships-in-india/ cited on 25.12.2018 on 14.10 Hrs

A STUDY OF OPINIONS OF COLLEGE STUDENTS ABOUT IMPLEMENTATION OF EXAMINATION IN COVID-19 LOCK-DOWN SITUATION

UGC CARE APPROVED

ABSTRACT

COVID-19 is the name of the Corona virus given by World Health Organization on 11 February 2020. In India as on 7th April 2020, the Ministry of Health and Family Welfare have confirmed a total of 4,421 cases. As a result of it 'Work from Home' is implemented in all fields. The teaching, learning, evaluation, research and more work is going on by using various online tools. The students and teachers are in dilemma about their examination work of the academic year 2019-20, which is pending till now. As a teacher educator, the researcher aims to find out the opinions of the college students about their examination during the COVID-19 lockdown period. The population of the study is the students who are pursuing Higher Education in different universities. The sample of the study was 336 college students who responded to the questionnaire through Google form for which the link was sent through whatsapp. The findings of this study reveal that the students are aware of the effects of COVID-19 on Education. They opine that the examination should not be conducted when the lockdown is over on 14th April 2020. Most of them opine that the first year students should be given an opportunity to enter the second year without taking first year examination.

Key words : *COVID-19, Corona, Examination, Lockdown, College students.*

Introduction

COVID-19 is the name of the Corona virus given by the World Health Organization. The full form of the COVID-19 is Corona Virus Disease-2019. 'CO' stands for 'Corona', 'VI' stands for 'Virus', 'D' stands for 'Disease' and 19 stands for the year 2019. The name of COVID-19 was announced on 11 February 2020 by the World Health Organization[1] COVID-19 has affected the entire world due to its infections[2]. Almost all continents have been affected by the COVID-19. More than 100 counties suffer from COVID-19 infection. All over the world, as on 2:00 am CEST, 7th April 2020, there were 1,214,973 confirmed cases of COVID-19, including 67,841 deaths as reported by WHO[3].

The symptoms of the virus are the same as pneumonia. The infected persons of the COVID-19 suffer from cough, fever and breathing difficulties.

India will not remain far from the corona virus infection. The first case of corona virus pandemic in India was reported on 30 January 2020, originating from China. As on 7th April 2020, the Ministry of Health and Family Welfare confirmed a total of 4,421 cases, 326 recoveries (including 1 migration) and 114 deaths in the country.[4]

As a result of it, the Prime minister of India Narendra Modi called for a public curfew for 14 hours by Indians on 22nd March 2020. But because of the widespread infection, the Prime Minister ordered on 24th March 2020 a nationwide Lock-down for 21 days. The UGC declared some precautions to universities about the examination work. According to the UGC letter, F.No.1-14/2020 (Website) dated 19/03/2020 to all vice-chancellors of universities to take the precautionary measures. The UGC requested the universities to reschedule the examination after 31st March 2020.[5]

As a result of the UGC letter, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon declared its Notice No. 147/2020 as 'Work from Home' to the

Dr. Kailas Santosh Chaudhari
Assistant Professor, N.T.V.S.'s College of Education, Nandurbar Dist. Nandurbar. Maharashtra

concern colleges. So teaching-learning, evaluation and research work were going on by using various online tools.[6] According to the Notice no. 150/2020 of KBCNM University, Jalgaon an interim vacation was declared till the 14th April 2020.[7]

As on date 7th April 2020, the spread of Corona disease was not in control. The students and teachers were in dilemma about their examination for the academic year 2019-20, which is pending till now. There is news in Newspapers about the anxiety of students, teachers and parents about the examination. The one such news was in daily Newspaper named 'Lokmat' dated on 6th April 2020 on page no. 2 of Khandesh chapter.[8] As a teacher educator, the researcher wants to find out the opinions of the college students about the examination during COVID-19 Lock-down period. For this purpose, the present research is under taken.

Statement of the Problem: A study of opinions of college students about the implementation of Examination during COVID-19 Lock-down period.

Objectives : The following objectives were fixed for the present research.

1. To study the awareness of college students about the effects of COVID 19 on education.
2. To identify the views of the college students about the implementation of examination and its schedule.

Population The population of the study is all the students who are pursuing Higher Education in various universities and faculties of the department of education in Maharashtra.

Sample : The sample of the study was 336 colleges students, 5 faculties and one eleventh standard student, who responded to the questionnaire through the Google form[9]. The researcher received 342 responses among them 1 response was from 11th standard student, 5 were from faculties and 336 were from college students. The responses of the 11th standard student and 5 faculties were not taken into consideration for the analysis. The sample of the study was 336 college students who responded to the questionnaire through the Google form.[9]

Method : For the present research, the survey method was used to collect the data from college students of the academic year 2019-20 affiliated to various universities.

Tools : To collect the data from the students for the present research the questionnaire is used. The questionnaire was prepared by the investigator in Google form and the link was given in whatsapp to fill.

Analysis and Interpretation of the data : The responses for the present research were received from the students mostly studying at various colleges affiliated to the Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon. Some of the respondents were from Pune University, Kolhapur University and Mumbai University. The analysis of the data is presented below.

Table 1

Analysis of the respondents pursuing degree or post-graduation degree

Degree	B.Ed.	M.Ed.	B.A.	M.A.	B.Com.	M.Com.	B.Sc.	M.Sc.	B.B.A.	MBA	B.Pharm	M.E.	Total
Students (N)	143	1	40	5	6	2	103	29	4	1	1	1	336
%	42.56	0.3	11.9	1.49	1.79	0.6	30.65	8.63	1.19	0.3	0.3	0.3	100

Observation and Interpretation : The table 1 clearly shows that the 42.86% are from Education stream, the 39.28 % are from Science stream, the 13.39 % are from Arts stream, the 2.39 % are from Commerce stream, the 1.49 % are from Administration stream, 0.30% are from Engineering and 0.3% are from Pharmacy stream. The results of the present research will be applicable for the Education, Science and Arts streams as the respondents are from those streams.

Table 2

Awareness of COVID-19 and its effect on the education

Aware		Not Aware	
Total respondent	% of the respondent	Total respondent	% of the respondent
299	88.99	37	11.01

Observation : The above table 2 shows that 299 (88.99%) students were aware of the effects of COVID-19 on education and 37 (11.01%) students were not aware of it.

Interpretation : It means that most of the students were aware of the effects of COVID-19 on education.

Table 3

Opinion that after Lock-down is over (on 14th April 2020), it is worth taking up university examinations

Yes		No	
Total respondent	% of the respondent	Total respondent	% of the respondent
151	44.94	185	55.06

Observation : The above table 3 shows that 151 (44.94%) students were of opinion that after Lock-down is over on 14th April 2020, it's worth taking up university examination and 185 (55.06%) students were not of that opinion.

Interpretation : It means that most of the students did not want to take the examination after Lock-down is over on 14th April 2020.

Table 4

Opinion that it will not matter to students if ever taken the examination

Yes		No	
Total respondent	% of the respondent	Total respondent	% of the respondent
181	53.86	155	46.14

Observation : The above table 4 shows that 185 (53.86%) students were of opinion that it will not matter if ever taken the exam, where as 155 (46.14%) students were not of that opinion.

Interpretation : It means that most of the students were not bothered about the examination.

Table 5

Opinion about syllabus completion

Yes		No	
Total respondent	% of the respondent	Total respondent	% of the respondent
191	56.85	145	43.15

Observation : The above table 5 shows that 191 (56.85%) students were of opinion that the syllabus was completed, where as 145 (43.15%) students were not of that opinion.

Interpretation : It means that most of the students were of the opinion that the syllabus of their course was completed by their respective teachers.

Table 6

Opinions of first-year students to enter the second year without taking the first year examination

Yes		No		Not Applicable	
Total respondent	% of the respondent	Total respondent	% of the respondent	Total respondent	% of the respondent
166	49.4	68	20.24	102	30.36

Observation : The above table 6 shows that 166 (49.40%) students were of the opinion that they may be allowed to enter second year without taking the first year examination, whereas 68 (20.24%) students were not of that opinion. 102 (30.36%) students opine that it is not applicable to them.

Interpretation : It means that most of the students were of the opinion that they should be allowed to enter the second year without taking the first-year examination.

Table 7

Opinion that - If the exam is taken early in the next academic year, will it be worthwhile

Yes		No	
Total respondent	% of the respondent	Total respondent	% of the respondent
147	43.75	189	56.25

Observation : The above table 7 shows that 147 (43.75%) students were of the opinion that it will be worthwhile if the examination should be taken early in the next academic year, whereas 189 (56.25%) students were against it.

Interpretation : It means that most of the students were of the opinion that it will not be worthwhile to conduct the examination early in the next academic year.

Table 8

Opinion about assessment be computed on the average of the results of the previous year university exam

Yes		No	
Total respondent	% of the respondent	Total respondent	% of the respondent
236	70.24	100	29.76

Observation : The above table 8 shows that 236 (70.24%) students were of the opinion that assessment is computed on the average of the results of the previous year university examinations, whereas 100 (29.76%) students were against that opinion.

Interpretation : It means that most of the students opined that assessment of this academic year should be done based on the average of marks taken from previous year university examinations.

Table 9

Opinion about the exam be taken of the previous year of the degree or postgraduate degree

Yes		No	
Total respondent	% of the respondent	Total respondent	% of the respondent
167	49.7	169	50.3

Observation : The above table 9 shows that 167 (49.70%) students were of the opinion that the previous year degree or postgraduate degree examination should be taken where as 169 (50.30%) students were against it.

Interpretation : It means that most of the students were not of the opinion that they should take the previous year examination of their degree and postgraduate degree.

Findings

The findings of the research are as follows;

1. The findings of the results are applicable for Education, Science and Arts streams as most of the respondents were from those streams.
2. Majority of the students were aware of the effects of COVID-19 on Education.
3. Most of the students opined that the examination should not be conducted once the Lock-down is over on 14th April 2020.
4. Majority of the students were ready to give upexamination ever.
5. Most of the students opined that the syllabus of their course was completed by their teachers.
6. Most of the first-year students were of the opinion that they should be allowed to enter second year without taking the first-year examination.
7. Most of the students opined that it will not be worthwhile to conduct the examination early in the next academic year.
8. Majority of the students were of the opinion that assessment of this academic year should be done based on the average of marks got in the previous semester examination.

Conclusion

The present research was undertaken to study the awareness of college students about the effects of COVID 19 on education and the implementation of examination during COVID-19 lock-down period in Maharashtra. Based on the responses of the students the analysis and findings are brought forth. It is very difficult to decide what will happen to the university examination. Students are confused but they are ready for it. Hope once Lock-down is over things will be alright in the field of education.

References

1. *https://fullfom.com/covid-19-full-form/ Retrieved on 7th April 2020 on 1:37pm.*
2. *https://www.theguardian.com/world/2020/feb/27/what-is-covid-19 Retrieved on 7th April 2020 on 1:20pm.*
3. *https://who.sprinklr.com/ Retrieved on 7th April 2020 on 1:16pm.*
4. *https://en.wikipedia.org/wiki/2020_coronavirus_pandemic_in_India Retrieved on 7th April 2020 on 1:45pm.*
5. *https://ugc.ac.in/ugc_latest.aspx Retrieved on 7th April 2020 on 1:03pm.*
6. *http://www.nmu.ac.in/usefullinks/circulars.aspx Retrieved on 7th April 2020 on 2:00pm.*
7. *http://apps.nmu.ac.in/circulars/Administration%20Section/31-03-2020%20Circular%20No.150%20regarding%20interim%20vacation%20from%2001%20April%20to%2014%20April%202020. pdf Retrieved on 7th April 2020 on 2:10pm.*
8. *Daily Newspaper Named "Lokmat' dated on 6th April 2020 page No. 2 of Khandesh Chapter.*
9. *https://forms.gle/UnF9bd4EFG8sZXnNA Retrieved on 6th April 2020 on 7:30 pm.*

Registered with RNI Under Regd. No. : TNENG/2003/10220

A TEACHER FOR ALL SEASONS

A teacher is like Spring,
Who nurtures new green sprouts,
Encourages and leads them,
Whenever they have doubts.

A teacher is like Summer,
Whose sunny temperament
Makes studying a pleasure,
Preventing discontent.

A teacher is like Fall,
With methods crisp and clear,
Lessons of bright colors
And a happy atmosphere.

A teacher is like Winter,
While it's snowing hard outside,
Keeping students comfortable,
As a warm and helpful guide.

Teacher, you do all these things,
With a pleasant attitude;
You're a teacher for all seasons,
And you have my gratitude!

- Joanna Fuchs