AVILA JOURNAL OF EDUCATIONAL RESEARCH

Vol. V Issue I December 2016 **ISSN 2320-0707**

Published by

Principal
Avila College of Education
Edacochin, Cochin-10, S. India.

avilacollegeedakochi@gmail.com Ph: 0484 3080328

DECLARATION

I, Dr Benny Varghese, Principal, Avila College of Education, Edacochin, hereby declare that I am the publisher of the journal entitled **Avila Journal of Educational Research** and the particulars in respect to the said journal given hereunder are true to the best of my knowledge and belief.

1.	Title of the journal	-	**Avila Journal of Educational Research**
2.	Registration Number	-	ISSN 2320-0707
3.	Language	-	English
4.	Periodicity	-	Yearly
5.	Retail selling price of the journal per copy	-	Rs. 150/-
6.	Publishers name	-	Dr Benny Varghese
	Nationality	-	Indian
	Address	-	Principal Avila College of Education Edacochin, Cochin-682010
7.	Place of Publication	-	Avila College of Education Edacochin, Cochin-682010
8.	Name of Printing Press	-	Little Flower Press, Perumpadappu, Cochin-682006
9.	Editor's Name	-	Dr Sreeja S.
	Nationality	-	Indian
	Address	-	Asst. Professor Avila College of Education Edacochin, Cochin-682010
10.	Owner's Name	-	Rev. Fr. Johnson Chirammel
	Nationality	-	Indian
	Address	-	Manager Aquinas - Avila - Siena Colleges Edacochin, Cochin-682010

CONTENTS

EDITORIAL

Education for all is an essential condition to remove inequalities between the genders, between the haves and have notes, and between the rural and urban populations. It is indispensable to fight other social evils such as child labour, child marriage, terrorism, etc. With the advancement of communication and information technology, many of the practical difficulties in achieving universalization of elementary education have been removed. With firm collective will and proper priorities, technology can be used for mass education.

One of the most important characteristics of modern society is the quest for information and knowledge. Knowledge and information are more important today than land, labour, and capital. They laid the foundation for production and help to achieve quality life. The traditional notion of knowledge for its own sake has changed and the present day notion is "knowledge for development." A knowledge society is described as one where creating, sharing, and using knowledge could influence the prosperity and well being of the people directly. Let's assume that knowledge has become a key economic source and that one plays crucial part in this highly competitive world. In order to create a knowledge society, education must be research based.

The present issue of Avila Journal of Educational Research has ten articles. The first article deals with dispositions of upper primary school teachers towards inclusion. The second article is a SWOT analysis of vocational courses at higher secondary level in Kerala. The next article focuses on alleviating fear of success through reflective thinking strategy of teaching. The fourth article emphasizes education as a tool for empowering women in India. The next paper throws light on the effectiveness of ARCS model of instruction on achievement in science at upper primary level. Effectiveness of a multimedia package in reducing reading miscues of primary school children with dyslexia is the theme of the next article which is followed by a discussion on the effectiveness of electronic media based instructional strategy in creating environmental awareness among secondary school students. The next article attempts to establish the effectiveness of cognitive acceleration approach on the achievement in physics at secondary school level. An analytical study of Jane Austen's novels forms the next article. The last article in this issue focuses on social maturity and leadership qualities of student teachers in Kerala

Through this journal we aim at publishing research papers on most relevant issues in different spheres of education. Let me take this occasion to thank all those who have contributed immensely for the success of the Avila Journal of Educational Research. We are looking forward for the constant support, cooperation and feedback of our beloved readers.

CHIEF EDITOR

DISPOSITIONS OF UPPER PRIMARY SCHOOL TEACHERS TOWARDS INCLUSION: A COMPARATIVE STUDY

Susmitha P. S.

Abstract

Inclusive education practices were developed 15 years ago, but some educators may be unwilling or unprepared to employ this model. This study, "Dispositions of Upper Primary School Teachers towards Inclusion: A Comparative study" was designed to compare the dispositions of Upper Primary School Teachers towards inclusion based on their Experience. 100 upper primary school teachers were randomly selected from two districts of Kerala. These teacher participants completed a survey scale of dispositions composed of 15 items which reflected teachers' attitude or disposition towards Inclusion. Results of the survey were analyzed to determine whether significant differences in dispositions exist between teachers based on their experience. Findings revealed that both general and special UP school teachers are in favour of inclusion. At the same time, majority of them are unaware of the behaviour management techniques to handle children with disabilities in the inclusive classroom set up. The findings also revealed that upper primary teachers who have less experience (< 10 Years) are more in favour of inclusion than experienced teachers (>10 years).

Background of the Study

Inclusive education has emerged as an international buzzword over the past two and half decades, and is being promulgated as a means of addressing diverse needs in schools in both the majority and minority world (Alur & Timmons, 2009). Inclusive education is a phenomenon that is gaining world-wide focus and attention and has been described as a social movement against exclusion in education. It has its focus, the restructuring of mainstream schools so they are better able to respond to the diversity of all students (UNESCO, 2005). In this regard, Milter (2000) states that, inclusive education is not concerned with remediating perceived deficits within students. Nor it is concerned with the integration or assimilation of diverse students into regular schools. Rather, inclusive education is concerned with overcoming the barriers to participation and learning that may be experienced by students, particularly students who have historically been excluded or marginalized from school (Pumfrey, 2000).

The success of inclusion lies in the hands of the classroom teacher who must plan for the accomplishment of diverse learners. There has been mixed reaction to the implementation of inclusive practices in the classroom. There has been substantial amount of research done on teacher's concern about inclusion and the supports that teachers feel which are essential in the inclusive classrooms (Daniel & king, 1997). Although teachers attitudes have changed over the years, due to more support and more information being available to them during their initial and in-service training, there are still negatives that they feel have to be addressed around mainstreaming. Therefore the present study aimed to investigate the Dispositions of upper primary teacher educators towards inclusion with respect to their experience (Phyllis et al., 2009).

Objectives of the Study

1. To find out the dispositions of upper primary school teachers towards inclusion
2. To compare the Dispositions of UP School Teachers towards Inclusive Classrooms based on their experience.

Methodology in Brief

The purpose of the present study was to check the dispositions towards inclusion of upper primary school teachers as instructional leaders in the inclusive classrooms. Normative survey method was used for the study. The survey was conducted among upper primary school teachers. A representative sample of 100 upper primary school teachers from Thrissur and Ernakulam Districts of Kerala were the participants of the study. For the purpose of present study the investigator prepared a dispositions scale towards inclusion. Fifteen statements were posed with a Likert scale ranging from 1 to 5 based on the frequency of the teacher's usage of each strategy. A score of 1 indicated the most frequent use; 5 indicated either disuse or a lack of understanding of the strategy. The data collected were analyzed using appropriate descriptive and inferential statistical techniques. The statistical technique employed is the Mann-Whitney Test.

Analysis and Findings

The analysis and interpretation of data collected are given below:

1. Dispositions of UP School Teachers towards Inclusive Class rooms

Of the total number of respondents (N=100), 62% of the teachers were professionally certified as general education teachers, and 38% teachers are special education teachers. The details of the responses of teachers are provided in table 1.

Majority of the teachers (69%) strongly agree that they support the concept that children with learning disabilities profit from friendships with non-disabled students. Further support is noted in the frequency of response (54%) shown for the statement (No.9), 'we actively encourages full participation of students with disabilities in the life of the school, including extracurricular activities'. Besides this, above average number of respondents (54%) supported the statement (No.15) 'We actively encourages the parents to share in-depth knowledge with teachers about their children's strengths and weaknesses and their specific needs'. The disagreement rates (disagree and strongly disagree of the statement No.14), 'Teachers are well informed on how to apply different behaviour management techniques" (45%) and (19%), shows that majority of the teachers are unaware of the behaviour management techniques in the Inclusive classroom.

Therefore, it is inferred that almost all practitioners selected were of the view that a considerable proportion of UP school teachers including general as well as special education teachers are in favour of Inclusion. At the same time, it also reveals that, majority of these teachers are unaware of the behaviour management techniques to handle children with disabilities in the Inclusive Classroom set up.

Table 1
Dispositions of UP School teachers in the Inclusive Classrooms

Sl No. Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. We begin with the premise that, even if a student is disabled, he belongs in the classroom he would attend.	38 (38)	30 (30)	12(12)	11 (11)	9 (9)
2. We cluster pupils with disabilities into special groups and classrooms	18 (18)	11(11)	12(12)	28 (28)	31 (31)
3. We support the concept that children with learning disabilities profit from friendships with non-disabled pupils and non disabled pupils profit from friendships with pupils having disabilities	69 (69)	20 (20)	3(3)	5(5)	3 (3)
4. We support that General and special teachers have integrated their efforts and resources in order to work together as a team	22(22)	20(20)	16 (16)	30(30)	12(12)
5. We have been provided with sufficient time and staff development to collaborate effectively	23(23)	19(19)	2(2)	33(33)	23(23)
6. We, teachers are isolated in separate departments with separate supervisors and budgets	1 (1)	4 (4)	1 (1)	27 (27)	67 (67)
7. We agree that the administration has created a work climate in which staff is supported as they provide assistance to one another	35(35)	25(25)	18(18)	14(14)	8 (8)
8. We teachers are concerned about appearing incompetent if we seek peer collaboration in working with pupils	6(6)	11(11)	27(27)	45(45)	11(11)
9. We actively encourage full participation of pupils with disabilities in the life of the school, including extracurricular activities.	54(54.5)	21(21.2)	7(7.1)	11(11.1)	6(6.1)
10. We provide for pupils with disabilities as much of the school curriculum that they can master. We modify that curriculum as necessary so that these pupils can share experiences with their peers.	35(35)	23(23)	10(10)	25(25)	7(7)
11. We support the concept that , a positive school environment which provides for the needs and expectations of all learners is created	28(28)	32(32)	19(19)	14(14)	7(7)
12. We can identify learners strengths and weaknesses	24(24)	16(16)	3(3)	21(21)	36(36)
13. We exchange good practice ideas on a weekly basis with one another at the same school as well as at neighbouring schools	14(14)	29(29)	39(39)	12(12)	6(6)
14. We are well informed on how to apply different behaviour management techniques	20(20)	14(14)	2(2)	45(45)	19(19)
15. We actively encourage the parents to share in-depth knowledge with teachers	54(54)	22(22)	10(10)	10(10)	4(4)

about their children's strengths and weaknesses and their specific needs.					

2. Comparison of dispositions of general and special education teachers towards inclusive classrooms at UP level based on experience

The collected data were analyzed using suitable statistical techniques in this section. The Mann- Whitney U test was used to examine the significance of the difference between two populations. It is a non- parametric equivalent of the parametric t – test. It may be considered a useful alternative to the t-test when the parametric assumptions cannot be met and when the observations are expressed in at least ordinal scales. The results are given in table 2.

Table 2

Comparison of Dispositions of General and Special Educators as Instructional Teachers in the Inclusive Classrooms at Upper Primary Level based on their Experience

Statements	Ratings	<10		>=10		Z#	p
		Count	%	Count	%		
1. We begin with the premise that a student belongs in the classroom he would attend if not disabled	SA	23	35.9	15	41.7	0.35	0.727
	A	21	32.8	9	25.0		
	N	11	17.2	1	2.8		
	D	7	10.9	4	11.1		
	SD	2	3.1	7	19.4		
2. We cluster students with disabilities into special groups and classrooms	SA	20	31.3	11	30.6	0.36	0.722
	A	15	23.4	13	36.1		
	N	10	15.6	2	5.6		
	D	8	12.5	3	8.3		
	SD	11	17.2	7	19.4		
3. We support the concept that children with learning disabilities profit from friendships with non-disabled students and not disabled students profit from friendships with students having disabilities	SA	43	67.2	26	72.2	0.52	0.603
	A	14	21.9	6	16.7		
	N	1	1.6	2	5.6		
	D	3	4.7	2	5.6		
	SD	3	4.7	0	0.0		
4. Regular and special educators have integrated their efforts and resources , so that they may work together as team	SA	14	21.9	8	22.2	2.06*	0.039
	A	18	28.1	2	5.6		
	N	10	15.6	6	16.7		
	D	18	28.1	12	33.3		
	SD	4	6.3	8	22.2		
5. Sufficient time and staff development has been provided for educators to collaborate effectively	SA	19	29.7	4	11.1	1.77	0.077
	A	13	20.3	6	16.7		
	N	2	3.1	0	0.0		
	D	15	23.4	18	50.0		
	SD	15	23.4	8	22.2		
6. Teachers are isolated in separate departments with separate supervisors and budgets	SA	44	68.8	23	63.9	0.74	0.456
	A	18	28.1	9	25.0		
	N	1	1.6	0	0.0		
	D	1	1.6	3	8.3		
	SD	0	0.0	1	2.8		
7. The administration has created a work climate in which staff is supported as they provide assistance to one another	SA	19	29.7	16	44.4	0.12	0.905
	A	21	32.8	4	11.1		
	N	13	20.3	5	13.9		
	D	9	14.1	5	13.9		
	SD	2	3.1	6	16.7		
8. Teachers are concerned about appearing	SA	4	6.3	2	5.6	0.82	0.414

incompetent if they seek peer collaboration in working with students	A	7	10.9	4	11.1		
	N	20	31.3	7	19.4		
	D	26	40.6	19	52.8		
	SD	7	10.9	4	11.1		
9. We actively encourage full participation of students with disabilities in the life of the school, including extracurricular activities.	SA	34	54.0	20	55.6		
	A	14	22.2	7	19.4		
	N	4	6.3	3	8.3	0.04	0.971
	D	8	12.7	3	8.3		
	SD	3	4.8	3	8.3		
10. We provide for students with disabilities as much of the school curriculum that they can master.	SA	27	42.2	8	22.2		
	A	8	12.5	15	41.7		
	N	9	14.1	1	2.8	0.97	0.331
	D	17	26.6	8	22.2		
	SD	3	4.7	4	11.1		
11. We modify that curriculum as necessary so that these students can share experiences with their peers.	SA	43	67.2	26	72.2		
	A	14	21.9	6	16.7		
	N	1	1.6	2	5.6	0.52	0.603
	D	3	4.7	2	5.6		
	SD	3	4.7	0	0.0		
12. A positive school environment which provides for the needs and expectations of all learners is created	SA	24	37.5	4	11.1		
	A	10	15.6	22	61.1		
	N	14	21.9	5	13.9	0.25	0.806
	D	12	18.8	2	5.6		
	SD	4	6.3	3	8.3		
13. Teachers can identify learners strengths and weaknesses	SA	24	37.5	0	0.0		
	A	9	14.1	7	19.4		
	N	1	1.6	2	5.6	2.4*	0.016
	D	7	10.9	14	38.9		
	SD	23	35.9	13	36.1		
14. Teachers exchange good practice ideas on a weekly basis with one another at the same school as wee as at neighbouring schools	SA	11	17.2	3	8.3		
	A	18	28.1	11	30.6		
	N	30	46.9	9	25.0	2.02*	0.044
	D	2	3.1	10	27.8		
	SD	3	4.7	3	8.3		
15. Teachers are well informed on how to apply different behaviour management techniques	SA	16	25.0	4	11.1		
	A	10	15.6	4	11.1		
	N	2	3.1	0	0.0	2.33*	0.020
	D	27	42.2	18	50.0		
	SD	9	14.1	10	27.8		
16. We actively encourage the parents to share in-depth knowledge with teachers about their children's strengths and weaknesses and their specific needs.	SA	28	43.8	26	72.2		
	A	19	29.7	3	8.3		
	N	8	12.5	2	5.6	2.2*	0.028
	D	6	9.4	4	11.1		
	SD	3	4.7	1	2.8		

Mann-Whitney U Test **: - Significant at .01 level

S A Strongly Agree D Disagree
A Agree SD Strongly Disagree
N Neutral

Comparison of dispositions of general and special educators as instructional teachers in the inclusive class rooms at Upper Primary Level based on experience using the Mann-Whitney U Test was done. The following conclusions are arrived:

There exists no difference between less experienced and more experienced teachers for most of the Statements (Nos. 1,2,3,5,6,7,8,9,10,11). Whereas significant difference is shown among less experienced and more experienced teachers for the rest of

the statements (Nos. 4,12,13,14 15). It can be seen that, less experienced (< 10 Years) educators are more favour of Inclusion than experienced (>10 years)**.** This implies that the new teachers are gaining confidence in handling an inclusive class with diverse abilities. They have positively started looking up Inclusion. Whereas the experienced teachers reluctant to accommodate the concept of inclusion. They are not showing interest to gain understanding of their learners. This shows the reluctance from the part of experienced teachers to try new techniques in their classroom. They are accustomed with the age old instructional strategies. Hence the investigator herself considers it is very essential to have proper pedagogic mechanisms in the Inclusive Teaching - Learning environment.

Conclusions

1. UP School Teachers are in favour of Inclusion. At the same time, majority of them are unaware of the behaviour management techniques to handle children with disabilities in the Inclusive Classroom set up.
2. Less experienced (<10 Years) UP teachers are more favour of Inclusion than experienced teachers. (>10 years).

References

Alur, M., & Timmons, V. (2009). *Inclusive education across cultures crossing boundaries, sharing ideas*. New Delhi: SAGE publications India Pvt Ltd.

Cook, G. B. (2004). Inclusive teacher's attitudes toward their students with disabilities: A replication and extension. *The Elementary School Journal, 104*(4), 307-320.

Daniel, L. & King, D. (1997). Impact of inclusion education on academic achievement, student behaviour and self esteem, and parental attitudes. *Journal of Educational Research, 91*(2), 67-80.

Hegarthy, S. (1994). *Integration and the teacher: New perspectives in special education*. London, 125-131.

Horne, E, P., & Timmons, V. (2009). Making it work: Teachers' perspectives on inclusion. *International Journal of Inclusive Education*. *13*(3), 273-286.

Lipsky, D., & Gartner, A. (1998). Taking inclusion into the future. *Educational Leadership, 56* (2), 78-81.

McNamara, S., & Moreton, G. (1995). *Teaching special needs.* London: David Fulton Publishers.

Pumfrey, P. (2000). *Emotional and behavioural difficulties: Messages for teachers*. Paper presented at ISEC, Manchester, UK, 24-28 July 2000. http://www.isec2000. org.uk/ abstracts /papersp/pumfrey2.htm.

SWOT ANALYSIS OF VOCATIONAL COURSES AT HIGHER SECONDARY LEVEL IN KERALA

Benny Varghese

Abstract

The present study aims to find out the strength, weakness, opportunity and threat of vocational higher secondary education in Kerala, normative survey method being the appropriate method. To collect data for the present study, the researcher selected 63 vocational higher secondary schools, 1575 students, 315 teachers and 63 heads of institution as the sample for the study. Documents published by Higher Secondary Directorate, Observation schedule, Interview schedule (structured) and Questionnaire for students were employed as the instruments for the collection of data. Simple percentage was used to analyze the data. The results of the study revealed that absence of a state level / school level placement wing can be considered as a threat for the course and most of the courses conducted by vocational schools are outdated and not suited for the present information technology era.

Background of the Study

Vocational education is concerned with the training on vocation. It is helpful in the maximum utilization of the material resources of the country. Vocationalisation of education means training in some vocations at the secondary, higher secondary level with general education. According to the recommendation of the Secondary Education Commission (1952-53), the aim of Vocationalisation of education is to improve the vocational efficiency of the students. Therefore, the commission emphasized on increasing the productive and vocational efficiency of our students and recommended for diversified courses in multipurpose schools.

The greatest challenge in Indian education system today is to provide skill based education to the youth. This is exacerbated by a mismatch in demand and supply for the skilled workforce. The penetration of vocational education and training remains poor not only in rural areas, but also in urban regions where there is a higher installed capacity to impart the same. A recent survey (61st round) conducted by the NSSO found that, 90% of the workforce population is employed in skill-based jobs, whereas more than 90% had no exposure to vocational education or training even though more than half of the seats remain unutilized in vocational education. Skills in India are largely acquired through two main sources: formal training centres and the informal or hereditary mode of passing on cascading skill sets from one generation to the next. Nowadays, vocational courses are becoming quite popular among youth because it is believed that taking these courses would provide more and better employment opportunities than those provided by conventional academic courses. While there remains a requirement for skilled professionals in the industry, the supply for the same is hampered by high dropout rate at secondary level, challenges faced by ITCs and ITIs due to poor quality trainers, lack of flexibility and outdated infrastructure. Vocationalisation should not be attempted in an

unsystematic or haphazard manner. The need of the hour is to understand the trainees' apprehensions and challenges regarding Vocational Education and training. Thus there is a huge opportunity for a vocational training institute to can address these challenges. This will favour the organizations willing to enter the vocational education market as well as the students wanting to take up vocational courses to increase their employability.

Vocationalisation of education provides suitable opportunities to utilize the material resources. Such educational courses must include general education course also, besides training in the specific vocation so as to train the practical aptitudes of students in the preparation for definite vocational work later. The Department of Vocational Higher Secondary Education of Kerala State conducts two year vocational courses in 42 disciplines at higher secondary level leading to the award of certificate in Vocational Higher Secondary education in the concerned discipline. The courses are conducted in selected Government/Private (Aided/Technical) schools. Each institution gives admission to 25-33 students per course. The International Commission on Education and Development (ICED, 1972) critically assessed the educational situation of the world and recommended that education at primary and secondary level should become theoretical, technological and practical at the same time. The concept of vocational education was recommended first by Kothari Commission in India to bring education into close contact with productivity. According to the commission, this programme would give a strong vocation bias to secondary education and increase the emphasis on agricultural and technological education at the university level. The commission maintains that educational system has been training young persons mostly for Government service and the so called white collar professions. New education must be related to the needs and aspirations of the people. In a state like Kerala with nearly cent percent literacy, unemployment is a burning problem, a programme of vocational course which aim at providing self employment skills has to be the most attractive. But unfortunately, the vocational course is the least preferred one. It would be interesting to probe the reason for this paradox. If such a vocational course is stream-lined to cater the needs of the society, it will be welcomed. The present investigation is mainly intended to study the existing system of vocational higher secondary course in Kerala and to come forward with suggestion which could definitely be a guiding force to policy makers. Hence an investigation like this is the need of the time and hence relevant.

Objectives of the Study

1. To study the strength of the vocational courses related to
    a. Physical facilities
    b. Instructional facilities
    c. Human relationship
    d. Co-ordination of different activities
2. To study the weakness of the vocational courses related to
    a. Physical facilities
    b. Instructional facilities
    c. Human relationship

   d. Co-ordination of different activities
3. To study the opportunity of the vocational course related to
   a. Skill/vocational development
   b. Employment of the pass-outs
4. To study the threat of the vocational course related to
   a. Public awareness of the course
   b. Recognition of the course

Methodology in Brief

The present study aims to find out the strength, weakness, opportunity and threat of vocational higher secondary education in Kerala, normative survey method was found to be appropriate method. To collect date for the present study, researcher selected 63 vocational higher secondary schools, 1575 students, 315 teachers and 63 heads of institution as the sample for the study. Documents published by Higher Secondary Directorate, Observation schedule, Interview schedule (structured) and Questionnaire for students were employed as the instruments for the collection of data. Simple percentage was used to analyze the data.

Analysis of the Data

- The number and percentage of students who had responded positively and negatively for the questions related to the Physical Facility/Infra-Structure facility of the Vocational Higher Secondary Schools on 10 different categories is 7540 (47.8%) and 8210 (52.12%) respectively.
- The number and percentage of students who had responded positively and negatively for the questions related to the Laboratory Facility Physical Facility/Infra-Structure facility of the Vocational Higher Secondary Schools on 10 different categories is 8689 (55.16%) and 7061 (44.83%) respectively.
- The number and percentage of students who had responded positively and negatively for the questions related to the Physical Facility/Infra-Structure Library facility of the Vocational Higher Secondary Schools on 8 different categories is 3377 (26.8%) and 9229 (73.19%) respectively.
- The number and percentage of students who had responded positively and negatively for the questions related to the Classroom activities of the Vocational Higher Secondary Schools on 9 different categories is5850 (41.25%) and 8325 (58.73%) respectively.
- The number and percentage of students who had responded positively and negatively for the questions related to Literary/Co-scholastic club activities of the Vocational Higher Secondary Schools on 7 different categories is 4000 (36.28%) and 7025 (63.71%) respectively.
- The number and percentage of schools where different instructional materials (9 items) were adequately available were as follows: Text book -42 (66.6%), Reference books for vocational subjects-12 (19.04%), Instructional manual- 25 (39.68%)Science kit -28 (44.44%), Mini tool kit for vocational subject-13 (20.63%), Availability of chart models to this subject- 33 (52.38%), Availability of

Audio-visual aids-23 (36.50 %), First aid kit- 21 (33.33%), Maintenance of work book-30 (47.61%).

- Time allotted for different subjects in the time table are 19.4% for English and General Foundation course, 38.09% for Vocational subject theory and Practical, 42.85% for Optional subject theory and Practical.
- Only a few universities (19 Universities) in India recognizes vocational higher secondary course as equivalent to 10+2 course.
- There are all together 13 courses under Part I, i.e. Engineering Technology and most of the vocational courses 11 out of the 13 are not yet recognized by public service commission of Kerala State.
- There are all together 21 courses under group II Agriculture. These were under subgroups namely Agriculture, Animal Husbandry, Paramedical, Physical Education and Health. Out of the 21 vocational trades 13 vocational trades are not approved by the public service commission of Kerala state.
- Under Group III, Directorate of vocational Higher Secondary Education conducts only one vocational trade, i.e. Travel and Tourism. This course is not recognized by public service commission of Kerala state.
- There are all together 7 vocational trade under group IV, i.e. business and commerce. Out of seven, 4 vocational trades are not yet recognized by public service commission of Kerala state.
- In short, of the 42 vocational trades under vocational higher secondary directorate, 29 trades are not yet recognized by Public Service Commission of Kerala.

Conclusions

Strength of the vocational course related to physical facilities of the institution

1. Well furnished class rooms for taking classes were noticed in all vocational higher secondary schools.
2. Enough bench and desk are present, seating arrangements proper and the classrooms were sufficiently lighted and provided with proper ventilation.
3. Separate vocational subject laboratory and optional subject laboratory were present in all the schools.
4. Drinking water facility and urinal facility are satisfactory in most of the schools.

Strength of the vocational courses related to institutional facilities of the institution.

1. The condition of vocational subject's laboratory and optional subject laboratory are satisfactory.
2. Laboratory was equipped with tools, chemicals and provided enough raw materials to repeat the experiment.
3. Aided school students are benefited by lab assistants.
4. Some institution keeps books for reference.

Strength of the vocational course related to human relationship aspect.

1. In aided schools, there exists good teacher-pupil relationship, as there are permanent teachers

2. The head of the institution frequently visits the class and the students were encouraged to study well
3. The students are benefited by lab assistants in aided schools.

Strength of the vocational course related to the co-ordination of different activities.

1. Only a few schools take initiative to organize various clubs in their institutions
2. Some schools arrange field trip to local industries.

Weakness of the vocational course related to physical facilities of the institution.

1. Separate subject room and craft room are not present in most of the schools. (It was found only in 12 schools).
2. First Aid facility was not seen in most of the schools (It was found only in 14 schools).
3. The condition of play ground is not satisfactory in most of the schools.

Weakness of the vocational course related to instructional facilities of the institution.

1. The students are not satisfied with the extent of assistance from lab assistants.
2. The students are not getting sufficient time for repeating practicals.
3. No separate library was found in any of the school.
4. Adequate number of books or journals was not present.
5. Reference books for vocational trade practicals were very less
6. Recent developments in the field were not included in the curriculum
7. Students have to study vocational subject, optional subject and general foundation course subject, seems to be burden for students.
8. Teachers followed only lecture method in class rooms.
9. In most of the schools instructional aids/any other type of media are not used in the class.
10. In government schools, permanent teachers are not present. The classes are taken by guest teachers.
11. The teachers are not getting proper in service training programme.

Weakness of the vocational course related to human relationship aspect.

1. The scope of co-curricular activities is very less in vocational schools; therefore, the relationship of students with institution seems to be very less.
2. The teachers are not allowed group discussion in the class.
3. Most of the students do not have good relationship with vocational instructors/ lab assistants.
4. In some schools the principals were not frequently visits the class.

Weakness of the vocational course related to the co-ordination of different activities.

1. In vocational higher secondary schools, no time was allotted for co-curricular activities in the time table. No teachers are appointed for physical education, art or music.
2. Co-curricular activity clubs like literary club, science club, sports club, arts club, NCC, NSS and Guides are not functioning in majority of the vocational higher secondary schools.

3. There is less co-ordination with theory and practicals of vocational course. Those who successfully complete the course fail to take up a job related to their vocational trade.
4. In vocational course, in addition to the vocational subject the students have to study English, General foundation course and optional subjects. It was observed that there was very less or no co-ordination between the general foundation course and other subjects in the vocational course.
5. As the objective of the course is to generate self employment and skilled personnel for different jobs a good relationship with vocational higher secondary schools and local industries are very essential. The vocational school students should be allowed to visit the nearby industries and there should be provision for apprenticeship training in those industries after the course. But at present, there was no such relationship maintained between vocational schools and local industries.

Opportunities of the vocational course related to skill/vocational development of the students.

1. This is a unique course which prepares a student both for higher education as well as for employment.
2. Utmost importance is given for vocational trade theory and practical in the time table (6 hours theory + 10 hours practical).
3. Most of the schools provided sufficient raw materials to repeat the practical.
4. Before practical the student were informed of procedures regarding the practical.
5. The Directorate of vocational higher secondary education conducts 42 different vocational courses under different vocation. The objectives of the course are to make the student proficient in their respective vocation. But the study revealed that the students are not confident of taking a job related to their vocation.

Opportunities of the Vocational course related to Employment opportunity

1. This Course offers a solution to the unemployment problem
2. The outstanding feature of the course is that its objective is to prepare the students fit for a particular vocation
3. The Directorate of Vocational Higher Secondary Education in Kerala offers 42 vocational trades in different discipline
4. About 17000 skilled personals came from vocational Higher Secondary Institution every year.
5. Most of the students under agriculture vocational trade got job immediately after the course.
6. Another unique feature of the course is that it prepares the students for self employment

Threat of the course related to public awareness of the course.

1. Lack of public awareness act as a threat for the vocational course. Most of the educated parents feel that vocational courses are inferior to general stream courses.
2. When compared to the courses like ITI, and Diploma Course, this course gets fewer acceptances due to the lack of public awareness.

3. Due to this, the vocational courses do not get any community Support and funds from local bodies for smooth functioning of the Course.

Threat of the course due to recognition of the course:

1. Recognition of the course by bodies / departments / Universities also act as a threat of the course
2. Only 10% of the universities in India recognized the course as equivalent to 10+2
3. Only 13 courses out of 42 are recognized by Public Service Commission of Kerala. Only those students are able to apply for a job under PSC, with the vocational qualification.
4. Absence of a state level / school level placement wing can also be considered as a threat of the course.
5. Most of the courses conducted by vocational schools are outdated and not suited to the present information technology era.

Educational Implications of the Study

Now we are living in an area of rapid technological and educational changes. So, sincere efforts are needed to solve the problems in the field of vocational education in Kerala state. The demand for skilled workers and highly qualified middle level technical man power is ever increased. The vocational Higher Secondary Course has to respond effectively for the pressing demand especially in the context of severe unemployment problems. In today's industrial environment, in order to meet the severe unemployment and under employment, the traditional curriculum would have to give way to a new curriculum with a mix of knowledge, skill, and competence and work culture.

References

Atkinson, J., et al. (1987). *Dictionary of psychology* (4th ed.). New Delhi: Goyl Saab Publishers.

Cochen, L., & Manion, L. (1994). *Research methods in education* (4th ed.). London: Routledge.

Good, C. V., Barr, A. S., & Scales, D. E. (1953). *Methodology of educational research.* New York: A.C.C. Inc.

Guilford, J. P., & Fruchter, B. (1987). *Fundamental statistics in psychology and education* (6th ed.). Singapore: Mc Graw Hill.

McMillan, J. H., & Schumacher, S. (1989). *Research in education: A conceptual introduction* (2nd ed.). USA: Harper Collins Publishers.

Report of the Education Commission. (1964-66). New Delhi: Ministry of Education, Government of India.

Report of the Secondary Education Commission. (1952). New Delhi: Ministry of Education, Government of India.

Report of the University Education Commission. (1948-49). New Delhi: Ministry of Education, Government of India.

ALLEVIATING FEAR OF SUCCESS THROUGH REFLECTIVE THINKING STRATEGY OF TEACHING

Sibu G. Netto

Abstract

To be a winner in the present day world learners have to be free from anxiety about accomplishments, that is s/he should possess low levels of 'fear of success' (FOS). The study under discussion is an experiment. The sample for the study consisted of 212 Standard VIII students, from three English medium schools. A test on fear of success prepared and standardized by Sanghi (2002) was administered by the investigator to assess the fear of success of the students. The study concludes that FOS among secondary school students can be alleviated in a better way through reflective thinking strategy of teaching than conventional method of direct instruction.

Introduction

Horner's (1970) put forth the concept of 'Fear of Success' (FOS); Matina Soureits Horner the pioneer of the concept of FOS based her studies on certain psychoanalytical assumptions. According to her FOS is an unconscious emotional pain - fear - that is holding the person back from goal accomplishment because of the consequences of success. As a concept FOS tries to explain the 'motive to avoid success': as to how people who are highly achievement motivated as well as able are left inhibited from succeeding academically or on other career paths. Fear of success is the lack of belief in one's own ability to sustain progress, and accomplishments achieved in one's life. Fear that one's accomplishments can self-destruct at any time, no matter how much one achieves or accomplishes. Fear of success is the belief that there are others who are better who will replace or displace one, if s/he does not maintain the performance records. Such failure does not happen because people are afraid of reaching highly valued goals, but because of certain fear, emotional pains, and thoughts of the social consequences on reaching such highly valued goals.

Reflection requires a precise moral and societal stance characterized by openness to uncompromisingly look upon and allow the sounds of diversity to break into our comforts and even unseat it. Moon (1999) defines reflective practice as 'a set of abilities and skills, to indicate the taking of a critical stance, an orientation to problem solving or state of mind.' In essence, it is a readiness to constantly evaluate and review one's practice in the light of new learning. Reflective thinking allows us courageous ways to go deep into ourselves and find ways to conduct ourselves more meaningfully and successfully in this challenging world. Boud and Walker (1998) point out that "it is common for reflection to be treated as if it were an intellectual exercise - a simple matter of thinking rigorously. However, reflection is not solely a cognitive process; emotions are central to all learning."

Significance of the Study

To be a winner in the present day world learners have to be free from anxiety about their accomplishments, that is s/he should possess low level of fear of success. Practice of reflection/ reflective thinking/ reflections can take place - before, during and after actions; such thought processes in other words can also be professed as - reflection for action, reflection in action and reflection on action. Systematic practices of reflection can alleviate fear of success. This study is a pioneering experiment on how 'reflective thinking strategy of teaching'reduces'fear of success 'among secondary school students.

Objective

To verify whether reflective thinking strategy of teaching is effective in reducing the level of fear of success among secondary school students.

Methodology

The investigator in order to realise the objectives of the study makes use of experimental method with non-equivalent Pretest-Posttest design. For collection of data, the present study makes use of six intact classroom groups; one experimental and one control group each from three schools by random procedures, in order to get an adequate sample. A sample of 212 English medium students of Standard VIII from three schools got selected for the study. Reflective thinking strategy of teaching and Conventional method of direct instruction is the independent variables and Fear of Success is considered as the dependent variable for the study. The tools used were an 'achievement test' prepared and standardized by the investigator based on the topics 'solutions' and 'acids and bases' in the standard VIII Chemistry textbook of Kerala and the 'test on fear of success' prepared and standardized by Sanghi (2002).

The test on fear of success consists of ten statements. The respondents have to indicate their agreement towards each of the statements by giving responses 'Agree', 'Between' or 'Do not know' and 'Disagree.' The total score for the test on fear of success is obtained by adding the scores for all the statements. Thus, a respondent can obtain a maximum score of 15 and a minimum score of -11. A higher score in the test shows low level of fear of success.

Comparison of fear of success among experimental and control groups

The investigator compared the scores obtained for the Test on Fear of Success before the experiment, after the experiment and the gain in performance of the pupils in the experimental group and control group by testing the significance of the difference between the means of the pre test, post test and gain scores of the two groups.

Before Experiment

The investigator administered the test on fear of success to students of both experimental and control groups in order to measure their fear of success before the experimental treatment. The data and result of test of significance of the difference in mean scores of test on fear of success are presented in table 1.

Table 1

Data and Results of Test of Significance of the Difference between the Mean Pre Test Scores of Experimental and Control Group on Test on Fear of Success

Group	No. of Pupils	Mean	Standard Deviation	Critical Ratio	Level of Significance
Experimental	106	1.05	3.32	0.1	P > .05
Control	106	1.09	2.47		

From the table 1 it is seen that the mean fear of success scores for experimental and control groups are 1.05 and 1.09 with standard deviation 3.32 and 2.47 respectively. The obtained value of critical ratio (CR = 0.1; p > .05) is not significant even at .05 level. This indicates that there is no significant difference between the means of the pre test scores of pupils in experimental and control groups. Since the mean of the pre test score of experimental group (1.05) was comparable to that of control group (1.09), it can be assumed that the two groups are almost equal on their level of fear of success before the experiment.

After Experiment

During the study the experimental group was taught through reflective thinking strategy of teaching and the control group was taught through conventional method of direct instruction. After the treatments, the investigator administered the test on fear of success to both groups and the scores were collected. Here the same tool, which was used as the pre test to measure the fear of success, was employed. The data and result of test of significance of the mean scores of the test on fear of success after the experiment are presented in table 2.

Table 2

Data and Results of Test of Significance of the Difference between the Mean Post Test Scores of Experimental and Control Group on Test on Fear of Success

Group	No. of Pupils	Mean	Standard Deviation	Critical Ratio	Level of Significance
Experimental	106	2.50	2.32	3.13	P< .01
Control	106	1.44	2.60		

From table 2 it is seen that the mean fear of success scores for experimental and control groups are 2.50 and 1.44 with standard deviations 2.32 and 2.60 respectively. The obtained value of critical ratio (CR = 3.13; p < .01) is significant at .01 level. This means that there is significant difference between the mean of the post test scores of pupils in experimental and control groups. Since the mean of the post test scores of experimental group (2.50) is greater than that of control group (1.44), it can be interpreted that reflective thinking strategy of teaching is superior to conventional method of direct instruction in reducing the fear of success among secondary school students.

Gain in fear of success scores

To further establish the effectiveness of reflective thinking strategy of teaching, in reducing the fear of success, the fear of success scores of pupils in experimental group was compared with that of pupils in the control group by testing the significance of the difference between the mean gain scores of the two groups. The data and results of the test of significance are given in table 3.

Table 3

Data and Results of Test of Significance of the Difference between the Mean Gain Scores of Experimental and Control Group on Test on Fear of Success

Group	No. of Pupils	Mean	Standard Deviation	Critical Ratio	Level of Significance
Experimental	106	1.45	3.47	2.46	P< .05
Control	106	0.35	3.02		

The table 3 shows that the obtained value of critical ratio (CR = 2.46; $p < .05$) is significant at .05 level. Therefore, it can be inferred that there is significant difference between the mean gain scores of pupils in experimental and control groups. Since the mean gain scores of experimental group (3.47) is greater than that of control group (3.02), it can be interpreted that the reflective thinking strategy of teaching is superior to conventional method of direct instruction in reducing fear of success among secondary school students.

Genuineness of the difference in performance of experimental group and control group based on scores of test on fear of success

Here the investigator compares the effectiveness of reflective thinking strategy of teaching over conventional method of direct instruction on the variable fear of success. The scores of test on fear of success of 212 students - with 106 in experimental groups taught through reflective thinking strategy of teaching and 106 in control group taught through conventional method of direct instruction - were subjected to ANCOVA to determine the effectiveness of the former method over the latter. The details are presented in tables 4 to 7.

Table 4

Summary of Analysis of Variance of 'X' (Pre test) and 'Y' (Post test) Scores of Pupils in Experimental and Control Groups

Source of Variation	df	SS_x	SS_y	MS_x (V_x)	MS_y (V_y)
Among means	1.00	0.12	59.2	0.12	59.17
Within groups	210.00	1797.82	1276.7	8.56	6.08
Total	211.00	1797.94	1335.8	-	-

The F ratios for the two sets of scores were tested for significance. The table values of F for df 1/105 are 3.94 at .05 level and 6.90 at .01 level. The obtained value of Fx is 0.01which is not significant at .05 level. The non-significant Fx value shows that there

was no significant difference between pre-test scores of experimental and control group pupils. The obtained Fy value 9.73 is significant at 0.01 level. The significant Fy value indicates that the two groups differ significantly in the post-test achievement. The total sum of squares and adjusted mean squares variances for post-test scores were computed and F-ratio was calculated. The details presented in the table 5.

Table 5

Summary of Analysis of Co-Variance of 'X' (Pre test) and 'Y'(Post test) Scores of Pupils in Experimental and Control Group

Source of Variation	Df	SS_x	SS_y	SS_{xy}	SS_{yx}	MS_{yx}	SD_{yx}	F_{yx}
Among Means	1.00	0.12	59.2	-2.64	60.43	60.43	2.37	10.75
Within Groups	209	1797.82	1276.7	428.07	1174.74	5.62		
Total	210	1797.94	1335.8	425.42	1235.17	-		

The obtained value of F ratio is 10.75. It is significant at .01 level, since the table value is 6.76 at .01 level. This significant F ratio for the adjusted post-test scores shows that the two final scores viz the final mean score of pupils in experimental group and that of the control group differ significantly after they have been adjusted for difference in the pre-test scores. To find out which of the two methods is more significant, the investigator applied t-test.

Comparison of Adjusted Mean Scores

The adjusted mean for the post-test scores of the students in the experimental and control groups were computed. The data is given in the table 6.

Table 6

Data for Adjusted 'Y' Means of the Post-Test Scores of Pupils in Experimental and Control Group

Groups	N	M_x	M_y	M_{yx}	SD_{yx}
Experiment	106	1.05	2.5	2.51	2.37
Control	106	1.09	1.4	1.44	
General Mean	212	1.07	1.97	-	

Adjusted means for post-test scores were tested for significance for df 1/211. The t value obtained was 3.24. The t value obtained 3.24 exceeds the critical value of t (df, 1/211) 2.60 at 0.01 level. The significant t value reveals that the two means differ considerably. This implies that the experimental group and the control group differ significantly in their fear of success. The adjusted mean of post-test scores for the experimental group is greater than that of the control group. Therefore, it is obvious that the experiment group is better than the control group in terms of fear of success.

Conclusion

The finding of the study makes it vividly clear that the students who learned through Reflective thinking strategy of teaching have alleviated their fear of success than those who studied through the Conventional method of direct instruction. In the light of the above findings it is suggested that practice of reflection has to be given adequate prominence in the present day classrooms and has to be infused on activities or actions that are designed to take place before, during and after the learning events.

References

Boud, D., & Walker, D. (1998). Promoting reflection in professional courses: The challenge of context. *Studies in Higher Education*, 23(2) 191-206

Horner, M. S. (1970). Femininity and successful achievement: A basic inconsistency. In J. Bardwick, E. M. Douvan, M. S. Horner, & D. Gutmann (Eds.), *Feminine personality and conflict*. Belmont, CA: Brooks/ Cole Publishing Company.

Moon, J. A. (1999). *Learning journals: A handbook for academics, students and professional development*. London: Kogan Page.

Sanghi, S. (2002). *Towards personal excellence: Psychometric tests and self-improvement techniques for managers*. New Delhi: Response Books.

EDUCATION AS A TOOL FOR EMPOWERING WOMEN IN INDIA

Binuraj A.

Abstract

Education is the most important measure of women's status and the benefits of education cannot be emphasized enough. To provide quality education and develop appropriate skills, many programmes are being implemented by the Government both in elementary and secondary education and higher and technical education. The Right to Education Act 2009 was enacted in April 2010 to make free and compulsory elementary education a right for all children and a flagship programme, Sarva Shiksha Abhiyan was rolled to universalize access to education at primary and upper primary levels. As a result enrolment of girls in schools, both in rural and urban areas across the country, has shown a steady increase over the years and dropout rates have come down. Taking an overview of all aspects, we come to know that empowerment of women is very much needed, accepting at the same time that its pace may be less than the desired. Even though several judicial and legislative measures are taken for women empowerment, they become futile unless and until the women are unaware of them.

Introduction

Women empowerment has become a topic of global discussion. Most countries today consider gender equality and women empowerment to be essential for the development and well being of families, communities and nations. No nation, society, and family can flourish and be happy if women and girls are not respected, free and happy. Indian Constitution does not discriminate between men and women, but our society has deprived women of certain basic rights, which were bestowed upon them by our constitution. In such a situation, it was needed to make women free from all the shackles and to empower them as well.

The word 'empowerment' is one, which is widely used but seldom defined. According to the International Encyclopaedia (1999, p. 33) power means having the capacity and the means to direct one's life towards desired, social, political and economic goals or status. Power means control over material assets, intellectual resources, and ideology. Webster's New World Dictionary (1982) says the prefix 'em' when attached to the noun 'power' is generally used to form verb, which means 'to make' or 'make into'. So the word 'empower' means to make or cause power. Empowerment literally means becoming powerful. In that perspective the empowerment of women and the improvement of their status, particularly in respect of education, health, and economic opportunities is highly important. The concept of women empowerment was introduced at the international women conference at Nairobi in 1985. Empowerment can be viewed as a means of creating a social environment in which one can make decisions and make choices either individually or collectively for social transformation. The empowerment strengthens the innate ability by way of acquiring knowledge, power, and experience (Hashemi Schuler & Riley, 1996).

Women empowerment is defined as the process in which their spiritual, political, social or economic status is raised. This also includes the right to raise their level of confidence regarding their own capabilities.

As per United Nations Development Fund for Women, the term women empowerment means:

- Acquiring knowledge and understanding of gender relations and the ways in which these relations may be changed.
- Developing a sense of self-worth, a belief in one's ability to secure desired changes and the right to control one's life.
- Gaining the ability to generate choices and exercise bargaining power.
- Developing the ability to organize and influence the direction of social change, to create a more just social and economic order, nationally and internationally.

Thus, empowerment means a psychological sense of personal control or influence and concern with actual social influence, political power and legal rights. It is a multi level construct referring to individuals, organizations and community. It is said that education is the key to all problems. Thinkers have given a number of definitions of education but out of these definitions, the most important one was given by M. Phule. According to him, "Education is that which demonstrates the difference between what is good and what is evil". Whatever revolutions that have taken place in our history, education is at the base of them. It is through education that one realizes what is good and what is bad, what is proper and what is not. It is education which can address the issues of injustice. Mahatma Gandhi opined: "Educate one man, you educate one person, but educate a woman, you educate a whole civilization". According to Jawaharlal Nehru, "If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered". Education means modification of behaviour in every aspect, such as mentality, outlook, attitude, etc. Women education in India plays a very important role in the overall development of the country. It not only helps in the development of half of the human resources, but improves the quality of life at home and outside. Educated women not only tend to promote education of their girl children, but also can provide better guidance to all their children. Moreover educated women can also help in the reduction of infant mortality rate and growth of the population.

Seeing all aspects of this discussion, we will realize that education is the only means for empowerment of women. Therefore, literacy should spread amongst women. But the literacy rate amongst the women in the Post- Independent Era is not as per the expectations. The difference in the literacy rate between men and women in India is given in table 1.

Table 1
Literacy rate in India

Year	Persons	Males	Females
1901	5.3	9.8	0.7
1911	5.9	10.6	1.1
1921	7.2	12.2	1.8
1931	9.5	15.6	2.9
1941	16.1	24.9	7.3
1951	16.7	24.9	7.3
1961	16.7	24.9	7.3
1971	29.5	39.5	18.7
1981	36.2	46.9	24.8
1991	52.1	63.9	39.2
2001	62.38	76.0	54.0
2011	74.4	82.14	65.46

On observing the table, we come to know that at no point could the literacy rate of women match that of men. As a result, even after 69 years of independence, women occupy a secondary position in our social hierarchy. In spite of being aware of her position, women can't transform the situation due to lack of education. Therefore, women empowerment can't be effected unless we perceive the importance of women education.

India as a nation, dream of becoming a super power by 2020. No doubt, women will play a vital role in contributing to the country's development. But women, who are a major factor of this society, are not literate then we cannot expect to become a super power. Also women power is crucial to the economic growth of any country. Though India could well become one of the largest economies in the world, it is being hindered due to lack of women's participation. Therefore, it is urgent for us to know the importance of women's education, which would, in turn, give an impetus to the process of women empowerment

History of Women Education in India

During the Vedic age, women were accorded an honoured place in the society. Lopamudra, Apala and Viswambara were the most enlightened women of that age who have surprised their male counterparts. Later the status of women began to decline with the Smritis and with the Islamic Invasion of Babur and Mughal Empire and later Christianity curtailing women's freedom and rights. However, in the British period there was a revival of interest in women's education in India. During this period, various socio-religious movements led by eminent persons like Raja Ram Mohan Roy, Iswar Chandra Vidyasagar emphasized on women's education in India. Mahatma Jyotiba Phule, Periyar and Bhaba Saheb Ambedkar were leaders of the lower caste in India who took various initiatives to make education available to the women of India. However women's education got a spike after the country got independence in 1947 and the government has taken various measures to provide education to all Indian women. As a result women's

literacy rate has grown over the three decades and the growth of female literacy has in fact been higher than that of male literacy rate.

Government Initiatives for Women Education

After independence the first action of great significance to be taken by the Government of India in the field of education was the appointment of the University Education Commission (1948-1949) under the chairmanship of Dr. S. Radhakrishnan. He recommended for provision of necessary facilities in the co-education colleges, expansion of educational opportunities for girls, and provision for equal remuneration for female teachers as males. National Committee for Women Education (Durgabhai Deshmukh Committee, (1958-1959) was to look specifically into the question of women education. It recommended some higher jobs in the Central Administration and appointment of a female joint director in every state vesting the responsibility of women education, allocation of more funds for women education, appointment of female teachers in girls schools, equal curriculum for boys and girls in the primary stage and diversified curriculum in the secondary stage, provision of girls hostels, and text books and clothes for the girls of economically weakened sections of the society. Kothari Commission (1964-1966) had emphasized implicitly on equal educational opportunities for women and also had suggested effective steps to achieve it. It had also emphasized and recommended higher education for Indian women.

Various education policies have emphasized the equality in education; particularly the National Policy on Education (NPE) 1986/1992 laid special emphasis on the removal of disparities. Education should be used as an agent of basic change in the status of woman. It was envisaged that the policy would neutralize the accumulated distortions of the past through a well- conceived edge in favour of women. It would foster the development of new values through redesigned curricula, textbooks, the training and orientation of teachers, decision-makers and administrators and the active involvement of educational institutions. The National Literacy Mission (NLM) was setup in 1988 to reduce dropouts, introduce functional literacy and involve the community in educating women up to the secondary level. Following the policy directive of NPE, several State and National education programmes like Basic Education Programme (BEP), Operation Black Board (OBB), DPEP, SSA and RMSA (Rashtriya Madhyamic Shiksha Abhiyan) were introduced. The Right of Children to Free and Compulsory Education Act, 2009 (RTE Act, 2009), was a key mile stone for elementary education in the country.

Education is the most important measure of women's status and the benefits of education cannot be emphasized enough. To provide quality education and develop appropriate skills, many programmes are being implemented by the Government both in elementary and secondary education and higher and technical education. The Right to Education Act 2009 was enacted in April 2010 to make free and compulsory elementary education a right for all children and a flagship programme, Sarva Shiksha Abhiyan (SSA) was rolled to universalize access to education at primary and upper primary levels. As a result enrolment of girls in schools, both in rural and urban areas across the country, has shown a steady increase over the years and dropout rates have come down. While the SSA has helped in universalization of primary education, a lot more needs to be done to provide

quality education. A nationwide sub- programme to the SSA called Padhe Bharat, Badhe Bharat has been launched to ensure the learning levels of class I and II students in reading, writing language comprehension and mathematics is at par with the world. The campaign aims to ensure that every school provides teaching-learning for 200 school working days, with 800 instructional hours. Vidyanjali (School Volunteer Programme) is another initiative under SSA to enhance community and private sector involvement in Government run elementary schools across the country. This programme has been envisaged to bring together people willing to volunteer their services at schools which really need them.

Consequent to the developments of SSA, there has been an increasing demand for secondary education in the Country. To enhance access to secondary education for all children in the age group of 14- 18 years and to improve its quality, the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is under implementation since 2009 onwards. The efforts are visible in the increased female literacy rate from 65.38 to 74.04 during 2001 and 2011. The CBSE has also come out with a special scheme called Udaan for girl students. It is a mentoring and scholarship scheme which aims at addressing the lower enrolment ratio of girl students in engineering and also aims to enrich and enhance teaching and learning mathematics and science at senior secondary school level by providing free online resources for all. While the Rashtriya Uchchattar Shiksha Abhiyan (RUSA) is being implemented for the holistic development of higher education, Government has also launched a new web- based portal named Vidya Lakshmi under Pradhan Mantri Vidya Lakshmi Karyakram to provide educational loans for the students seeking Higher Education. Vidya Lakshmi is the first of its kind portal providing single window for students to access information and make application for educational loans provided by banks as also government scholarships.

Though women in India have been holding influential positions across sectors and achieving new heights in higher education, gender bias still exists. To make young boys and girls gender sensitive and create positive social norms that value the girls and their rights, provisions has been made to engage Gender Champions in colleges across the country. The University Grants Commission has issued notification in this regard to Vice-Chancellors of all universities and colleges and issued the guidelines for its implementation. In order to expedite the process of expansion of educational opportunities for females, Government of India initiated several programmes including National Programme for Education of Girls in Elementary Level (NPEGEL), the Mahila Samakhya (MS); Kasturba Ganghi Balika Vidyalaya (KGBV). Most recently, Government of India included two major programmes SABLA and Beti Bachao Beti Padhao to the package.

The Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) SABLA is a centrally sponsored programme of government of India initiated on April 1, 2011 under Ministry of Women and Child Development. The objectives of the programme are; enable the adolescent girls for self- development and empowerment, improve their nutritional and health status, promote awareness about health, hygiene, nutrition, adolescent reproductive and sexual health (ARSH) and family and child care, upgrade home based skills, life skills and integrate with the National Skill Development Program (NSDP) for vocational skills, mainstream out of school adolescent girls into formal/non

formal education, and provide information/ guidance about existing public services such as PHC, CHC, Post Office, Bank, Police Station, etc. The National Programme "Beti Bachao, Beti Padhao" (save girl child, educate girl child) was launched on 22nd January 2015. It is a Government scheme that aims to generate awareness and improve the efficiency of welfare services meant for women.

Kind of Education Needed for Women Empowerment

Education of women is indeed the most important component and intervention for women's empowerment, provided both the contents and methodology of this education are pro-women. We have to strengthen and multiply those ongoing efforts to educate women, to acquire information and knowledge which help them challenge patriarchal knowledge, norms, values and behavioural pattern. We need education which will help women not only to read and understand the world but to read, understand and control our world; which will help women not only to master the three R's but to be masters of their own lives and makers of their destinies. We need education which will help women acquire the necessary analytical skills to understand the fast changing realities of life, which will give them the confidence and strength to refuse to conditions of indignity and inhumanity. If we are involved with women's literacy then literacy classes for women should become nuclei for consciousness rising. They should help women form strong groups so that they can gain more and more control over their lives. These classes should create an atmosphere which allows women more freedom, which gives them more opportunities to realize their full human potential. Education for women empowerment will have to be an ongoing process of collective action and reflection. Our educational efforts should be built on women's existing knowledge and skills; they should affirm women, bring out the best in each one of them.

The methodology of women's education has to be participatory and non-hierarchical. Women must be involved in setting their own agenda and priorities, their own pace of learning. The educational process should make them feel good about themselves, build their confidence and self-respect, unleash their creativity and make them feel energetic and joyous. We need education which will not only help in the search and acquisition of new skills and knowledge, but also help the participants acquire and strengthen values like justice, equality, honesty, truthfulness, and solidarity amongst oppressed groups. It should also create or release energies in women to act with conviction and courage in their various struggles at different levels. Women education will not lead to more competition and ambition, but which will create trust and solidarity amongst women. It should help them form associations and networks at different levels. It should help women develop an analytical and questioning mind and a scientific approach to understand the realities around them. It should help them see the connections between micro and macro realities, between micro realities and macro policies, between the local and the global.

Conclusion

Taking an overview of all the above aspects, we come to know that empowerment of women is very much needed, accepting at the same time that its pace may be less than

the desired pace. For giving this process a momentum, education is indispensible. Even though several judicial and legislative measures are taken for women empowerment, they become futile unless and until the women are unaware of them. Hence it is of foremost importance to raise the level of education amongst women so that they should be aware of their rights and duties and should be able to use their rights as per the need.

References

Agarwal, J. C. (2003). *Basic idea in education*. New Delhi: Shipra Publication.

Bhasin, K. (2016). Women's empowerment in the Indian context. *Yojana, 60,* 7-11.

Bhat, R. A. (2015). Role of education in the empowerment of women in India. *Journal of Education and Practice, 6*(10), 27-35.

Gupta, N. L. (2003). *Women's education through ages*. New Delhi: Concept Publications Company.

Mikkil, N. R. (2016). Women empowerment through education: Evolutionary views. *Edutracks, 15* (7), 23-27.

Nair, L. (2016). Empowerment of Women: Government Perspective. *Yojana, 60,* 13-17.

Shinde, J. (2012). Women's empowerment through education. *Abhinav Journal, 1* (11), 16-21.

Suguna, M. (2011). Education and women empowerment in India. *International Journal of Multidisciplinary Research, 1* (8), 38-43.

EFFECTIVENESS OF ARCS MODEL OF INSTRUCTION ON ACHIEVEMENT IN SCIENCE AT UPPER PRIMARY LEVEL

Josen George and Biniya Jacob

Abstract

Even though the school curriculum has undergone a paradigm shift to constructivist model, the present day science teaching seems to be incorporating deplorable practices owing to the traditional methods based on behaviourist approaches to learning. The present study investigates the usefulness of ARCS model of instruction on enhancing achievement in science at upper primary level. A quasi-experimental method was used by the investigators to test the hypotheses. The experiment was conducted among seventh standard students. The findings of the study establish the efficacy of ARCS model of instruction over the present method of teaching science.

Introduction

Science is a human activity without any element of magic. Human beings are curious by nature. The curiosity of man unveils mysteries of nature with observations meaningfully and predict future happenings logically. Human beings explore and change the physical world according to their requirements. The process of observing, describing, exploring, and using the physical world is nothing but science. So science is a result of curiosity, observation, and thought. This is an age where all the modern society is completely drawn in to the scientific environment and science has become an integral part of human life. Thus knowledge in science is necessary to lead a successful life and also to cope up with numerous problems in life. Science is the word of the modern age. Science education has become an integral and important component of school education. In this modern world, science teaching must be efficient and innovative for the effective transmission of scientific knowledge. The quality of science teaching has to be augmented considerably so as to achieve its aims, purposes and objectives.

ARCS Model

The ARCS Model developed by John Keller is a problem solving approach to create motivation in the learning environment. It provides a model for selecting instructional strategies that connect to instructional goals, while generating interest and motivation on the part of the learner. The ARCS model is an instructional design approach that focuses on the motivational aspects of learning environment. It is a method for improving the motivational appeal of instructional materials. The model suggests that learning occurs most effectively when learners are engaged throughout the entire learning process, and that strategies can be put in place to ensure that this engagement carries forward through to the completion. The ARCS Model of motivation was developed in response to a desire to find more effective ways of understanding the major influences on the motivation to learn, and for systematic ways of identifying and solving problems with learning motivation. Keller realized that there were many measurements of motivation such as: curiosity, expectancy, relevancy, and satisfaction. Keller based his emphasis on motivation for the design of instruction on a combination of theories including: Bandura's Self-Efficacy, Berlyne's Curiosity and Arousal, Maslow's Needs Hierarchy, McClelland's

Achievement Motivation, Rotter's Locus of Control, and Seligman's Learned Helplessness (Shellnut, Knowltion, & Savage, 1999). Keller connected these theories to the key components of his theory for motivation design.

There are two major parts to the ARCS model. The first is a set of categories representing the components of motivation. These categories are the result of a synthesis of the research on human motivation. The second part of the model is a systematic design process that assists in creating motivational enhancements that are appropriate for a given set of learners. The synthesis allows identifying the various elements of student motivation, and the design process helps profile the motivational characteristics of students in a given learning environment and then design motivational tactics that are appropriate for them. The ARCS motivational model has been researched globally and its effectiveness in enhancing achievement in various learning situations was reported in various studies (Chang, & Lehman, 2002; Malik, 2014; Qian, 2014; Mangrum & Miller, 2014; Punia & Batra, 2015). This model has been used by teachers and trainers in elementary and upper primary schools, colleges, universities, adult learning settings, and by government agencies, nonprofit organizations, and military organizations.

Need and Significance of the Study

In modern science education movement, the old science curriculum was replaced by the new curriculum in the form of new school science textbooks and institutes were established for science teachers to prepare them to teach the concepts and principles of the new curriculum. But little attention was given in either the institutes or the new textbooks, to the nature of scientific knowledge that would influence the practice of science education. As a consequence, teachers simply taught modern science in the same way that they taught the old science. Achievement in science subjects of students thus become significantly lower than other subjects. Hence there is a need to think of a new strategy which will improve achievement of students in science subjects. Science has become so close to life of everybody that both science as well as the quest for improved method of teaching science constitute a significant features of the present day science dominated world. The science content that we teach is the result of discoveries the scientists have made about the world. One important approach to teaching children is to develop classroom environment that encourages children to make discoveries. For this children can learn and use a number of investigatory procedures commonly referred to as the processes of science.

The ARCS model was designed as a global learning model to be effective both in the classroom and in professional learning environments such as corporate training and professional development. ARCS Model can be used in classroom as an instructional design or learning technique in which students learn through help and guidance of a teacher or expert. In this context an explorative study to test the effectiveness of ARCS model of instruction in the achievement of science.

The above discussion portrays the picture of the deplorable practices of science teaching as well as the relevance of ARCS model of instruction. The review of literature revealed that not much work has been done about the effect of ARCS model in science

teaching primary school level. Hence it was decided to make an attempt to explore the effectiveness of ARCS model of teaching on the achievement in science of students at upper primary level.

Hypotheses of the Study

1. The achievement in science of upper primary school students taught through ARCS model of instruction is significantly higher than that of the students taught through present activity oriented method.
2. The achievement in science of upper primary school students taught through ARCS model of instruction is significantly higher than that of the students taught through present activity oriented method with regard to knowledge domain
3. The achievement in science of upper primary school students taught through ARCS model of instruction is significantly higher than that of the students taught through present activity oriented method with regard to process domain.
4. The achievement in science of upper primary school students taught through ARCS model of instruction is significantly higher than that of the students taught through present activity oriented method with regard to application domain.

Objectives of the Study

1. To compare the achievement in science of upper primary school students taught through ARCS model of instruction with that of students taught through present activity oriented method.
2. To compare the achievement in science of upper primary school students taught through ARCS model of instruction with that of students taught through present activity oriented method under knowledge, process, and application domains

Methodology in Brief

Experimental method with non-equivalent pre test - post test design was adopted for the present study. The study was conducted on a sample of two divisions of standard VII of St. Joseph's UP School Manachery, Ernakulam district. One division was considered as experimental group and the other as control group. Lesson plans and materials prepared based on ARCS model of teaching, lesson plans based on present teaching method and an achievement test in science were used as the tools for the study. The achievements of the students in both the groups were compared by using the statistical treatment of ANCOVA.

Results and Discussion

1 Effectiveness of ARCS model of instruction over the activity oriented method on the achievement in science at upper primary level

The pre-test and post-test scores (total) of the experimental group and control group were subjected to analysis of covariance (ANCOVA) to determine the effectiveness of ARCS model of instruction on the achievement in science over the present activity oriented method. The adjusted means of post-test scores (Y means) of pupils in the experimental group and control group were computed. The difference between the adjusted Y means was tested for significance. The details are given in table 1.

Table 1

Data and result of the test of significance of the difference between adjusted means of post-test scores in the experimental group and in the control group

Group	N	M_x	M_y	M_{yx} (adjusted)	*t* value
Control	35	4.22	14.31	14.34	12.58 ($p < .01$)
Experimental	35	4.25	19.94	19.91	
General means		4.24	17.12		

The obtained value of *t*, 12.58, is much greater than the table value, 2.65 (*df* = 67), at .01 level and the adjusted mean of experimental group is greater than that of control group. Hence it can be interpreted that learning through ARCS model of instruction is more effective than the activity oriented method for increasing achievement in science at upper primary level.

2 Effectiveness of ARCS model of instruction over the activity oriented method on the achievement in science at upper primary level with regard to knowledge domain

The pre-test and post-test scores (under the knowledge domain) of the experimental group and control group were subjected to ANCOVA to determine the effectiveness of the experimental strategy. The difference between the adjusted Y means was tested for significance. The details are given in table 2.

Table 2

Data and result of the test of significance of the difference between adjusted means of post-test scores (under knowledge domain) in the experimental group and in the control group

Group	N	M_x	M_y	M_{yx} (adjusted)	*t* value
Control	35	1.885	6.2	6.194	6.91 ($p< .01$)
Experimental	35	1.857	7.8	7.806	
General means		1.871	7		

The obtained value of *t*, 6.91, exceeds the table value, 2.65 (*df* = 67), at .01 level and the adjusted mean of experimental group is greater than that of control group. Hence it can be interpreted that learning through ARCS model of instruction is more effective than the activity oriented method for increasing achievement in science at upper primary level with regard to the knowledge domain.

3 Effectiveness of ARCS model of instruction in comparison with the activity oriented method on the achievement in science at upper primary level with regard to process domain

The pre-test and post-test scores (under the process domain) of the experimental group and control group were subjected to ANCOVA to determine the effectiveness of the experimental strategy. The difference between the adjusted Y means was tested for significance. The details are given in table 3.

Table 3

Data and result of the test of significance of the difference between adjusted means of post-test scores (under process domain) in the experimental group and in the control group

Group	N	M_x	M_y	M_{yx} (adjusted)	*t* value
Control	35	1.714	6.657	6.719	7.871 (p< .01)
Experimental	35	1.914	9.2	9.138	
General means		1.814	7.928		

The obtained value of *t*, 7.871, exceeds the table value, 2.65 (*df* = 67), at .01 level and the adjusted mean of experimental group is greater than that of control group. Hence it can be interpreted that learning through ARCS model of instruction is more effective than the activity oriented method for increasing achievement in science at upper primary level with regard to the process domain.

4 Effectiveness of ARCS model of instruction over the activity oriented method on the achievement in science at upper primary level with regard to application domain

The pre-test and post-test scores (under the application domain) of the experimental group and control group were subjected to ANCOVA to determine the effectiveness of the ARCS model of instruction. The difference between the adjusted Y means was tested for significance. The details are given in table 4.

Table 4

Data and result of the test of significance of the difference between adjusted means of post-test scores (under application domain) in the experimental group and in the control group

Group	N	M_x	M_y	M_{yx} (adjusted)	*t* value
Control	35	0.457	1.371	1.388	4.788 (p< .01)
Experimental	35	0.485	3.114	3.096	
General means		0.471	2.24		

The obtained value of *t*, 4.788, exceeds the table value, 2.65 (*df* = 67), at .01 level. The adjusted mean of experimental group is greater than that of control group. Hence it can be interpreted that learning through ARCS model of instruction is more effective than the activity oriented method for increasing achievement in science at upper primary level with regard to the application domain.

In the present study the ARCS model of instruction was found to be more effective than the existing method in increasing the total achievement in science as well as achievement under various domains such as knowledge, process, and application among upper primary school students. The findings of the present investigation are in tune with that reported in previous studies such as Astleitner and Lintner (2004), Feng and Tuan (2005), and Vyas and Joshi (2012).

Conclusion

The findings of the present study show that learning using ARCS model of instruction is more effective than the existing method in increasing students' achievement in science. Therefore it may be recommended that ARCS model of instruction should be encouraged among schools since it has proved itself to be a more effective method. Appropriate training for the teachers should also be provided to adopt ARCS model of instruction in the classroom.

References

Astleitner, H. & Lintner, P. (2004). The effects of ARCS-strategies on self-regulated learning with instructional texts. *E-Journal of Instructional Science and Technology*, *7*, 1. Retrieved from http://www.usq.edu.au/electpub/e-jist/docs /Vol7_No1/content.html.

Chang, M. M., & Lehman, J. D. (2002). Learning foreign language through an interactive multimedia program: an experimental study on the effects of the relevance component of the ARCS model. *CALICA Journal, 20*(1), 81-98. Retrieved from http:// www.ccsenet.org/journal/index.php/elt/article/viewFile/ 13348/9221

Feng, S., & Tuan, H. (2005). Using ARCS model to promote 11th graders' motivation and achievement in learning about acids and bases. *International Journal of Science and Mathematics Education, 3*(3), 463-484. doi: 10.1007/s10763-004-6828-7.

Malik, S. (2014). Effectiveness of ARCS model of motivational design to overcome non completion rate of students in distance education. *Turkish Online Journal of Distance Education, 15*(2), 194-200. Retrieved from http://dergipark. ulakbim.gov.tr/tojde /article/view/5000102119

Mangrum, L., & Miller, J. (2014). Exploring voice thread using ARCS instructional design approaches. *Journal of Media Education, 5*(1), 16-22. Retrieved from http://facultyecommons.org/wp-content/uploads/2014/01/Exploring Voice thread - Using - ARCS - ID-Approaches.pdf.

Punia, V., & Batra, K. (2015). *Development of motivational multimedia based on ARCS model with special reference to skill of stimulus variation in micro teaching sessions.* Paper published in the International Education Conference on Learning Technologies in Education, at Jamia Millia Islamia, New Delhi On 24-26 Feb.2015. Retrieved from http://www.researchgate.net/publication /272792630

Qian, X. (2014). Construction and application of an educational game based on the ARCS model. *World Transactions on Engineering and Technology Education, 12*(2), 236-241.

Shellnut, B., Knowltion, A., & Savage, T. (1999). Applying the ARCS model to the design and development of computer-based modules for manufacturing engineering courses. *Educational Technology Research and Development, 47*(2), 100-110.doi:10.1007/BF 02299469.

Vyas, J., & Joshi, S. (2012). Effectiveness of Keller's motivational model (ARCS-model) on academic achievement and academic achievement motivation of secondary school students in science. *BRICS Journal of Educational Research, 2*(2-3), 92-96.

EFFECTIVENESS OF MULTIMEDIA PACKAGE IN REDUCING READING MISCUES OF PRIMARY SCHOOL CHILDREN WITH DYSLEXIA

Sheeba Krishnan

Abstract

The purpose of the present study is to identify the students having specific learning disabilities and thereby screening dyslexics among them and to find out the effectiveness of multimedia package in overcoming the reading errors of dyslexic children. The present study is an earnest effort to provide academic and intellectual strength to the policy makers in this regard. Hence the need and significance of the study. From the study, it is found that dyslexic students are top on the list of primary school students identified with specific learning disabilities, the other categories being dysgraphia, dyscalculia, perception difficulties and cognitive problems. It is also found that the prepared multimedia package is effective in reducing the reading miscues of identified dyslexics.

Introduction

Educational management and the teachers have the key responsibility of designing the learning system and environment, by finding out new ways and means that make schooling lively and ensure active participation of students in the learning process and to equip them for the ever-changing knowledge scenario. Reading is both the most important and troublesome subject in the elementary school curriculum. It is most important since it is a tool, mastery of which is essential to the learning of nearly other school subject, most troublesome since pupils fail in reading, far more frequently than in any other elementary skill. Researches show that "reading is the most frequent cause of school failure". Failure in the primary grades is almost wholly due to deficiencies in reading. There are numerous reading skills to be mastered at different grade levels. When the lower level techniques have been inadequately or imperfectly mastered, the acquisition of the higher level abilities becomes increasingly difficult. The fact that a child may fail to learn to read and yet be of adequate intelligence is receiving attention from educators, psychologists, and psychiatrists. Learning to read is certainly a cognitive process, but it is also a very social activity, deeply imbedded in interactions with teachers and peers. It consists of two integrative processes. The first process is use of language abilities, such as syntax and semantics for anticipating words. The second process consists of the acquisition and application of letter -to-sound relationships.

Criteria behind the Selection of the Study

The field of learning disabilities is the newest challenging subarea of the broader field of special education. It has been the fastest growing, the most controversial, and often the most confusing area. People with learning disabilities have uneven development of skills. What they learn, how they learn, the type of people they are and the way the learning disability affects non-academic areas of life such as friendships and job success etc. According to conservative estimates, as many as 20% of all school children suffer from one or the other type of learning disorders. But only about 10% children are identified in Indian schools with learning disability. Most parents and teachers remain

unaware of the problem and overlook it. Often parents and teachers blame each other for the problem. Parents accuse the teachers of wrong teaching practices and teachers accuse parents of not taking interest in the child. The distress caused by this problem is experienced by both parents and the child. The learning disabled child inspite of average intelligence is not able to cope with academic tasks in the school whereas in all other areas this child is just like any other normal average child. A child with learning disabilities suffers physical, mental, verbal or emotional abuse because his problem is not recognized.

In order to be identified as learning disabled, an individual must demonstrate a severe discrepancy between intellectual potential and achievement in reading, maths, written expression or language skills. In other words, the individual is achieving far less than that would be expected for his or her age and intellectual ability. Learning disability is a generic term that refers to a heterogeneous group of disorders manifested by a significant difficulty in listening, speaking, reading, writing, reasoning or solving mathematical problems (Hammill, 1990). These disorders are due to dysfunction of the central nervous system i.e., their brain works or is structured differently. These differences may interfere with his or her ability to think and remember. According to the current definition, learning disabilities are due to a disorder in the basic psychological process that causes one to achieve severely below his or her potential. The educational point of reference of this definition directs us to measure achievement and intellectual potential but it does not focus on the neurological contributors to the problem. According to the Federal definition, the retarded, emotionally disturbed, physically handicapped and economically disadvantaged also can be considered learning disabled if these conditions are not directly responsible for their severe discrepancy from expected achievement.

Learning disabled students with reasoning problems often have difficulty in verbalizing what has been learnt. Reading is one such area where this deficit hampers learning. Of the students with specific learning disabilities receiving special education services, 70-80% has deficits in reading. The best-known form of specific learning disability is dyslexia. It is often defined as a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence and socio-cultural opportunity. Other forms of learning disability have been identified as dysgraphia (problems with writing) dysorthographia (problems with spelling) and dyscalculia (problems with arithmetic calculation). The causes of dyslexia are neurological and genetic. Individuals inherit the genetic links for dyslexia. Dyslexia is not a disease. With proper diagnosis, appropriate instruction, hard work and support of family, teachers, friends and other individuals, dyslexics can succeed in school and later as working adults.

Hypotheses of the Study

1. A considerable number of primary school students having specific learning disabilities show symptoms of dyslexia
2. The reading errors of dyslexic students at primary level are reduced by the intervention of a multimedia package

Objectives of the Study

1. To identify children with dyslexia from those having specific learning disabilities

2. To develop a multimedia package for minimizing the reading miscues of primary school students having dyslexia

Method Adopted for the Study

The main objective of the present study was to develop a multimedia package for students at primary level with dyslexia. So the investigator adopted survey-cum-experimental method. Through screening test, students with specific learning disabilities were identified. Based on the survey analysis, experimental group students were identified and trained with the multimedia package. The population of the study comprised of upper primary school students studying in V and VI standards of the English medium schools following state syllabus of Kerala. Sixteen schools were selected randomly from Ernakulam district. A total of 1500 students are studying in the V and VI standards of the sixteen schools. From 1500 students, 425 samples were chosen for survey on the basis of teacher nomination and previous academic performance by analyzing the student progress records. Student progress record, screening test, checklist, intelligence test, reading miscue inventory (RMI), and multimedia package were used as the tools and materials for the present study. Percentage analysis and test of significance of difference between means – paired‘t’ were used as statistical techniques.

Results and Discussion

1. Identification of students with dyslexia at upper primary level from those having specific learning disabilities

In the present study, the objective of the screening test is to identify high risk children. For this purpose, the investigator adopted the screening test for identifying children with specific learning disabilities, which is prepared and standardized by Kumar and Sukumaran (2004). The Investigator administered the screening test on 425 fifth and sixth standard students selected from 1500 upper primary school students on the basis of teacher nomination and poor academic background by checking the school records.

The average scores obtained for the sub-areas:- perception, writing ability, reading ability, cognitive ability & mathematical ability from the screening test results for the total sample are 14.54, 15.68, 13.68, 10.69 and 17.89 respectively. Students whose mean scores are below these average scores are treated as samples having specific learning disabilities. The details of analysis of the screening test scores are given in the table 1.

Table 1

Number of students selected from upper primary schools with specific learning disabilities

Sub Area	Number of students
Perception	35
Writing (Dysgraphia)	51
Reading (Dyslexia)	76
Cognitive	46
Mathematical (Dyscalculia)	72

Results of analysis show that 35 students studying in sixteen aided and unaided primary schools have perceptual problems. 51 students exhibit writing difficulties (dysgraphia) and 76 students have reading difficulties (dyslexia). 46 students have some type of cognitive problems and 72 students show mathematical problems (dyscalculia).

From the above analysis it is concluded that dyslexic students top the list of upper primary school students identified with specific learning disabilities, the other categories being dysgraphia, dyscalculia, perception difficulties and cognitive problems. Thus the hypothesis "a considerable number of upper primary school students having specific learning disabilities show symptoms of dyslexia" is accepted.

2. Effectiveness of the prepared multimedia package to minimize the reading miscues of students at upper primary level with dyslexia using the reading miscue inventory

Reading miscue inventory is used to diagnose the miscues in oral reading that offers a qualitative analysis. So the Investigator administered RMI on 76 fifth and sixth standard upper primary students having dyslexia. The pre intervention and Post intervention scores obtained through RMI are compared and thus the effectiveness of MMP is tested. For finding out the effectiveness of the MMP for minimizing reading miscues viz. omissions, substitutions, reversals, additions, repetitions, mispronunciations and refusals among upper primary school students with dyslexia (total sample), paired 't' test was used. The details of the analysis regarding the effectiveness of the MMP for minimizing reading miscues viz. omissions, substitutions, reversals, additions, repetitions, mispronunciations, and refusals among upper primary school students with dyslexia for the total sample and relevant sub-samples are given in table 2.

Table 2

Results of the effectiveness of the MMP in minimizing reading miscues among the total upper primary school students with dyslexia using RMI

Reading Miscues	Pre -intervention scores			Post -intervention scores			Mean Diff.	Paired 't'
	Mean	SD	N	Mean	SD	N		
Omission of sound/word	14.2	4.7	76	7.8	2.8	76	6.4	14.85**
Addition of sound/word	15.8	5.0	76	8.3	3.4	76	7.5	17.41**
Reversal of word	7.7	4.8	76	1.8	1.6	76	5.9	11.29**
Repetition of sound/word	7.9	3.4	76	2.1	1.6	76	5.9	16.12**
Substitution of sound	7.9	3.0	76	2.4	1.7	76	5.5	16.99**
Mispronunciation of vowel/ consonant	6.3	2.7	76	2.0	1.3	76	4.3	16.06**
Refusal of word	4.5	2.1	76	1.5	1.2	76	3.0	11.92**

**: - Significant at .01 level

From table 2 it is seen that, the average score regarding omission of sound/word, addition of sound/word, reversal of word, repetition of sound/word, substitution of sound, mispronunciation of vowel/ consonant, refusal of word after the intervention is decreased. The obtained paired't' value is greater than the table value 2.58 for 0.01 level of significance. So it can be interpreted that the reading miscues is significantly reduced as a

result of the MMP implemented and so it is effective for minimizing reading miscues among the students at upper primary level with dyslexia.

From the above analysis it is concluded that MMP is effective in minimizing the reading miscues such as omissions, substitutions, reversals, additions, repetitions, mispronunciations and refusals among upper primary school students with dyslexia. Thus the second hypothesis "the reading errors of dyslexic students at primary level are reduced by the intervention of a multimedia package" is also accepted. The graphical representation of the pre-intervention and post-intervention scores of RMI among the upper primary school students is shown in the figure 1.

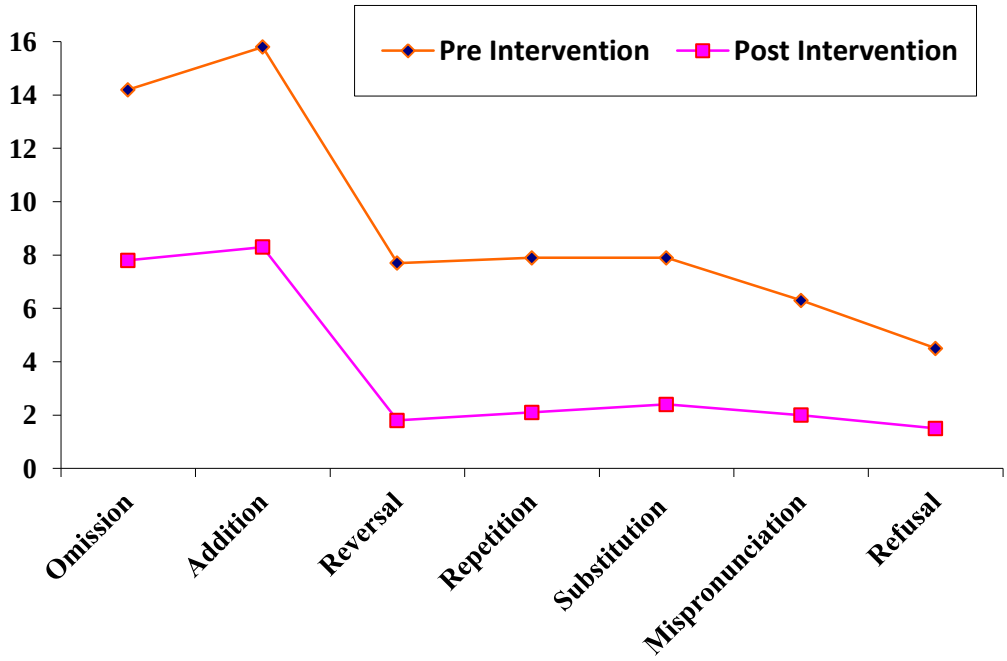

Figure 1

Implications of the Study

The present investigation revealed the number of dyslexics to be 76. This is quite alarming and calls for immediate efforts on the part of educators should be made to overcome such harmful situation which might take bigger dimensions if left unattended. It is hoped that the researchers, educators, parents, allied health personnel, media representatives and the general public can together create a powerful team in meeting the needs of this category of learning disabled viz. the dyslexic children. They can work creating a net-work as analyzers, guidance counselors and awareness promoters through multi pronged approaches. The best teaching methods are diagnostic and prescriptive. Moreover teachers need to train the students to develop their own Reading Skills. This will motivate students themselves and make the students independent lifelong successful learners and potential citizens to our nation. So teachers must teach a dyslexic child in such a way that he/she is expected to "learn to read" and not merely "read to learn". Perhaps, the next decade will have greater cheer for dyslexic children with better learning environment and enrichment.

References

Critchely, M. (1970). *The dyslexic child***.** London: Redwood Press Limited.

Hammill, D. D. (1990). On defining learning disabilities: An emerging consensus. *Journal of Learning Disabilities*, 23, 74-84.

Madhubala, J. (2004*). Methods of teaching exceptional children.* New Delhi: Tarun Offset Printers.

Pandey, R. S. (1995). *Perspectives in disability and rehabilitation***.** New Delhi: Vikas Publishing House Pvt. Ltd.

Ramar, R. G., Reddy, L., & Kusuma, A. (2000). *Common sense methods for children with special needs***.** London: Peter Westwood Ltd.

Ramar, R. G., Reddy, L., & Kusuma, A. (2000). *Learning disabilities*. New Delhi: Arora Offset Press.

Townend, J., & Turner, M. (2000). *Dyslexia in practice - A guide for teachers.* New York: Kluwer Press Limited.

EFFECTIVENESS OF ELECTRONIC MEDIA BASED INSTRUCTIONAL STRATEGY IN CREATING ENVIRONMENTAL AWARENESS AMONG SECONDARY SCHOOL STUDENTS

Madanakumar C. K.

Abstract

The present Study is intended to find out the effectiveness of electronic media based instructional strategy to create environmental awareness among the secondary school students of Kerala. The study has been designed with strategy of teaching as independent variable and scores of the tests of environmental awareness and environmental ethics as the dependent variables. The researcher adopted experimental method, with non –equivalent pre test post test design. For the present study, a sample of 90 students of secondary school in Kerala following the state syllabus was selected. The electronic media based instructional lesson transcript prepared by the investigator, standardized environmental ethics scale and the present activity oriented lesson transcript were used for collection of data. The major conclusions and suggestions were given on the basis of the analysis of data.

Introduction

The primary objective of teaching Science is to give knowledge and information about the world we live in. To live as an efficient member in the modern society, each citizen need to know some facts of the natural phenomena, laws and properties of matter and the application of the knowledge and scientific principles that we come across in our daily life. In other words science must be related to and based upon these familiar experiences in the environment. What is being today is the arrogance of humanism with its dominant power to control and conquer nature. In the controversial essay on 'Land Ethics' by Aldo Leopold, it is envisaged that environmental ethics should form from the fundamental principle of all morality. He says that "a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise". According to him, it is morally right when you conserve and morally wrong when you do otherwise. This means that, ecological considerations should be applied in all our activities and decision making process related to developmental projects. However, the principle should not be extended to stop all types of developmental projects and strangle human ingenuity. The need of the time is to create awareness on all these diverse aspects particularly among the young because they are quick in understanding, and giving priority to justice and peace (Joy 1994). Now-a-days nature has undergone an imbalance due to various human activities. This leads to various types of problems like pollution, scarcity of water, unhealthy environment etc. After-effect of these will lead to the death and extinction of various plants and animals. Poor environmental ethic sense leads to misbehaviour against the environment. Over use of resources, destruction of locally made micro environment, habitats etc. cannot consider about the Vasudaivakudumbakam (Upanishad). In order to overcome this, education and awareness programme should take the immediate remedial measure to spread environmental awareness all over the world. In this context, the Investigator thinks that Electronic media can play an important role to make the pupils realize about the real situation. In short, to

realize the need for maximizing the environmental awareness, the Investigator selected the Electronic Media based Instructional Strategy as it can bring the whole phenomena occurring in the nature to the class room atmosphere.

Hypotheses of the Study

1. Electronic media based instructional strategy (EMBIS) is more effective than the present activity oriented approach (PAOA) on the total environmental awareness of secondary school students.
2. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Theory Awareness of Secondary School Students.
3. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Application Awareness of Secondary School Students.
4. Electronic Media Based Instructional Strategy (EMBIS) is more effective than the Present Activity Oriented Approach (PAOA) on the Environmental Ethics of Secondary School Students.

Objectives of the Study

1. To compare the effectiveness of electronic media based instructional strategy with that of the present activity oriented approach with regard to total environmental awareness of students at secondary level.
2. To compare the effectiveness of electronic media based instructional strategy with that of the present activity oriented approach with regard to environmental theory awareness of students at secondary level.
3. To compare the effectiveness of electronic media based instructional strategy with that of the present activity oriented approach with regard to environmental application awareness of students at secondary level.
4. To compare the effectiveness of electronic media based instructional strategy with that of the present activity oriented approach with regard to environmental ethics of students at secondary level.

Methodology in Brief

The major objectives of the present investigation was to ascertain the relative effectiveness of electronic media based instructional strategy and the present activity oriented approach in creating environmental awareness among the secondary school pupils of Kerala. The study was conducted following pre- test post-test non equivalent group design where there were one experimental group and one control group. The experimental group was taught through electronic media based instruction and the control group was taught through the present activity oriented approach. The Investigator prepared and standardized the environmental awareness tests. To compensate for the lack of equivalences among the groups, the technique of Analysis of Covariance was applied (ANCOVA).

Results and Discussion

The value of analysis of covariance ($F_{y.x}$ = 95.94 P< 0.01) is significant at .01 level. From $F_{y\cdot x,}$ it is clear that final average score on achievements, after adjusted for the initial difference in experimental group is significantly difference from that in the control group. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating total environmental awareness. The‘t’ value for the adjusted mean of post test scores of experimental and control group (t = 9.89 P < .01) is significant. This indicates that the adjusted mean of the post test scores of the group taught through EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group is 69.27, which is significantly higher than that of the control group, whose adjusted mean of the post score is 64.69. Thus the students of the group taught through EMBIS gained significantly higher than those taught through PAOA. This confirms the supremacy of EMBIS over PAOA in creating total environmental awareness (table 1).

Table 1

Consolidated Result of Analysis of Co-variance of Pre test and Post Test Scores of Experimental and Control Groups

Category	Source of Variation	df	SS_x	SS_y	SS_{xy}	SS_{yx}	MS_{yx}	SD_{yx}	F_{yx}
Total Awareness	**Among Group**	1	27.22	1056.1	169.56	927.82	927.82	3.11	95.94**
	Within Group	177	1413.36	1869.8	472.80	1711.66	9.67		
Theory Awareness	**Among Group**	1	3.76	217.8	28.60	206.10	206.10	1.93	55.19**
	Within Group	177	413.04	673.4	71.80	660.92	3.73		
Application Awareness	**Among Group**	1	10.76	314.7	58.18	268.45	268.45	2.42	45.99**
	Within Group	177	921.02	1169.0	353.71	1033.12	5.84		
Ethics	**Among Group**	1	45	25498.2	815.00	14172.2	14172.21	11.96	99.16**
	Within Group	177	3331.98	40258.8	816.93	25297.9	142.93		

**p < .01

The value of analysis of covariance ($F_{y\cdot x}$= 55.19 P < .01) is significant at .01 level. It indicates that there is significant difference between the pre-test and post-test scores of two groups; the experimental group excels control group on creating environmental theory awareness. The‘t’ value for the adjusted mean of post test scores of experimental and control group (t = 7.46 P < .01) is significant. It indicates that the adjusted mean of the post test scores of the group taught through EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group (36.01) are significantly higher than that of the control group (33.86). This confirms the supremacy of EMBIS over PAOA in creating environmental theory awareness.

The value of analysis of covariance ($F_{y.x}$= 45.99 P < .01) is significant. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating environmental application awareness. The‘t’ value for the adjusted mean of post test scores of experimental and control groups (t = 6.82 P <0.01) is significant at 0.01 level. This indicates that the adjusted mean of the post test scores of the group taught through EMBIS differs significantly from the adjusted mean of post test scores of group taught through PAOA. The adjusted mean post test scores of experimental group is 33.27, which is significantly higher than that of the control group (30.82). Thus the students of the group taught through EMBIS gained significantly higher than those taught through PAOA. This confirms the supremacy of EMBIS over PAOA in creating environmental application awareness.

The value of analysis of covariance ($F_{y.x}$= 99.16 P < .01) is significant at .01 level. From $Fy._{x,}$ it is clear that final average score on achievements, after adjusted for the initial difference in experimental group is significantly different from that in the control group. It indicates that there is significant difference between the pre-test and post-test scores of two groups. This implies that the experimental group excels control group on creating environmental ethics. The‘t’ value for the adjusted mean of post test scores of experimental and control group (t = 10.02 P <.01) is significant. The adjusted mean of the post test scores of the group taught through EMBIS differs significantly from that of the group taught through PAOA. The adjusted mean post test scores of experimental group is 107.80, which is significantly higher than that of the control group, whose adjusted mean of the post score is 89.93. This confirms the supremacy of EMBIS over PAOA in creating environmental ethics (table 2).

Table 2

Consolidated Result of Analysis of Adjusted Means of Post Test Scores of Pupils in Experimental and Control Groups

Gategory	Groups	N	M_x	M_y	M_{yx}	t Value
Environmental Total Awareness	**Experimental**	90	39.48	69.4	69.27	9.89**
	Control	90	38.70	64.6	64.69	
Environmental Theory Awareness	**Experimental**	90	18.34	36.0	36.01	7.46**
	Control	90	18.06	33.8	33.86	
Environmental Application Awareness	**Experimental**	90	21.13	33.4	33.27	6.82**
	Control	90	20.64	30.7	30.82	
Environmental Ethics	**Experimental**	90	41.79	107.9	107.80	10.02**
	Control	90	40.79	89.8	89.93	

** p < .01

Electronic media based instructional strategy (EMBIS) is more effective than the present activity oriented approach (PAOA) on the total environmental awareness, environmental theory awareness, environmental application awareness, and environmental ethics of secondary school students.

Educational Implications

Environmental education enables the child to become aware of the environmental hazards such as pollution, deforestation, environmental health problems, etc. and to realize the relationship between various concepts, children must visualize as they read. But it is too difficult to visualize what has been read when it is not within the experience of the children. For this reason it is the teacher's responsibility to provide visual aids of all kinds including motion pictures of rewarding classroom experience extends to the home. Today Electronic Media Based Instructional materials have been recognized by the teacher and educationist as indispensable and integral component of instructional materials despite both formal and informal education. Besides, several, researches have explored the contribution of filmstrips to learning, various types of video classes and television transmissions are also available. Their findings provide scientific support for the impression long held by many teachers on the basis of their day-to-day observation. Electronic media based instructional materials are used by teachers for variety of educational purposes such as to provide a basis for understanding purpose, to provide information and to stimulate aesthetic appreciation and Ethic values. Educational Technology plays a key role in this aspect in the class room situation. Learning through electronic media helps a child to retain what is learned for a long time and permits easier transfer of learning.

Government of Kerala provided digital handy-cam and editing software to every school in Kerala as part of the curriculum. The teacher can develop various video lessons and video clipping for his students and society very easily. In short, to realize the need for maximizing the Environmental Awareness among the students, electronic media can play a major role. Electronic media can bring the whole phenomena occurring in the world to the class room. The world in which we live is changing rapidly and the field of education is experiencing these changes in particular as it applies to media services. The old days of an educational institution having an isolated audio-visual department are long gone. The growth in use of electronic media within the education sector has accelerated in recent years, and looks set for continued expansion in the future.

References

Agarwal, Y. P., & Mohanthy, M. (1998). Effectiveness of multimedia programmed learning and traditional method of teaching: A meta analytical study of Indian researches. *Indian Educational Review, 34*(2), 57-66.

Balakrishnan, N., & Yoganadan, M. (1994). Effectiveness of pre-recorded audio cassettes as a supplementary device in teaching English pronunciation. *Journal of Educational Technology, 22*(10), 216-221.

Francis, M. G. (1993). A model for environmental education in natural resources. *Journal of Environmental Education, 24*, 24-25.

Fulya-Oner, A., & Ela-Ayse, K. (2010). Factors effecting students' performances on an environment achievement test. *Journal of Social and Behavioural Sciences, 9*, 1585-1591.

Joy, K. P. (1994). *Eco development and nature conservation*. New Delhi: AIACHE'S Centre for Peace and Environmental Education.

EFFECTIVENESS OF COGNITIVE ACCELERATION APPROACH ON THE ACHIEVEMENT IN PHYSICS AT SECONDARY SCHOOL LEVEL

Sreeja S. and Kiranjith K. A.

Abstract

The present study is intended to find out the effectiveness of cognitive acceleration approach on the achievement in physics. Experimental method with non-equivalent pre test – post test design was used for the study. The study was conducted on a sample of two divisions of standard IX students. One division was considered as experimental group and the other as control group. Lesson transcripts and materials were prepared based on cognitive acceleration approach; lesson transcripts on existing method. An achievement test in physics was used as the tool for the study. The achievement of students in both the groups was compared by using ANCOVA. Results revealed that cognitive acceleration approach is more effective than prevailing activity oriented method in increasing the achievement in physics among students at secondary level.

Background of the Study

Science is able to explain the mechanics and reasons behind the daily functioning of complex systems, which range from the human body to sophisticated modern methods of transport. Students are able to use this knowledge to understand new concepts, make well-informed decisions and pursue new interests. Science also helps to provide tactile or visible proof of many facts we read about in books or see on the television; this helps to increase understanding and helps children and teenagers to retain that information. Many students find science extremely inspiring and interesting. Science instils a sense of intrigue and enables students to develop understanding and form questions based on the knowledge they already have and the insight they wish to gain in the future. Students who excel in science lessons are likely to develop a strong ability to think critically.

Traditionally, teachers used the lecture format to teach children about science. One of the drawbacks to the lecture format is that it does not engage students in their learning. This teaching technique encourages rote memorization and note-taking instead of excitement about the world of science. In modern science education movement, the old science curriculum was replaced by the new curriculum in the form of new school science textbooks and institutes were established for science teachers to prepare them to teach the concepts and principles of the new curriculum. Science teachers have an exciting opportunity to teach children about how science makes the world work. Science sets the path to self actualization. Cognitive acceleration or CA is an approach to teaching designed to develop students' thinking ability. The approach builds on work by Jean Piaget and Lev Vygotsky and takes a constructivist approach. The programme aims to improve children's thinking processes by accelerating progress towards higher-order thinking skills. CAA focuses on enhancing students' capabilities in understanding scientific concepts, science being an area of the curriculum that has always presented particular difficulties for the majority of pupils. Rather than being intended as an alternative science curriculum, CAA is designed to be an intervention programme within the existing curriculum. It originally targeted students between 11- and 14-years-old. Achievement in science

subjects of students become significantly lower than other subjects. Hence there is a need to think of a new strategy which will improve achievement of students in science subjects. Case model experimental studies are conducted in many countries in various subjects. From a careful review of literature conducted by the investigator it could be revealed that not much work has been done about CAA experimental learning in physics. Hence the investigator decided to make an attempt to study the effect of CAA experimental learning model in physics achievement of students at secondary level (Cambell, 2006).

Hypotheses of the Study

1. The achievement in physics of secondary school students taught through cognitive acceleration approach is significantly higher than that of students taught through present activity oriented method.
2. The achievement in physics of secondary school students taught through cognitive acceleration approach is significantly higher than that of students taught through present activity oriented method with regards to creativity level.

Objectives of the Study

1. To compare the achievement in physics of secondary school students taught through cognitive acceleration approach with that of students taught through present activity oriented method.
2. To compare the achievement in physics of secondary school students taught through cognitive acceleration approach with that of students taught through present activity oriented based on creativity.
3. To compare the achievement in physics of secondary school students taught through cognitive acceleration approach based on their gender.

Methodology in Brief

The present study is intended to find out the effectiveness of cognitive acceleration approach on the achievement in physics. Experimental method with non-equivalent pre test – post test design was used for the study. The study was conducted on a sample of two divisions of standard IX. One division was considered as experimental group and the other as control group. Lesson transcripts and materials prepared based on cognitive acceleration approach; lesson transcripts based on existing method, an achievement test in physics used as the tool for the study. The achievements of students in both the groups were compared by using the statistical treatment, ANCOVA.

Results and Discussion

Comparison of Effectiveness of Cognitive Acceleration Method on Achievement in Physics with the Present Activity Oriented Method

The pre- test and post- test scores of the control and experimental groups were subjected to ANCOVA to determine the effectiveness of cognitive acceleration approach on achievement in physics over present activity oriented method. The adjusted means of post-test scores (Y means) of pupils in the experimental group and control group were computed. The difference between the adjusted Y means was tested for significance. The details are given in table 1.

Table 1

Data and result of the test of significant difference between adjusted means of post-test scores in achievement in the Experimental and Control group

Groups	N	Mx	My	My.x (adjusted)	t
Experimental	50	2.58	5.3	5.38	
Control	50	2.64	3.5	3.42	4.95
General means	100	2.61	4.40	-	

Adjusted y means for pre- test scores are tested for significance for df 1/97. The obtained t value is 4.95 and the table value for significant difference for df 97 is 2.66 at 0.01 level ($t = 4.95$; $p < .01$). The significant difference between the adjusted y means indicates that the pupils of the experimental and control groups differ significantly in their achievement in the post-test. So the mean of the post-test scores of experimental and control groups clearly show that the experimental group is superior in the achievement in physics. It may therefore be tentatively interpreted that the achievement in physics of students taught through Cognitive Acceleration Approach is better than those of students taught through Present Activity Oriented Method.

Comparison of effectiveness of Cognitive Acceleration Method on achievement in physics with the Present Activity Oriented Method based on creativity

The pre-test and post-test scores of the experimental and control groups were subjected to analysis of covariance (ANCOVA) to determine the effectiveness of cognitive acceleration approach on the achievement in physics over the prevailing activity oriented method based on the creativity. Before proceeding to ANCOVA, ANOVA was carried out. Total sum of squares, mean square variance and F ratio of the pre-test and post-test scores of the experimental and control group were computed. The data and results of ANOVA are presented in table 2.

Table 2

Data and result of the test of significant difference between adjusted means of post-test scores in achievement in the Experimental and Control group based on creativity

Groups	N	Mx	My	My.x (adjusted)	t
Experimental	50	0.12	0.4	0.41	
Control	50	0.06	0.4	0.37	0.43
General means	100	0.09	0.39	-	

The calculated value is less than table value ($t = 0.43$; $p > .05$). So it can be tentatively interpreted that there is no significant difference between the control and experimental groups in achievement in physics under the objective creativity. The mean values of post- test scores of experimental and control groups show that experimental group is not superior to control group in the achievement under the category of the objective creativity.

Comparison of Effectiveness of Cognitive Acceleration Approach on the Achievement in Physics Among Students at Secondary Level with Respect to Gender

In order to compare the effectiveness of cognitive acceleration approach on the achievement in physics at secondary level with respect to gender, the post test scores of the boys and girls tabulated and arithmetic mean of boys and girls were separately calculated.

Table 3

Data and result of the test of significance of the difference between mean scores of male and female secondary school students in the Achievement in physics

	Gender	N	Mean	Standard Deviation	t	Levels of Significance
Pre test	Male	26	10.038	2.0096	1.08	
	Female	24	9.333	2.5651		p > .05
	Male	26	18.231	2.7321		p > .05
Post test	Female	24	19.333	2.2586	1.54	

Above table shows that the obtained t value for the pretest is 1.08 is less than the table value 1.96 at .05 level of significance. It means that there exists no significant difference in the achievement in physics based on gender, the obtained t value for the posttest scores is 1.54 is less than the table value 1.96 at .05 level of significance. That means there exists no significant difference in the achievement in physics based on gender. So it can be concluded that the cognitive acceleration approach is effective irrespective the gender of the students.

Conclusion

1. The achievement in physics of secondary school students taught through cognitive acceleration approach is significantly higher than that of students taught through present activity oriented method.
2. Cognitive acceleration approach is more effective than prevailing activity oriented method to increasing the achievement in physics among students at secondary level under the objective creativity.
3. Cognitive acceleration approach is equally effective for both boys and girls in increasing the achievement in Physics among students at secondary school level.

Educational Implications

The analysis of data revealed that cognitive acceleration approach is more effective in increasing students' achievement in physics. Findings of the study will be helpful for the teachers to practice this method for the better performance of the students in physics at secondary level. It will be helpful in curriculum planning, preparation of the text book and supplementary teaching materials. Based on the above conclusions the following suggestions are offered as measure for improvement.

1. Experimental learning should be introducing in the classroom and encourage the students to learn from experience.

2. Cognitive acceleration approach can be incorporated with other instructional designs.
3. Appropriate training from the teachers should be provided to adopt cognitive acceleration approach in the classroom.
4. The curriculum designers must be aware about effectiveness of cognitive acceleration approach, so that they can arrange the lessons in accordance to use this method.

References

Anandaraj, S., & Ramesh, C. (2014). Assessing physics metacognition of graduate students – an institutional wise analysis. *Journal of Educational Research and Extension, 51*(3), 41-45.

Best, J. W., & Kahn, J. V. (1997). *Research in education.* New Delhi: Prentice-Hall of India Private Limited.

Cambell, M. A. (2006). *The basic 5E learning cycle model on student's understanding of force and motion concepts*. Retrieved from http:// etd.fcla.edu.

Jon Nichol (2005). *A cognitive acceleration intervention strategy for 9-13 year old gifted and talented children*. Retrieved from history resource/ journal13/Nichol.pdf.

Kasinath, H. M. (2010). Constructivism and instructional strategies. *Edutracks, 9*(4), 15-19.

Naorem (2012). Constructivism and its approach to different areas of teaching learning research trends. *Edutracks*, *12*(4), 34-39.

WOMEN EMANCIPATION THROUGH EDUCATION: AN ANALYSIS OF JANE AUSTEN'S NOVELS

Manjula K. T.

Abstract

Women emancipation is currently a topic of active social discussion. Eventhough most of the people have achieved high standards of life, the condition of womenfolk is pathetic. So any effort for the emancipation of women is appreciable. This paper focuses on the writings of Jane Austen, a nineteenth century English novelist which seems relevant in the present socio-cultural scenario. Realizing the great social role of women, the novelist emphasized gender equality to access education, family relations, value oriented lives, etc. through her writings.

Introduction

In the present social context women face a lot of challenges and problems that affect their existence as human beings. Due to the long-established superiority feeling, the male society did not allow their female counter-parts to rise as high as them. Vast majority of women are adversely affected with high level of domestic responsibilities. They face restrictions to participate in social, economic, and religious activities. In our society, the male-child often gets preference for education and healthy diet over the female child. Preference for male-child still exists among many families in our society. Though women are taking care of their families the responsibility of men are highlighted as they are often the source of income. Education of women will lead towards financial independence which in turn helps them to overcome numerous barriers they face.

The status of women was more pathetic during Jane Austen's time. Women were not allowed to attend schools or universities. Public schools and universities which were the prime source of academic knowledge were beyond the reach of womenfolk. The study of classical languages such as Greek and Latin was reserved only for males. During that time, women also had no specific occupation except some private teaching and had to depend completely on the male society. Thus, male domination was prominent in English society which is being portrayed in the novels of Jane Austen. Living in such a conservative society, Jane became the chief warrior of women's emancipation. She found that education is the only way which would make women empowered and she fought for the womenfolk with her pen. In her novels she created the type of women characters that she wished to see in reality. Thus, Jane's heroines reflect her personality and through her novels she gives the message about the importance of women empowerment through the process of education.

The visionary revelation of Jane Austen centered on the significance of women education and financial independence as a means to liberate from the clutches of the male dominated world. An educated woman can play well the three distinctive roles in her life; that of a daughter, of a wife, and of a mother. Educated women can recognize the importance of health care and know how to seek it for themselves and for their children. Education helps women to know their rights and to gain confidence to claim them. It is helpful in eradicating many social evils such as dowry, unemployment, women abuse, etc.

and thus, women education contributes much to the establishment of social peace. Thus an educated woman can build an educated family and an educated family can create a better society. In this perspective, Jane Austen's novels are encouraging and inspiring for those who fight for women emancipation.

Objective of the Study

To highlight the significance of education for women emancipation as reflected in the novels of Jane Austen.

Methodology

The present study was an attempt to analyze the novels of Jane Austen, with a view to explore her efforts for women emancipation through education. Therefore content analysis was employed as the method for the study. The essence of the method of study was a close examination of the primary and secondary sources. The primary sources were all the six novels of Jane Austen: *Sense and Sensibility*, *Pride and Prejudice*, *Mansfield Park*, *Emma*, *Northanger Abbey*, and *Persuasion.* The secondary sources included various critical studies on these novels.

Analysis and Discussion

Jane Austen's portrayal of women was challenging and incredibly real. It is evident from her novels that she is focusing towards women emancipation through education in every aspect. She protested against the typical view of women as sentimental creatures, during her time. She concentrated mainly on her heroines without neglecting their heroes. Her heroines Elinor Dashwood (*Sense and Sensibility*), Elizabeth Bennet (*Pride and Prejudice*) Emma woodhouse (*Emma*) Catherine, Morland (*Northanger Abbey*) and Ann Eliot (*Persuasion*) reflect her own personality. All of these heroines are brave and bright as Jane Austen. A woman's formal education was limited because job opportunities also were limited and vice versa. The 19th century English society could not conceive a woman entering a profession like medicine, law, engineering etc. Only a few upper – middle class women got a chance to enrich them with the basic steps. The rest of them were unmarried and depend upon their relatives. Those who are married are completely under the control of their partner.

Jane Austen suggested a new vision of feminity through her logical, educated delightful character Elinor, in *Sense and Sensibility*. The novel is centered on Elinor, the heroine. Though she was not financially sound she was educated, sensible and down to earth. She always protested her sister Marianne's irrational behaviour and the foolishness of her friends and acquaintances. She doesn't seem in agreement with the idea of being married merely to get financial stability which was common in the English society. Her love towards Edward was sincere. She had the courage to deny the ill customs of society, which she gained through her education. Elinor had a different sort of personality; she was away from the woman's endearing traits of the time. She had the quality to access the mind of the people around her. Marianne, her sister was also educated, but she lacks Elinor's skill in understanding people. Lucy Steel, another character in the novel was the typical representative of the 19th century ignorant women who were uneducated and interested only to attend clubs and balls. They had little knowledge about the world they lived and was under the care of their wealthy husband or parent. Being unaware of their position in the society, they considered themselves as the slaves of the male. Lucy Steel was engaged to Edward only for the sake of economic security, firmness and thus she

married Edward's brother Robert Ferrars, without any pain to keep the same. Mrs. John Dashwood also was a similar character who gained financial security through her husband's inherited property. The author presented her as selfish, snobbish and manipulative. In Jane Austen's point of view these women lack education or the lack of education made them so.

Another character, Elizabeth is not different. She was dependent upon her father. In order to attain financial security, Mrs. Bennet wanted to see her five daughters married. In the *Pride and Prejudice*, the term woman is being identified as woman of accomplishment. Most of the characters have their own perception of women education. In a conversation, Charles Bingley claims that he is "sure I never heard a young lady spoken of for the first time, without being informed that she was very accomplished" (Halperin, 1989).The standard of female education in the eyes of Charles and Bingley again echoed by Lady Catherine when she expressed her shock at the lack of education of the Bennet family. The same became the ultimate reason for the disapproval of the union between Darcy and Elizabeth. Thus the idea of female education is solely focused in the novels of Jane Austen.

One of the main lessons that should be drawn from the novel *Mansfield Park* is the supreme importance of the principles of the education of woman as lady Bertram never bothered about the importance of education in her life. She couldn't achieve it in her children also. The spoiled nature of Bertram children was due to their uneducated and careless mother. The head of a family is supposed to be father, while mother had a more significant role in the upbringing of their children. Lady Bertram should have acted judiciously and prevented her own son Tom, from the act of impropriety but she made no objection to perfectly exceptionable play in her own house. Mary Crawford came from a world governed only by money and identified with the fashionable London society, was similar to the character of Lady Bertram. Being a part of defective education she also lacked morality. Her faults were the result of the lack of education. Mrs. Norris, sister of Thomas Bertram had the responsibility of the misbehaviour of Marie Bertram, her favourite niece. It was Mrs. Norris brought her up without teaching the moral lessons. Fanny's love for education was the result of Edmund's guidance and counselling. He assisted her in the improvement of her mind because he found her to be clever and to have a quick apprehension. Fanny's resolute individuality is the result of her education in its right perspective. She lives independently in a world of inadequate perception and subtly corrupted instincts. Fanny is the centre of true judgment and responsible clear-sight. Finally she is recognized as the true preserver of the values represented by Mansfield Park.

Emma's governess Miss Taylor is the only employed character in Emma. She was fortunate to be rescued from her need to work. She worked till her marriage with Mr. Westons and thus became Mrs. Weston. Jane compares the governess' profession to the slave trade. Here she points towards the prominence of women education. Instead of getting married to a wealthy man, women should be educated and have to make themselves self-dependent. She also points towards the idleness of women belonging to wealthy family whose creativity and presence of mind is losing day by day. On the other hand, the educated always get chance to prove their ability and can make a good relation with other members of the society. Apart from Emma, Miss Bates is such a character. Jane Austen presented her as a middle-aged spinster without beauty but with universal goodwill and a gentle temperament. When Jane remarked of Jain Fairfax, "Living constantly with right minded and well informed people" (Duckworth, 2003) her heart and understanding had received every advantage of discipline and culture. She seems to be

looking back on her own past and at the same time emphasizes the need of education for women.

Jane ridicules the gothic literature which presents stereotyped heroines who do not show any development throughout the novel. The gothic heroines were uneducated, fragile and passive. Though Catherine Morland in *Northanger Abbey* was a constant reader of the literary genre, she was not ravishing like them. She was an ordinary, educated and smart young girl but sometimes merged with the gothic elements. Jane had given primary focus on the characterization of Catherine, and the way in which the indifferent education that she has given shape and became Austen's ideal. Jane did not believe in reading such literature which created false impressions regarding womanhood and thinks that the possibly harmful effects can by counterbalanced by a solid education, for women. Eleanor Tinley, like her brother Henry Tinley had much devotion to reading. She liked to spend most of her time with good books. Isabella Thorpe on the other hand was never bothered about her education and enjoyed flirting with many young men. Lack of education of these women characters are being projected in this novel. Mr. and Mrs. Morland were simple practical folk and supportive of their children and provided basic education to them. The 'Genteel' class women will get only domestic education for the acquisition of 'accomplishment' such as ability for needlework, sing, play music, speak model non classic languages like French and Italian, only for the sake of attracting a husband. Jane Austen was well aware of this attitude and wrote "where people wish to attach, they should always be ignorant. To come with a well-informed mind, is to come with an inability of administering to the vanity of others, which a sensible person should always wish to avoid. A woman especially, if she has the misfortune of knowing anything, should conceal it as well as she can." (Ailwood, 2008).

Persuasion deals with the theme that happiness consists in a woman's courage to act upon her passion. Such female characters are shown in the novel. Anne Eliot's efforts are focused to keep the goodwill of her socially important family. Though she was quiet and reserved, she was practical and clever. Anne Elliot described the educational differences between men and women: "We live at home quiet, confined, and our feelings prey upon us. You are forced on exertion. You have always a profession, pursuits, business of some sort or other, to take you back into the world immediately, and continual occupation and change soon weaken impressions" (Grace, 2011). She was always a critic of her father's foolish deeds. While Elizabeth, her elder sister was little educated and was the favourite of her father as she promoted his extravagances. Louisa Musgrove was a young accomplished and bold character in the novel. As she was well educated and interested in reading, she became attracted towards captain Benwick, a gentleman, who used to recite poetry of depression in the memory of her lost fiancée. In other words, literature attracted and bound them together. Through the words of her heroines Austen made a powerful attempt to condition women as 'rational creatures' and make them so through the medium of education. She says that "Men have had every advantage of us in telling their own story; the pen has been in their hands. I will not allow books to prove anything" (Ailwood, 2008). Mrs. Elliot like her husband hadn't controlled their children as she took little interest in teaching them. She didn't find time to spend with her children and they lack education and moral principles except Anne. Lady Russell, Anne's godmother, though she was educated, was much conscious about the class distinctions that existed in the society. Books provided much superior sensibilities to Mary Elliot, who liked to spend her time in the library of Lyme.

Through the portrayal of these characters, Jane Austen gives emphasis on educational importance of women.

Education facilitates empowerment of women

The novels of Jane Austen focus much on women education. Economic stability of women is a serious matter. Due to the insufficiency of the legal system, women lacked financial assets. During the time, the women who were uneducated assumed marriage as a means to attain financial status. Here, Jane Austen points out the necessity of women empowerment through education because education makes an individual self-sufficient. Financial independence for women had the meaning of independence from male domination. Jane Austen focuses on gender inequality and women empowerment as a human right. The ability of women to control their own fertility is absolutely fundamental to women's empowerment and equality.

Education as a cause of upliftment of women

Jane Austen anticipates a better world for women through her novels. Her age witnessed the deterioration of womanhood in front of the male dominated world. Lack of education, unemployment and economic instability made her inferior in the social hierarchy. Even judiciary was not there to support them. During the eighteenth and nineteenth century women have not the right to sue and the women's suffrage right also was lacking. Though they considered marriage as a way to secure the life, they were not safe in reality. Because, the married one cannot claim the property of her husband, their sons only will be the inheritor. In the absence of a son, the entire property will be acquired by the close male relative. In case of domestic violence, women lacked any law to protect them and even divorce was not allowed in that age. Thus Jane Austen looks forward to a better future of womanhood which gives women freedom to think and act freely. Her dream came true during the last decades of the Victorian era.

Education as window to employment

Marriage was the only option for the women of middle class family of the Victorian age. As women were uneducated, they lacked a suitable employment. The 'genteel' society women had the opportunity to learn under the guidance of a governess but it was not enough to get in the employment. The job of governesses and school mistresses were substandard ones according to the social hierarchy. Women were compelled to marry wealthy persons without regard for their temperaments. Thus marriage became an economic rather than a social institution.

Education as an instrument for emancipation of women

The signing of the Declaration of Independence in 1776, the year after Austen's birth, signalled the start of the American Revolution, followed in the next decade by the beginning of the French Revolution in 1789. For the next two decades, Britain was engaged almost without cease in the Revolutionary and Napoleonic Wars of 1793–1815, one of the most significant conflicts in British history. The industrial revolution was in its most intense phase. New technology and manufacturing processes developed and these political events had influenced the life of the individual. Comprising aristocracy, the newly important and wealthy middle class were formed. People became more materialistic and less humane. Money turns into the supreme position and thus abandoning the values. Among the benefits of industrial revolution, some draw backs also affected the life of citizens. The after effect of the revolution was a male oriented society. Women were not benefitted from rebellion that they remained the object for house- keeping. As British society was static and rigid, no new developments ensued in the matter of women education and their employment.

Conclusion

Jane Austen's novels teach how women should be. Her novels are the mirror to the nineteenth century English society and the condition of womenfolk. She concentrated on the area of isolation of women and became their spokesperson. She studied why women are being marginalized and indicated the issue in front of the world through her novels. Her personal experience of being dependent was a reason behind this. During the time, there was no formal schooling or career opportunities for women. In Jane Austen's time, girls' boarding schools already existed, even if for the aristocracy a governess was the normal choice for the education of the girls in the family. They have to be completely dependent upon their father, brother, husband or son. Jane Austen's novels point out the importance of women education so that she can be self- reliant and can establish herself in the society.

References

Ailwood, S. (2008). *What men ought to be: Masculinities in Jane Austen's novels* (Doctoral dissertation). University of Wollongong, USA. http://ro.uow.edu.au/thesis/124.

Cohen, P. M. (2010). Jane Austen's rejection of Rousseau: A novelistic and feminist initiation. *Papers on Language & Literature, 30*(3). Retrieved from http://www. questia.com/library/journal/1G1-15753226/jane-austen-s-rejection-of-rousseau-a-novelistic.

Deresiewicz, W. (2011) *A Jane Austen education: How six novels taught me about love, friendship and the things that really matters.* Retrieved from http://www.goodreads. com/book/show/ 9859183-a-jane-austen-education.

Duckworth, C. V. (2003) *Reading Emma: comic irony, the follies of janeites, and hermeneutic mastery.* Retrieved from http://www.jasna.org/persuasions/on-line/ vol24no1/duck worth.html

Edmunson, M. (2002). A space for fanny: The significance of her rooms in Mansfield Park. *Persuasions, 23*(1). Retrieved from http://www.jasna.org/persuasions/online/ vol23no1/ edmundson.html.

Grace, D. (2011). Jane Austen - pride, prejudice, and persuasion: a comparison of two novels by Jane Austen. *Critical Insights, 1*(2). Retrieved from http://salempress.com/store/ samples/ critical in sights/austen_pride.html.

Halperin, J. (1989). Inside 'pride and prejudice.' *Persuasions, 10*(11), *37-45*. Retrieved from http://www.jasna.org/persuasions/ printed/ number11/benson.html.

Jackson, K. (2000). The dilemma of Emma: Moral, ethical, and spiritual values. *Persuasions, 21*(2). Retrieved from http:// www.jasna.org/persuasions/online/vol21 no2/jackson.html.

SOCIAL MATURITY AND LEADERSHIP QUALITIES OF STUDENT TEACHERS IN KERALA

Jameela P. N.

Abstract

The present study explores the relationship between two central social psychological constructs social maturity and leadership quality of student teachers. Normative survey method has been adopted for the present study. Stratified random sampling was employed for the selection of the sample. The tools used for the study were general data sheet, social maturity scale and leadership quality scale. The sample included 400 student teachers of B.Ed Training colleges. For analyzing the data, statistical techniques such as arithmetic mean, standard deviation, coefficient of correlation and critical ratio were employed. The study concluded that there is moderate relationship between social maturity and leadership qualities of student teachers.

Introduction

The importance of teacher in the qualitative improvement of education is unquestionable. In the search for correlates of effective teaching, it is important to analyze the various aspects of classroom learning. The classroom environment is undoubtedly linked to pupil's achievement since pupils interact with the elements other than the teacher in the classroom. One of the most difficult problems in educational research is that of recognizing teacher effectiveness. In a classroom the teacher has a vital role. Nevertheless the teacher is the point of contact between the educational system and pupils. It is therefore quite proper to say that effectiveness of school in a society directly depends on the effectiveness of its teachers. Maximizing teacher effectiveness is the goal of education. Performance of a teacher in the job is the result of the interaction among variables related to his professional, sociological and psychological background. A thorough study of the literature by the investigator revealed that a positive attitude towards profession will make teaching effective and thus will help for raising the standard of the students. Teachers should have a positive attitude towards their profession and they should show respect and interest in their work. Moreover teacher's behaviour, social maturity and leadership quality will also affect the student's performance.

Education has been regarded both as an end in itself and also a means of realizing other desirable ends. It develops the personality and rationality of the individual, qualifies him to fulfil certain economic, political and socio-cultural factors thereby leading to the progress of the country. The socio-cultural factors influence the social maturity of an individual. A complete and consistent theory of social cognition can be built up through leadership assessment and the basic operations on them. A formal notation to describe social knowledge and behaviour has also been proposed by Byrne (1993), using a production rule formalism. Much has been researched and written on the role of leadership qualities of a good teacher. Researchers who try to describe and predict good leaders disagree about many critical elements, however they agree on many as well. Personal traits are important, acquired skills are important, and the situation for leadership is also important. The social maturity can be referred as people's ability to relate, understand and interact effectively with others on a daily basis. Leaders with high social maturity

consistently display the communication and interpersonal skills that are critical for influencing internal and external associates and for gaining commitment to challenging goals. Social maturity of a person determines his ability to interact with the society as a whole. Social maturity and leadership quality of student teachers will affect the teaching attitude of teacher trainees. Performance of a teacher relates to his ability to handle the social situations and leadership qualities. Moreover teacher's behaviour, social maturity and leadership qualities affects student performance. In the present study the investigator decided to measure variables namely social maturity and leadership quality of student teachers.

Hypotheses of the Study

1. There will be significant difference in mean scores of social maturity of student teachers classified on the basis of sex and locality.
2. There will be significant difference in mean scores of leadership qualities of student teachers classified on the basis of sex and locality.
3. There will be significant relationship between social maturity and leadership qualities of the student teachers in the total sample.

Objectives of the Study

1. To compare the mean scores of social maturity of sub samples classified on the basis of sex and locality.
2. To compare the mean scores of leadership qualities of sub samples classified on the basis of sex and locality.
3. To find out whether there exist any significant relationship between social maturity and leadership qualities of student teachers in the total sample.

Methodology in Brief

The present study is an attempt to analyze social maturity and leadership qualities of student teachers in Kerala. Normative survey method was used for the collection of data. The sample consisted of 400 B. Ed trainees from eight revenue districts of Kerala. To collect the data tools such as Social maturity scale and Leadership quality scale was used. The analysis of the data was carried out by using appropriate statistical techniques such as critical ratio and Karl Pearson product moment coefficient correlation.

Results and Discussion

To verify the hypotheses, t'- test was used. The details are presented below.

Table 1

Data and result of the test of significance of the difference between mean social maturity scores of male and female student teachers

Gender	Number	Mean	Standard Deviation	Critical Ratio	Level of Significance
Male	200	221	10.681	10.65	$p < .01$
Female	200	232	9.956		

From the table 1 it is found that the obtained t value (10.65) is greater than the table value (2.58) and is significant at .01 level of significance. Therefore, the hypothesis,

"there will be significant difference in mean scores of social maturity between male and female student teachers" is accepted.

Table 2

Data and result of the test of significance of the difference between mean social maturity scores of rural and urban student teacher

Locality	Number	Mean	Standard Deviation	Critical Ratio	Level of Significance
Rural	200	236.23	9.858	6.28	$p < .01$
Urban	200	242.04	8.594		

From the table 2 it can be found that the difference in the mean scores of social maturity of rural students and urban students is significant ($p < .01$). Therefore, the hypothesis, "there will be significant difference in mean scores of social maturity between rural and urban student teachers" is accepted.

Table 3

Data and result of the test of significance of the difference between mean leadership quality scores of male and female student teachers

Gender	Number	Mean	Standard Deviation	Critical Ratio	Level of Significance
Male	200	88.15	8.358	1.48	$p > .05$
Female	200	86.94	7.975		

From the table 3 it is inferred that the difference in the mean scores of leadership qualities of male and female student teachers is not significant at .05 level. Therefore, the hypothesis, "there will be significant difference in mean scores of leadership qualities between male and female student teachers" has been rejected.

Table 4

Data and result of the test of significance of the difference between mean leadership quality scores of rural and urban student teacher

Locality	Number	Mean	Standard Deviation	Critical Ratio	Level of Significance
Rural	200	87.59	8.284	0.86	$p > .05$
Urban	200	88.28	7.746		

The table 4 shows that the difference in the mean scores of leadership qualities of rural students and urban students is not significant at .05 level. Therefore the hypothesis, "there will be significant difference in mean scores of leadership qualities between rural and urban student teachers" has been rejected.

Table 5
Data showing the correlation between social maturity and leadership qualities of student teachers

Variable	N	r
Social Maturity	400	0.391
Leadership quality		

The value of coefficient correlation obtained (.391) indicates that there exists moderate relationship between social maturity and leadership qualities of teacher trainers in the total sample.

Educational Implications

Social maturity and leadership qualities are two important areas which need great attention in our present global scenario. All walks of our life, we need to receive the cream of goodness of our society. The present study made an attempt to find out the correlation between social maturity and Leadership qualities among teacher students of Kerala. Definitely, it can be asserted that this kind of study may revolutionize the academic and teaching –learning process as a whole. It is important to provide leadership training programmes to teacher trainees to make them socially mature enough to handle the social problems. Development of social maturity and leadership qualities will help them to think rationally, logically, and to make decisions at right time, which help them to enhance their attitude and competencies. Analyzing the leadership qualities and establishing a relation with social maturity and teaching attitude will enable the teacher trainees to formulate effective strategies for teaching and to develop a healthy classroom atmosphere.

References

Srivastava, D. S. (1990). A competitive study of attitude, level of aspirations and personality traits of trained and untrained teachers. *Perspectives in Psychological Researchers, 13*, 23-30.

Kareen, H. (1993). *Leadership and school children*. New Delhi: Ashish Publish House.

Sadvaluk, T. (1983). *A Study of social maturity as a function of psycho-social adjustment factors of higher secondary students of North central region of Thailand*. Unpublished Doctoral Dissertation.

Puranic, S. D. (1985). *A Study of relationship of social maturity of pupils with organizational climate teachers' morale in the primary school of Bangalore City* (Unpublished doctoral dissertation). Mysore University, Mysore.

Best, J. W., & Kahn, J. V. (1997). *Research in education*. New Delhi. Prentice-Hall of India Private Limited.

LIST OF CONTRIBUTORS

Dr Susmitha P. S., Assistant Professor, SNM Training College, Moothakunnam - 683516

Dr Benny Varghese, Principal, Avila College of Education, Edacochin, Cochin - 682010

Dr Sibu G. Netto, Assistant Director, IGNOU, Thiruvananthapuram - 695002

Dr Binuraj A., Assistant Professor, NSS Training College, Ottapalam, Palakkad - 679101

Dr Josen George, Assistant Professor, Avila College of Education, Edacochin, 682010

Ms. Biniya Jacob, Lecturer, Avila College of Education, Edacochin, Cochin - 10

Dr Sheeba Krishnan, Assistant Professor, NSS Training College, Ottapalam - 679101

Dr Madanakumar C. K., Govt Institute of Teacher Education, Kottayam - 686001

Dr Sreeja S., Assistant Professor, Avila College of Education, Edacochin, Cochin - 10

Mr. Kiranjith K. A., C S Academy, Kovaipudur, Coimbatore - 641042

Ms. Manjula K. T., Lecturer, Avila College of Education, Edacochin, Cochin - 10

Ms. Jameela P. N., Assistant Professor, H. M. Training College, Muvattupuzha - 686673

Avila Journal of Educational Research

Annual Publication

Instructions to Contributors

Submission Procedure

1. Original papers that fall within the scope of the Journal shall be submitted in triplicate to the editor.
2. A soft copy of the full text must accompany the submission.
3. If you request a return of the manuscript, a stamped self addressed envelope must be included.

Manuscript Format

1. Manuscripts are to be typed on one side of the paper, and should be double spaced.
2. Paper title, name (s) of authors and address for correspondence/e-mail address (if available) should be placed on a separate sheet.
3. The recommended length for an article is 2000 to 3000 words, including an abstract summary of 100 words.
4. The references should be in the format as given in APA Publication Manual.

Copyright

Authors are responsible for obtaining written permission to reproduce any copyrighted materials in the manuscript.

Review procedure

The manuscript that meets the guidelines will be acknowledged by the editor. It will then be sent for peer review. The editor reserves the right to edit the manuscript and the contributor will be notified if substantial revision is needed.

General

The articles featured in the Journal reflect the opinion and findings of authors and do not represent the opinion of Avila College of Education.

Mailing Address

The Editor
Avila Journal of Educational Research
Avila College of Education, Edacochin
Cochin – 682010, South India
E-mail: avilajournal@gmail.com