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ENHANCING SOCIAL COMPETENCE AND ACADEMIC ACHIEVEMENT THROUGH CO-OPERATIVE LEARNING METHOD

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Abstract: - The study aims to find out the effect of cooperative learning on social competence and academic achievement of low achieving early adolescents. Pre-test Post-test Control Group design is used to find out the effectiveness of the Co-Operative Learning Method. A sample consisting of randomly selected (N=82) Low achieving early adolescents; Experimental Group (n=41) and the Control Group (n=41) from a Government school from Thrissur district, Kerala state, through convenience sampling technique were selected for experimentation. Standardized question papers, Lesson transcripts based on Cooperative Learning Method were included. The Experimental group was given 50 intervention sessions of 40 minutes duration spread over five months. Statistical techniques such as the Shapiro-Wilk Normality test, independent 't' test, and paired 't' test was used. The result revealed that the Co-Operative Learning Method has significantly improved the academic achievement and social competence among the Experimental Group.

Keywords*: Social competence, Academic Achievement, Co-Operative Learning Method.*

I INTRODUCTION

Education is the accepted, harmonious, and enlightened improvement of the innate powers of man. It aims at the acquisition of knowledge, experiences, development of various skills, habits, and attitudes which enable a man to lead success and meaningful life on earth. One of the greatest goals of education is to draw out the best in him/her through the process of exposures and experiences of life. In this process, the formal, informal, and non-formal methods of teaching and learning are widely used. Researches unanimously opine that apart from the spoon-feeding method of teaching and learning, the student acquires more knowledge, experiences, development of various skills, habits, and attitudes through their method depending upon physical, mental, social and psychological aspects. Undoubtedly, peers and significant others have a unique contribution to the acquisition of social skills and academic performance. If the concepts are clear and candid, the learning is very effective and bear enduring good results.

Cooperative learning is considered as an offshoot of the constructivist theory which emphasizes the role of social interaction in learning at the dawn of the 21st century. According to constructivists, situations wherein learners have the opportunity for mutual interaction contribute to effective learning. Such learning together situation brings with them opportunities for participants to both explain and receive explanations and thus reflect on reactions and perspectives of their counterparty. Slavin (2011) opined that the cooperative method aims at developing cognition, including, critical thinking, creative thinking, remembering, concept formation, problem-solving, and logical reasoning in a social context. Cooperative learning, as the name suggests, stands for a learning method in which students are

provided with opportunities to learn by themselves in a group in a cooperative manner. Johnson and Johnson (1999) defined cooperative learning as the instructional use of small groups so that students work together to maximize their own and each other's learning. It may be contrasted with competitive and individualistic learning. Over the last two decades, the cooperative learning method has emerged as the leading new approach towards classroom instruction. Cooperative learning is a concept, based on group work in which the learners are responsible for others learning as well as their learning. Five criteria of Cooperative learning are positive interdependence, individual accountability, face-to-face interaction, appropriate use of regular self-assessment of team functioning, and appropriate use of collaborative skills (Slavin, 1999). According to Dansereau, (1988) cooperative learning is a convenient way to support the construction of individual knowledge of the members in a variety of ways. When learners are requisite to explicate, elaborate or maintain their position, they maintain a thorough understanding because they have to assess assimilate, and intricate upon their prevailing understanding. The cooperative learning method enables the learner to give rise to new insights and intuitions which lead to the solution. This view is supported by Goodwin (1999) and Pratt (2003) when they indicated that cooperative perception of pupils towards social and cognitive aspects of the learning process. The students befriend each other, help each other to exchange ideas, commitment to work assigned, and thus a social give, and take place in the classroom. Settings. Learners learn to cooperate and cooperate to learn. Communication abilities of listening and questioning as well as the learner's genuine interaction are improved, eventually enable them to construct knowledge. Research studies of O'Connor and Jenkins, (1996) Jonson and Johnson (1999) and Slavin(2011,1999) found that compared to students engaged in non-co-operative learning classrooms, Cooperative learning students tent to archive higher scores, possess higher proficiency in critical reasoning abilities and strategies, improved levels of intrinsic motivation, engage in more group interaction behaviors, work cooperatively in a group setting to attain common goals, possess positive attitudes necessary for working with other, possessing positive attitudes towards learning, school, and the subjects concern, willingness to share and interact positively within the group setting, form more friendship based on human qualities. Onwuegbuzie (2001) has noted that cooperative learning contributed to educational benefits, social benefits, and personal benefits. Student-centered learning is attracting worldwide attention, cooperative learning experimental study was initiated to determine ways to accelerate Academic Performance and thereby Social Competence among early adolescents, to create closer proximity to normal development. International learning strategies to promote Academic Performance in low achieving Adolescents are common, but such studies are inadequate in the Indian context, especially in the State of Kerala.

The objective of the study

To find out the extent to which Co-operative Methods facilitate to boost the Academic Performance and Social Competence of the Secondary School Students.

II METHOD

Research Design

Pre-test Post-Test Randomized Control Group Design was used to find out the effectiveness of Integrated Intervention Methods to enhance the Academic Performance and Social Competence of the Secondary School Students.

Hypotheses

H1.The Experimental group of the low achieving early adolescents who had been exposed to cooperative learning will show more improvement in Academic Performance than the Control group.

H 2. The Experimental group of the low achieving early adolescents who had been exposed to cooperative learning will show more improvements in Social competence than the Control group

Inclusion criteria

Students belonging to both genders who had been

studying in the 8th standard, in a government school from a rural area in the age group of 12-14 years of age, and who secured marks below 45% for first Mid-Term and Quarterly Examination were chosen for the study.

Tools

1. Adolescent Social Competence Scale (ASCS) by (Devassy & Raj, 2012). The scale consists of 37 items measuring eight factors such as; School Competence, Team Organizing Competence, Peer Social Competence, Social Cognition, Home Related Social Competence, Social-Emotional Competence, Social Forethought And Compassion, and Social Flexibility respectively. The reliability of the total scale was derived at by Cronbach's Alpha method and split-half reliability and for the subscales, the reliability was arrived at by Cronbach's Alpha method. The developers of the scale have established that the scale has a validity of .87 and the reliability of .93.
2. Lesson Transcripts based on Cooperative Learning Method
3. Standardized Question Paper for Social Science and the marks obtained by eighth standard students.

Participants

The population chosen for this study were adolescents between the ages of 12 to 14 years who were studying indifferent Secondary School of Kerala State. By adopting a convenient sampling technique, a government school from Trissur District, Kerala was identified. The sample size comprises 8th standard low achieving early adolescents N=82 i.e. Experimental Group (n = 41) and Control Group (n =41). Students were randomly assigned to the Experimental Group and the Control Group.

Intervention program module

A set of comprehensive and integrated modules encompassing Cooperative Learning Strategy were given to Secondary School students to improve Social Competence and Academic Achievement. The experimental group (n=41) were given Intervention for five months, with 50 sessions (duration 40 minutes), whereas the Control group (n=41) were not given any such Intervention, but received only the regular method of classroom teaching.

III RESULT

Table 1

Comparison of Academic Performance between the Experimental Group and the Control Group before the Intervention

Variable	Group	*N*	Mean	SD	*w*	*t*	*df*	Sig
Academic performance of Social Science	Experimental	41	40.74	5.59	.92	.45	62	.65
	Control	41	39.36	5.37	.93			

Results of the Shapiro-Wilk Normality test indicated that scores of Academic performance of Social Science were normally distributed among the Experimental group and the Control group before Intervention, w = .92, .93, p >.05. Independent sample 't' test presented in table 1 indicated that scores of Academic Performance for Social Science were similar between the Experimental and the Control Groups, t (62) = .45

Table 2

Comparison of Pretest and Post-test scores of Academic Performance of the Experimental and the Control group

Group	Phase	*N*	Mean	SD	*w*	*t*	*df*	Sig
Experimental group	Pretest	41	40.75	5.69	.93	67.34**	30	.00
	Post-test	41	59.10	5.34	.98			
Control group	Pretest	41	39.36	5.26	.94	4.48**	32	.00
	Post-test	41	40.73	5.05	.88			

** $p < .01$

Results of the Shapiro-Wilk Normality test indicated that scores of Academic Performance of Social Science were normally distributed among the Experimental group and the Control group regarding Pretest and Post-test scores, w = .93, .94, p > .05.

Summary of Paired sample 't' tests presented in table 2 indicated that Academic Performance increased remarkably from the Pretest phase to the Post-test phase between the Experimental and the Control groups, t (30) = 67.34, p < .01, t (32) = 4.48, p < .01. In the Experimental group, the mean score of Academic Performance has increased from (M=40.75; SD=5.69) to (M=59.10; SD=5.34). But, the range of change in the Control group was from (M=39.36; SD=5.26) to (M=40.73; SD=5.05).

Thus the hypothesis 1: 'The Experimental Group of the low achieving early adolescents who had been exposed to Cooperative learning will show more improvement in Academic Performance than the Control group' is accepted.

Comparison of sub-variables of Social Competence between the Experimental and the Control groups before the Intervention

Table 3

Variable	Group	*N*	Mean	SD	*w*	*t*	*df*	Sig.
School competence	Experimental	41	13.14	5.33	.98	2.49	80	.06
	Control	41	13.91	6.06	.91			
Team organization competence	Experimental	41	15.46	4.54	.93	1.72	80	.09
	Control	41	16.45	4.60	.92			
Peer social competence	Experimental	41	8.95	3.24	.89	1.12	80	.27
	Control	41	8.75	3.28	.88			
Social Cognition	Experimental	41	6.23	2.67	.98	2.20*	80	.05
	Control	41	6.50	2.68	.93			
Home-related social competence	Experimental	41	6.45	2.75	.97	2.28*	80	.05
	Control	41	6.84	2.34	.98			
Social-emotional competence	Experimental	41	6.68	3.97	.93	1.74	80	.09
	Control	41	6.64	3.40	.95			
Social forethought and compassion	Experimental	41	7.42	3.80	.93	1.97	80	.06
	Control	41	6.70	4.17	.95			
Social flexibility	Experimental	41	8.55	3.67	.94	.45	80	.65
	Control	41	8.75	4.66	.95			

* $p < .05$

Results of the Shapiro-Wilk Normality test indicated that scores of School competence, between the Experimental and the Control groups before the intervention, were normally distributed, w = .98, .91, p > .05. The same result was found with scores of other sub variables such as Team organization competence, w = .93, .92, p > .05; Peer social competence, w = .89, .88, p >.05; Social Cognition, w = .98, .93, p > .05; Home related Social competence, w = .97, .98, p >.05; Social emotional competence, w = .93, .95, p > .05; Social forethought and compassion, w =.93, .95, p > .05 and Social flexibility, w = .94, .95, p > .05.Summary of Independent sample 't' test presented in the table 3 indicated that scores of sub variables of Social Competence were similar between the Experimental and the Control group except Social cognition, t (62) = 2.20, p < .05 and Home related social competence, t (62)= 2.28, p < .05.

Table 4

Variables	Group	Phase	N	Mean	SD	*t*	*df*	Sig
School competence	Experimental group	Pretest	41	13.14	5.33	*25.53***	80	.00
		post test	41	35.88	2.67			
	Control group	Pretest	41	13.91	6.06	*6.74***	80	.00
		posttest	41	19.06	5.87			
Team organization competence	Experimental group	Pretest	41	15.49	4.54	11.11**	80	.00
		posttest	41	25.10	3.18			
	Control group	Pretest	41	16.45	4.60	6.27**	80	.00
		posttest	41	16.65	6.29			
Peer social competence	Experimental group	Pretest	41	18.95	3.24	26.20**	80	.00
		posttest	41	24.03	2.64			
	Control group	Pretest	41	8.75	3.28	10.36**	80	.00
		posttest	41	10.33	3.72			
Social Cognition	Experimental group	Pretest	41	6.23	2.67	21.15**	80	.00
		posttest	41	14.58	2.06			
	Control group	Pretest	41	6.50	2.68	6.49**	80	.00
		posttest	41	7.20	2.77			
Home-related social competence	Experimental group	Pretest	41	6.45	2.75	24.08**	80	.00
		posttest	41	19.77	2.54			
	Control group	Pretest	41	6.68	2.34	17.27**	80	.00
		posttest	41	8.88	2.75			
Social-emotional competence	Experimental group	Pretest	41	6.68	3.97	12.22**	80	.00
		posttest	41	13.32	2.60			
	Control group	Pretest	41	6.64	3.40	4.69**	80	.00
		posttest	41	7.67	2.20			
Social forethought and Compassion	Experimental group	Pretest	41	7.42	3.80	25.02**	80	.00
		posttest	41	18.45	2.46			
	Control group	Pretest	41	6.70	4.17	10.06**	80	.00
		posttest	41	9.76	3.52			
Social flexibility	Experimental group	Pretest	41	8.55	3.67	13.45**	80	.00
		posttest	41	16.06	2.63			
	Control group	Pretest	41	8.75	4.66	3.69**	80	.00
		posttest	41	10.33	3.78			

** p < .01

Above table 4, clearly and candidly detailed the summary of the Paired sample 't' test results of the sub-Variables of Social Competence. The results of Paired 't' tests presented in Table 4 also indicated that

Social

Competence with its sub-dimensions increased significantly from the Pretest phase to the Posttest phase among the Experimental group. But it is also noted that there is a range of change in sub-dimensions of the Control group, some intervening variables might have affected them.

Thus the hypothesis 2: 'The Experimental group of the low achieving early adolescents who had been exposed to Cooperative learning will show more improvements in Social Competence than the Control group' is accepted.

III DISCUSSION

The study aims to find out the extent to which Co-operative Methods facilitate to boost the Academic Performance and Social Competence of the Secondary School Students. The result clearly and candidly unveiled that the cooperative method of teaching and learning has an as high effective influence on the experimental group. By adopting the student-centered method, the students got involved in a new experience by fulfilling each one's responsibility or project to attain the desired goal. The learners enjoyed the involvement in the knowledge construction and the completion of the assigned tasks/works in an edutainment (education+ entertainment) manner. Parents and significant others could make direct involvement and access to the school and teachers and vice versa. Thus a new method of collective responsibility of learning for life is been initiated through a cooperative method of learning.

The result of the study is aligned with the findings Falchikov (2001) such that the cooperative learning approach is equally beneficial to learners irrespective of their ability level. An increase in achievement may be attributed to the motivation and mutual help of team members. Another significant finding was that peer support and encouragement had a salutary effect on the academic and social involvement of the learners. This study coincides with Eric Erickson's theory –Industry vs Inferiority. When children are trained to perform complex tasks with scaffoldings, they tend to be master in newly learned skills and when they are reinforced constantly, by parents, teachers and significant others, grow a feeling of competence; at the same time neglect, failures, negative reinforcements or contempt, result feeling of despair and inferiority (Erikson,1963). Thus positive and creative boosting up of the students bring far-reaching good results on progressive functions of the individual and unsatisfactory behaviors generate psychological and sociological inadequacies.

The findings of the study go hand in hand with other researchers (Kramati, 2010; Lavasani, Afzali, Borhanzadeh, Afzali, & Davoodi, 2011). Cooperative learning established a community in which students could help and support other group members (Hsiung, 2012) which enhanced their social support and social participation. There is a paradigm shift from the conventional method of lecture method in which the teacher is the key person of the knowledge to the students in which the knowledge is created among the students.ie a radical shift from teacher-centered to students -centered mode of learning. Students familiarize themselves with innovations about the subjects matter after group discussion and lead to the solution of the problem. Cooperative learning emphasizes each individual to contribute to the group and group together to enjoy the common result. Thus individual attention accompanied by activates and discoveries improves the vitality and creatively of the individual and enhances the collectiveness or social bindings. Social involvement, Self-esteem, and self-concept naturally escalate simultaneously by developing several social skills of the individual. Group activities bring new vibes and reduce monotony, boredom, passivity, and stress in the learning activity and bring self-confidence, motivation and to get good scores in the examinations. Students are trained to new social skills, social participation, adjustments,

leaderships, and a sense of belongingness through reinforced experiential interactions. The cooperative learning method provides a creative perception of the students towards the cognitive and social facets of the learning procedure. The classroom will be converted to a place of knowledge building, edutainment, democracy, social skills development platform, and a place to exchange

ideas. Thus cooperative learning method enables students to learn to cooperate and cooperate to learn.

IV CONCLUSION

The Cooperative learning method enabled early adolescents to improve academic achievement and social skills. Hence, policymakers and educationalists should undertake these strategies of teaching and learning and recommend this for inclusion in the academic curriculum.

V IMPLICATION

The cooperative learning method can advance the academic performance and social skills of the low achieving students, which will heighten their overall performance. The incorporation of Cooperative learning methods in day-to-day learning activities can be done with minimum time, cost, and energy. Teachers are to be trained in handling the Cooperative learning method. The study is more relevant in the modern scenario where inclusive classroom training is encouraged. This method of teaching and learning is strongly recommended in schools and colleges since it has proven itself to be more effective. Once the low achieving Early Adolescents perceive that they are doing well or improving in their academics, their self-generated confidence in learning activities is likely to be geared up; simultaneously they will advance in other desirable social skills and competences for a successful life.

VI LIMITATION OF THE STUDY

The sample size of the study was small (N=82); the study could be conducted on a wider population more extensively. It would have increased the generalizability of the result. The data were collected during one full term of an academic year from a single school. Follow up study was not conducted due to time limit; other variables like social competence, emotional competence, etc. could also be studied.

Suggestion for Further Research.

Further research could be conducted with more samples from different regions across the country. The efficiency of the Cooperative learning method when applied at elementary class, higher secondary classes, and college classrooms can be explored. Immediate follow-up and long term follow-up can explore and well evaluate the effectiveness of the Cooperative learning method to bring out teaching and learning efficacy, motivation, changes in cognitive and social dimensions, attitudes, and aspiration for higher education and rates of school dropouts. A similar study could be conducted to find out the effectiveness of the Cooperative learning method in improving other competencies like Emotional Competencies, Functional Competencies, and Behavioral Competencies.

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