Effect Of Cognitive Apprenticeship Model Of Teaching On Enhansing Life Skills Among Secondary School Students

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Abstract: Cognitive Apprenticeship Model (CAM) of teaching is a teaching method having Six steps of mastering the Life Skills in content area of study. Education is life and life is education. Life skills development is the aim of education. In order to achieve this end of education it should be imparted through the best suited method of teaching. Thus in the present scenario, the investigator intends to study CAM of teaching on enhancing Life skills education. For the present study the investigator adopted quasi experimental method and selected two intact classrooms consists of 34 students in Experimental group and 34 students in Control group. Mean, Standard deviation, t test, ANOVA and Analysis of co-variance (ANCOVA) were the statistical techniques used for the study. The study revealed that CAM of teaching enhances Life Skills among adolescence.

Key Terms : Life Skills, Cognitive Apprenticeship Mode (CAM).

Introduction

Education enables to realize the true significance of life. It enables one to be self-realized by removing darkness and shattering illusion. Education frequently takes place under the guidance of educators, but learners may also educate themselves. It can take place in formal or informal settings. Also, any experience that has a formative effect on the way one thinks, feels or acts may be considered educational. Educators frequently made use of variety of methods to impart the content knowledge to adolescents. Frequently used methods of teaching include discussion, lecture, and seminar. All these methods of teaching help to knowledge acquisition of adolescents.

Our education system lays optimum focus on the acquisition of knowledge rather than acquisition of skills, attitudes and values. Knowledge without utility is futile. Knowledge should lead to action. It should change the outward behavior of a person. It should enable a person to lead a meaningful and worthwhile life. Knowledge should be digested and should be part parcel of ones'daily life. Life skills are skills, strengths and capability of an individual to face problems of life and tackle

effectively and happily go about. Here comes the importance of training of students in essential skills. It cannot be achieved through the traditional method of class room teaching. The investigator finds the solution from the concept of cognitive apprenticeship. It is a method of teaching where a master of a skill teaches that skill to an apprentice. It may best suit for Life skills attainment of the students. The Cognitive Apprenticeship Theory is product of Constructivist approaches to human learning. It can be defined as a cognitive or metacognitive learning.

Need and Importance of the study

Life skills promote child development and psychological health promotion.The first International Conference on Health Promotion, organized by World Health Organization (WHO) signed an international agreement named Ottawa charter for health promotion in November 1986. The document recognized Life skills in terms of making better health. The convention on the Rights of the Child (1989) attached Life skills to education for the fullest development of the child. World declaration on 'Education for all' (1990) included life skills education as an essential learning tool. World Education Conference (2000), World Development Report (2007)and a number of international conferences linked life skills to formal education system. It sheds light of the need of life skills education.

Life skills are to be differentiated from livelihood skills. Livelihood skills are those skills which enable one to generate income to fulfill one's economic goals. World Health Organization (WHO) in 1993 defined life skills as the abilities for adaptive and positive behavior that enable individuals to deal effectively with demands and challenges of everyday life. WHO felt the need of today's world. The adolescents have to face the challenge of rapidly changing the life and the work environment in terms of new technological development. WHO short listed ten of the most fundamental life skills for today's adolescents. They are: - Self-awareness, Empathy, Critical Thinking, Creative Thinking, Problem Solving Ability, Decision Making, Effective Communication, Interpersonal Relationship, Coping with Emotion, Coping with Stress. Mastery of these life skills are to be taken place while teaching the content knowledge in the classrooms.

A country is great by the character of its people, not by its number. In a democratic country like India every citizen has to play a pivotal role in the development of the nation. Therefore it is generally agreed that a citizen must be educated in such a way so that it would develop certain desirable skills, attitude and values in him for the manifestation of his own self as well as for the progress of the Nation. Hence, schools must prepare students for dealing with social controversies, cultural change and manifold problems in the society. In the attainment of this coveted aim of education, method of teaching has a great role to play.The investigator finds that the CAM of teaching will be the most suited method of teaching for enhancing Life Skills among adolescents.

Statement of the Problem

Hence the study is entitled as"Effectof Cognitive Apprenticeship Model of Teaching on Enhancing Life Skillsamong Adolescents"

Objectives of the Study

To find out the Effect of Cognitive Apprenticeship Model on Life skills among adolescents.

Hypotheses of the Study

There exists a significant difference in the effect of CAM on Life skills than that of the prevailing Activity Oriented Approachin secondary school students.

Methodology

The experimental method is found to be the most appropriate for the present study. The design selected was pretest - posttest – nonequivalent group design. The study was conducted in two divisions of standard IX. For the collection of data, the present study made use of two intact classroom groups - One Experimental and one Control group. Each group consists of 34 students.

Variables used for the Study

Independent variable is CAMand Dependent variable is Life skills.

Tools used for the Study
➢ Lesson transcript according toCAMofinstructional design.
➢ Lesson transcript according to activity oriented method.
➢ Standardized Life Skills Assessment Tool is developed by the investigator.

Statistical techniques used

The investigator made use of statistical techniques like Mean, Standard deviation, ANOVA, Analysis of co-variance (ANCOVA).

Analysis and Interpretation

Objective: To study the Impact of CAMon Life skills among secondary school students.

The data and result of test of significance of Experimental and Control groups on Life skills based on pretest, posttest and gain scores is given below.

Table 1 : The data and results of the test of significance of Experimental and Control groups based on Pretest scoreson Life skills

Types of Group	N	M	SD	CR	Level of Significance
Experimental	34	166.79	18.09	0.247	P > .05
Control	34	165.88	11.65		

The Mean value of Pretest scores of Experimental group (166.79) is more or less same as Control group (165.88) on Life skills.The obtained t value of the Pretest scores is 0.247and is less than the table value 2 at .05 level. So it is not significant even at .05 level. From this it is clear that two groups are equal on Life skillsbefore the Experiment.

Table 2 : The data and results of the test of significance of Experimental and Control groups

based on Posttest scoreson Life skills

Types of Group	N	M	SD	CR	Level of Significance
Experimental	34	198.03	13.58		
Control	34	173.53	8.03	9.58	P < .01

The Mean value of Posttest scores of Experimental group (198.03)is greater than the Control group (173.53)on Life skills. The obtained t value of the Posttest scores is 9.58which is significant at .01 level. From this it is clear that two groups are different after the Experiment on Life skills.

Table 3 : Data and Results of Test of Significance of Gain Scores on Life skills among Studentsin Experimental and in Control groups

Groups	N	M	SD	CR	Level of significance
Experimental	34	31.24	9.56		
Control	34	7.65	3.99	13.28	P < 01

The Gain Mean scores of the Experimental group (31.24) is greater than that of the Control group (7.65). The obtained t value is 13.28 which is significant at .01 level. Hence it is inferred that Experimental group is better in performance than that of the Control group with regard to Life skills.

Only by analyzing the Pretestscores, Posttestscores, gain scores and by finding out critical ratio it cannot be concluded that the two groups may or may not differ significantly in their performance after the conduction of the Experiment. It may be affected by other intervening variables. The investigator selected two intact class room groups without considering any variables like sex, age, socio economic status etc. So it is necessary to analyze the data using the statistical technique 'Analysis of covariance' (ANCOVA).Before proceeding to ANCOVA, ANOVA was done. The summary of ANOVA of Pretest(x) and Posttest (y) scoreswere given in table 4.

Table 4 : Summary of ANOVA of Pretest and Posttest scores of Experimental and Control groups on Life skills .

Source of Variation	df	SSx	Ssy	MSx	Msy
Among Mean	1	14.13	10204.25	14.13	10204.25
Within Group	66	15285.09	8217.44	231.59	124.51
Total	67	15299.22	18421.69	245.72	10328.76

The obtained F_x and F_y ratios are tested for significance. The calculated value of F_x is 0.06. It is not significant even at .05 level. It shows that the Mean of Pretest scores do not differ significantly on Life skills. The obtained value of F_y is 81.96.It is significant at .01 level. This indicates that there is significant difference for the Posttest on Life skills between the performance of pupils in Experimental and in Control group.

Computation of ANCOVA

Table 5 : Summary of ANCOVA of Pretest and Posttest scores of students in Experimental and Control groups on Life skills

Source of Variations	df	SSx	Ssy	Ssxy	Ssy.x	Msy.x	SDy.x
Among Mean	16	14.13	10204.25	379.75	9705.39	9705.39	
Within Group	66	15285.09	8217.44	9980.32	1700.84	25.77	5.076
Total	67	15299.22	18421.69	10360.07	11406.23	9731.16	

The obtained $F_{y.x}$ was tested for significance. The table value of F ratio for df 1/66 is 3.98 at .05 level and 7.01 at .01 level. The obtained value of $F_{y.x}$ is 376.61. It is significant at .01 level. From this, it is clear that the Posttest Meanscores onLife skills between Experimental and Control group differ significantly after they have adjusted for differences in the Pretest for theLife skills.

The adjusted Mean for Posttestscores of pupils in Experimental and in Control groups were computed by using correlation and regression. The difference between the Adjusted Means of Posttestscores of pupils in Experimental and in Control group on life skills were given table 6.

Table 6 : Data for Adjusted Means of Posttest Scores of Students in Experimental and in Control groups on Life Skills

GROUPS	N	Mx	My	Myx adjstd	t
Control	34	165.88	173.53	173.83	
Experimental	34	166.79	198.03	197.73	19
General Mean		19.18	166.34	185.78	

Adjusted Means for the Posttest scores were tested for significance at df 1/67. The calculated t value of adjusted Means is 19. The table value for df 1/67 is 2 at .05 level and 2.65 at .01 level. The calculated value is significant at .01 level. It indicates that Experimental and Control groups differ significantly on Life skills for the Posttest.

Findings of the study

1. The obtained t value for the Posttest of Life skills is 9.06. It indicates that Experimental Group is in advantageous position with respect to Life skills as a whole.
2. The obtained t value for the Gain scores on Life skills is 13.28. It indicates that Experimental Group is in advantageous position with respect to Life skills as a whole.
3. The analysis helped to state that pretest (Co-variate) is significantly related to Posttest (Dependent Variable) since P < .01 and the CAM has significant effect on Posttest on Life Skills since P < .01.
4. From the data of adjusted Means of total Posttest Scores on Life skills of students in Experimental and in Control groups, the calculated t value (t = 19) indicates that the CAM is more effective than the ordinary Activity Oriented method in inculcating Life Skills among Secondary School Students.

Conclusion of the study

CAM has more impact than the Activity Oriented Approach on Life Skills among Secondary School students.

Educational implication

1. The CAM is an accurate description of how learning occurs. It helps the children in the acquisition of life skills.
2. The instructor can be designed CAM into more formal learning contexts with positive effect.
3. The study revealed that the effect of CAM of instructional design on Life Skills amongstudents of the Secondary Schools.
4. All topics and all subjects can make use of this instructional design.

Scope and limitations of the Study

Scope of the Study

CAM is an inherently social learning method with a long history of helping novices become experts in different fields. At the center of apprenticeship is the concept of more experienced people assisting less experiencedone, providing structure and examples to support the attainment of goals.

Limitation of the Study

➢ The study was confined to the effect of cognitive apprenticeship system of instructional design on Life Skills of pupil of IX standard.
➢ The study would be confined to a single school, which would act as the sample for the entire population of the secondary schools.
➢ Only some topics of a single subject such as Social Science is considered.
➢ The study does not do comparisons between private and government schools.
➢ The study does not do comparison between boys and girls.

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