AN EXPLORATORY STUDY OF MICROTEACHING AS AN EFFECTIVE TECHNOLOGY

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Abstract

Microteaching has gained a substantial ground for skill development of teacher trainees in developed systems.This exploratory study set out examining the perceptions of prospective teachers about microteaching at graduate level. The intent was to find out their perceptions about the effectiveness and feasibility of microteaching in normal classroom teaching. A semi-standardized instrument measuring the responses of students on five point Likert scale, originally designed by Higher Education Commission, was adopted. The data was collected from the two groups of B.Ed students (Experimental & Control). Comparative analysis of the data in percentages and graphic charts was made. Analysis of the data yielded that both groups were favorable to the effectiveness of the technique in normal classroom conditions. This was regarded an essential tool in the growing technology. In-depth studies in using this technique in training institutions, availability of technological labs, and participatory role of expert group emerged as areas for further research.

Key words: evaluation, microteaching, effective

1. INTRODUCTION

Microteaching is technically a scaled-down teaching. It is also known as simulated encounter designed and teaching laboratory. The prefix ‘micro’ comes from a Greek word meaning ‘small’ like ‘Microscope’ and ‘micrometer’. It is a teacher training technique of both pre-service and in service teachers. Allen, Bush, and Kim Romney used it worldwide since its invention at Stanford University in the late 1950s. Its purpose is to provide teachers with the opportunity for the safe practice of an enlarged cluster of teaching skills while learning how to develop simple, single-concept lessons in any teaching subject. Microteaching helps teachers to improve both contents and methods of teaching and develop specific teaching skills such as questioning, the use of examples and simple artifacts to make lessons more interesting, using effective reinforcement techniques, introducing and closing lessons effectively. Immediate, focused feedback and encouragement, combined with the opportunity to practice the suggested improvements in the training session, form the foundations of the microteaching protocol. Microteaching reduces the complexities of normal classroom teaching, thus allowing the teacher to concentrate on the acquisition of a teaching skill (Bush, 1966, Cooper, 1967; Allen and Ryan, 1969).

Turney (1973) found the use of videotaped or perceptual models much more effective than symbolic models. The approach one is recommending to modern teacher trainers is the use of combination of perceptual and symbolic models to ensure optimum learning and rewarding micro-teaching experience. Reducing anxiety is the key point of teacher training. Peker (2009) investigated this variable. He studied the effects of expanded microteaching on the pre-service mathematics teachers teaching practicum course. 43 pre-service mathematics teachers were divided into 2 groups of experimental and control. Experimental group contained 21 teachers where as control contained 23 teachers. Experimental group was lectured by using expended microteaching at the secondary school where as control were lectured in a traditional way. He found that use of expended microteaching in teaching spectrum reduced the anxiety levels of pre-service mathematics teachers.

Camford (1996) studied the recycling of microteaching. Teach–Re teaches- Critique. His stimulus of research maintained that Advances in microteaching research and technology and the problems encountered in teaching-skill development in natural classroom together provided good reasons for the serious re-deployment of the microteaching process in teaching-skill development. Lakshmi (2009) microteaching offers the advantages of both realistic practical experiences and controlled laboratory environment. It also offers immediate and continuous feedback; close supervision and objectives that can be manage according to the needs and abilities of the individual trainee. Perl berg (1975) examined the effectiveness of various laboratory techniques applied to education with special consideration on how to implement them by using very inexpensive equipments.

In the current century, Microteaching increases its effectiveness in more scale-down teaching environment. Someone practicing microteaching may get feedback on a specific technique, which he/she is interested to explore. Participants can learn new techniques in isolation in pre-service or training situation rather than working on that technique in to entire lesson (Vare 1992).Feedback plays a critical role for teacher – trainee improvement. It is the information that a student receives about his attempts. The built-in feedback mechanism in microteaching acquaints the trainee with enabling him to improve and evaluate his teaching behavior with the success of his performance. The electronic media that can be used for facilitating effective feedback is a vital aspect of microteaching (Brown, 1975).In Stanford model, 2+2 system of feedback was used. Each participant started his feedback with 2 positive comments followed by 2 suggestions for his / her improvement. A teacher teaches a small unit to a group of five pupils for a small period of 5 to 20 minutes in a scaled-down teaching encounter (Singh, 1977).Abbasi (2009) explained microteaching as a scaled down teaching. Its goal is to provide confidence, guidance, feedback and support to the prospective teachers. Basically it aims at modifying teaching behavior provides flexibility, location, organization and divergent ways of thinking. Passi (1976) also known as the" Father of Microteaching" through his intensive application determined the domains of microteaching. He found that microteaching was practiced in terms of definable, observable, measureable and controllable teaching skills.

Microteaching in Pakistan

National Academy of Higher Education, an institution of HEC, has developed a program of Professional Competency Enhancement Program for Teachers (PCEPT). It contains seven modules of teaching. One of them deals with the Andragogical Skills and Microteaching: theory and practice. This component has recently been formulated. For the past two years (February 2009, onwards), microteaching forms an integral part of training workshops of PCEPT, all over the country. In collaboration with Michigan University, the contents and methods of the modules have further been standardized. Microteaching has now gained the currency of the training program, under PCEPT. Although PCEPT is nationally sponsored program, yet many other donor agencies have taken interest in such innovative undertakings particularly United States Agency For International Development (USAID).Under this program 2100 faculty members have been trained against the target group of 2500. The program aims at enhancing the competencies, responsibilities, skills and strategies of training teachers in teaching learning process. Microteaching is essentially a teacher training and evaluation activity for improving skills. (HEC-PCEPT, 2009)

2. STATEMENT OF THE PROBLEM

This study had been designed to explore microteaching as an effective technology in the light of the views of prospective student teachers at undergraduate level.

3. OBJECTIVES

The objectives of the study were as under:

- To understand the current concepts and contents of microteaching to develop teaching competencies.
- To develop practice, procedure and internalize the steps involved for effective delivery of the lesson.
- To determine the level of appreciation of prospective teachers in showing distinct patterns of performance

4. METHODS AND PROCEDURES

Two institutions were selected from Public Sector for the purpose of sample selection;(a) Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi (b) Bilquees College of Education, Pakistan Air Force(PAF), Chaklala, Rawalpindi. Two groups of B.Ed (Bachelor of Education) students were formulated as control and experimental groups. A sample of 33 students for control group was drawn from Bilquees College of Education, Pakistan Air Force(PAF),Chaklala,Rawalpindi and a sample of 38 students were drawn as experimental group from Pir Mehr Ali Shah Arid Agriculture University. Experimental group was given treatment in terms to the practical concepts of MT. The group demonstrated the activity and given the lessons as well. The control group had read the theoretical work of Microteaching and no treatment was given. One questionnaire was developed for data collection. It was designed on five-point Likert scale. This document contained 69 items. Planning, Set-induction, Presentation, Questioning, Exemplification, Communication and some other general factors formed as main domains of microteaching. Personally administered questionnaire approach was used in the study. This approach carried an advantage of seeking higher returns. To make this study meaningful, the data was analyzed and percentages were calculated. This was described in tabulated and graphical presentation. Eight main clusters of 69 items were formulated the responses were analyzed and tabulated. Findings were drawn and recommendations for the improvement were formulated.

5. RESULTS

The research was designed to explore microteaching as effective technology as per views of student teachers of both control and experimental group. Majority of the students of both groups confessed that the microteaching is an effective technology as most of the respondents respondents of both groups supported that microteaching was sequential and encouraged reasoning for choosing a topic. (Table 1a,1b).Both groups were favourable to time budget and expressed that micro lesson was planned to revolve around a single concept as already knew that format was flexible for adopting real needs.(Table 1c,1d). Both groups were satisfied that content of microteaching lessons helped in synthesizing information as lessons moved from known to unknown, easy to difficult and stimulated teaching, localization in lessons developed rapport in content and presentation. (Table 2a,2b,2c,2d)

The prospective student teachers of both groups were satisfied about objective oriented presentation and agreed by getting confused in organizing teaching material and feel distracted by being observed. (Table 3a, 3b).Respondents of both groups were satisfied about providence of applications, notes, illustrations and exemplifications however felt anxiety of presentation and felt confident during presentation and were satisfied about positive sharing of experiences with others. They were also satisfied about clarity of concepts and linkages in information presented and logical positivism in presentation and covering all types of students. (Table 3c, 3d, 3e).Both groups favored that the microteaching provided time for thinking and options for giving volunteer answers and politeness of teacher in answering and quality of questioning. They agreed that questions were asked to measure the level of understanding of pupils providing clues, prompts and rephrased questions where necessary was well and presentation was careful from monopolizing discussion and encouraged class discussion.(Table 4a, 4b,4c).

Both groups revealed that the use of inquiry approach in microteaching presentation was well organized, brain storming during presentation was well and the teacher appreciated students and encouraged creativity skills .This enabled the students to learn by doing and well application of pedagogical skills in presentation of microteaching lesson, underestimation of originality needs in teaching. (Table 5a,5b,5c,5d,5e). Effective use of exemplification was reported by both groups. (6a) The student teachers of both groups expressed that the teacher spoke very clearly and audibly during presentation with sufficient pauses, sense of humor and the presentation promoted non verbal communication very well and awareness of audience. (7a, 7b).

6. CONCLUSIONS

The conclusions were drawn according to the main domains of Microteaching: Planning, Set Induction, Presentation, Questioning, Encouraging the students to questions, Exemplifications, Communication.

- The student teachers were very satisfied with the planning process used in microteaching. They felt that it was adaptable for normal classroom teaching, focused on specific skills .Microteaching lesson were planned in the way of logical sequence.
- Students believed that Microteaching encouraged the students in synthesizing information about the topic. It also encouraged a great relationship of motivation and harmony between teacher and students.
- Students also expressed that during the presentation, they felt anxious due to the feeling of being observed. This lead them to the distraction from topic presented.
- They found that during the presentation, questions asked were valuable, understandable and worthwhile for all types of students. Teacher helped the students in answering questions and cleared their concepts about topic by providing them illustration and clues.
- Students were encouraged and appreciated in answering questions by using inquiry and brain storming approach. Teacher motivated, appreciated and accepted the new ideas of students on topic.
- Use of exemplification was good in accordance with the requirement and relevance to the topic.
- Skill of stimulus variation which included change in speech pattern, non-discursive communication and interaction style, pauses, focusing and promoting oral communication in presentation was skillfully used.

7. RECOMMENDATIONS

In light of the study results, it was recommended:

1. Program should be conducted in such a way that more than only few specific skills can be practiced in microteaching and large number of students can be given the opportunity of re-planning and re-teaching.
2. Program should not be designed in such a way that it leaves gaps in planning and presentation of lesson. It requires the use of highly technical IT devices, so use of these devices should be made proper as necessary.
3. Anxiety level of students should be reduced by developing high level of confidence and by providing the all necessary facilities. Teachers must be trained to improve their microteaching skills.
4. Class size should be increased so that large number of trainee teachers can be given the opportunity of enhancing their skills. Time allocation should be made sufficient for microteaching.
5. Micro lessons should be conducted in more flexible environment.
6. As a new technology in local context field based studies are needed in the areas of logistic and academic dimensions. Need to enhance the competencies of teacher educators and offering skill based courses in microteaching.

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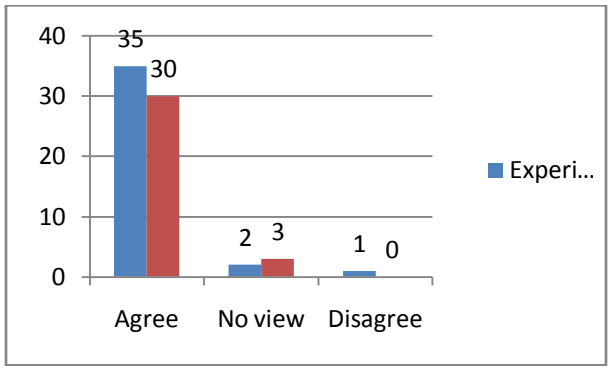
Domain 1 (Planning)

Table 1a: Encouraged Reasoning for Choosing a Topic

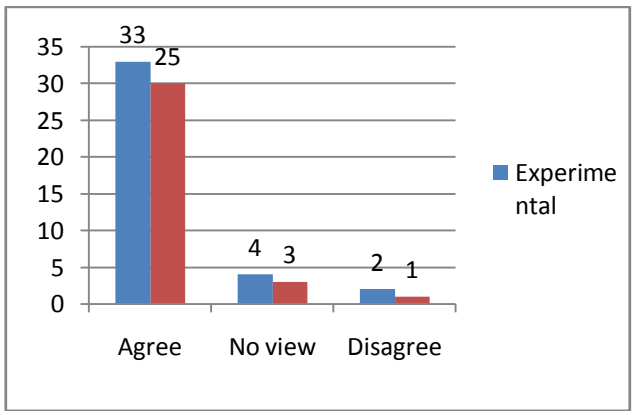
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	35	92.10	2	5.26	1	2.63	38
	Control	30	90.90	3	9.09	0	0	33
Total		65	44.38	5	7.04	1	1.4	71



Graph 1a

Table 1b: It was Sequential.

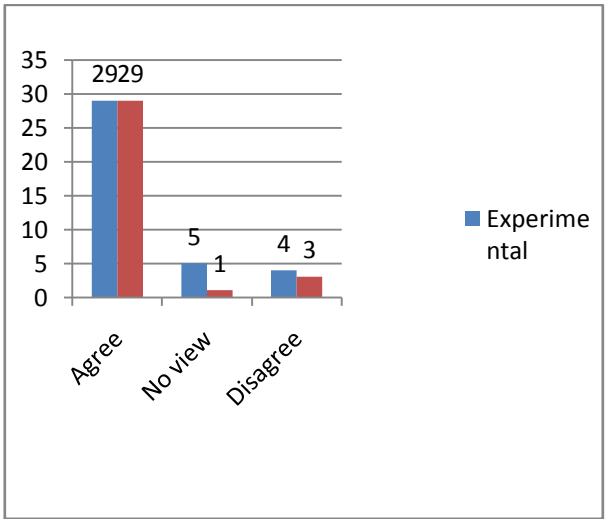
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	33	86.84	3	7.89	2	5.26	38
	Control	25	75.75	7	21.21	1	3.03	33
Total		55	77.46	10	14.08	3	4.22	71



Graph 1b

Table 1c: Time Budget versus Content.

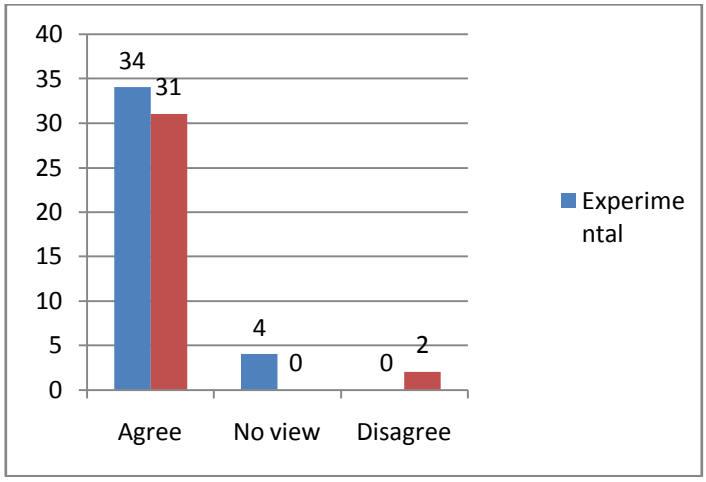
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	29	76.31	5	13.15	4	10.52	38
	Control	29	87.87	1	3.03	3	9.09	33
Total		58	81.69	6	8.45	7	9.85	71



Graph 1c

Table 1d: Format Allowed Flexibility to Adapt to the Real Needs.

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	34	89.47	4	10.52	0	0	38
	Control	31	93.93	0	0	2	6.06	33
Total		65	44.38	4	5.63	2	2.81	71

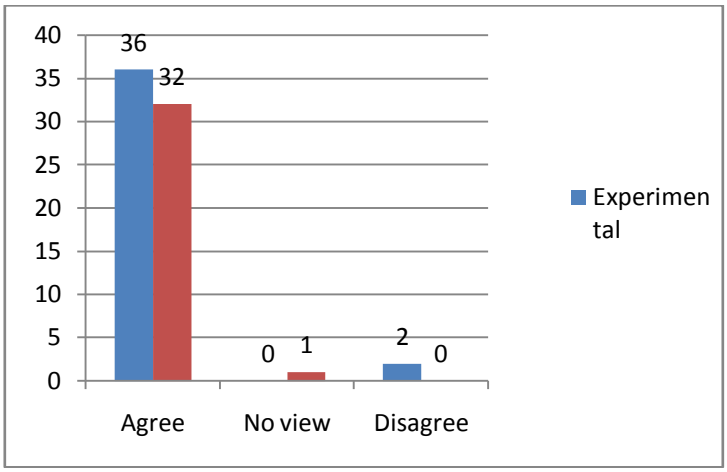


Graph 1d

Domain 2: Set Induction

Table 2a: Helped to synthesis information.

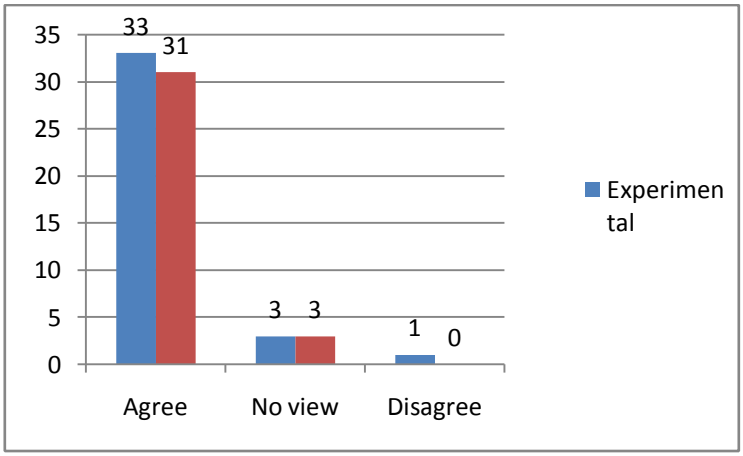
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	36	94.73	0	0	2	5.26	38
	Control	32	96.96	1	3.03	0	0	33
Total		68	95.77	1	1.40	2	2.81	71



Graph 2a

Table2b: From Known to Unknown.

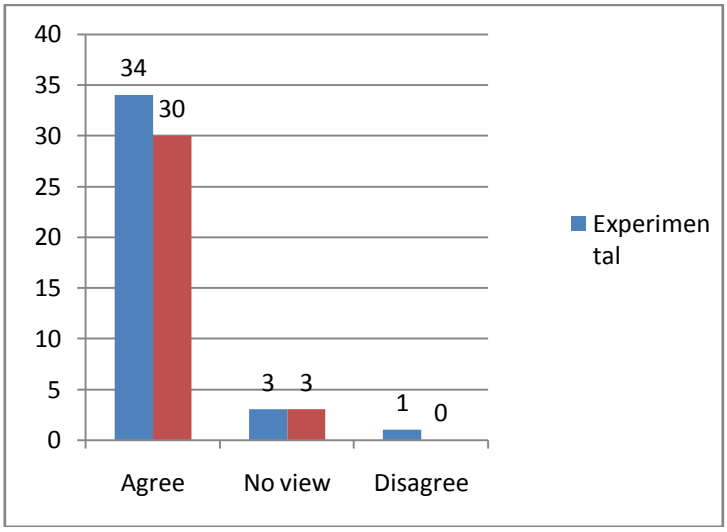
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	34	89.47	3	7.89	1	2.63	38
	Control	30	90.90	3	9.09	0	0	33
Total		64	90.14	6	8.45	1	1.40	71



Graph 2b:

Table 2c: From Easy to Difficult.

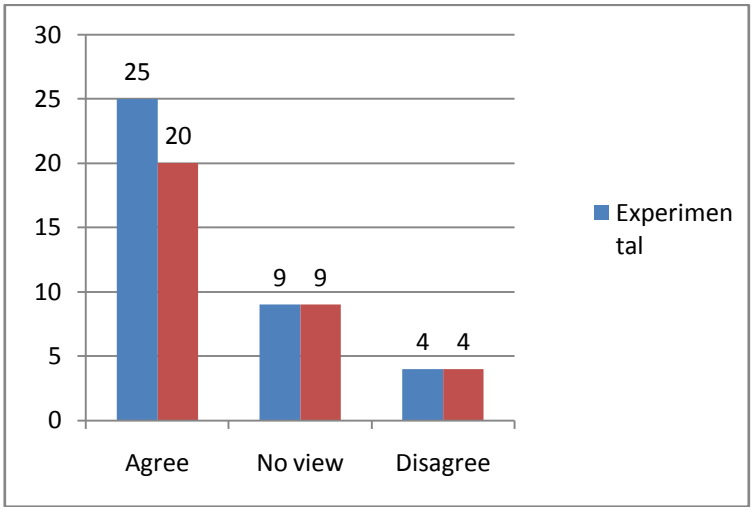
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	34	89.47	3	7.89	1	2.63	38
	Control	30	90.90	3	9.09	0	0	33
Total		64	90.14	6	8.45	1	1.40	71



Graph 2c

Table 2d: Localization.

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	25	65.78	9	23.68	4	10.52	38
	Control	20	60.60	9	27.27	4	12.12	33
Total		45	63.38	18	25.35	8	11.26	71

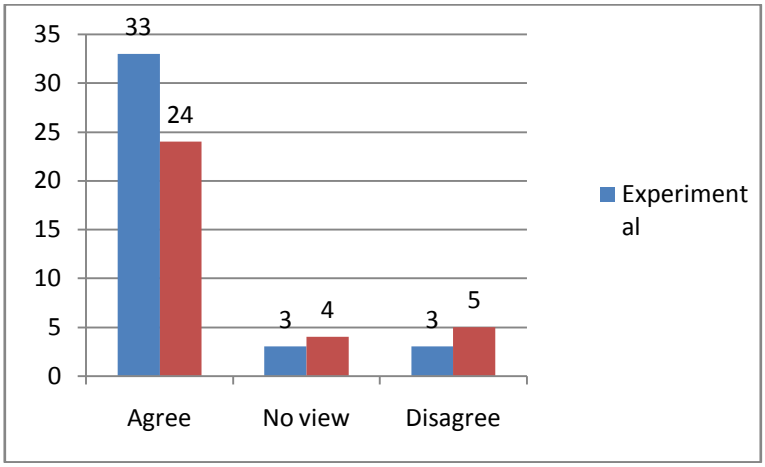


Graph 2d:

Domain 3: Presentation

Table 3a: Presentation was Objective Oriented.

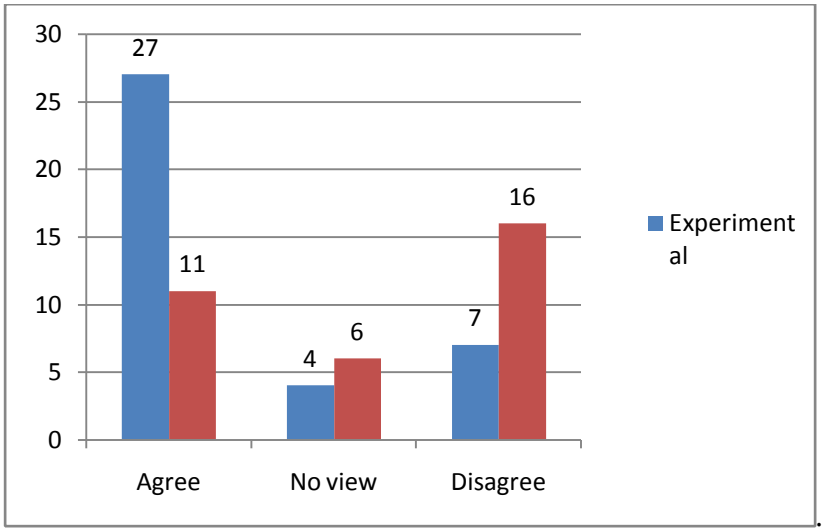
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	33	86.84	3	7.89	3	7.89	38
	Control	24	72.72	4	12.12	5	15.15	33
Total		57	80.28	7	9.85	8	11.26	71



Graph 3a

Table 3b: Get Confusion while Organizing the Teaching Material

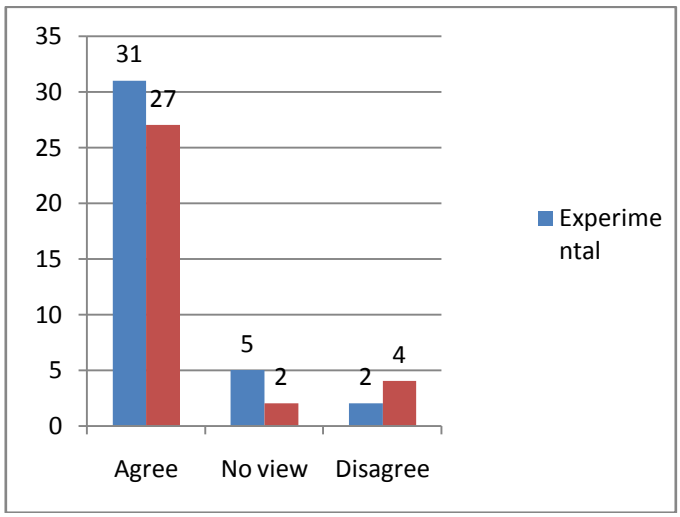
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	27	71.05	4	10.52	7	18.42	38
	Control	11	33.33	6	18.18	16	48.48	33
Total		38	42.96	10	14.28	23	32.39	71



Graph 3b

Table 3c: Gave Handouts, Examples, Illustrations and Applications

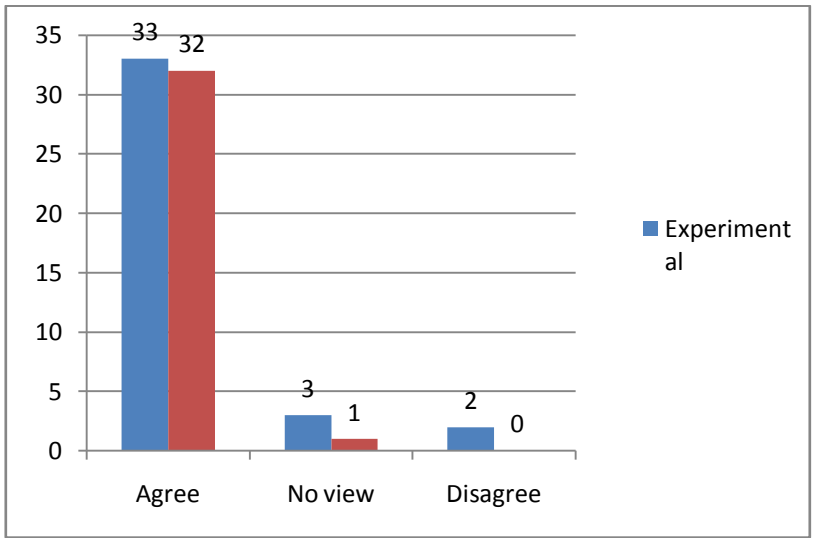
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	31	81.57	5	13.15	2	5.26	38
	Control	27	81.81	2	6.06	4	12.12	33
Total		58	81.69	7	9.85	6	8.45	71



Graph 3c

Table 3d: Helped to Develop Confidence by "Thinking on Feet" During Presentation

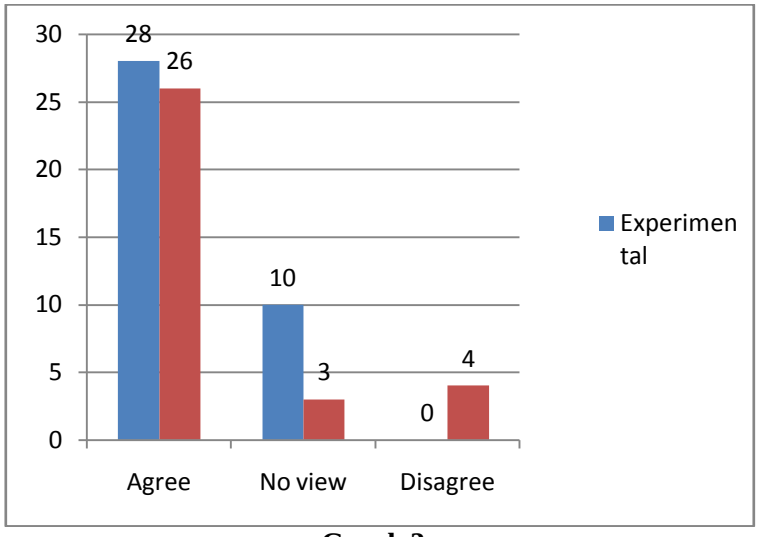
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	33	86.84	3	7.89	2	5.26	38
	Control	32	96.96	1	3.03	0	0	33
Total		65	44.38	4	5.63	2	2.81	71



Graph 3d

Table 3e: Logical Positivism.

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	28	73.68	10	26.31	0	0	38
	Control	26	78.78	3	9.09	4	12.12	33
Total		54	76.05	13	18.30	4	5.63	71

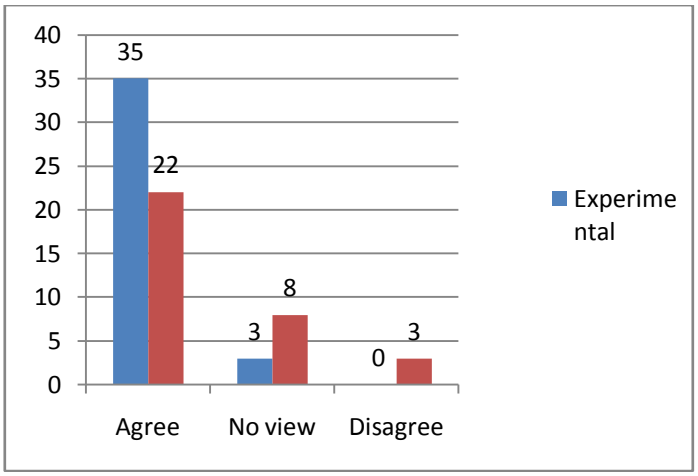


Graph 3e

Domain 4: Questioning

Table 4a: Gave Time to Think.

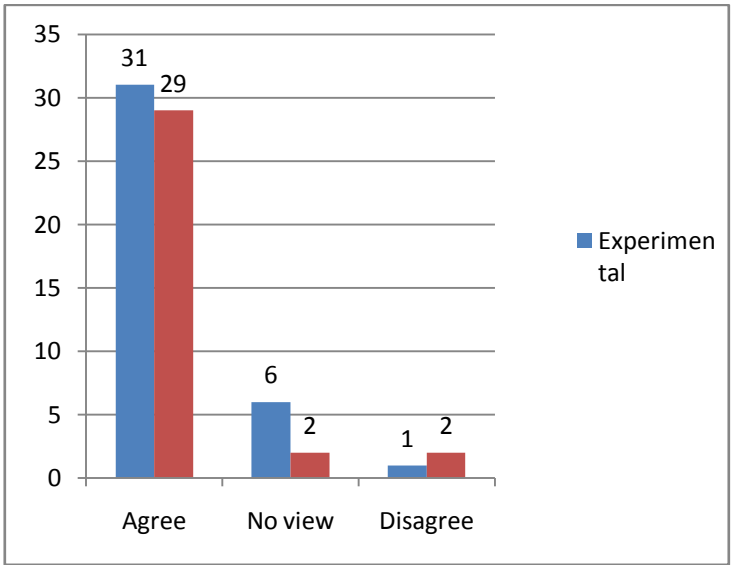
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	35	92.10	3	7.89	0	0	38
	Control	22	66.66	8	24.24	3	9.09	33
Total		57	80.28	11	15.49	3	4.22	71



Graph 4a

Table 4b: Determining Level of Understanding.

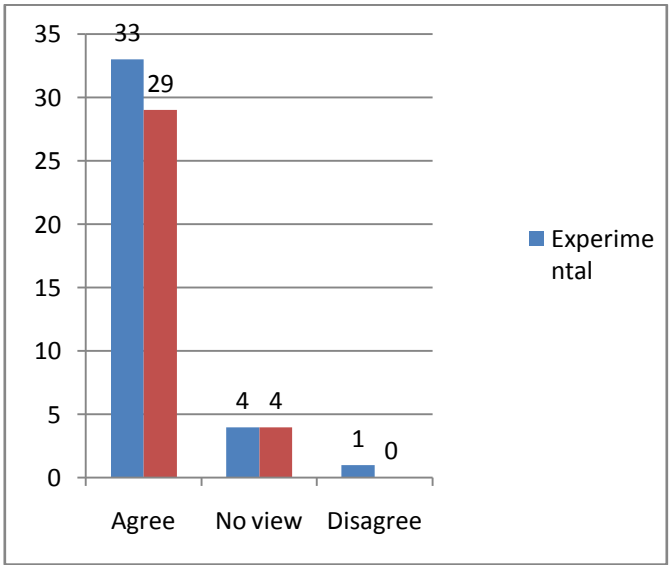
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	31	81.57	6	15.78	1	2.63	38
	Control	29	87.87	2	6.06	2	6.06	33
Total		60	84.50	8	11.26	3	4.22	71



Graph 4b

Table 4c: Provided Prompts/ Clues/ Rephrased Questions.

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	33	86.84	4	10.52	1	2.63	38
	Control	29	87.87	4	12.12	0	0	33
Total		62	87.32	8	11.26	1	1.40	71

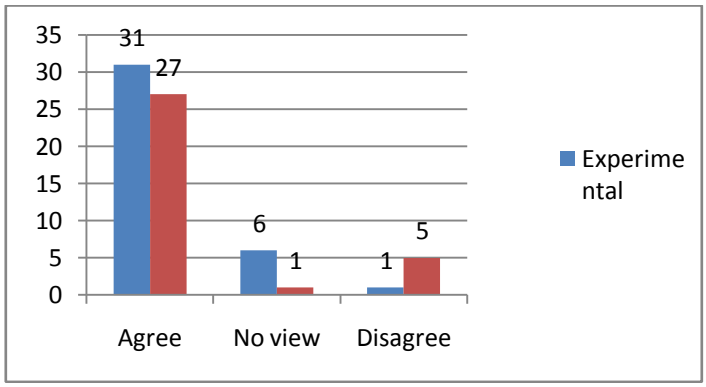


Graph 4c

Domain 5: Encouraging Questions

Table 5a: Inquiry Approach

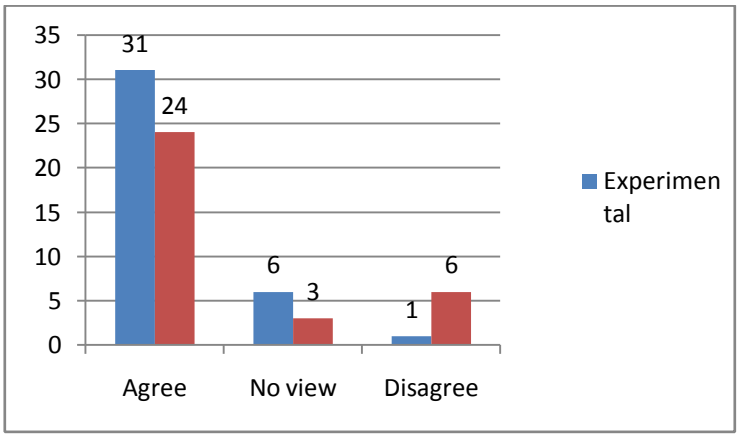
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	31	81.57	6	15.78	1	2.63	38
	Control	27	81.81	1	3.03	5	15.15	33
Total		58	81.69	7	9.85	6	8.45	71



Graph 5a

Table 5b: Brain Storming

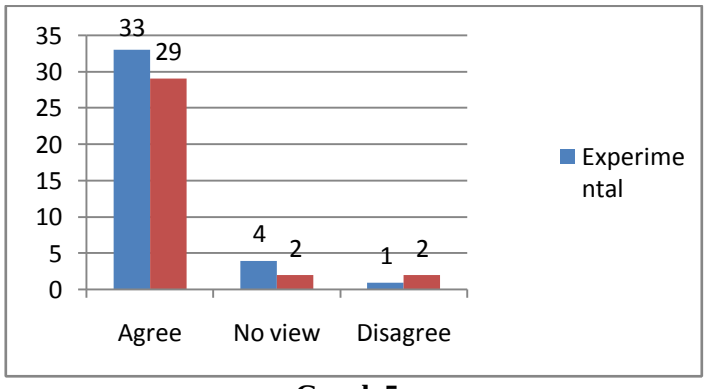
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	31	81.57	6	15.78	1	2.63	38
	Control	24	72.72	3	9.09	6	18.18	33
Total		55	77.46	9	12.67	7	9.85	71



Graph 5b

Table 5c: Enabled to Learn Learning Through Doing.

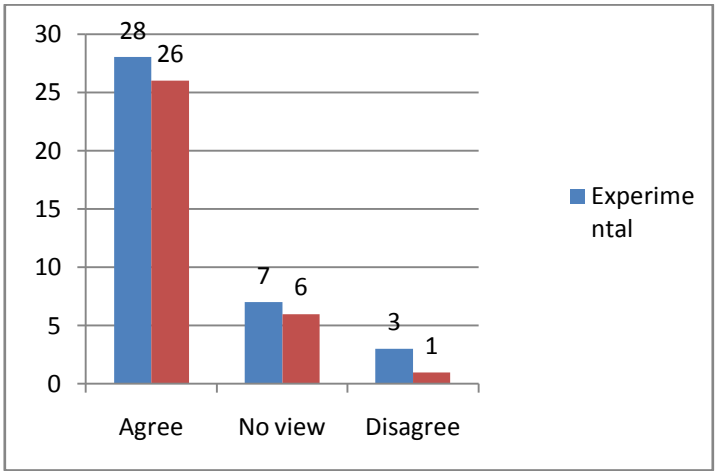
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	33	86.84	4	10.52	1	2.63	38
	Control	29	87.87	2	6.06	2	6.06	33
Total		62	87.32	6	8.45	3	4.22	71



Graph 5c

Table 5d: Application of Pedagogical Principles.

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	28	73.68	7	18.42	3	7.89	38
	Control	26	78.78	6	18.18	1	3.03	33
Total		54	76.05	13	18.30	4	5.63	71

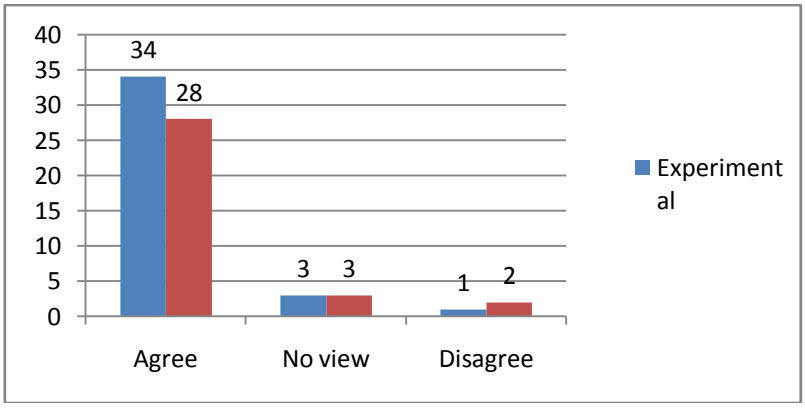


Graph 5d

Domain 6: Exemplifications

Table 6a: Using Exemplification was Relevant and Understandable

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	34	89.47	3	7.89	1	2.63	38
	Control	28	84.84	3	9.09	2	6.06	33
Total		62	87.32	6	8.45	3	4.22	71

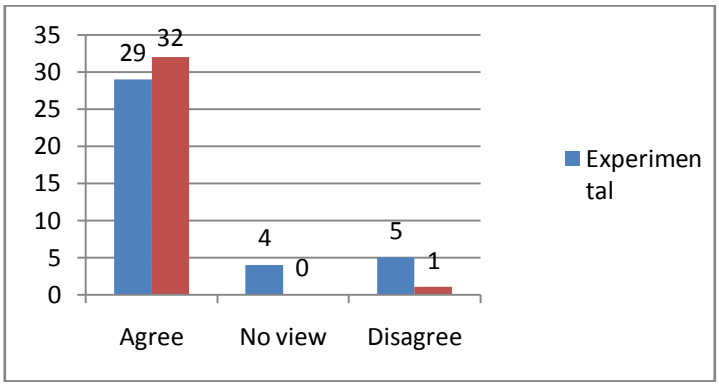


Graph 6a:

Domain 7: Communication

Table 7a: Spoke Audibly and Clearly.

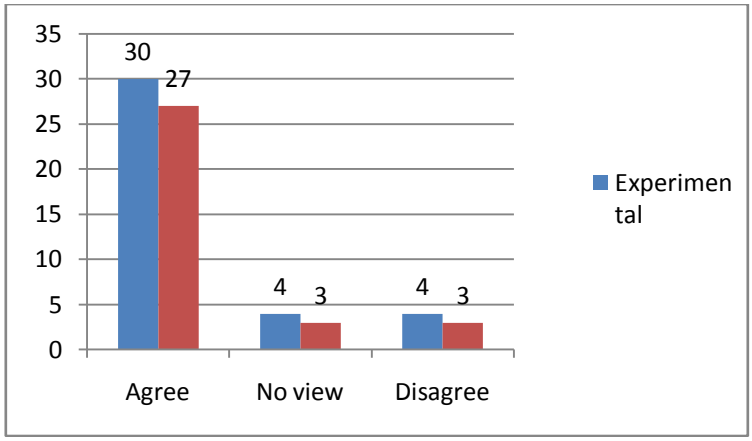
		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	29	76.31	4	10.52	5	13.15	38
	Control	32	96.96	0	0	1	3.03	33
Total		61	85.91	4	5.63	6	8.45	71



Graph 7a

Table 7b: Promotion of Non verbal/ Oral Communication Skills.

		Agree		No views		Disagree		Total
	Groups;	No	%	No	%	No	%	No
	Experimental	30	78.94	4	10.52	4	10.52	38
	Control	27	81.81	3	9.09	3	9.09	33
Total		57	80.28	7	9.85	7	9.85	71



Graph 7b