

ADULT LEARNING: AN ESSENTIAL COMPONENT FOR DESIGNING A SUCCESSFUL AND EFFECTIVE TEACHER TRAINING PROGRAMME

Manwarul Haq

Research scholar

English Language Education (ELE)

English and Foreign Language University

Hyderabad, India.

Dr.T.Karunakaran

Senior Lecturer in ELT,

ELTC,

University of Jaffna,

Sri Lanka

ABSTRACT

This paper describes different components of adult learning relevant to teacher education programmes. Since teachers are by default considered as adult learners, understanding these components is necessary to designing any successful and effective learning programs for students on a teacher training program. Designing an effective curriculum for such learners calls for a close scrutiny of the learning variables as these learners have often been “less successful” in terms of academic pursuits. For a clear and comprehensive understanding of teacher training and education, this paper is divided into two parts. The first part discusses the andragogical factors related to adult education and learning, and the second part analyzes the curriculum design of a teacher education programme offered in Bangladesh.

Key words: Andragogy, adult learning, learning strategies, learning

Part one: Introduction

The technical terms ‘Andragogy’ and ‘pedagogy’ are related to how learning and teaching take place in education system. Knowles (1983) proposes that ‘adults learn more differently than do children’. He refers to ‘Pedagogy’ as the ‘art and science of teaching children’ where the purpose of education is the transmission of knowledge. Whereas ‘Andragogy’, in which adults learn by sharing their own ideas and experiences with the teachers. Brookfield (1986) states that andragogy is the ‘single most popular idea in the education and training of adults. Adult education is considered an integral part of life long education and learning where adults can develop their abilities, enrich their knowledge, improve their technical or professional qualifications, bring changes in their attitudes or behavior and participate in balanced social, economic, and cultural development. Andragogy presents core principles of adult learning that in turn enable in designing and conducting adult learning to build more effective learning processes for adults. To design a teacher training programme the following aspects of ‘andragogy’ need to be considered:

1. Principles of adult learning
2. Characteristics of adult learners
3. Self-learning strategies they acquire by experience
4. Conditions for effective learning and the absence of it

Principles of adult learning:

Malcolm Knowles, the founding father of andragogy, has developed six principles of andragogy. These principles are described in terms of their usability in designing a training programme for adults.

1. *The need to know:* Adults are internally motivated and self-directed. Therefore, they need to know why they need to learn something before undertaking to learn it. In adult education, the task of the facilitator of learning is to help the learners. Facilitators can make an intellectual case in improving the effectiveness of the learners’ performance or

the quality of their lives. Even more effective tools are exercised in which the learners discover the gaps between where they are now and where they want to be.

2. *The learners' self-concept*: Adults are responsible for their own decisions and for their own lives. They show antipathy and refuse to accept the situations in which they feel others are imposing their wills on them. Adult educators make efforts to create learning experiences in which adults are helped to make the transition from dependent to self-directing learners.
3. *The role of the learners' experiences*: Adults are experienced by virtue of simply having lived longer in a greater volume than that of youths. They accumulate different kind of experience which has several consequences for adult education. It assures that in any group of adults there will be a wider range of individual differences and will be more heterogeneous in terms of background, learning style, motivation, needs, interests, and goals. Therefore, greater emphasis in adult education is placed on individualization of teaching and learning strategies.

Many kinds of learning resources exist within the adult learners themselves. Thus, the emphasis in adult education is on experiential techniques—techniques that tap into the experience of the learners, such as group discussions, simulation exercises, problem solving activities, case methods, and laboratory methods instead of transmittal techniques. Also, greater emphasis is placed on peer-helping activities.

4. *Readiness to learn*: Adults become ready to learn those things they need to know and be able to do in order to cope effectively with their real-life situations. The critical implication of this assumption is that the importance of timing learning experiences to match with developmental tasks. For example, high school students are not ready to learn about infant nutrition or marital relations but let them get engaged after graduation and they will be very ready for more responsibility. There are ways to encourage readiness through exposure to models of superior performance, career counseling, simulation exercises, and other techniques.

5. *Orientation to learning:* Adults are life-centered in their orientation to learning. They are motivated to learn to the extent that they perceive that learning will help them perform tasks or deal with problems that they confront in their life situations. Furthermore, they learn new knowledge, understandings, skills, values, and attitudes most effectively when they are presented in the context of application to real-life situations.

6. *Motivation:* Adults are responsive to some external motivators (e.g. better jobs, promotions, higher salaries, and the like), but the most potent motivators are internal pressures (e.g. the desire for increased job satisfaction, self-esteem, quality of life, and the like). Tough (1979) locates in his research that all normal adults are motivated to keep growing and developing, but this motivation is frequently blocked by such barriers as negative self concept as a student, inaccessibility of opportunities or resources, time constraints, and programs that violate principles of adult learning.

Characteristics of adult learners:

The discussion above indicates that compared to children and teens, adults have special needs and requirements as learners. Malcolm Knowles identifies the following characteristics of adult learners:

1. Adults are *autonomous* and *self-directed*. Adult learners are able to make their own decisions and to manage their own life. They are responsible for their own learning. They need to be free to direct themselves. They tend to be self-directed and want control over their own learning. They are mature people and prefer to be treated as such. They learn best in a democratic, participatory, and collaborative environment. They need to be actively involved in determining how and what they learn and they need active rather than passive learning experiences. They are self-reliant learners and prefer to work at their own pace.

Therefore, teachers of adult learning programmes must actively involve adult participants in the learning process and serve as facilitators for them. Specifically, they must get participants' perspectives about what topics to cover and let them work on projects that reflect their interests. They should allow the participants to assume responsibility for presentations and group leadership. They have to be sure to act as facilitators, guiding participants to their own knowledge rather than supplying them with facts. They must show participants how the class will help them reach their goals.

2. Adults have accumulated a foundation of *life experiences* and *knowledge* that may include work-related activities, family responsibilities, and previous education. They need to connect learning to this knowledge/experience base. To help them do so, they should draw out participants' experience and knowledge which is relevant to the topic. They must relate theories and concepts to the participants and recognize the value of experience in learning. Adults have useful past experience. They are more realistic and have insights about what is likely to work and what is not. They are more readily able to relate new facts to past experiences. They bring their own experiences and knowledge into the classroom. They like the type of learning that gives them practical activities that build on their prior skills and knowledge.

One of the universal initial needs of adults is to learn how to take responsibility for their own learning through self directed inquiry which include how to learn collaboratively with the help of colleagues rather than to compete with them and how to learn by analyzing their own experience.

3. Adults are *goal-oriented*. They know what goal they want to attain. Therefore, they appreciate an educational program that is organized and has clearly defined elements. Instructors must show participants how this class will help them attain their goals. This classification of goals and course objectives must be done early in the course. Adults are more impatient in the pursuit of learning objectives.

4. Adults are *relevancy-oriented*. They must see a reason for learning something. Learning has to be applicable to their work or other responsibilities to be of value to them. Therefore, instructors must identify objectives for adult participants before the course begins. Adults are intrinsically motivated. They are motivated by internal incentives and curiosity rather than external rewards. They are also motivated by the usefulness of the material to be learned and learn better when material is related to their own needs and interests.
5. Adults are *practical*, focusing on the aspects of a lesson most useful to them in their work. Instructors must tell participants explicitly how the lesson will be useful to them on the job.

In adult education, educators should be person-centered who help persons to learn how to cope with the problems they face in their career. The organization of curriculum should be treated in the context of the practical concerns of the learners. Adults have needs which are concrete and immediate.
6. As do all learners, adults need to be shown *respect*. Instructors must acknowledge the wealth of experiences that adult participants bring to the classroom. These adults should be treated as equals in experience and knowledge and allowed to voice their opinions freely in class.

Self-learning strategies:

The term learning strategy has been defined by many researchers. Wenden and Rubin (1987:19) define learning strategies as "... any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information." Richards and Platt (1992:209) state that learning strategies are "intentional behavior and thoughts used by learners during learning so as to better help them understand, learn, or remember new information." According to Stern (1992:261), "the concept of learning strategy is dependent on the assumption that learners consciously engage in activities to achieve certain goals and learning strategies can

be regarded as broadly conceived intentional directions and learning techniques." All learners use learning strategies either consciously or unconsciously when processing new information and performing tasks in the classroom.

All learners, needless to say, use learning strategies in the learning process. Since the factors like age, gender, personality, motivation, self-concept, life-experience, learning style, excitement, anxiety, etc. affect the way in which they learn, it is not reasonable to assume that all learners use the same learning strategies or should be trained in using and developing the same strategies to become successful learners.

Self-learners should understand the aim of their learning, accept responsibility for their learning, share in the setting of learning goals, take initiatives in planning learning activities and can review their learning and evaluate its effectiveness. The self- learner needs a positive attitude, a capacity for reflection and a readiness to be active in self- management and interaction with others. Self-learning demands much effort and responsibility of the learner.

Adults learn best when they find the material presented is relevant to their perceived needs. They participate actively in cooperative and individual exercises if educator respects the learners' life experience. Material can be immediately related to learner's life experience if direction of learning made explicit at the outset and instructions for learning activities are clear. While adult learners experience a variety of training methods and media, they become empowered with learning skills. If they receive timely feedback on practice activities and positive support for accomplishments with their individual needs met, they learn the best. The utmost learning may happen if they are taught course content that is relevant and in integrated patterns in a situation where learners feel free to question and challenge. They feel comfortable in learning if their self-esteem and ego are respected.

Conditions for effective learning:

Gagne (1985), an experimental psychologist concerned with learning and instruction, outlines the relation of learning objectives to appropriate instructional designs. Different internal and external conditions are necessary for each type of learning. The primary significance of the hierarchy is to identify prerequisites that should be completed to facilitate learning at each level. Prerequisites are identified by doing a task analysis of a learning/training task. Learning hierarchies provide a basis for the sequencing of instruction. These events should satisfy or provide the necessary conditions for learning and serve as the basis for designing instruction and selecting appropriate media (Gagne, Briggs & Wager, 1992).

Adults are characterized by a special orientation to life, living, education, and learning; a relatively rich experience base to draw on and cope with; different developmental changes and tasks than preadults; and their own brand of anxiety and ambivalence. These essential characteristics generate some optimum conditions for adult learning. Adults can learn best when the following conditions are met.

- i. They feel the need to learn and have input into what, why, and how they will learn.
- ii. Learning's content and processes bear a perceived and meaningful relationship to past experience and experience is effectively utilized as a resource for learning.
- iii. What is to be learned relates optimally to the individual's developmental changes and life tasks.
- iv. The amount of autonomy exercised by the learner is congruent with that required by the mode or method utilized.
- v. They learn in a climate that minimizes anxiety and encourages freedom to experiment.
- vi. Their learning styles are taken into account.

The organizer should build up such an environment to motivate the teachers so that they can make use of their time properly and learn a great deal from each other by establishing better relationship within themselves. The educators need to facilitate learning in such a way that can

help teachers to minimize their anxiety and promote their confidence by giving them more opportunities and independence in their own learning and teaching.

Part Two: Analysis of teacher training programme

The process of learning involves the teachers in learning throughout their life. Teachers are obviously adult learners and by the very definition of adult learning they should continue learning after formal education for life long. For example, at the very basic level they should attend the training program which provides some organized activities to enhance their knowledge and then put these acquired knowledge into practice, into their classroom instruction leading to students' better understanding to meet the required outcomes of learning.

Teachers need to identify what they require in order to provide quality education to their students. On the basis of the requirements of the teacher, the organizer or the resource person should organize the activities to train the teachers. The materials used to train the teachers should be suitable to train them efficiently and productively. If the materials are not suitable, then the teachers indirectly learn through their previous experience which depends on their formal learning. It is necessary to include some basic training courses in formal education for those who choose to be teacher so that teachers can use their learning experience while teaching in the real classroom.

An essential component of the educational system, teacher education is, by nature, interdisciplinary. As a result, the scope of teacher education is vast as it aims to equip the teachers with an understanding of the latest teaching trends, strategies and education practices. Focusing on developing the competencies and commitment of the teachers, the pre-service and in-service teacher education programmes, aim at formulating an indigenous approach towards teaching and education.

Teacher training programmes are molded according to objectives shaped by a number of factors operating at different societal levels. According to (NCTE document, 98/30), derived from the

contexts, concerns and issues of education, the objectives of pre-service teacher education programme could be broadly outlined as the following:

- To transform student teachers into competent and committed professionals willing to perform the identified tasks
- To develop competencies and skills needed for becoming an effective teacher
- To develop managerial and organizational skills
- To empower teachers to cultivate rational thinking and scientific temper among students
- To sensitize teachers towards the promotion of social cohesion, international understanding and protection of human rights and rights of child
- To develop critical awareness about the social realities
- To sensitize teachers and teacher educators about emerging issues, such as environment, ecology, population, gender equality, legal literacy, etc.
- To promote capabilities for inculcating national values and goal as preserve in the Constitution of the country

While the first four objectives underline the need to develop the teaching competencies and skills of the teachers, the rest focus on the social responsibilities which a teacher ought to fulfill. If one intends to analyze the curriculum framework and teaching materials used during a pre-service teacher training course (for e.g., the B.Ed course offered at National University, Bangladesh), one needs to take into account the above mentioned objectives of pre-service teacher training course. For not only is the curriculum framework of the course based on the outlines provided by these objectives, they also help one to develop a critical understanding of the factors determining the curriculum and teaching materials. Moreover, in order to investigate deeper into the critical area of analyzing the curriculum framework of teacher training programme, one also needs to consider the assumptions of andragogy as it helps one to develop a better understanding of the issues related to the subject.

Keeping these sets of objectives, viz: the objectives of pre-service teacher education programme and Andragogical assumptions about learners let us now analyze the curriculum framework of the B.Ed course offered at National University, Bangladesh.

If one refers to the objectives of pre-teaching course as mentioned above, then one will notice that first four objectives underline the need to develop the teaching competencies and skills of the teachers, the rest focus on the social responsibilities which a teacher ought to fulfill. Hence, while analyzing the programme, let us choose one course which is modeled on these two sets of objectives. If one chooses course 103(Teaching and learning English) and analyze these two sets of objectives, then one can state whether the course truly reflect the outlined teacher training course objectives or not.

The objectives of course103 (Teaching and learning English) are as follows:

1. The course will enable the student teachers to develop a personal awareness relating to the teaching and learning of English based on sound and principled understanding of the pedagogy of language education, the curriculum and the subject itself.
2. The course will enable the student teachers to develop knowledge, skills, attitudes and practices characteristics of teachers functioning effectively in the English language classroom.
3. The course will enable the student teachers to recognize the complexity of teaching and respond to the need for ongoing personal and professional development by developing the skills and habits of self evaluation through reflective practice.

In order to fulfill these objectives, the course has been structured in nine units, viz:

Unit 1. English in the secondary curriculum

- a. Review of status of English
- b. Why learn English?

- c. Overview of English in Bangladesh secondary curriculum

Unit 2. English language teaching methodologies

- a. Trends in language teaching
- b. Advantages and disadvantages of different methods
- c. Problems of teaching and learning English in Bangladesh
- d. Needs of Bangladesh secondary students
- e. Language learning theories, including communicative language theory
- f. Methodology of teaching English

Unit 3. Teaching approaches to developing learner competencies- the four skills

- a. Listening skills
- b. Speaking skills
- c. Reading skills
- d. Writing skills
- e. Pronunciation
- f. Vocabulary

Unit 4. Teaching approaches to developing learner competencies-structure and lexis of English

- a. Formal and informal grammar in English
- b. Grammar analysis
- c. Strategies and techniques for teaching-learning

Unit 5. Lesson planning in English

- a. Learning outcomes
- b. Learning activities
- c. Teaching approach

- d. Use of textbooks
- e. Getting feedback and improving plans through microteaching and simulations

Unit 6. Managing the English classroom

- a. Organizing large classes for learning English
- b. Facilitation skills for teaching English in large classes
- c. Medium of instruction
- d. Classroom language
- e. Use of blackboard
- f. Identify and development of supplementary resources and teaching aids
- g. Strategies and techniques for teaching students with different levels of fluency and confidence

Unit 7. Assessing progress and achievement

- a. What should be assessed in English?
- b. What should we assess in English?
- c. How should we assess in English?
- d. Identifying and developing test items-Bloom's taxonomy; sentence completion, cloze, MCQ, structured questions
- e. Developing different types of tests (written, oral, placement/diagnostic/achievement)
- f. Testing the four skills
- g. Recording and reporting achievement (school based assessment)

Unit 8. Language awareness- English as an international language

- a. Role of English in the world today
- b. Varieties of English
- c. English in Bangladesh

- d. English in the media

Unit 9. Independent learning in English

- a. Study skills for English
- b. How to improve your own English
- c. Reflective approach to teaching English/ Action Research
- d. Continuous professional development

A careful scrutiny of these units will convince one that the module truly focuses on developing the professional skills of a teacher by adopting a holistic approach. Besides ensuring the student teachers growth as committed professionals, the course also encourages the teachers to grow as reflective practitioners. Thus, one can safely conclude that the set of objectives of pre teacher training related to student teachers' professional competencies and skills are taken care of in this particular course.

This course encourages student teachers to develop their attitudes towards the local challenges to education and to understand the role of education in the social development of the country which focuses on developing the professional skills of a teacher. The set of objectives of this course reflected on to the features of pre teacher training and principles of andragogy that relate to student teachers' professional development and increase the social awareness of the teachers and in building educators.

The teacher training programme should be relevant to the perceived needs of the student teachers in their academic pursuits. The programme should be relevant to their teaching practices and experiences they face while teaching and learning happen in real classroom situation. Instructions for learning activities should be clear. Feedback on practice activities and positive support of individual needs should be given timely. Opportunities should be given so that the learners feel free and comfortable with learning activities.

However, viewing only the syllabus of pre-service teacher training English course, it is almost impossible to make any valid comment on *how* and *to what extent* the underlying principles and theories of effective adult learning are put into actual practice in the program. Again, in order to find out whether the teacher training program truly benefits the trainee teachers by improving their teaching skills and continuous self-learning for further professional development, a large body of quantitative and qualitative data is required. The other relevant components like materials, teaching-learning strategies, how learners are treated, learners willingness to learn, teaching-learning conditions, management and organization of the programme, and the assessment and implementation of the course need to be investigated.

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EFFECTS OF AV AIDS ON PERFORMANCE OF THE STUDENTS AT PRIMARY LEVEL AT DISTRICT NAROWAL

Dr. Ishtiaq Hussain

Assistant Professor (Education)
Kahat University of science and Technology

Maqsood Ahmed, Sarfraz Ahmad and

Zahid Mehmood Ph. D Scholars
Kahat University of science and Technology

ABSTRACT

Significance of education cannot be over emphasized any where in the world of today because societal progress of any society in multi directions lies in the hands of educated members of the society. Education is to utilize one's potentialities, abilities and capabilities towards the betterment and the prosperity of the country. Audio Visual Aids (A.V. Aids) are devices, which are used in teaching to make the learning experience more effective and dynamic. A.V. Aids have made improvements in learning process through involving the sense of hearing and/or sense of sight. The objective of the study was to investigate the role of AV Aids in the performance of the students at primary level in district Narowal. All students of primary schools in district Narowal constituted population of the study. The study was delimited to the students studying at primary level in the government model high school Narowal. Fifty students were taken as sample of the study from the class II. Pre-test and post tests were used as an instrument to collect data for the present study. Pre-test was used to divide the class into experimental and control group. Post-test was used after giving suitable treatment using different teaching with AV aids to the experimental group. Result of the study showed that the performance of the students who have been taught by using teaching with the use of the AV aids were better than the students who were taught with out the AV aids. It was also concluded that the students were more enthusiastic in learning through teaching with the use of AV aids technologies i.e., multimedia, movies, charts, maps etc.

Key Words: *experimental group, control group, pre-test, post tests, population of the study, sample*

INTRODUCTION

In the past the teacher was considered to be the sovereign as far as the teaching -learning process was concerned. The role of the students was mostly passive. Modern trends have changed the face of educational world. Many progressive methods and devices have come in the wake of these trends. Yet the traditional methods are not being given up altogether, they are being modified and adjusted to the changed concepts and situations in this state of the art technological era.

For effective teaching to take place, a good method must be adopted by a teacher. Teachers are aware that students learn in different ways and have different ways of absorbing information and of demonstrating their knowledge. Teachers employ a variety of teaching strategies and methods to ensure that learners have equal opportunities to learn. However, it must be stated that teaching methodology along with realia and audio visual aids in education is not a new concept in the teaching learning process. New methods and techniques evolve almost every day to supplement existing ones in teaching. Notable among them is technology-supported ones.

OBJECTIVES

The objectives of the study were;

1. To explain the significance of AV aids in the effective teaching learning process.
2. To identify the effects of AV aids in the performance of students at primary level at district Narowal.

HYPOTHESES

1. There is no significance difference between the mean scores of experimental group and control group on pre-test.
2. There is no significance difference between mean scores of low achievers of control group and experimental group on pre-test.
3. There is no significance difference between the mean scores of high achievers of control group and experimental group on pre-test.
4. There is no significance difference between the mean scores of experimental group and control group on post-test.
5. There is no significance difference between mean scores of low achievers of control group and experimental group on post-test.
6. There is no significance difference between the mean scores of high achievers of control group and experimental group on post-test.

SIGNIFICANCE OF THE STUDY

The education has a very significant role to play in the enhancement of a society. In the civilized countries like USA, education has been established on modern lines with the use of state of the art technology. AV aids are considered very important for effective teaching learning process. Teaching learning process with out its effectiveness can not meet the aspirations of the developing and progressing societies. The study emphasized the significance of the AV aids in the district Narowal at primary level. This study can be done in the others districts of the Punjab and the whole country.

REVIEW OF RELATED LITERATURE

Quarcoo-Nelson, Buabeng, & Osafo, (2012) have suggested and recommended that the study has shown that when appropriate media (e.g. audio-visuals) are integrated into the curriculum to complement

the traditional method, higher learning outcomes in terms of achievement scores would probably result. Performance was significantly improved by the use of audio-visual aided instructional approach in teaching Physics. The mean achievement scores of both male and female students were significantly improved by the use of audio-visual aided instruction. The study has shown that the use of audio-visual-aided instruction enhances student achievement in physics better than the use of the traditional method.. It is also suggested that researchers and physics teachers should explore the use of audio-visual-aided instruction to teach other physics areas not covered by this study in order to determine its effectiveness and possible adoption as a major instructional strategy.

Naryan, (1980) has reported that the first few years of a child's life are the most impressionable years and learning experiences provided these years in or outside the schools and other institutional arrangements have a predominant effect on the future behaviour pattern of the child. Sensory experiences of all kinds contribute to strengthen and enrich the child's perception. Toys, building blocks, card-games, puzzles as well as audio visual aids.



From the findings of this study, it was concluded that when video is used in teaching, it enhances learners' positive attitude towards the course. Also it affects their performances positively. It was recommended that having studies ineptly the effect of video on teaching, the following are the every teaching learning activities should always be supplemented with media such as video (Akerele & Afolabi, 2012).

Availability of A.V. Aids in Schools: Unavailability and deficiency is a barrier in effective use of A.V. Aids. According to National Education Policy 2009, a well regulated system of competitive manufacturing of A.V. Aids and their incorporation in the curricula shall be introduced. This policy provision should be implemented at the earliest to eliminate deficiency of A.V. Use of AV. Aids in right time can make teaching effective. It is an integral part of curriculum and should function as an essential part of the educational program. The teacher should use A.V. Aids in a proper situation to add visual clarity to concepts, ideas, and for focusing the attention of the target group on key points (Ali, Ghani, & Ali, 2011).

In the recent years, an increasing emphasize has been put on audiovisual aids utility in teaching, there has been very little research in suitability and effectiveness of the media for this purpose. However, there have been studies in other fields notably, educational broadcasting research and communication studies, which though set in the domain of the first language acquisition and comprehension, may have relevance for English language teaching. With one or two notable exceptions, no one appears to be considering one of the main questions arising from the widespread of audio and audio-visual aids as a source of language input to the foreign language learner (Barani, Seyyedrezaie, & Shojaie, 2013)

A.V aids make teaching learning process effective, provide knowledge in depth and in detail and brings positive changes in class room environment. It is helpful for teachers to teach the new concepts in an easy way and makes teaching learning process interesting (Rasul & Bukhsh, 2012).

RESEARCH METHODOLOGY

All students at primary level in district Narowal constituted population of the study. A study was delimited to the students of 2nd class in the Government Model High School Narowal. Fifty students of 2nd class (Boys) of Government Model High school Narowal were taken conveniently as sample of the study.

RESEARCH TOOL

In order to investigate affects of AV Aids in teaching learning process at primary level in district Narowal, pre- test and post test were used for the collection of the data.

DATA ANALYSES

Analyses of the study were as:

H₀1 There is no significance difference between the mean scores of experimental group and control group on pre-test.

Table 1: Significance of difference between the mean scores of control group and experimental group on pre-test

Group	N	Df	M	SD	SE _D	t- value
Experimental Group	20	09	58.9	12.86	1.69	0.56*
Control Group	20	09	57.95	13.04		

*Not Significant

df=18

t value at 0.05 = 2.10

Table 1:- indicates that the mean score in pre-test of the experimental group was 58.9 and that of the control group was 57.95. The difference between two means was not statistically significant at 0.05 level.

Hence, the null hypothesis, “There is no significant difference between the mean scores of control group and experimental group on pre-test.” was accepted and both the groups could be treated as equal on the variable of pre-test.

H₀₂ There is no significance difference between mean scores of low achievers of control group and experimental group on pre-test.

Table 2: Significance of difference between the mean scores of low achievers of control group and experimental group on pre-test

Group	N	Df	M	SD	SE _D	t- value
Experimental Group (low Achievers)	10	09	48.3	5.1	0.76	1.31*
Control Group (low Achievers)	10	09	47.3	5.44		

*Not Significant

df=18

t value at 0.05 = 2.10

Table 2:- indicates that the mean score of the Low Achievers in pre-test of the experimental group was 48.3 and that of the control group was 47.3. The difference between two means was not statistically significant at 0.05 level. Hence, the null hypothesis, “There is no significant difference between the mean scores of low achievers of control group and experimental group on pre-test.” was accepted and both the groups could be treated as equal on the variable of pre-test.

H₀₃ There is no significance difference between the mean scores of high achievers of control group and experimental group on pre-test

Table 3: Significance of difference between the mean scores of high achievers of control group and experimental group on pre-test

Group	N	Df	M	SD	SE _D	t- value
Experimental Group (High Achievers)	10	09	69.5	8.95	1.09	0.83*
Control Group (High Achievers)	10	09	68.6	9.16		

*Not Significant df=18 t value at 0.05 = 2.10

Table 3:- indicates that the mean score of the High Achievers in pre-test of the experimental group was 69.5 and that of the control group was 68.6. The difference between two means was not statistically significant at 0.05 level. Hence, the null hypothesis, “There is no significant difference between the mean scores of high achievers of control group and experimental group on pre-test.” was accepted and both the groups could be treated as equal on the variable of pre-test.

H₀4 There is no significance difference between the mean scores of experimental group and control group on post-test.

Table 4: Significance of difference between the mean scores of control group and experimental group on pre-test

Group	N	Df	M	SD	SE _D	t- value
Experimental Group (High Achievers)	20	09	67.7	11.65	1.56	6.73
Control Group (High Achievers)	20	09	57.2	12.98		

Significant df=18 t value at 0.05 = 2.10

Table 4:- indicates that the mean score of the High Achievers in post-test of the experimental group was 67.7 and that of the control group was 57.2. The difference between two means was statistically significant at 0.05 level. Hence, the null hypothesis, “There is no significant difference between the mean

scores of high achievers of control group and experimental group on post-test.” was not accepted and both the groups could not be treated as equal on the variable of post-test.

H₀5 There is no significance difference between mean scores of low achievers of control group and experimental group on post-test.

Table 5: Significance of difference between the mean scores of low achievers of control group and experimental group on pre-test

Group	N	Df	M	SD	SE _D	t- value
Experimental Group (Low Achievers)	10	09	59.6	8.28	0.96	13.19
Control Group (Low Achievers)	10	09	46.9	5.49		

Significant

df=18

t value at 0.05 = 2.10

Table5:- indicates that the mean score of the low Achievers in post-test of the experimental group was 59.6 and that of the control group was 46.9. The difference between two means was statistically significant at 0.05 level. Hence, the null hypothesis, “There is no significant difference between the mean scores of low achievers of control group and experimental group on post-test.” was accepted and both the groups could not be treated as equal on the variable of post-test.

H₀6 There is no significance difference between the mean scores of high achievers of control group and experimental group on post-test

Table 6: Significance of difference between the mean scores of high achievers of control group and experimental group on pre-test

Group	N	Df	M	SD	SE _D	t- value
Experimental Group (High Achievers)	10	09	75.8	8.45	1.08	7.70
Control Group (High Achievers)	10	09	67.5	9.75		

Significant

df=18

t value at 0.05 = 2.10

Table6:-indicates that the mean score of the High Achievers in post-test of the experimental group was 75.8 and that of the control group was 67.5. The difference between two means was statistically significant at 0.05 level. Hence, the null hypothesis, "There is no significant difference between the mean scores of high achievers of control group and experimental group on post-test." was not accepted and both the groups could not be treated as equal on the variable of post-test.

CONCLUSIONS

The research arrived at the following conclusions:

1. AV aids had very deepening effect on the teaching learning process. With the provision of appreciable AV aids in the class rooms, teaching learning processes' objectives could be optimized.
2. It was also observed that our schools lack A.V. Aids, which were very essential for effective teaching. In some schools A.V. Aids were available but they were not used properly. Even urban schools at district Narowal lack very common A.V. Aids like maps, charts, models, globes & flash cards.
3. Provision of AV aids in the class room activities could be a healthy and beneficial addition.

RECOMMENDATIONS

Recommendations for the said study were;

1. Appreciable AV aids should be provided in the urban as well as rural schools of District Narowal.

2. Available AV aids in the schools might be used for the effectiveness of teaching learning process.
3. Teachers ought to be trained and be emphasized in the utility of AV aids.
4. In this regard government at different tiers could take big steps.
5. Educational administrators could take the issue at different levels in educational situations and administrative circles.

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**DEVELOPMENT OF EFFECTIVE SCHOOL MODEL FOR MALAYSIAN
SCHOOL**

DR. MUHAMMAD FAIZAL A. GHANI

Associate Professor
Faculty of Education, University of Malaya, Kuala Lumpur
MALAYSIA

ABSTRACT

The purpose of this research is to develop an effective school model based on the Malaysian context. To obtain experts' consensus, the Delphi technique has been chosen as the method of study. Some 15 experts from various fields with wide experience in school leadership have been chosen as respondents. The use of four rounds of Delphi Techniques in this study has successfully identified seven contributory aspects and their strategies to make a school more effective. Furthermore, the experts' consensus has also agreed that all 138 items in the fourth round of the Delphi Technique can be used as the content of the Malaysian Effective School Model.

Key Words: *Effective School Model, Delphi Technique, Malaysia*

INTRODUCTION

In most countries, the agenda for improving schools by improving students' achievement reflects the interests of policy makers in reforming education in their country. In fact, the statement precursor to effective schools research, Edmonds (1979) that schools make a difference to their aspirations have been to implement the agenda.

Thus, studies related to effective schools have been carried out widely in all parts of the world since the early 1980s such as in Britain, the Netherlands, Israel and Australia taking into account the findings of studies done by researchers on effective schools in the United States (Silver, 1994) where the implementation of such studies have been done by

individuals with high levels of knowledge and skills in the field of school effectiveness to identify factors contributing to the success of schools (Townsend, 2001).

Similarly in Malaysia, local researchers have made the opinion of Peter Mortimore (1995) as the basis for their study (Chan, 1999). However, a study by the World Bank Operation Evaluation Department in 1999 found that schools in developing countries that have socio-economic status have a low face pressure to implement effective programs of school-based research findings from developed countries (Harris, 2002) because schools need strategies appropriate to the local context, problems and development needs (Md. Abdul Karim. Nor, 1998; Overmaat & Ledoux, 2001; Stoll & Myers, 1997). Therefore, researchers in Malaysia need to form a model of effective schools with the appropriate context, problems and development needs in Malaysia. Hence a Delphi study was undertaken to develop a successful model of school effectiveness based on opinion agreement among a group of local individuals who are recognized for their expertise in the field of education, especially school leadership.

When a school operates a policy of open doors the achievement of reputation will start when they first opened the doors to the public. Reputation will be identified through observation and perception of the wider stakeholders in education such as students, parents and the community. They want schools to produce successful students who have the characteristics of human capital. Hence, efforts to develop reputed schools become increasingly important and challenging (Bolender, 2004) and schools strive to develop a reputation for excellence to ensure that their actions coincide with the requirements of a constantly changing environment (Vanderstoep, Anderman & Midgley, 2005) and such action should be guided by the views through brilliant scientific research (Yeager, 1995).

Concurring with the recommendation above, research on effective schools is able to serve as basic guidelines for a school to achieve success because the focus study is comprehensive and not only to focus on teaching and learning process (Bolender, 2004). However, the number of studies on effective schools in Malaysia is still low (Shahril Marzuki, 1997). Implications, there are various definitions given by researchers and local

environment that will cause problems to develop effective school model in Malaysia (Rahimah Ahmad, Zulkifli Marzuki Abdul Manaf & Shahril, 1999). Therefore, to solve these phenomena, this study is aimed at adding to the number of effective schools research studies; it is able to support the findings of previous studies either in or outside the country. Furthermore, the study will refine, and elaborate detailing the practice and theoretical models based on the context of effective schools in Malaysia.

Purpose of Study

Overall, the study was conducted to obtain the agreement of opinion among a group of local individuals who recognized their expertise to develop a model based on the context of effective schools in Malaysia.

Research Questions

The following research questions will be answered based on research findings that have been found, namely:

1. To what extent is there agreement among the panel of experts associated with the characteristics of effective primary school based in the context of Malaysia?
2. To what extent is there agreement among the panel of experts associated with the strategy to implement the main features of effective schools based on the context in Malaysia?

METHODOLOGY

Delphi technique has been used as the main methodology in this study whereby the selection of participants is an important aspect that determines the successful

implementation of the study. Helmer (1968) in Steward, O'Halloran, Harrigan and Spencer (1999) agreed with the statement of the opinion that the selection of participants in a Delphi study should be made carefully because a mistake in choosing them will affect the results (findings).

Study Sample

Selection of participants in this study is among individuals who have a level of knowledge and skills in high school leadership. However, Helmer (1968) in Steward et al. (1999) said that it was difficult for researchers to give the title of Delphi “experts” to an individual based solely on community rating on the academic qualifications, level of contribution and career achievement. Martino (1983) supports the statement by saying that the individual experts who have specialized knowledge related to their respective fields but also other individuals also have expertise in any other field. Therefore, no one can declare themselves experts and assume that other individuals are not categorized as experts. Hence, to overcome these phenomena, certain criteria must be identified to determine an individual as an expert (Ludwig, 1997; Wicklein, 1993). For the purpose of this study, the researchers have set criteria such as the following as basic guidelines for selecting participants in this study, namely:

1. Individuals who have experience, knowledge and expertise in school leadership over 10 years.
2. These individuals have experience working as educators in school institutions for more than 10 years.
3. Willingness of these individuals to join the four sessions or rounds of the Delphi study.

Coinciding with the criteria that have been set, a total of 15 study participants were selected and their characteristics are shown in Table 1.

Table 1 : Study Participants Experience in School Leadership

Experience in Leadership (years)	< 5	6-12	13-19	> 20	Total
Job Title					
IPTA Academic staff	-	-	-	2	2
School Inspector	-	-	1	4	5
Education Officer	-	-	-	1	1
Excellent Principal	-	-	-	3	3
Excellent Teacher	-	-	3	1	4
TOTAL (person)	-	-	4	11	15

Table 1 shows a total of 11 study participants who already have experience working in the field of school leadership for over 20 years. Two of them are academic staff of public universities, Inspector of Schools (4), Education Officer (1), Outstanding Principal (3) and Excellent Teacher (1). The rest, 4 participants, have only research experience between 13 to 19 years; they are a school inspector and 3 Excellent School Teachers. In fact, from the findings of this study, it can be summarized that the study participants are also experienced as educators in the school institution for over 10 years.

Data Collection Procedure

Data collected in this study involved two stages as follows, namely:

First stage

In this stage, the process of data collection activities were conducted through reviews of literature materials as below; the review was intended to develop the interview protocol:

1. Statements relating to the practices of effective schools were collected and analyzed from early studies of effective schools starting from the pre-school effectiveness movement explored by Professor James Coleman and colleagues (1966), school effectiveness movement by Edmonds (1979) until the Effectiveness and School Improvement movement by Lezotte in 1989.

2. Literature reviews were also conducted on the local studies such as Abdul Karim Md Nor (1989) and Shahril Marzuki (1997) and experience of the researcher as a Graduate Education Service Officer from 1991 until 2003 was also utilized.

Next, content validity of the interview protocol was determined by two experts in the field of school leadership.

Second Stage

In the second stage, a Delphi study involving four rounds or sessions was implemented to develop an effective school model based on agreement of views among a group of 15 individual experts. However, before starting the research, the researchers sought permission from the Education Research and Planning Division, Ministry of Education, to involve the experts as participants in this study.

First Round

Structured interviews were conducted in the first round of the Delphi study in which the interview protocol constructed in the first stage has been used as a guide for each study participant. Furthermore, the findings of this interview were used to create basic items in the questionnaire instrument used in the second round of sessions.

Second Round

In the second round of sessions, study participants are required to interact with questionnaire instruments that were built in the first round of the Delphi study. Hence, researchers have found each participant to describe the research methods to answer items in such instruments as the following:

1. Study required participants to determine their level of agreement of each item that has been submitted through the 5 point Likert scale.
2. They are required to identify and develop content through the addition of such instruments and details of the proposed statement for each item in the questionnaire instrument.

Third Round

Next, the session in the third round Delphi study is a continuation of the second round related to questionnaires aspects of the use of instruments in which the field studies conducted are intended to reach an agreement in opinion among the study participants through the expression of their level of agreement on new and existing items based on a 5 point Likert scale. For the existing item, if their level of agreement went beyond the majority opinion in the last round of sessions, they are required to give reasons. However, they are not allowed to add any items in this round.

Fourth Round

In the fourth round of sessions, the study participants still interact with the instrument questionnaire through their actions as they did in the third round of sessions to bridge the gap in opinion among themselves.

Data Analysis Procedure

Data analysis in this study is based on the stages of the data collection process:

First stage

Analyzing data in this stage of the review process involved the literature material as follows:

1. Development studies and findings related to the study of this phenomenon. Through analyzing these processes, researchers have further simplified and used these findings to develop themes and subthemes for interview as follows in the protocol used in field studies for the second stage, namely:

· "Professional Principal Leadership" which involves subthemes "Teaching Leadership", "Transformational Leadership" and "The Efficient Resource Manager".

"Conducive School Environment" which involves subthemes the "Orderly Environment" and "Physical facilities".

"Focus on Teaching and Learning" which involves subthemes "Teacher Leadership" and "Curriculum".

"High Hope" which involves subthemes "Hope In Comprehensive Practice", "Process Towards High Hope" and "Create an Environment that Challenges the Students' Minds."

"Continuous Monitoring" involves subthemes of "Evaluation of Student Achievement", "Evaluation of School Achievement" and "The environment rich in data and information".

"Collaboration between the Home and School" which involves subthemes "Relations With Parents" and "Relations with the Community".

2. Relating studies and findings with studies of this aspect of research methodology.

Overall, the researchers strived to prevent themselves from being unfair in making a decision only to concentrate on one aspect of the study findings.

Second Stage

This stage involves analyzing data obtained during the four rounds of the Delphi study, as follows:

First Round

The session in the first round of this Delphi study involves interviews and analyzing activity data based on recommendations of Miles and Huberman (1994) which involves three methods as follows:

1. Reduce data. Researchers have repeatedly read the interview transcriptions that have been reviewed by each study participant to choose, and summarized the ideas, while ignoring data that does not contribute to the importance of the study. Next, the process of encoding data was implemented.

2. Verification or confirmation of data. In the second step, researchers perform verification process of obtaining data with inter-rater reliability of the code and unit of scale through the use of Cohen's Kappa agreement coefficient or value in order to ensure the validity and reliability of retrieved interview data. Besides searching agreement on Kappa coefficient values for data verification purposes, researchers also implement the code verification process and always check that the data has been analyzed so that these data represent groups that have been studied.

3. Present data. Data collected through the interview process was shown in the form of the frequency of mention. The researchers have arranged the data based on priority themes and subthemes view (ranking) among all 15 study participants of the study phenomenon. Next, themes and subthemes were used as the basis to build items in the questionnaire instrument using a 5 point Likert scale. Items were grouped as follows, namely: "The Principal Professional Leadership" has 33 items, "A Conducive School Environment" (20), "Focus on Teaching and Learning" (25), "High Hope" (16), "Continuous Monitoring" (18), "Collaboration between the Home and School" (12).

Second Round

During the second round of the Delphi study, questionnaire data were analyzed using descriptive statistical methods included mean, median and interquartile range because Sackman (1975) considers that the Delphi study is a quantitative method to measure the tendency of each item. Mean score is used to view the order (ranking) the importance of items based on opinion among the study participants, while the median score is used to identify items needed to form a questionnaire based on instruments in the level of agreement among them as follows, namely:

5 - Strongly Agree (SA)

- 4 - Agree (A)
- 3 - Somewhat Agree (SWA)
- 2 - Disagree (D)
- 1 - Strongly Disagree (SD)

In the 5-point Likert scale based on the above, an item has a very high median value if the scale is 5 and this means the majority of participants agreed with the item. Their views are categorized as "agree" if the median score is 4. Next, if the median score is 3 then the level of agreement on an item is "Somewhat agree" and if the median score is 2 then an item is in the category "Disagree". Similarly, the median score of 1 will give the impression that the level of agreement among the participants of the study is "Strongly Disagree" to an item.

Furthermore, the interquartile range score was used to measure the level of agreement from each participant of the study on items in the questionnaire instrument where the level of agreement is determined by interquartile score used by Williams, Boone, and Kingsley (2004), Ludwig (1997) and Rawitch (1991) in the field of education and adapted to the needs in this study, namely:

- 0 to 1 = high agreement (HA)
- 1.1 - 1.99 = moderate agreement (MA)
- ≥ 2 = no agreement (NA)

Third Round

The questionnaire instrument built in the session in the second round Delphi survey was distributed to 15 participants in the same study. Their feedback was analyzed as in the data analysis session in the second round Delphi study. The findings of the session were used to build items for the instrument used in the questionnaire for the fourth round in the Delphi study.

Fourth Round

During the process of analyzing in the fourth round the same type of analysis was carried out as in the third round of sessions. It has been conducted on the feedback of each participant in the study. This was designed to get the best view of the level of agreement among study participants. Findings from data analysis in this round of sessions will be used to answer the research questions.

Findings

Findings presented in this study are in the form of items receiving agreement among the 15 study participants about the main characteristics of effective schools and strategies to implement the main features.

Effective Schools Model for Malaysian School

In determining the Effective Schools Model for Malaysia, information about the characteristics of effective primary schools and strategies to implement the key features have been obtained through feedback from each participant in the study session in each round of the Delphi study. During the first round, Delphi study data were analyzed using qualitative data analysis methods and findings were described in the subsection titled "Data Analysis Procedure". Meanwhile, responses from the data session for the Delphi

study were further analyzed using Measurement-Based Trends-which involves the calculation of the mean, median and interquartile range (IQR).

Based on the Delphi study session the second round has produced seven key features of effective schools with 139 strategies that are grouped in themes for each school that used the model effectively. In other words, the findings of the Delphi study session in the second round has produced a 139-item questionnaire in which 124 items were from the items available and the remainder, 15 items, are additional items. Of the 124 existing items found only 121 items achieved a high level of agreement among the majority of study participants, while three items do not achieve any agreement because the interquartile range (IQR) scores for these items is 2. Next, a questionnaire instrument for the third round of sessions has been built where the items were sorted by priority among the majority opinion of the study participants based on the scores namely mean score, median and IQR.

Next, analysis of data for the study session Delphi third round has produced seven key features of effective schools and 138 strategies in which one of the strategies to implement one of the key features of effective schools has dropped from the effective school model. In other words, all 138 items of the questionnaire instrument have reached a high level of agreement among the majority of study participants to be highly approved of the questionnaire instrument for the fourth round Delphi study session in which the construction of items for these instruments also takes into account the arrangement based on the item score-mean score, median and IQR.

Next, the number of round Delphi study session has been terminated so far as the fourth round of findings of data analysis has found a high level of agreement among the majority of study participants to agree to all the key features of effective schools and strategies to implement those features when reading scores of $IQR = 0$ or 1 and M score $= 5$.

Hence in the fourth round session the findings from the Delphi process had succeeded in creating a Model for School Effectiveness and Improvement of Malaysian

Schools containing seven main characteristics of effective schools. Some 138 strategies for implementation of the main characteristics based on the scales “High level of consensus” and “Highly Agree” (IQR=0 and $M=5$), scales “High level of consensus” and “Highly Agree” (IQR=1 and $M=5$) and scales “High level of consensus” and “Agree” (IQR=1 and $M=4$).

The following is a description of the design model based on scales related to the themes and subthemes.

1. The professional leadership of Principal

(a) Instructional Leadership

The majority of study participants agreed to fifteen strategies for creating teaching style of leadership based on scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$) and scales "High Level Agreement" and " Strongly Agree "(IQR = 1 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

A total of fourteen strategies as follows were agreed at a high level of acceptance to become the model for effective schools, namely:

- Establishing the school vision and mission clearly;
- Shared vision and mission of the struggle;
- Having a high level of sincerity by demonstrating determination to work;
- Creating a culture that develops staff professionalism;
- Observe teachers teaching in formal and informal ways;
- Have the knowledge and skills to evaluate teachers;
- Talk to the teacher about rating outcomes;

- Provide facilities and equipment for smooth running of the teaching and learning process;
- Improve relations with those outside school (such as the PTA) to support schools to realize the vision and mission schools;
- Always motivate teachers;
- Identify knowledge and skills required by staff;
- Take care of teachers' welfare;
- Teaching in a period of time to serve as role models for the staff; and
- Act as chairperson for School Curriculum meeting.

"The high level of agreement" and "Strongly Agree" (IQR = 1 and $M = 5$):

There is a strategy as follows to establish leadership style of teaching that have been agreed at high level to approve the strategy is to become the model of effective schools:

- Obtaining raw materials for teachers to provide ABM / BBM (teaching aids).

(b) Transformational Leadership

The majority of study participants have agreed on strategies to produce eleven transformational leadership style strategies based on scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

All the eleven strategies as follows to produce a style of transformational leadership were agreed at a high level of acceptance in order to become the model of effective schools:

- Encourage, guide and move people towards the excellent school culture like creative, proactive and positive thinking;

- Establishing friendly relations with the school citizens through diverse activities within and outside school;
- Improve schools in line with the implementation of changes;
- Each appointment of principals should include increased knowledge and experience (seniority);
- Applying the concept of "Leadership by example";
- Possess attractive personality;
- Reduce excessive practice of protocol;
- Originator (initiator) of the practice of transformation;
- Give staff the opportunity to speak;
- Reduce emphasis on bureaucracy to facilitate school management; and
- Transformational leadership must start with bureaucratic leadership such as being strict with the school members.

(c) The Efficient Resource Manager

The majority of study participants agreed to nine strategies to produce an efficient manager of resources based on scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The majority of study participants were found to have achieved high level agreement on approving nine strategies as follows to produce an efficient manager of resources to be the model of effective schools:

- Distribute resources fairly so that students can enjoy them;
- Wise in planning and distributing resource allocation;
- Creating School Finance Committee;
- Have the knowledge to manage resources such as managing the school budget;

- Be open to citizens' views of the school;
- Always feel themselves being watched by God;
- Provide guidelines related to the documented procedures using equipment and facilities;
- Provide guidelines related to the documented financial management; and
- Treat staff based on their maturity level (situations leadership).

2. Conducive school environment

(a) The Orderly Environment

A total of fourteen following strategies for creating a school environment have been endorsed by a majority of participants based on study of the scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$) and "High Level Agreement" and "agree" (IQR = 1 and $M = 4$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The majority of study participants were found to have agreed at high level to approve twelve strategies as follows to create a school environment that made for a systematic and more effective school model, namely:

- School citizens work as a team toward achieving the vision of the school.
- School citizens have a noble character.
- School Leadership support efforts to produce virtuous school citizens.
- The Principal has trust in the teacher's ability.
- Continuous staff development programs are able to strengthen the formation of school culture.
- Struggle to collect and share learning experiences.
- Every school has friendly relations.

- Drafting regulations based on the suitability of the current school.
- School citizens feel they are appreciated as a person.
- The existence of rules to control school members' behavior.
- School leadership practice and receive proposals from within and outside school.
- School culture shaped by the continued practice of rules.

"The high level of agreement" and "agree" (IQR = 0 and $M = 4$):

The majority of study participants were found to have agreed at high level to approve the following two strategies to create orderly school environment in the model of effective schools:

- Pupils are fairly confident with the teachers to pass sentence on them because they are given the opportunity to defend themselves; and
- Participate in various competitions outside the school so that outside parties are able to assess the school's capability.

(b) Physical Facilities

A total of six strategies for creating comfortable physical facilities have been agreed by the expert panel based on scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The majority of study participants were found to have agreed at high level to approve six strategies as follows to create physical facilities that are made more comfortable and content models of effective schools:

- Awareness exists among the school stakeholders to preserve assets and hygiene in the school;
- School leadership often monitors the level of school facilities for formal and informal use;
- School leadership strives to obtain support from outside to increase the number and quality of school facilities;
- Members of the school feel comfortable in the school as it has a high level of cleanliness;
- School facilities and equipment are adequate and functioning; and
- School budget is allocated for developing students' achievement more than the allocation for school decoration.

3. Concentration on the process of Teaching and Learning

(a) Teacher Leadership

The majority of study participants were found to have been agreed at a high level on fourteen strategies to produce teacher-based leadership on the scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$) and "High Level Agreement" and "Strongly Agree" (IQR = 1 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The majority of study participants were found to have achieved high level agreement on approving 13 strategies as follows to produce more teachers and leadership style to make it an effective school model of content, namely:

- Staff development programs help teachers improve professionalism;
- Teachers guide counterparts to share knowledge and skills;
- Master teachers are teaching content;
- Teachers are given a fair recognition based on current achievements;
- Teacher believes that teaching career is a noble profession;
- Teachers form a team of quantity to contribute their knowledge and skills to people in and outside school;
- Teachers become role models to other colleagues;
- Teachers identify the knowledge and skills required by teachers under their control;
- School leadership has confidence in the ability of school teachers to perform tasks;
- Teachers implement reflection for the purpose of improvement in teaching and learning;
- Teachers use the maximum time to teach;
- Teachers have a friendly relationship with students; and
- Teacher expertise is leadership that is capable of influencing peers, particularly new teachers and teachers with problems.

"The high level of agreement" and "Strongly Agree" ($IQR = 1$ and $M = 5$):

The rest, as a strategy as follows to produce teacher leadership style has been agreed at high level to be highly approved in the content model:

- Teachers are able to perform a study on related problems.

(b) Curriculum

The majority of study participants were found to have agreed at a high level on 11 strategies for implementing the teaching and learning (T & L) process through curriculum-based scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The majority of study participants were found to have been agreed at high level to approve eleven strategies as follows to implement the process T & L through the curriculum and more effective strategies for inclusion in the model of effective schools:

- Teachers' teaching methods emphasize students' level of knowledge and skills;
- Teachers strive to improve knowledge and skills along with the changing environment themselves;
- School leadership evaluate teaching performance based on the standard benchmark;
- Teachers diversify teaching methods to attract students;
- Teachers have data and information related to students' achievement levels;
- Teachers teach based on the syllabus of the Ministry of Education;
- Teachers teach content based on the expertise of their teaching;
- Most of the time, in T & L, teachers actively involve students;
- School stressed the importance of professional development of staff;
- School leadership school also put experienced teachers to teach pupils in the early stage schooling; and
- Teachers relate teaching to students' daily experience.

4. High Expectations

(a) Holistic Expectations

The majority of study participants were found to have agreed at a high level on seven strategies for creating expectations based on continuous scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

A high level of agreement to approve the following six strategies to create continuous practice expectations has been reached among the majority of study participants to become further strategies in the model of effective schools:

- Teachers should identify students' strengths and weaknesses;
- School leadership often reminds teachers to treat students as those who have feelings;
- Teachers allocate additional time to guide students;
- Schools have data and information related to student background;
- Citizen believes that the school needs the help of God in influencing school planning; and
- The school expects the presence of parents and guardians.

(b) Process Toward Hope High

The majority of study participants found to have achieved high level agreement on five strategies to implement several process variables to the practice of high expectations based on scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

A high level of agreement was reached to accept the five strategies as follows to implement the process towards the practice of high expectations among the majority of study participants for use as strategies in the model of effective schools:

- Teachers are confident that every student has the opportunity to learn and succeed;
- At the beginning of the school term the school told students and parents about the school vision and mission;
- Skilled teachers also influenced students;
- Teachers have a clear vision to guide students; and
- Expectations of teachers are not easily influenced by the attitudes of pupils.

(c) Creating an atmosphere that Challenges Students' Minds

A high level of agreement has been reached on four strategies for creating an atmosphere of challenging the minds of students based on scales "The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The majority of study participants were found to have agreed at high level to approve the four strategies as follows to create an atmosphere of challenging the minds of students and make them further strategies in the model of effective schools:

- Extra-curricular activities and school students meet the requirements of current interest;
- Teachers continuously assess students' achievement;
- Teachers give students assignments and adequate time to complete them; and
- Teaching and learning methods emphasize increasing students' skills such as thinking skills.

5. Continuous assessment

(a) Evaluation on Student Achievement

The five strategies to implement effective methods for assessing students' achievement has been agreed among the majority of study participants at a high level of agreement based on the scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and M = 5).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and M = 5):

The majority of study participants were found to have been agreed at high level to approve the five strategies as follows to implement effective methods for assessing student achievement and make them strategies in the model of effective schools:

- Teachers use data and information on student academic achievement to implement improvements, particularly on teaching and learning;
- Teachers implement a variety of methods to assess students' achievement;
- Teacher informs parents about the progress of students;
- Teachers assess students as a whole that involves cognitive, affective and psychomotor aspects; and
- Evaluation in the form of test is implemented continuously.

(b) Evaluation on school achievement

All eight strategies to implement effective methods for assessing school achievement have been agreed among the panel of experts at a high level of agreement based on the scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and M = 5).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and M = 5):

The majority of study participants were found to have been agreed at high level to approve the eight strategies as follows to implement effective methods for assessing the achievement of schools and further, the proposed strategies are to be included in the model of Malaysian effective schools:

- Staff to be open to receive all views;
- School leadership will explain school policy assessment activities;
- Assessment activities are undertaken toward the overall goal of school effectiveness;
- Schools have a standard instrument rating;
- Staff evaluated by the school leadership;
- School leadership will implement various assessment methods to gather data and information on students' achievement;
- School leadership to evaluate the overall achievement of teachers; and
- Teaching students the opportunity to evaluate teachers.

(c) Environment rich in data and information

The majority of study participants agreed at a high level on all five strategies for creating an environment that is rich in data and information based on the scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and $M = 5$).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and $M = 5$):

The five strategies as related to the following method to produce an environment that is rich in data and information have been agreed at high level as strategies for inclusion in the model for effective schools of Malaysia:

- Special committees are formed to manage data and information in the schools;
- School data and information will be stored using the appropriate technology relevant to the school;
- Data and information of schools need to be constantly updated and easily recoverable;
- School strives to gather data and information on the following: school management, academic management, management of extra-curricular activities and student affairs management; and
- School data and information stored will be used as a basis and reference for school planning and decision making.

6. Collaboration between the Home and School

(a) Relationship with Parents

The majority of study participants were found to have agreed at a high level with all nine strategies to create strong relationships between parents with school-based scales "High Level Agreement" and "Strongly Agree" ($IQR = 0$ and $M = 5$).

"The high level of agreement" and "Strongly Agree" ($IQR = 0$ and $M = 5$):

All nine strategies such as the following to create consensus between parents and schools have achieved high level of agreement by the majority of study participants who agreed that these strategies be implemented as part of the effective school model for Malaysia, namely:

- Schools conduct meetings with parents to discuss student achievement such as self-discipline and academic progress;
- School strives to provide the best service to students so that their parents are satisfied and thus cooperate with the school;
- School is concerned with opinion and criticism of parents;
- Schools encourage parents to contribute more in the form of energy and ideas rather than finances;
- Staff maintains a good relationship with the students to attract the involvement of parents in school activities;
- School describes the vision and mission to parents;
- School operates a formal ceremony for the community to encourage parental involvement;
- Formation of the PTA Committee should be among the influential and capable individuals to perform activities; and
- Schools distribute written news to parents.

(b) Relationship with Community

A high level of agreement has been reached among the majority of study participants on the four strategies for creating collaboration between communities with the scales "The high level of agreement" and "Strongly Agree" ($IQR = 0$ and $M = 5$).

"The high level of agreement" and "Strongly Agree" ($IQR = 0$ and $M = 5$):

The four strategies as follows to create strong relationships between communities and schools have received a high level of agreement from the majority of study participants who recommended these strategies to be part of the effective school model of Malaysia:

- Member schools are trained to provide social services;

- School strives to get contributions from outside parties such as public universities, elected representatives and related ministries;
- Alumni associations are helping schools to achieve the vision and mission; and
- Schools allow community use of school facilities.

7. School as a Learning Organization

The majority of study participants were found to have agreed at a high level of agreement on all twelve strategies to create schools as learning organizations based on the scales "High Level Agreement" and "Strongly Agree" (IQR = 0 and M = 5) and "Level Agreement High" and "Strongly Agree" (IQR = 1 and M = 5).

"The high level of agreement" and "Strongly Agree" (IQR = 0 and M = 5):

Eleven strategies as related to the following method for creating schools as learning organizations agreed at a high level of agreement by the majority of study participants are agreeing to these strategies to be effective content model of school:

- Intensified role of resource center to increase knowledge and improve skills of staff;
- Planned staff development program based on the needs of teachers;
- Teaching and learning problems made the main agenda of each meeting and shared;
- Teachers always share knowledge and experience when conducting an activity;
- School members always exhibit attitude of wanting to learn;
- Teachers attending courses are required to conduct internal courses;
- Principal dialogue is to share professional knowledge and skills;
- Principals always support teachers to pursue education to a higher level;
- Professional discussions with teachers about their daily tasks constantly occur;
- Schools provide access to information widely and effectively; and
- School members implement well every school program organized by MOE / JPN / PPD.

"The high level of agreement" and "Strongly Agree" (IQR = 1 and M = 5):

Only one of the following strategies as related to the method for creating schools as learning organizations received a high level of agreement by the majority of study participants as to the strategy used for the model of effective schools:

- Reading materials placed in each staff room.

Overall, in the fourth round of this Delphi study, study participants have agreed to accept the seven key features of effective schools and one hundred and thirty-eight strategies that are grouped in themes and subthemes respectively to form the Effective School Model for Malaysia.

Discussion and Conclusion

The study was conducted to develop a model based on the context of effective schools in Malaysia that have different problems and development needs compared with factors in the context of other places. Hence, the model built is expected to be able to meet the government's intention to produce human resources that characterized human capital. For example, spiritual factors contributing to the success of a school are less discussed by western researchers. However, in this study the majority of study participants have agreed to agree that these factors also influence the success of a school. Saedah Siraj (1998) agreed with the findings of the opinion that a workplace environment that covered spiritual (divine) climate, compromise and cooperation among staff also contributed to the success of a school.

Furthermore, the findings of this study also showed that the majority of study participants have agreed to agree that leadership is a principal prime mover in creating effective schools. Marzano (2003) held that the principal's professional leadership is

needed by the effective schools because they are able to change the schools, teachers and students towards the positive. Hence, past studies (such as Edmonds, 1979; Purkey & Smith, 1982; Scheerens & Bosker, 1997) also find the contribution of school leaders is essential in creating effective schools (Harris, 2002).

However, without the contribution of other factors, especially teachers, principals' leadership will not be able to realize the vision and mission that has been set for creating effective schools; as Harris (2000, 2002) says, the success of a school is highly dependent on the ability of teachers in implementing changes in the classroom. Study participants achieved consensus on the other contributory factors namely shaping the school as a learning organization is important as part of the effective school model because principal and teacher professionalism can be enhanced by creating a learning society with the following characteristics: continuous staff development; school members share knowledge and always want to learn.

The implication is that the effectiveness of the principal and teachers in carrying out their responsibilities can lead to effective schools (Marzano, 2002) through successful implementation of the following factors: creating a conducive environment; focus on teaching and learning process; school having high expectations of the students; continuous assessment and evaluation of students; and good collaboration between the school and home.

Hence, contributing factors have been agreed by the majority of study participants to be the effective schools model. Overall, the findings of this study can be expected to guide stakeholders in education in particular schools to create an effective school as Slaughter's (1995) study says the findings obtained from an individual opinion or a group of individuals called specialists who are able to tackle a problem that has been identified are important because they have the skills to look forward.

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Effect of Interactive Teaching on Student's Academic Achievement

IFTIKHAR AHMED

M. Phil Education

Hazara University, Mansehra

DR. JAVED IQBAL

Assistant Professor (Education)

Hazara /university, Mansehra

ABSTRACT

This experimental pre-test post-test research study was conducted to find out the impact of interactive teaching on academic achievement of government higher secondary school students of district Mansehra . The research study comprised of the objectives which were (a) to figure out the effect of interactive teaching on the academic achievement of government higher secondary school students of district Mansehra.(b) To analyze the impact of interactive teaching on the learning outcomes of the taught with different achievement levels. In order to achieve the objectives of the study , academic achievement test was made and validated. Academic achievement test contained seventy five test items with four multiple choices. The score for correct choice was 01. These seventy five test items were equally distributed on cognitive domain and contained 25 questions on knowledge, 25 on comprehension and 25 on application. Reliability of English language academic achievement test was determined on post-test data by using split half reliability formula. The calculated value of split half reliability was 0.75. Academic achievement test was administered. Pre-test and post-test data was collected. Collected data was analyzed and interpreted. Comparison of scores before treatment in their respective groups showed that the mean scores of the two groups were nearly the same while post treatment data of academic achievement test when analyzed showed a marked difference between the mean scores on dependent and independent variables in their respective groups. There the treatment (interactive teaching) proved its usefulness for academic achievement. The researcher recommended that interactive teaching because of its practical usefulness be used instead of traditional teaching.

Keywords: *academic achievement, interactive teaching, Mansehra*

INTRODUCTION

The role of a teacher in learning process is a decisive factor. In this regard, Wenglinsky (2000) opined that whatever activities take place in the class have a vital effect on students' learning outcomes, in this regard he thought of the role of a teacher to be pivotal. He came out with the conclusion that those teaching learning activities which develop analytical/evaluative

skills of the learners, are extremely productive. Sanders'(1999) stated that learners' high rate of academic achievement, is mainly dependent on the proper and skillful utilization of interactive teaching methodology. Million (1987) also came out with the view that it is carefully done lesson planning and the student centered teaching strategies, which guaranteed teaching to be productive. Vogt (1984) concluded that for efficient and productive teaching, it is necessary for a teacher to form learning objectives for mixed ability learners and then having carried out interactive teaching learning, conduct positive feedback. Swank et al., (1989) categorically said that expository teaching mainly focusing on a teacher's talk, a mere passive exercise, be minimized. Sanders and Rivers (1996) in the light of their findings stated that it was the overall efficiency and productivity of the teaching skills of a teacher which ultimately contributed towards the students learning outcomes. Campbell et al., (2004) stated that along-with other factors like class management and its proper and effective utilization, efficient and proper use of teaching techniques (interactive teaching), exerts its positive impact on learners' academic achievement.

Teaching learning process based on the student-student and teacher-student interaction, provides such a conducive learning environment where learners can, not only comprehend their targeted lessons but they can also raise their self esteem level. Besides, they can also learn a lot that how a group can perform better than an individual on a given task. This sort of teaching provides an opportunity to the learners to take part in learning process collectively (in pairs/small groups). It also facilitates learners to untie the problem tasks. Moreover, interactive teaching not only paves the way for unearthing truths but also raises the energy level of the learners. It cements relationship among students, brings into play an entertaining and all refreshing environment for the students inside the classroom, gives an opportunity to the class of a mixed ability group to interact with one another and raises learners' retentive capacities. It also increases students' eagerness/fondness for learning. Besides, it provides hand on experience to the learners (Morable, 2000).

Interactive teaching is a conscious interactive exercise taking place between the teacher and the taught. Its salient feature is the question answer form with some teacher talk. It combines

together a little bit of lecturing along-with interactive teaching learning exercise going on. Infact during the application of this strategy, the students remain more efficient, attentive and energetic than that of traditional teaching. It also develops critical thinking of the students. It finishes of the drawbacks of traditional teaching and at the same time picks up its good points. Interactive teaching utilizes the resources quite productively. It ensures the availability of instant response by the learners. Moreover, it gives an opportunity to the students to actively participate in learning tasks and figure out their mistakes and then perform corrective work (Print, 1993).

Different researches while investigating various pedagogical methodologies, have unanimously declared that interactive/non traditional teaching strategy possesses its effectiveness. MacCarthy and Anderson (2000) came out with the findings that students got higher academic success in interactively conducted classes than those of traditionally managed classes.

Stewart et al., (2005) has the view that traditional teaching signifies one way flow of information, from a teacher to a student. Rote learning is the hall mark of this teaching methodology. According to Print (1993), this teaching strategy incorporates flow of knowledge from teacher to taught. Students remain inactive receptors of material given to them. Here students are not provided with hand on experience on learning material, therefore, their retention capacity and attention level get affected (Lloyd, 1968).

In Pakistani scenario and especially in Hazara division, in government schools teaching assignments are carried out through lecturing. It is the teacher who either adopts oral or written medium of communication. The learners remain inert, they are not given the chances to participate in different interactive classroom activities, therefore, their faculties of analysis and evaluation, get unripened (Ahmed, 2000).

Typical Pakistani education system highlights various burning issues like alarming withdrawal rates, memorization of learning material, low self efficacy level and premature analytical capabilities of the learners. Along-with other factors, ineffective teaching methodology, is one of the key factor, responsible for this sorry state of affairs (Naz, 2009).

In In a prevailing system of English language teaching, stress is given on the accuracy of

grammatical rules, instead of giving the learners natural and conducive learning environment, where they could speak the language. They are taught the grammatical rules of the language as a result they know much about the language but they can not speak the language.

Another ludicrous point is that instead of making the learners proficient in spoken skill through interactive communicative approach. They are taught poetry, novel and drama through traditional teaching methods. Having studied through traditional method they can quote some of the extracts out of the books of English literature which they have memorized but they can not use English language for interactive and communicative purposes in daily life (Ahmed, 2007).

In interactive teaching a teacher works as a guide, motivator and facilitator. He/she through learning activities provides opportunities to students for observation, thinking, doing, discussion, analysis and evaluation.

A teacher, while using traditional teaching methods, uses maximum talking or writing time himself/herself. Students get very little opportunity to actively work on the learning material. Teacher thinks himself/herself as an authority in the class. Classroom environment never seems conducive for learning rather tight discipline is kept. Teacher – student and student – student instruction is not present or very rarely used. Teaching methodologies at different places are centering around teachers. These traditional teaching styles are known for the passivity of students and the authoritativeness of the teachers (Carron and Chau, 1996).

As students are not given ample chance to actively involve in different learning activities, therefore, their academic performance badly get affected. These factors have compelled the researcher that he should conduct this experimental research in order to find out the relative importance and effectiveness of interactive teaching.

OBJECTIVES OF THE STUDY

The objectives of the study were

1. To find out the comparative effect of interactive teaching on the academic performance of students taught by interactive method of teaching and traditional method of teaching.

2. To examine the effect of interactive teaching on the academic achievement of students with different achievement levels.

Hypothesis

1. There is no significant difference between the mean academic achievement scores of the government higher secondary school students taught through traditional teaching and interactive teaching.

SAMPLE OF THE STUDY

Total 92 students of 1st year of government higher secondary school No. 1 Mansehra, formed study sample. Matched random sampling technique was used for the formulation of experimental and control groups. Having set their scores on pre-test as standard, the students were equally distributed into two groups, A and B (Appendix G). Group A was termed as control while group B was named experimental.

RESEARCH METHODOLOGY

For the selection of the experimental and control groups, a pre test was conducted. On the basis of the mean scores of pre test, two equivalent groups (A and B) were made by matched sampling. Group A was termed as control while group B was called as experimental. By exchanging students in both the groups in such a way that both the groups had nearly same mean scores on pre test. According to (Gay,2000), The students with scores below than or equal to mean scores $-SD/3$ were taken as low achievers, the students with scores in the range of mean scores $\pm SD/3$ were taken as average and the students with mean scores greater than or equal to mean scores $+ SD/3$ were taken as high achievers. Through this technique the obtained number of high achievers for control and experimental groups, is 13 each, the obtained number of average students for control and experimental groups, is 10 each while the obtained number of low achievers, is 23 each.

DATA ANALYSIS

The English language academic achievement test included 75 test items with four multiple choices. Score for teacher correct choice was 01.

For the analysis of data the mean score, standard deviation, and t tests were used as statistical tools. On the basis of analyzed data, findings, conclusions and recommendations were drawn.

RESULTS AND DISCUSSION

Table 1:- Comparison of mean scores of control and experimental groups for academic achievement on post-test.

S. no	Name of Group	No. of Students	Mean	S.D	t
1	Control Group	46	36.17	10.78	5.11
2	Experimental Group	46	47.63	10.79	

df =90

Tabulated value of t at 0.05 p-level =1.980

Table 1 reflects that after the treatment (interactive teaching) the calculated value of t(5.11) is greater than the tabulated value (1.980) of t at 0.05 level of significance. The null hypothesis is rejected. There is a significant difference between the group means, so, the treatment (interactive teaching) is more useful than traditional method of teaching.

Table 2:- Comparison of mean scores of high achievers of control and experimental groups for academic achievement on post-test.

S. no	Name of Group	No. of Students	Mean	S.D	t
1	Control Group	13	50.84	3.48	7.85
2	Experimental Group	13	61.92	3.72	

df =90

Tabulated value of t at 0.05 p-level =2.101

Table 2 reflects that after the treatment (interactive teaching) the calculated value of t (7.85) is greater than the tabulated value (2.101) of t at 0.05 level of significance. The null hypothesis is rejected. There is a significant difference between the group means, so, the treatment (interactive teaching) is more useful than traditional method of teaching.

Table 3:- Comparison of mean scores of average students of control and experimental groups for academic achievement on post-test.

S. No	Name of Group	No. of Students	Mean	S.D	t
1	Control Group	10	38.3	3.74	6.90
2	Experimental Group	10	49.7	3.68	

df =90

Tabulated value of t at 0.05 p-level =2.00

Table 3 reflects that after the treatment (interactive teaching) the calculated value of t (6.90) is greater than the tabulated value (2.00) of t at 0.05 level of significance. The null hypothesis is rejected. There is a significant difference between the group means, so, the treatment (interactive teaching) is more useful than traditional method of teaching.

Table 4:- Comparison of mean scores of low achievers of control and experimental groups for academic achievement on post-test.

S. no	Name of Group	No. of Students	Mean	S.D	t
1	Control Group	23	26.95	3.30	12.06
2	Experimental Group	23	38.65	4.63	

df =90

Tabulated value of t at 0.05 p level =2.179

Table 4 shows that after the treatment (interactive teaching) the calculated t value (12.06) is greater than the tabulated value of t (2.179) at 0.05 level of significance. The null hypothesis is rejected. There is a significant difference between the group means, so, the treatment (interactive teaching) is more useful than traditional method of teaching.

H: 1

The experimental group performed better academically than control group on post test. The t value 5.11 (table 1) was greater than the tabulated value 1.980 at .05 level. For experimental and control groups in the subject of English. Similarly, for high achievers the t value 7.85 (table 2) was greater than the tabulated value 2.101 at 0.05 level , for average students the t value 6.90 (table 3) was greater than the tabulated value 2.00 at .05 level, and for low achievers the t value 12.06 (table 4) was greater than the tabulated value 2.179 at .05 level. All these calculated t values are greater and show that there is a significant difference between the groups means. Therefore, the null hypothesis that “there is no significant difference between the academic achievement of control and experimental groups taught by traditional teaching and interactive teaching respectively”, is rejected. Interactive teaching (treatment) is more beneficial for academic achievement of the students than traditional teaching. The study conducted by (Low, 2006) also supports the present research that interactive teaching improves the academic achievement of the learners.

FINDINGS

Main findings of this study have been presented in the underlying section.

- 1 The post treatment calculated t value 5.11 (table 1) is much higher than the tabulated t value 1.980 at 0.05 p level. There is a significant difference between the mean scores of the control and experimental groups. Hence, the treatment (interactive teaching) is more useful for the academic achievement of the students than traditional teaching.
- 2 After the treatment, the calculated t value 7.85 (table 2) for high achievers, is higher than the tabulated t value 2.101 at 0.05 p level. There is a significant difference between the mean scores of high achievers of control and experimental groups. Hence, the treatment (interactive teaching) is useful for the academic achievement of high achievers as compare to traditional teaching.
- 3 After the treatment, the calculated t value 6.90 (table 3) for average students, is much higher than the tabulated t value 2.00 at 0.05 p level. There is a significant difference between the mean scores of average students of control and experimental groups. Therefore, the treatment (interactive teaching) is more useful for the academic achievement of average students than traditional teaching.
- 4 After the treatment (interactive teaching) , the calculated t value 12.06 (table 4) for low achievers, is much higher than the tabulated t value 2.179 at 0.05 p level there is a significant difference between the mean scores of low achievers of control and experimental groups. Therefore, the treatment (interactive teaching) is more useful for the academic achievement of low achievers than traditional teaching.

CONCLUSIONS

As per the statistical analysis and resultantly, the findings determined, the following conclusion was inferred.

- 1 Interactive teaching is more effective than traditional teaching as academic achievement test scores on post-test are higher than those of traditional teaching. It implies that

interactive teaching increases academic achievement of the students than traditional method of teaching.

RECOMMENDATIONS

Recommendations were based on the findings and conclusions.

- 1 The findings of the study prove the utility of interactive teaching as it improved the academic achievement of the students on post-test greater than that of traditional teaching. It is, therefore, recommended that interactive teaching be used by teachers.
- 2 Teachers are given training / orientation on interactive teaching, so that, this important teaching method could be properly utilized. This study examined only academic achievement and self efficacy level of students in the subject of English. It is needed that more research be carried out to figure out the utility of interactive teaching for other dependent variables like, students' perception towards subject, I.Q, peer relation, self esteem, gender, science and arts and other related variables.

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An Evaluation of the Availability, Utilization and Working Condition of

Audio Visual Aids in Primary Schools of Rawalpindi

NAZNEEN NAZAK

Ph. D Scholar (Education)

Mohiuddin Islamic University, AJK

DR MAKHDOOM ALI SYED

Subject Specialist (English)

Govt. Dennies Higher Secondary School, Rawalpindi

ZIARAB MAHMOOD

Ph. D Scholar

Hazara University Mahsehra

ABSTRACT

The Research was conducted to find out of the availability, utilization and working condition of Audio Visual Aids in Government Primary Schools of Rawalpindi city at primary Level. The study was delimited to the Government Girls primary schools of Rawalpindi city. Forty (40) head teachers, 110 teachers and 220 students were selected randomly as sample. Data were analysed with the help of percentage. On the basis of findings it was concluded that although majority of the schools had electricity, yet projected Av aids such as TV, VCR, V.T.R projectors films strips, and slides were not used during classroom teaching at Primary School level. It was recommended that modern A.V. aids of good quality e.g., Computer, OGP, T.V., VCR, VTR, etc. may be provided by the Government department to all Primary Schools and teachers should teach with

the help of available AV aids. The pre service primary school teaching program may be enriched with the knowledge, skills and practical work regarding the preparation and use of low and no cost material and modern A.V. aids in the process of teaching and learning.

Keywords: *Audio Visual Aids, Primary Schools, Teaching, Rawalpindi*

INTRODUCTION

Audio visual aids help to relate the general concept to actual reality. Words are often inadequate in communicating information or images of things of which the student has no direct experience. A model, picture, or a sketch can make the concept clear understandable. Akhtar (1998, p.18,19) has described about the need of audio visual aids as under: Psychology teachers that impression come to the brain through the senses. Auditory stimuli, so frequently used in the classroom, often make impression that are vague and incomplete. Bringing into operation the visual tactile and other senses make learning more vivid, precise and complete. When impression comes through a number of senses, the learning is more meaningful and retained longer.

The effectiveness of testing aids can be summarized in the words of Edgar Dale as aided by Yadav (2003, p.38)), “Because audio –visual materials supply concrete basis for conceptual thinking, they give rise to meaning-ful concepts. The words enriched by meaningful associations has they offer the best anti-dote available for disease of verbalism”.

The function of teaching or instruction may be considered as a process of communication between the teacher and the taught. It is necessary to ensure effective communication and the effectiveness of the communication depends to a great extent on the effective use of audio visual materials. Ashfaq, (1998, p.6-7) has mentioned this point as under: In communication the

definition of a word such an escarpment, for example , imagine how much more vivid and effective and complete the student understanding could be when pictures , slides or films are used then if the medium was limited to the spoken word alone. With the visual an empathy for the word can be developed a “UREKE” phenomenon can be induced pertaining to hills and mountains and all out door in view of memorization of a bare bone definition that satisfies only the verbal need for understanding on the contrary, teaching aid not only facilitate and help to clinch the desired educational goals but also can be exciting and exchange the lesson being taught

Audio Visual AIDS are equipment using sight or sound to present informing. To use Audio/Visual Aids in teaching you have to bridge the gap between the different types of learners by adding audio/visual aides to your teaching techniques. Implement 'show and tel l' sessions to promote student involvement. Provide audio/visual aides to demonstrate mathematical concepts to students because this will help students learn to think of complicated material in a practical way. Watch videos and movies that reinforce lesson plans. Invite guest speakers to help students learn concepts (Lalit, 1989).

Expertise in using audio-visual aids cannot be educated from a manuscript, it comes only with put into practice. The following ethics may, however, be helpful, whatever audio-visual aids an additional room agent may use. Select the aids most in agreement with your purpose, the symphony and size of the audience where the aids will be used. Use the aids to emphasize your communication. They are there for shore up, to harmonize and supplement the spoken word, and should not be expected to communicate their contents without explanation. Refer to them, explain them and ask questions about them. Make sure that the audience will be able to see and hear clearly. Audio cassettes that cannot be heard or lettering that is too small to be seen can make the audience restless and inattentive. Practice using the aids beforehand. Where projected aids are used, it is important to be completely accustomed to the equipment. For example, there are seven incorrect ways of loading a slide into a projector but only one correct way (Mirza, 1990).

OBJECTIVES OF THE STUDY

The objectives of this study were:

1. To explore the availability of use of Audio-Visual aids in Govt. Primary School of Rawalpindi city.
2. To explore the utilization of use of Audio-Visual aids in Govt. Primary School of Rawalpindi city.
3. To find out the working condition of Audio-Visual aids in Govt. Primary School of Rawalpindi city.

RESEARCH QUESTIONS

The research questions were as under:

1. To what extent the Audio Visual aids are provided in government primary schools of Rawalpindi city?
2. To what extent the Audio Visual aids are utilized in government primary schools of Rawalpindi city?
3. Are Audio Visual aids in working conditions in government primary schools of Rawalpindi city?

RESEARCH METHODOLOGY

The study was descriptive by nature and the survey was conducted to collect the data. The following procedure was adopted in this survey. There were 40 head teachers, 110 teachers and 220 students in (50%) were selected randomly as sample. The study is delimited to the Government Girls primary schools of Rawalpindi city. Qualitative data were converted into quantitative form and it was analyzed in term of percentage.

Questionnaires were administered personally to collect the data from the sample teachers, students and head teacher.

CONCLUSIONS

Based on findings of the study, following conclusions were drawn:

Although majority of the schools had electricity, yet projected AV aids such as TV, VCR, V.T.R projectors films strips, and slides were not used during classroom teaching at Primary School level. The reason is that low cost and no cost A.V. Aids e.g., Boards, Pictures, Charts, etc. were available there in the schools and were found quality wise in working condition, but modern aids e.g, computer, OHPS, T.V, VCR, VTR etc. were not available in the schools.

A.V Aids were not supplied by the Education Department in schools. Majority of the teachers were not capable of operating different projectors, because they did not receive training for the effective application of A.V. Aids. Majority of Primary School Teachers were not familiar with the use of modern A.V. Aids. Similarly the old teachers were not in the favour of the use of computers, OHPs, and other modern aids in Primary level classes.

RECOMMENDATIONS

Following recommendation were made on the basis of the conclusions of the study:

1. Modern A.V. aids of good quality e.g., Computer, OGP, T.V., VCR, VTR, etc. may be provided by the Government department to all Primary Schools where the facility of electricity is available. And such modern aids may be used by the teachers during class room teaching specially at primary school level.
2. Low cost and no cost helping material/A.V. aids may be prepared locally by the school teachers and students, and such aids may be used during teaching by the teacher. As use of coloured chalks and still pictures in the classroom teaching is in the access of school management and is effective aids for teaching and learning.

3. A special training program may be planned and launched for all working primary level teachers, in which the skills of preparation and utilization of low and no cost A.V. aids may be imparted.
- 4 Modern technologies of education and A.V. aids e.g, computer, OHPs, T.V. VCR, VTR, etc. may be provided in the schools along with the special training of the teachers for utilization of these modern aids in an effective way in the class

The pre-service primary school teaching program may be enriched with the knowledge, skills and practical work regarding the preparation and use of low and no cost material and modern A.V. aids in the process of teaching and learning

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