

A Comparative Study of Andragogically Oriented Teaching Methods (AOTM) Vs Pedagogically Oriented Teaching Methods (POTM) in Enhancing the Achievement Scores and Problem-Solving Ability of the B.Ed. Students

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Abstract:- In today's competitive world, when everything is becoming so digital and innovative, education is not the exception to it. It has been seen that students in universities are still having low independency in learning, the credit goes to the teachers who are claiming to follow new methodologies for the adult learners that are Andragogically Oriented Teaching Methods (AOTM) whereas the reality is completely opposite. Teachers are still following the Pedagogically Oriented Teaching methods (POTM) in which the role of the teacher is still the instructor. So, in this paper the researcher will study the comparative analysis of Andragogically Oriented Teaching Methods (AOTM) Vs Pedagogically Oriented Teaching Methods (POTM) in enhancing the Achievement Scores and Problem-Solving Ability of students by taking the sample of 25 each for AOTM and POTM.

Keywords:- Andragogically Oriented Teaching Methods (AOTM), Pedagogically Oriented Teaching Methods (POTM), Achievement Scores and Problem-Solving Ability.

I. INTRODUCTION

In order to obtain satisfactory learning outcomes, it becomes pre-requisite for the teachers to select the appropriate teaching method. There are whole lot of factors that is affecting the selection of teaching method, one of them is considering the age of the learners. In context to age, learners are often categorized into young learners (up to school level) and adult learners (after school i.e. in colleges, universities etc.). So, the selection of teaching method should perceive, whether the learners belong to young or adult learners.

In the philosophical level, there are two kinds of teaching methods - andragogy and pedagogy, both of them are not directly teaching methods which can be implemented in the teaching learning process. They both contribute philosophical orientation to the kinds of teaching method in the operational level. Andragogy is a philosophical teaching method orientation which caters to the needs of the adult

learners and on the other hand pedagogy teaching method is apt for the young learners. Thus, one has to apply the philosophy of teaching methodology keeping in view the age of the learners.

II. REVIEW OF RELATED LITERATURE

Whole lot of studies are being conducted on both teaching methods. **Saleh, Mujiyanto and Warsono (2018)** tried to compare the effectiveness of implementing AOTM and POTM to improve the female and male students' achievement of teaching practice, having a sample size of 87 students. The results revealed that AOTM was more effectively implemented to enhance the male students than the female ones. **Vodde (2008)** concluded that an andragogical instruction methodology is more effective than a pedagogical methodology in a police training context. **Monts (2000)** studied the suitability of andragogy or pedagogy as instructional methodology for training police recruits in the US context. The study concluded that for adult learners like police officers, an andragogical instructional methodology is a more effective process of instructions than a traditional, pedagogical methodology. **Wilson (2005)** in his research to produce a sound psychometric instrument provides insight of andragogy's effect on two students' outcomes, learning and satisfaction. The findings indicated that adult learners enrolled in MBA degree program gave evidence of learning and were not affected by andragogy. However, satisfaction with instructors and course was influenced by perception of Andragogical teaching behaviour. Finally, **Sealana (2014)** investigated and recorded the efficacy of andragogical instructional delivery methods in comparison to traditional (pedagogical) instructional delivery methods to improve teaching and training methodologies for learning government - mandated course content.

➤ Objectives of the Study

- O₁ To find out the effect of AOTM on the achievement score of the learners.
- O₂ To find out the effect of POTM on the achievement score of the learners.

- O₃ To compare the achievement scores of the learners in AOTM and POTM.
 O₄ To examine the effect of AOTM on the problem-solving ability of the learners.
 O₅ To examine the effect of POTM on the problem-solving ability of the learners.
 O₆ To compare the problem-solving ability of the learners in AOTM and POTM.

➤ *Research Questions of the Study*

- RQ₁ Does using AOTM and POTM significantly effect the achievement scores of the learners?
 RQ₂ Does using AOTM and POTM significantly effect the problem-solving ability of the learners?

Operational Definitions

Andragogically Oriented Teaching Method (AOTM): It is the method in which the learners expect the teacher to give an environment that leads to learning, give some control over the learning process and support higher levels of self-direction. (Henry, 2009)

Pedagogically Oriented Teaching Method (POTM): It is the method in which the teachers shape their actions, judgements and other teaching strategies by taking into consideration theories of learning, understanding of students, their needs, background and the interest of individual students.

Achievement Scores: It signifies the score one obtained in the achievement test which is often used in an educational system to determine the level of instruction for which a student is prepared.

Problem-Solving Ability: It involves being able to identify and define the problem, generating alternative solutions, evaluating and selecting the best alternative and implementing the selected solution.

Delimitations of the Study

- Study is confined to only one B.Ed. college of Bahadurgarh, Haryana.
- Only 50 students are taken as the sample size.
- Only two independent variables i.e. Achievement Scores and Problem-Solving Ability are taken to study the effect of POTM and AOTM.

III. DESIGN OF THE STUDY/METHODOLOGY

Type of Study - Experimental study (Quasi-Experimental)
 Sampling - Purposive Sampling.

Sample – 50 students of B.Ed. college of Bahadurgarh.

Tools

- Problem Solving Ability test by L. N. Dubey.
- Self Constructed Achievement Test.

Administration of Tools - Two sections having 25 students each will be taken. One form the group in which POTM is used and in the other one, AOTM will be applied.

Statistical Techniques Used - Mean, Standard Deviation and t-test.

IV. DATA ANALYSIS

Concerned Objectives:

- O₁ To find out the effect of AOTM on the achievement score of the learners.
 O₂ To find out the effect of POTM on the achievement score of the learners.
 O₃ To compare the achievement scores of the learners in AOTM and POTM.

Concerned Research Question:

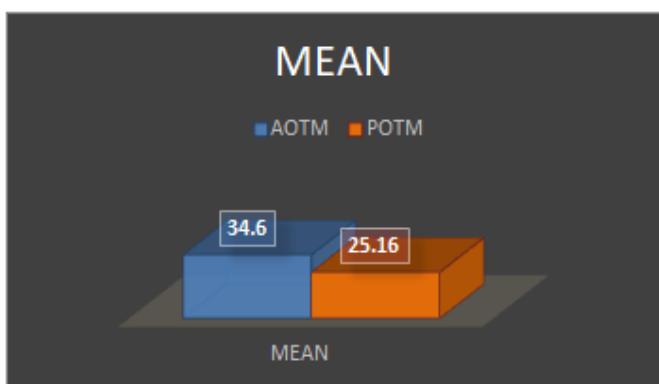
RQ₁ Does using AOTM and POTM significantly effect the achievement scores of the learners?

Table No. 1.1 Showing t-value in comparing Achievement Scores in AOTM and POTM

Sub Sample	N	Mean	S.D	Mean Differences	t-value	Level of Significance
AOTM	25	34.6	7.78	9.44	2.28	0.05
POTM	25	25.16	11.84			

0.05 Level of Significance = 2.02 & 0.01 Level of Significance = 2.70 at df 48

Above table no.1.1 has shown that the calculated t-value is greater than the table value. So, there exists significant difference in the effect of AOTM Vs POTM on the achievement scores of the learners at 5% level of significance. As the mean in AOTM is greater than in POTM that showed achievement score is higher in AOTM as compared to POTM. The mean & S.D of both are shown below:



Concerned Objectives:

- O₄ To examine the effect of AOTM on the problem-solving ability of the learners.
- O₅ To examine the effect of POTM on the problem-solving ability of the learners.
- O₆ To compare the problem-solving ability of the learners in AOTM and POTM.

Concerned Research Question:

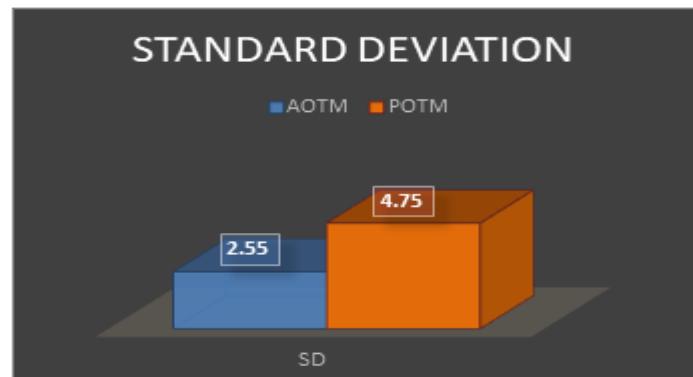
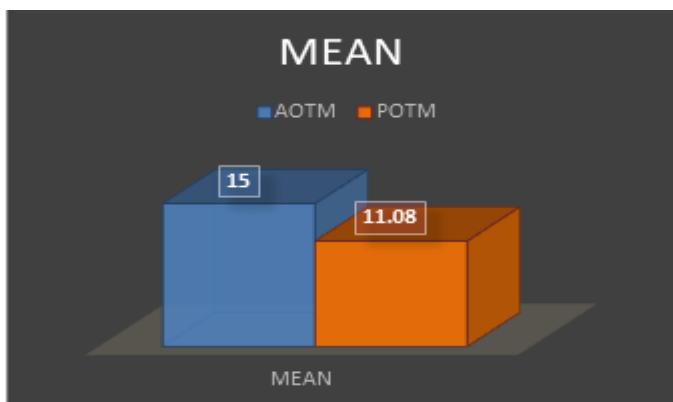
- RQ₂ Does using AOTM and POTM significantly effect the problem-solving ability of the learners?

Table No. 1.2 Showing t-value in comparing Problem Solving Ability in AOTM and POTM

Sub Sample	N	Mean	S.D	Mean Differences	t-value	Level of Significance
AOTM	25	15	2.55	3.92	2.06	0.05
POTM	25	11.08	4.75			

0.05 Level of Significance = 2.02 & 0.01 Level of Significance = 2.70 at df 48

Above table no.1.2 has shown that the calculated t-value is greater than the table value. So, there exists significant difference in the effect of AOTM Vs POTM on the problem-solving ability of the learners at 5% level of significance. As the mean in AOTM is greater than in POTM that showed problem-solving ability is higher in AOTM as compared to POTM. The mean & S.D of both are shown below:



V. FINDINGS OF THE STUDY

- Achievement Score of students in AOTM is higher than in POTM.
- The students on which AOTM are implemented have high Problem-Solving Ability than the one on which POTM are implemented.

VI. CONCLUSION

One can conclude that the above study has highlighted that the implementation of AOTM over POTM has given more conducive results in the teaching learning process especially in context to achievement scores and problem-solving ability. So, the teacher has to keep in mind the nature of the methodologies to be used taking into consideration the age of the learners.

VII. EDUCATIONAL IMPLICATIONS

As teaching is an art, so this art will be groomed by providing a proper and effective teaching methods, environment to practice these methods, arrange teaching materials also.

- Certain programs like workshops, etc. can be arranged for the students also to improve their knowledge regarding andragogical oriented teaching methods.
- Built up environment that helps the students to take challenges to use these teaching methods.

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