Educational Administration: Theory and Practice
2024, 30(6), 4365-4369
ISSN: 2148-2403
https://kuey.net/

Research Article

Impact Of Hybrid Learning On Revised Bloom's Taxonomy Among Teacher Trainees

Mrs. Jasmine. J[1*], Dr. Rita Rani Mandal[2]

[1*]Assistant Professor of Education, St. Christopher's College of Education, Chennai , Email: jasmine1972@gmail.com
[2]Associate Professor Education English, Lady Willingdon IASE, Chennai. Email: ritamajee@gmail.com

Citation: Mrs. Jasmine. J, (2024), Impact Of Hybrid Learning On Revised Bloom's Taxonomy Among Teacher Trainees, *Educational Administration: Theory and Practice*, *30*(6), 4365-4369
Doi: 10.53555/kuey.v30i6.6941

ARTICLE INFO

ABSTRACT

Hybrid learning approach has become a demanding mode to connect with the emerging learners and to be more specific, prospective teachers to be trained in handling classes through hybrid mode is the need of the hour. Revised Bloom's Taxonomy being an important content to be learnt in a teacher training course, the investigator has made an attempt to collaborate hybrid learning on Revised Bloom's Taxonomy among the prospective teachers. Investigator has meticulously prepared a module in Revised Bloom's Taxonomy and planned diligently in implementing the content through hybrid mode. The investigator adopted an experimental method to check the effectiveness of the approach on the module prepared. With the prior permission from the heads of the institution, the study was undertaken. Two groups were randomly selected and one was an experimental group and the other was a control group. Pre- test was conducted for both the groups on the content. The study went on for about two weeks both online and offline mode for the experimental group and the control group was subjected to normal classroom teaching. Post - test was conducted for both the groups. Data was analysed and the findings revealed that the treatment provided through hybrid mode was very effective when compared to the normal classroom teaching.

Keywords: Hybrid learning, Revised Bloom's Taxonomy, Prospective teachers.

1. Introduction

Teaching- Learning process revolves around the three core aspects such as Learning Outcomes, Learning Experiences and Learner's Appraisal (Assessment). All the three core aspects have been extensively dealt in the Revised Bloom's taxonomy in a structured way. The curriculum structuring and designing the content to the needs of the learners has been dealt with in detail through Revised Bloom's taxonomy. Role played by Revised Bloom's Taxonomy in writing lesson plans for taking class for the learners is enormous. As the sample taken for this study are the prospective teachers, writing of specific learning outcomes, planning the learning experiences to achieve the learning outcomes and the assessment to align with the outcomes have become an integral part of the training programme. Post pandemic and the learning of the present student community has become a tremendous challenge for the teachers, instructors or facilitators. In such a scenario, connecting with the learners as per their interest is demanding. To meet such needs, every prospective teacher has to be trained in using the technology effectively. The span of attention among the students has drastically become very short and hence variety in the teaching approach is inevitable. Hybrid learning, blended learning and flipped

classrooms are emerging to a great extent. Hybrid models cater to individual learning styles and paces, offering a mix of synchronous and asynchronous learning opportunities. Learning experiences are widely enriched through digital platforms- access to rich and updated resources, including interactive content, videos, and online libraries. Collaborative Learning approach facilitates better communication among students, between students and instructors and enriches the learning process through discussion forums, group projects, and virtual meetings. The Researcher in this study has adopted a hybrid learning approach in the experimental study and this venture has enabled the prospective teachers to develop their technological skills.

2. Review of related literatures

Boelens, R., De Wever, B., & Voet, M. (2017). Four key challenges to the design of blended learning: A systematic literature review. A systematic review of 93 studies on blended learning in higher education. Findings Identified four key challenges in designing blended learning environments: incorporating flexibility, stimulating interaction, facilitating students' learning processes, and fostering an effective learning climate. The study concluded that addressing these challenges is essential for successful blended learning implementation.

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. Findings revealed that Blended learning has transformative potential in higher education, particularly in enhancing the quality of teaching and learning through the integration of online and face-to-face instruction. Careful planning is required to bring about change in educational practice.

Owston, R., York, D. N., & Murtha, S. (2013). Blended learning policy and implementation. Sample was 235 students from a large university. Method used was survey and achievement data analysis. Students reported high satisfaction with the blended learning format, highlighting flexibility and convenience as major benefits. The study also revealed a positive correlation between students' perceptions of the blended learning environment and their academic achievement.

Liu, X., & Olsen, J. K. (2017). Analysis of scholarly articles and research studies that have applied the revised Bloom's Taxonomy in various educational contexts. The review reported that the Revised Bloom's Taxonomy has been widely adopted for designing educational objectives and assessments. It also stated that the revised taxonomy helps educators focus more on higher-order thinking skills, such as analyzing, evaluating, and creating, which are crucial for the present educational scenario.

Krathwohl, D. R. (2002). Discussion of the revised version of Bloom's Taxonomy and its implications. Method adopted for the study was Conceptual Analysis. This study revealed the overview of the changes made in the revised taxonomy, including the addition of a two-dimensional framework combining knowledge and cognitive processes.

3. Objectives of the study

1. To find out whether there is a difference in the pre-test mean scores of Revised Bloom's Taxonomy between the prospective teachers in the control group and experimental group.
2. To explore whether there is a difference in the post-test mean scores of Revised Bloom's Taxonomy between prospective teachers in the control group and experimental group.
3. To examine whether there is a difference between the pre-test and post-test mean scores of Revised Bloom's Taxonomy of prospective teachers in the control group
4. To investigate whether there is a difference between the pretest and posttest mean scores of Revised Bloom's Taxonomy of prospective teachers in the experimental group.

4. Hypotheses of the study

1. There is no significant difference in the pre-test mean scores of Revised Bloom's Taxonomy between the prospective teachers in the control group and experimental group.
2. There is no significant difference in the post-test mean scores of Revised Bloom's Taxonomy between prospective teachers in the control group and experimental group.
3. There is no significant difference between the pre-test and post-test mean scores of Revised Bloom's Taxonomy of prospective teachers in the control group
4. There is no significant difference between the pretest and posttest mean scores of Revised Bloom's Taxonomy of prospective teachers in the experimental group.

5. Methodology

Sample: 60 prospective teachers from an educational institution were selected and were randomly divided into two groups as experimental group and control group.
Experimental Design: True Experimental Design was adopted for the study. Pre-test- Hybrid learning (Treatment)- Post-test for experimental group was done. Control group was subjected to Pre-test, Normal classroom teaching and then Post-test
Preparation of the Module: Revised Bloom's Taxonomy content has been prepared as a module to facilitate a blended approach and also enhance learning with interest and thereby boost the learning experiences.
Offline classes and online classes through Google Meet were taken for the experimental group. Control group was handled by a faculty of the respective institutions with a normal classroom approach (Offline only).
Tool Preparation: A tool with 25 items on the content was prepared and content validation was done by the experts of the field.
Statistical Tests: Mean, Standard Deviation and Paired sample t - test were analysed

6. Data Analysis and Interpretation

Ho 1: There is no significant difference in the pre-test mean scores of Revised Bloom's Taxonomy between the prospective teachers in the control group and experimental group.
Table 1: t- test to find the difference in the pre-test mean scores among the prospective teachers between the Control and Experimental group.

Variable	N	Mean	SD	t- value	Sig
Control Group	30	7.40	2.472	0.240	0.812
Experimental Group	30	7.53	2.270		

Interpretation: In the above table p value (.0.812 > .05) is greater than 0 .05. Therefore, there is no significant difference between the re-test mean scores of the control group and experimental group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. Hence the null hypothesis is accepted. The mean scores of the prospective teachers in the experimental group is slightly higher than that of the mean scores of the prospective teachers in the control group.

Ho 2: There is no significant difference in the post-test mean scores of Revised Bloom's Taxonomy between the prospective teachers in the control group and experimental group.
Table 2: t- test to find the difference in the post-test mean scores among the prospective teachers between the Control and Experimental group.

Variable	N	Mean	SD	t- value	Sig
Control Group	30	7.60	2.372	5.552	.000
Experimental Group	30	12.20	3.727		

Interpretation: In the above table p value (0.000 < .05) is lesser than 0 .05. Therefore, there is a significant difference between the post-test mean scores of the control group and experimental group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. Hence the null hypothesis is rejected. The post-test mean scores of the prospective teachers in the experimental group is higher than that of the post-test mean scores of the prospective teachers in the control group.

Ho 3: There is no significant difference between the pre-test and post-test mean scores of Revised Bloom's Taxonomy of prospective teachers in the control group

Table 3: t- test to find the difference between the pre-test and post-test mean scores of Revised Bloom's Taxonomy of prospective teachers in the control group

Variable	N	Mean	SD	t- value	Sig
Pre-test Scores	30	7.40	2.472	1.439	0.161
Post-test Scores		7.60	2.372		

Interpretation: In the above table p value (1.439 > .05) is greater than 0 .05. Therefore, there is no significant difference between the pre-test and post-test mean scores of the control group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. Hence the null hypothesis is accepted. The mean scores of the prospective teachers in the post-test is slightly higher than that of the mean scores of the prospective teachers in the control group.

Ho 4: There is no significant difference between the pre-test and post-test mean scores of Revised Bloom's Taxonomy of prospective teachers in the experimental group

Table 4: t- test to find the difference between the pre-test and post-test mean scores of Revised Bloom's Taxonomy of prospective teachers in the experimental group

Variable	N	Mean	SD	t- value	Sig
Pre-test Scores	30	7.53	2.270	6.617	0.000
Post-test Scores		12.20	3.727		

Interpretation: In the above table p value (0.000 < .05) is lesser than 0 .05. Therefore, there is a significant difference between the pre-test and post-test mean scores of the experimental group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. Hence the null hypothesis is rejected. The mean scores of the prospective teachers in the post-test is higher than that of the mean scores of the prospective teachers in the experimental group.

7. Findings and Discussion

- There is no significant difference between the pre-test mean scores of the control group and experimental group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. This finding reveals that the control and experimental groups are distributed randomly in a balanced manner and the impact of hybrid learning does not have any role in the pre-test scores of the prospective teachers in both the groups.
- There is a significant difference between the post-test mean scores of the control group and experimental group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. The post-test mean scores of the prospective teachers in the experimental group is higher than that of the post-test mean scores of the prospective teachers in the control group. This finding reveals that the blended learning (treatment) is effective in the experimental group when compared to the control group which was subjected to normal classroom teaching.
- There is no significant difference between the pre-test and post-test mean scores of the control group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. The mean scores of the prospective teachers in the post-test is slightly higher than that of the mean scores of the prospective teachers in the control group. This finding reveals that the normal classroom learning (No treatment) does not bring any change in the learning environment of the prospective teachers as it did not create any interest in the control group.

- There is a significant difference between the pre-test and post-test mean scores of the experimental group of prospective teachers in learning Revised Bloom's Taxonomy through Hybrid approach. The mean scores of the prospective teachers in the post-test is higher than that of the mean scores of the prospective teachers in the experimental group. This finding reveals that the blended learning (treatment) has brought a notable change in the learning environment of the prospective teachers as it has initiated learner centered techniques and created interest in the experimental group.

8. Educational Implications

Learners of this era are more comfortable in using technology and post pandemic effects also paves way for learning integrated with mixed mode of approach in learning, teaching and also assessment. Prospective teachers, those who are in the urge to dive into the profession of teaching the techy oriented students, have to be trained in transacting the knowledge in the hybrid mode as it demands. This experimental study explicitly revealed the importance of integrating technology into the regular classroom scenario.

9. Conclusion

The findings revealed that the Hybrid Learning on Revised Bloom's Taxonomy among teacher trainees was very effective. It has widened the importance of prospective teachers learning Revised Bloom's Taxonomy by integrating technology into the classroom transaction in teaching, learning and assessment.

References

1. **Bonk, C. J., & Graham, C. R. (Eds.). (2012).** *The handbook of blended learning: Global perspectives,* local designs. Pfeiffer.
2. **Garrison, D. R., & Vaughan, N. D. (2008).** *Blended learning in higher education: Framework, principles, and guidelines*. Jossey-Bass.
3. **Horn, M. B., & Staker, H. (2014).** *Blended: Using disruptive innovation to improve schools*. Jossey-Bass.
4. **Picciano, A. G., & Dziuban, C. D. (Eds.). (2007).** *Blended learning: Research perspectives*. The Sloan Consortium.
5. **Stein, J., & Graham, C. R. (2014).** *Essentials for blended learning: A standards-based guide*. Routledge.
6. **Kaleta, R., & Aycock, A. (2010).** *Hybrid courses: Obstacles and solutions for faculty and students*. Magna Publications.
7. **Moskal, P. D., Dziuban, C. D., & Hartman, J. L. (2013)**. *Blended learning: A dangerous idea?. The Internet and Higher Education,* 18, 15-23.
8. **Singh, H. (2003).** *Building effective blended learning programs. Educational Technology,* 43(6), 51-54.
9. **Vaughan, N. D., Cleveland-Innes, M., & Garrison, D. R. (2013).** *Teaching in blended learning environments: Creating and sustaining communities of inquiry*. Athabasca University Press.
10. **Boelens, R., De Wever, B., & Voet, M. (2017).** *Four key challenges to the design of blended learning: A systematic literature review. Educational Research Review,* 22, 1-18. https://doi.org/10.1016/j.edurev.2017.06.001
11. **Graham, C. R. (2013).** *Emerging practice and research in blended learning. Handbook of Distance Education,* 3, 333-350. https://doi.org/10.4324/9780203803738
12. **Halverson, L. R., Graham, C. R., Spring, K. J., & Drysdale, J. S. (2012).** *An analysis of high impact scholarship and publication trends in blended learning. Distance Education,* 33(3), 381-413. https://doi.org/10.1080/01587919.2012.723166
13. **Hrastinski, S. (2019).** *What do we mean by blended learning? TechTrends,* 63(5), 564-569. https://doi.org/10.1007/s11528-019-00375-5
14. **Jeffries, F. L. (2018).** *The challenges of hybrid courses in higher education. Journal of Online Learning and Teaching,* 14(2), 1-15.