TECHNOLOGICAL REVOLUTION AND ITS IMPACTS ON IMPROVING VALUES, KNOWLEDGE, ATTITUDE, SKILLS, AND HABITS (VKASH) AMONG B.ED. STUDENTS

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Abstract

The digital era brings revolutionary changes in the teaching field. Student teachers need more awareness in accessing and handling technology for their teaching. The main factors of teaching are improving the values, knowledge, attitude, skills and habits among student teachers positively. Teacher Educators and student teachers work simultaneously to face the revolutionary changes in using technology in teaching and training to improve the VKASH. This study aims to analyzethe impacts and influencesof a technological revolutionin improving the values, knowledge, attitude, skills and habits of student teachers. A total of 100 student teachers in the age group of 20 and above were considered for the study. They were trained to handle the educational technology and its technique for 15 hours, and their values, knowledge, attitude, skills and habits were assessed by conducting the experimental study. Results: The results showed that there exists statistically significant improvement in values, knowledge, attitude, skills and habits among the student teachers fromthe experimental group (P < 0.001) when compared with the control group. This study suggested that after getting proper hands-on training in accessing and handling the technological tools and teaching /learning apps the student's teachers exposed their significant improvement in values, knowledge, attitude, skills and habits. These revolutionary changes may be due to the improvement and development of knowledge, skills, positive values, attitudes and habits among student teachers and that will help for their future professional growth in the field of teaching.

Keywords*: Technology, Revolution, Values, Knowledge, Attitude, Skills, Habits, Teaching Apps, Technological Tools, VKASH*

Introduction

The digital era brings revolutionary changes in the teaching field. Student teachers need more awareness in accessing and handling technology for their teaching. The main factors of teaching are improving the values, knowledge, attitude, skills and habits among student teachers positively. Teacher Educators and student teachers work simultaneously to face the revolutionary changes in using technology in teaching and training to improve the VKASH.

Materials and Methods

This study was conducted at the College of Education (Thiagarajar College of Preceptors, Madurai) and was shared daily for 60 min in the evening for 7 weeks. Participants In this study, 100 1st year student teachers in the age group of 21 years and above were selected. The participants who had practised educational technology

activity laboratory classes in the past 1-year and those who are not having exposure to educational technology activity laboratory classes are treated as a control group and they are excluded from the experimental setups. The study design was explained to the participants and made them aware that their participation would remain anonymous.

Action Plan

The samples were treated as respondents and they were divided into two equal groups, 50 students in theexperimental group and 50 students in thecontrol group. The samples are coping with the experimental setup and conditions. The Procedures were explained as per the activity and experiments were briefed to them. At the end of the activity, the experimental group and control groups were assessed to find out the differences in Values. Knowledge, Attitude, Skills and Habits. The data were collected before and after interventions for all the participants (n = 100). After completion of the experiment work the student teachers are asked to attempt the assessment procedure related to values, knowledge, attitudes, skills, and habits to cross-verify the scores and the impacts of technological revolutionary changes in teaching and learning.

Interventional strategies

The students were trained with educational technology tools and techniques for 1 week before the intervention period starts. The samples were getting exposure to the technology lab classes for each activity there was a demo class for operating the smart board applications and their features. The activity such a smart notebook, Mimio studio with audio effects, documentary camera, e-content creations, smart classroom transformation system, samacheer content module exposures through educomsoftware, and Simple mind apps. Kahoot quiz app, Text fairy apps, free online course with certificates – great learning and SWAYAM courses. After getting proper hands-on training the student teachers are highly experienced in handling the technological tools in education and there are experienced positive impacts and improvements towards values, knowledge, attitudes, skills and habit.

Statistical Analysis

Comparison between pre-intervention and post-intervention scores of each group was carried out by t-test. All the quantitative variables are summarized using descriptive statistics such as mean and standard deviation.

Table 1: Comparison of knowledge and skills and their scores before and after getting hands–on experience in handling educational technology in experimental and control groups. Dimension Mean, SD, t-value& P-value significant at 0.01 level.

Factors	Test	N	Mean	S.D	t-test	Level of significance
Knowledge	Pre-test	50	32.58	25.24	2.538*	P<0.01
	Post-test	50	45.06	28.81		
Skills	Pre-test	50	40.32	23.01	3.009*	P<0.01
	Post-test	50	48.41	28.81		

Table 1 also shows that a significant change in knowledge and skills in the experiment group was t = 2.538* which gives P < 0.01 in the case of knowledge, and t = 3.009* which gives P < 0.001 in the case of skills

Table 2: Comparison of values, attitudes, and habits before and after getting hands–on experience in handling educational technology in experimental and control groups. Dimension Mean, SD, t-value &P-value significant at 0.01 level.

Factors	Test	N	Mean	S.D	t-test	Level of significance
Values	Pre-test	50	32.581	25.24	2.610*	P<0.01
	Post-test	50	45.062	28.81		
Attitudes	Pre-test	50	20.218	15.73	3.246*	P<0.01
	Post-test	50	28.520	17.04		
Habits	Pre-test	50	18.439	22.71	3.021*	P<0.01
	Post-test	50	25.0312	23.69		

Table 2 also shows that a significant change in values, attitudes, and habits inthe experiment group was t = 2.610* which gives P < 0.01 in the case of values, t = 3.246* which gives P < 0.001 in the case of attitude, t = 3.021* which gives P < 0.01 in case of and habits.

Results

In comparison between the two groups, before and after the intervention the scores of the control group and intervention group were differences in their experiences towards values, knowledge, attitude, skills and habits. Results suggest that the experimental group practising educational technology applications had significant improvement in values, knowledge, attitude, skills and habits in comparison to that of the control group. This result may be due to continuous hands-on training achieved due to training in educational technology laboratory demonstration classes. Comparison between before and after the intervention of values, knowledge, attitude, skills and habits of the scores of the control group was done using paired t-test, and the results along with mean and standard deviation are given in Table 1& Table 2. This result shows significance at 0.01 level in the experimental group.

Discussion

In this study, the role of learning educational technology in values, knowledge, attitude, skills and habits of training student teachers was done in a short duration of 15 hours of activity classes every week from Monday to Friday between 4.00-5.00 PM completed working days. A comparison was done between the experimental group and the control group using attitude, values and habit-related intervention scales. The results suggest that the group getting hand –training in handling educational technology had significant improvement in values, knowledge, attitude, skills and habits. in comparison to that of the control group. This result may be due to students' interest, involvement and commitment to learning revolutionary technology in the field of education, especially in teaching the students to achieve high experience in values, knowledge, attitude, skills and habits. Educational values, following ethics in handling android mobile phones, and smart boards, developing their positive attitudes towards handling technology, which is beneficial for their learning, their habits are updated and coping with the recent trends and changes in technology.

Conclusion

Tremendous changes in technology,influence the teaching and learning process. Students in this digital era are highly sharp in thinking and reflect smart performances in their learning. So, the present teachers and future teachers also need to update their skills in teaching by adopting revolutionary technologies which will help in improving the VKASH among students. The main role of the teacher is to channel the student in the right direction and it is the responsibility of the teacher to teach the merits and demerits of technological use thatwill develop the student's positive attitudes, values and good habits. This experimental study suggested that student teachers getting regular drills and practice for a short duration helps inimproving thevalues, knowledge, attitude, skills and habits of student teachers. The researcher alsosuggested that one of the best strategies for improving academic performance is expanding the use of revolutionary technology in teaching and learning.

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