

## Effectiveness of the Use of Social Media Package Training on Achievement of Student Teachers

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### Abstract

Social networking services are increasingly being used by educators as teaching and learning tools that supplement traditional classroom environments as they provide new opportunities for enriching existing curriculum through creative, authentic and flexible nonlinear learning experiences. Form chat rooms, discussion forums, blogs and wikis, services like face book, and/or virtual worlds like second life, social networking tools are being meaningfully added to curriculum. The use of social networking services in education has been shown to benefit education a number of ways by supporting social learning, constructivist teaching practices, authentic instruction, student centered learning, and on demand access to learning. In this context, the study was conducted to find out the effectiveness of the use of social media packages on achievement of student teachers. The sample consists of 100 student teachers in Bulandshahar. The content of the education was prepared by the investigator. The statistical technique 't' test was used. The educational implications and suggestions for further study are also given at per with the findings of the study.

**Key Word:** Introduction, Need for the Study, Effectiveness, Social Media Package Training, Achievement, Student Teachers, Conclusion.

### I. Introduction

Teachers must also be able to use social media to manage classroom data and support their own professional development. Teacher competencies related to the knowledge deepening approach include the ability to manage information, structure problem tasks and integrate open-ended software tools and subject specific applications with student centered teaching methods to solve complex and real-world problems. Teachers would use network resources to help students collaborate, access information and communicate with external experts to analyze and solve their selected problems. Teacher should also be able to use social media to create and monitor individual and group student project plans as well as access experts and collaborate with other teachers making use of networks to access information, colleagues and other experts in supporting their own professional development. Achievement has been variously defined as a level of proficiency attained in academic work or as formally acquired knowledge in subjects, which is often represented by percentage of

marks obtained by students in examinations. Researchers have shown that besides being the criteria of promotion to the next class, achievement is an index of all future successes in life.

### II. Need for the Study

The present day students are in a digital era of learning. During their training period they acquire a wide range of information from various like Internet, media books and journals. They came into contact with worldwide friends using twitter, face book and Google groups. They can get in touch with their friends through e-mail, whatsapp, video conferencing and smart phones. By using such modern gadgets, they feel comfortable student teachers also use Internet for their various educational needs and thereby develop various skills. Systematic researches are necessary to develop a social media skills, particularly, the concepts like ICT in education to the student teachers so as to see its effectiveness over the lecture method. As per the knowledge of researcher so far no such systematic effort has been undertaken to develop social media skills, for teaching to the

student teachers of teacher education courses or to effectively make use of the readily available social media on the net which are suitable for teaching to the teacher education level students. Hence the present project has been attempted to make use of the social media, which are readily available on the net and suitable for the purpose of teaching to the teacher education level with the view to finding out this effectiveness.

### III. Title of the Problem

The problem of the study is stated as, "Effectiveness of the Use of Social Media Package Training on Achievement of Student Teachers".

#### iii. A. Operational Definitions of Key Terms

##### *Effectiveness*

In this project effectiveness means the capability of producing an effect, and is most frequently used in connection with the degree to which something is capable of producing a specific, desired effect.

##### *Social Media Package Training*

Social media package refers to the means of interactions among people in which they create share, exchange and comment contents among themselves in virtual communities and networks. Social media are web 2.0 applications. It allow user to interact, collaborate in social media. Web 2.0 also allows creating user generated content in a virtual community. In this study social media package training include face book, twitter, linked in, you tube, online communication, video conferencing and email that are used either for communication purposes or in some aspect of teaching or training.

##### *Achievement*

Achievement means the knowledge attainment or skills developed in the school subject usually determined by test scores or by marks assigned by teachers or both. In this study achievement test was conducted to student teachers.

##### *Student Teachers*

Student teachers are those undergoing course for the first degree qualification in education studies. They are the student teachers who undergo preservice training on learning process that provides experiences for development towards good teaching their entry qualification is under graduate.

### IV. Objectives

1. To find out whether there is any significant difference between achievements of student teachers with respect to group irrespective of gender.
2. To find out whether there is any significant difference between achievements of student teachers with respect to gender irrespective of group.
3. To find out whether there is any significant difference among achievement of student teachers in the group and gender interaction.

### V. Hypotheses

1. There is no significant difference between the mean scores of achievement of student teachers with respect to group irrespective of gender.
2. There is no significant difference between the mean scores of achievement of student teachers with respect to gender irrespective of group.
3. There is no significant difference among the mean scores of achievement of student teachers in the group and gender interaction.

### VI. Methodology

Pre-test, Post-test Parallel Group Design is adopted for the study.

#### **The Sample**

The experiment was conducted on the total sample size of 100 student teachers consisting of 50 for control group students and 50 for experimental group students of the B.Ed. students studying in D.P.B.S.P.G. College Anupshahar Bulandshahar using simple random sampling method.

#### **The Tool**

Social Media Package Training program and Achievement Test was constructed by the investigator. A treatment is something that researcher administers to experimental units. Treatment was given to both control group and experimental group by employing traditional method and teaching through social media respectively. The treatment time spread over 30 days seems to be adequate for the purpose. The day wise schedule was well designed and implemented. The experimental group student teachers got training through social media package. The control group student teachers gained training through traditional method

alone. After the treatment achievement test was conducted to the student teachers. The investigator framed achievement test questions (2014) to the student teachers in the form of objective type questions were framed covering all the papers of B.Ed., course was taken from their syllabus, to test the effectiveness of social media training in teaching and learning for the experimental group and the traditional method for control group. Blue print was prepared for frame the questions. Multiple choices were the types of questions used in this achievement test. The questions were framed so as to suit the level of student teachers. The items included in the final form of achievement test were selected on the basis of item analysis. Initially 65 questions of objective type in nature were framed for tryouts. 100 percent multiple choice test items were framed for the achievement test and the final form consists of only 50 questions; for the reason of removal of above 80 % and below 20% difficulty index and discriminating power. It was prepared in both languages the English and English.

In total the 50 questions are taken for 100 marks to the student teachers. Two marks were given for each correct answer.

**VII. Delimitations of the Study**

1. This study was limited to Bulandshahar district U.P. only.
2. The information is gathered only from student teachers who were studying in the colleges of education through scale.
3. Only a few background variables of student teachers gender and subject were selected.

**VIII. Analysis and Interpretation of Data**

**Table 1**

**Summary of Mean, Standard Deviation and the Number of Student Teachers on Achievement with respect to Gender**

Category	Mean	S.D.	Number
Control Group	47.98	3.85	50
Experimental Group	75.70	11.25	50
Male	48.43	2.51	20
Female	62.85	16.40	80
Control Group – Male	47.33	2.52	10
Control Group – Female	48.02	3.94	40

Experimental Group – Male	49.25	2.50	10
Experimental Group – Female	78.00	8.36	40
Overall	61.84	16.25	100

**Hypothesis No.1**

There is no significant difference between the mean scores of achievement of student teachers with respect to group irrespective of gender.

**Table 2**

**Summary of Analysis of Variance for 2 x 2 Factorial Experiment on Achievement with respect to Gender**

Source of Variance	Sum of Squares	df	Mean Squares	F-value
Group	1624.20	1	1624.20	40.12*
Gender	1383.56	1	1383.56	34.18*
Group * Gender	1257.25	1	1257.25	31.06*
Error	3886.40	96	40.48	
Total	408558.00	100		

\*Significant at .05 level of confidence.

(The table value required for significance at .05 levels with df 1 and 96 is 3.94)

Table 2 shows that the F-ratios for group and subject are 40.12 and 34.18 against 3.94 (df 1 and 96) respectively which are significant at 0.05 level on achievement. Hence, the null hypotheses, “There is no significant difference between the mean scores of achievement of student teachers with respect to group irrespective of gender” and “There is no significant difference between the mean scores of achievement of student teachers with respect to gender irrespective of group” are rejected. Since group has only two categories, it can be directly implied that the student teachers of experimental group (mean=75.70) are better than the control group (mean=47.98) irrespective of gender on achievement. Also since the gender has only two categories, it can be directly implied that the student teachers of female (mean=62.85) are better than the male (mean=48.43) irrespective of group on achievement.

Further, the F-ratios for group and gender interaction is 31.06 against 3.94 (df 1 and 96) which is significant at 0.05 level on achievement. Hence the Null Hypothesis, “There is no significant difference among the

mean scores of achievement of student teachers in the group and gender interaction” is rejected. Since the interaction of group and gender on achievement is significant, to determine the significant difference among each combination of group and gender interaction, simple effect post hoc test was followed and the results as follows.

**Table 3**  
**Simple Effect Post Hoc Test for Group and Gender Interaction on Achievement**

Source of Variance	Sum of Squares	df	Mean Squares	F-value
Group at Male	11.73	1	11.73	0.29
Group at Female	2869.72	1	2869.72	70.89*
Male at Control Group	1.51	1	1.51	0.04
Female at Experimental Group	2639.30	1	2639.30	65.20*
Error within	3886.40	96	40.48	

\*Significant at .05 level of confidence. (The table value required for significance at .05 level with df 1 and 96 is 3.94). Table-3 shows that ‘F’ ratios for group at female and female at experimental group are 70.89 and 65.20 respectively which are higher than the required table value 3.94 (with df 1, 96) at 0.05 level of significance and the F-ratios for Group at male and male at control group are 0.29 and 0.04 respectively which are insignificant at 0.05 level of significance. Since the group has only two categories, it can be directly implied that at female, the student teachers of experimental group (mean = 78.00) are better than the control group (mean = 48.02) irrespective of group and since the gender has only two categories, it can be directly implied that at experimental group, the student teachers of female (mean = 78.00) are better than the male (mean = 49.25).

**Table 4**  
**Summary of Mean, Standard Deviation and the Number of Student Teachers on Achievement with respect to Subject**

Category	Mean	S.D.	Number
Control Group	47.98	3.85	50
Experimental Group	75.70	11.25	50
Arts Group	58.50	12.49	38

Science Group	63.89	17.96	62
Control Group - Arts Group	47.71	3.22	17
Control Group - Science Group	48.12	4.18	33
Experimental Group - Arts Group	67.24	10.06	21
Experimental Group - Science Group	81.83	7.52	29
Overall	61.84	16.25	100

**Hypothesis No.2**

There is no significant difference between the mean scores of achievement of student teachers with respect to gender irrespective of group.

**Table 5**  
**Summary of Analysis of Variance for 2 x 2 Factorial Experiment on Achievement with respect to Subject**

Source of Variance	Sum of Squares	df	Mean Squares	F-value
Group	16553.02	1	16553.02	366.57*
Subject	1314.88	1	1314.88	29.12*
Group * Subject	1173.33	1	1173.33	25.98*
Error	4334.99	96	45.16	
Total	408558.00	100		

\*Significant at .05 level of confidence. (The table value required for significance at .05 level with df 1 and 96 is 3.94) Table 5 shows that the F-ratios for group and subject are 366.57 and 29.12 against 3.94 (df 1 and 96) respectively which are significant at 0.05 level on achievement. Hence, the null hypotheses, “There is no significant difference between the mean scores of achievement of student teachers with respect to group irrespective of subject” and “There is no significant difference between the mean scores of achievement of student teachers with respect to subject irrespective of group” are rejected. Since group has only two categories, it can be directly implied that the student teachers of experimental group (mean=75.70) are better than the control group (mean=47.98) irrespective of subject on achievement. Also since the subject has only two categories, it can be directly implied that the student teachers of science group (mean = 63.89) are better than the

arts group (mean = 58.50) irrespective of group on achievement.

Further, the F-ratios for group and subject interaction is 25.98 against 3.94 (df 1 and 96) which is significant at 0.05 level on achievement. Hence the Null Hypothesis, "There is no significant difference among the mean scores of achievement of student teachers in the group and subject interaction" is rejected.

### Hypothesis No.3

There is no significant difference among the mean scores of achievement of student teachers in the group and gender interaction. Since the interaction of group and subject on achievement is significant, to determine the significant difference among each combination of group and subject interaction, simple effect post hoc test was followed and the results as follows.

**Table 6**  
**Simple Effect Post Hoc Test for Group and Subject Interaction on Achievement**

Source of Variance	Sum of Squares	df	Mean Squares	F-value
Group at Arts group	4456.12	1	4456.12	98.68*
Group at Science Group	13270.25	1	13270.25	293.88*
Subject at Control Group	2.01	1	2.01	0.04
Subject at Experimental Group	2486.19	1	2486.19	55.06*
Error within	4334.99	96	45.16	

\*Significant at .05 level of confidence.

(The table value required for significance at .05 level with df 1 and 96 is 3.94).

Table 6 shows that 'F' ratios for group at arts group, group at science group and subject at experimental group are 98.68, 293.88 and 55.06 respectively which are higher than the required table value 3.94 (with df 1, 96) at 0.05 level of significance and the F-ratios for subject at control group is 0.04 which is insignificant at 0.05 level of significance. Since the group has only two categories, it can be directly implied that at arts group, the student teachers of experimental group (mean=67.24) are better than the control group (mean=47.71) irrespective of group; at science group, the student teachers of experimental group (mean =

81.83) are better than the control group (mean = 48.12) irrespective of group and since the subject has only two categories, it can be directly implied that at experimental group, the student teachers of science group (mean = 81.83) are better than the arts group (mean=67.24).

### IX. Findings of the Study

1. There was significant difference between the mean scores of achievement of student teachers with respect to group irrespective of gender. The student teachers of experimental group (mean = 75.70) are better than the control group (mean = 47.98) irrespective of gender on achievement.
2. There was significant difference between the mean scores of achievement of student teachers with respect to gender irrespective of group. The student teachers of female (mean=62.85) are better than the male (mean=48.43) irrespective of group on achievement.
3. There was significant difference among the mean scores of achievement of student teachers in the group and gender interaction. At female, the student teachers of experimental group (mean=78.00) are better than the control group (mean=48.02) irrespective of group. At experimental group, the student teachers of female (mean =78.00) are better than the male (mean= 49.25).
4. There was significant difference between the mean scores of achievement of student teachers with respect to group irrespective of subject. The student teachers of experimental group (mean=75.70) are better than the control group (mean=47.98) irrespective of subject on achievement.
5. There was significant difference between the mean scores of achievement of student teachers with respect to subject irrespective of group. The student teachers of science group (mean = 63.89) are better than the arts group (mean=58.50) irrespective of group on achievement.
6. There was significant difference among the mean scores of achievement of student teachers in the group and subject interaction. At arts group, the student

teachers of experimental group (mean=67.24) are better than the control group (mean=47.71) irrespective of group; at science group, the student teachers of experimental group (mean=81.83) are better than the control group (mean=48.12) irrespective of group. At experimental group, the student teachers of science group (mean = 81.83) are better than the arts group (mean = 67.24).

#### **X. Conclusion**

By comparing the mean scores of the control group and experimental group students, it is

found that the rate of progress made by the experimental group is high. The experimental group students taught through social media package understood the concept. Learning with social media really works, as children hear and see the whole matters and absorb the concept through videos, audio, graphics, animation and text. It's an easy way for them to learn and remember the concepts. This clearly reveals that if the student teachers are encouraged to participate in the classroom activities, the scope for developing social media competency, achievement and achievement is better.

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