

A study on awareness of web 2.0 resources in education among B.ed students

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Abstract

The objective of the study is to compare the awareness of web 2.0 resources in education among B.Ed students of govt. and private institutions of teacher education. The sample for the study comprised of 200 B.Ed students (100 govt. & 100 private) among them 50 male and 50 female from each college. The tool used for the data collection was Inventory for Awareness of web 2.0 resources in education developed and standardized by the investigators. The study revealed that the B.Ed students from government colleges possess higher level of awareness of web 2.0 resources than the students from private colleges. Also, it was found that male students from government and private teacher education colleges have higher level of awareness of web 2.0 resources in education than female students. However, there was no significant difference between the awareness of web 2.0 resources in education among female students from government and private B.Ed colleges.

Keywords: awareness, web 2.0 resources, b. ed students, teacher education

Introduction

The education system of every nation is a touchstone of its growth and development. The advancement of each society, community, and nation is highly depended upon competency and quality of teachers. The Education Commission (1964) [4], rightly commended that the destiny of a nation is shaped in her classroom and teachers are highly responsible for attaining the prosperity of nation. National Policy on Education (1986) [9], also highlighted the saying that no nation can rise above the level of its teachers. The nature and quality of professionalization of teachers is key factor in quality of education. The educational undertakings without ensuring and giving proper provisions to develop and maintain teachers' professional development especially in student teachers will be ineffective. Sticking on traditional and outdated teaching methodologies may challenge the teacher capacity and competence in current educational scenario. It is very important to enhance the professionalism in student teachers for channelize their teaching effectiveness in relation to needs of the time. The technology mediated teaching learning especially incorporation of web 2.0 resources certainly bring better professionalism in prospective teachers.

Web 2.0 Tools and Resources and its Educational Importance

The term web 2.0 was coined by Darci Di Nucci in 1990 and it is popularized by O' Reilly and Dale Dougherty in 2004. The term is now mostly used for a second generation of World Wide Web enabling the people to collaborate and share information online. It can be referred as a transitional change from dynamic HTML of

first web generation to static and organized form of web pages. The prime hallmarks of web 2.0 technologies are it allows its users to interact and for collaborating each other. Web 2.0 technologies brought drastic change in its users from passivity of learning to more active participation, learner engagement, creation and sharing. The Studies of Garofalakis, Lagiou and Plessas, (2013) [5], & Singh, A. (2013) [10], reported that web 2.0 technologies are essential in the educational practices of current scenario and it gives high level result in both school and higher education. Bates T. (2011) has identified some major tools used in education as parts of web 2.0 technologies which are as follow:

- Wikis
- Blogging
- Social Networking
- Synchronous Communication
- Multi Media Archives, and
- M- Learning

Wikis

Wikis are collaborative website that anyone from the community of its users can contribute to or edit. It can be open to a global audience or can be restricted to only a selected network or community. Wikis commonly cover a specific topic or subject area. Wikipedia is the best example of web 2.0 technology as it is freely accessible and anyone create the content and edit the content prepared by others. Wikis are important open source to obtain information and knowledge, and also as a mode of virtual interaction and collaboration. It enables to share dialogue and information among participants in group and allow learners to engage in learning with each other.

Blogging

Blogs are online personal journals or diaries which may be frequently updated. It gives students public spaces to interact and discuss for teaching and learning process. It also helps to link communication between study groups within a class or other classes either same schools or outside schools. It can create an effective and interesting learning environment that extends beyond the premise of schools. There are more than thousands of blogs as each teacher can prepare blogs for his or her own classroom purposes.

Social Networking

Social media can be referred as a group of online based applications based on Web 2.0 technology and it allows the users in creating and sharing the user-generated content. Social media networking is a pivotal in the educational practices of current scenario as each student having any kind of digital connection become a link in this network. There are many social networking platforms specifically designed for educational purposes and social media such as face book, Twitter, My space etc. also can be used for educational purposes which maximizes learners collaboration and educational discussions on virtual platforms.

Synchronous Communication

The synchronous communication as web 2.0 technology facilitate online interactive classes, discussions, seminars and debates either free of cost or any mode of payment. This online interactive class gives the students quality live classes and discussion from eminent universities, institutions and other colloquiums. It helps to boost student's professionalism and enable them to bring in to global standard education. Using synchronous communication system MOOC, edX, SWAYAM etc. provides quality online classes.

Multi Media Archives

Online interactive classes are not so flexible and cannot be accessed at any time according to the convenience of learners. Though there is no interactive and live streaming facility there are thousands of lectures and discussions in online platforms which may be available in *YouTube* or any other educational tubes and learners can access at any time according to their convenience.

M- Learning

M- Learning (Mobile Learning) is learning through the internet or any online network using personal mobile devices, such as i-pads, tablets and smart phones. Mobile devices are used to search and obtain learning materials through mobile apps, social interactions and online educational hubs and platforms. It enables the learning easy and flexible, allowing the learners to access to education anywhere, anytime without any barriers. It facilitates a way for educational institutions to deliver knowledge and educational content to students on any platform, any place and at the time of need. Students can use mobile apps and other tools to upload their

assignments to teachers, download course instruction, prepare e-port folios etc. and work in online social groups to for effective teaching and learning process.

Review of Related Studies

The review of related studies on web 2.0 tools and resources in education shows various results. The study conducted by Ahamed *et al.* (2016) ^[1]. Reported that there is only moderate use of web 2.0 tool among university teachers and it is used mainly for scientific researches. It is also reported that there is significant difference in using web 2.0 tools based on departmental specialization. Majid (2014) ^[8]. Concluded that 74% of graduate students showed a positive attitude towards using it and 66% students prefer 2.0 resources for effective and meaningful educational purposes. Garofalakis, *et al.* (2013) ^[5]. Found that there is great achievement and success in students after application of web 2.0 tools and resources in teaching and it enables very flexibility and efficiency in teaching and learning performance at secondary education. Tyagi, (2012) ^[11]. Revealed that most of the university faculty members using web 2.0 tools and resources for teaching and research, interactive learning and to keep themselves update on related topic of interest. Bennett *et al.* (2012) ^[3]. Concluded that most of the students had little prior experience with relevant web technologies and many students unaware and struggled to see the value of using web 2.0 technologies for learning and teaching.

Significance of the Study

The attitude and competency of teachers in technology mediated teaching and learning is a great concern for professional development of teachers. The proper integration and incorporation of technology especially latest web based teaching and learning cannot be ignored in the current educational scenario. All the students of current time either from school or higher education are from 'digital natives' which necessitates the teachers to go par with students digital tastes in learning. The students of new generation spend a lot of time to be engaged with technological devices and if a teacher cannot integrate these tools in his or her pedagogical practices the teacher cannot attract the student's attention that will affect their academic development too Gutnick, Robb, Takeuchi, & Kolter (2011) ^[7]. The application and effective integration of most modern technological tools for teaching and learning purposes will give better results as students are very capable and aware to handle these digital tools and resources Greenhow, Robelia, & Hughes (2009) ^[6]. The awareness and competence of students are very important; if student teachers are not aware of latest technologies especially in web based teaching and learning that will be a staggering in academic performance and their professional development when they enter into actual school teaching. Hence, it very necessary to conduct proper studies to analyze the awareness of student teachers on latest technologies to equip them to meet the challenges in relation to technological mediation and integration in education.

Objectives of the study

1. To find out the difference in awareness of web 2.0 resources in education between the B.Ed students from Government and Private teacher education Colleges.
2. To find out the difference in awareness of web 2.0 resources in education between male and female B.Ed students from Government teacher education Colleges.
3. To find out the difference in awareness of web 2.0 resources in education between male and female B.Ed students from Private teacher education Colleges.
4. To find out the difference in awareness of web 2.0 resources in education between male B.Ed students from Government and Private teacher education Colleges.
5. To find out the difference in awareness of web 2.0 resources in education between female B.Ed students from Government and Private teacher education Colleges.

Hypotheses of the study

1. There will not be significant difference in awareness of web 2.0 resources in education between B.Ed students from government and Private teacher education Colleges.
2. There will not be significant difference in awareness of web 2.0 resources in education among male and female B.Ed students from Government teacher education Colleges.

3. There will not be significant difference in awareness of web 2.0 resources in education between male and female B.Ed students from Private teacher education Colleges.
4. There will not be significant difference in awareness of web 2.0 resources in education among male B.Ed students from Government and Private teacher education Colleges.
5. There will not be significant difference in awareness of web 2.0 resources in education among female B.Ed students from Government and Private teacher education Colleges.

Methodology

The present study is based on survey method. The sample for the study is comprised of 200 B.Ed students (100 from govt. colleges & 100 from private colleges) from Malappuram and Kozhikkode districts of Kerala by using stratified random sampling technique. The tool used for the study is Awareness Inventory of Web 2.0 Resources in Education developed by the researchers. The Inventory consists of 30 items from the six domains of Web 2.0 resources i.e. - Open Content, Blogs, Social Networking, Synchronous Communication, Media Archives and M-Learning. The tool is three point scale having the options 'Agree', 'Disagree' and 'I don't Know' which have the score 3, 1, and 0 respectively. The statistical techniques used for analyzing the data are mean, standard deviation and *t* test.

Analysis and Discussion

Table 1: Comparison of awareness of B.Ed students from Government and Private Colleges on web 2.0 resources in Education

Group	N	Mean	SD	<i>t</i> value	Level of significant
Government B.Ed Students	100	59.92	8.97	2.71**	Significant at 0.01
Private B.Ed Students	100	56.37	9.56		

The table-1 shows that the mean score for awareness on web 2.0 resources in education of B.Ed students from Government colleges is 59.92 with standard deviation 8.97, while the mean score of students from private colleges is 56.37 with 9.56 SD. The computed *t* value is 2.71 which is greater than the tabulated value at 0.01 level. So, the null hypothesis is rejected as there is

significant difference in the awareness of web 2.0 resources in education between B.Ed students from government teacher Education Colleges and the students from private colleges. The B.Ed students from government colleges are having higher level of awareness on web 2.0 resources in education than the B.Ed students from private colleges.

Table 2: Comparison of awareness of male and female B.Ed students from Government Colleges on web 2.0 resources in Education

Group	N	Mean	SD	<i>t</i> value	Level of significant
Govt. Male Students	50	63.88	9.15	4.35**	Significant at 0.01
Govt. Female Students	50	56.06	8.79		

It is obvious from table -2 that the mean score for awareness on web 2.0 resources in education of male B.Ed students from Government colleges is 63.88 with a SD of 9.15, while the mean score of female students from government colleges is 56.06 with a standard deviation of 8.79. The computed *t* value is 4.35 which is greater than the table value at 0.01 level. So, the null hypothesis is

rejected as there is significant difference in the awareness of web 2.0 resources in education between male and female B.Ed students of government teacher Education College. The male B.Ed students are possessing higher level of awareness on web 2.0 resources in education than their female counterpart.

Table 3: Comparison of awareness of male and female B.Ed students from Private Colleges on web 2.0 resources in Education

Group	N	Mean	SD	<i>t</i> value	Level of significant
Private Male Students	50	59.97	8.96	3.76**	Significant at 0.01
Private Female Students	50	52.76	10.15		

From the table-3, it is clear that the mean score for awareness on web 2.0 resources in education of male B.Ed students from private colleges is 59.97 with a standard deviation of 8.96, while the mean score of female students from private colleges is 52.76 with a SD of 10.15. Since, the computed *t value* is 3.76 which are more than the table value at 0.01 levels. So, the null

hypothesis is rejected as there is significant difference in the awareness of web 2.0 resources in education between male and female B.Ed students of private teacher Education College. The male B.Ed students are having higher level of awareness on web 2.0 resources in education than their female counterpart

Table 4: Comparison of awareness of male B.Ed students from Government and Private Colleges on web 2.0 resources in Education

Group	N	Mean	SD	<i>t value</i>	Level of significant
Government Male Students	50	63.88	9.15	2.15 *	Significant 0.05
Private Male Students	50	59.97	8.96		

It is evident from table - 3 that the mean score for awareness on web 2.0 resources in education of male B.Ed students from government colleges is 63.88 with a SD of 9.15, while the mean score of female students from private colleges is 59.97 with 8.96 SD. Since, the computed *t value* is 2.15 which is greater than the table value at 0.05 level. So, the null hypothesis is rejected as

there is significant difference in the awareness of web 2.0 resources in education between male B.Ed students from government and private Education Colleges. The male B.Ed students from government colleges are having higher level of awareness on web 2.0 resources in education than the B.Ed students from private colleges.

Table 5: Comparison of awareness of female B.Ed students from Government and Private Colleges on web 2.0 resources in Education

Group	N	Mean	SD	<i>t value</i>	Level of significant
Govt. Female Students	50	56.06	8.79	1.73	Not Significant
Private Female Students	50	52.76	10.15		

The table - 3 shows that the mean score for awareness on web 2.0 resources in education of female B.Ed students from government colleges is 56.06 with standard deviation of 8.79, while the mean score of female students from private colleges is 52.76 with 10.15 SD. Hence, the computed *t value* is 1.73 which is less than the table value at 0.05 levels. So, the null hypothesis is accepted as there is no significant difference in the awareness of web 2.0 resources in education between female B.Ed students from government and private Education Colleges.

2.0 resources for education. The male B.Ed students from government colleges are having higher level of awareness on web 2.0 resources in education than the male student from private colleges.

- There is no significant difference between female B.Ed students from government colleges and Private colleges on awareness of web 2.0 resources in education

Findings of the Study

- There is significant difference in awareness of web 2.0 resources in education between the B.Ed students of Government and Private teacher education Colleges. The B.Ed students from government colleges are having higher level of awareness than the B.Ed students from private colleges.
- There is significant difference in awareness of web 2.0 resources for education between male and female B.Ed students of Government teacher education Colleges. The male B.Ed students are having higher level of awareness on web 2.0 resources in education than their female counterpart.
- There is significant difference in awareness of web 2.0 resources for education between male and female B.Ed students from Private teacher education Colleges. The male B.Ed students are having higher level of awareness on web 2.0 resources in education than their female counterpart.
- There is significant difference between Government and Private male B.Ed students on awareness of web

Conclusion and Educational Implications

The role of technology especially latest generation of web 2.0 tools and resources in education is very imperative. A teacher cannot make the class more interesting and effective without proper awareness of web tools and resources and competency to utilize it. The study indicates that the B.Ed students of government colleges possess higher level of awareness of web 2.0 resources in education than the B.Ed students of private colleges. It shows that govt. colleges are well versed in terms of human and physical resources i.e. – qualified and well trained teacher educators in the field of computer and information technology along with well furnished CIT lab with internet facility and all required support systems. Therefore, it is suggested that the private colleges must fulfill all requirements in this regard to make the college environment a conducive and congenial for both students and teachers in creating proper awareness of modern technologies in the field of teaching and learning. Further, it was revealed that male B.Ed students were more aware about web 2.0 resources in education than their female counterparts. This may be due to male students get more exposure to modern technologies and also motivated to use latest web

technologies for their educational purposes. Hence, it is the responsibility all concerned to provide the facilities of latest technologies to female students and also encourage them to use the same for their teaching and learning purposes.

The study depicts the need to give special attention to incorporate the latest web resources in the process of teaching and learning. Also, it is essential for the teacher educators to use and integrate these technological devices in class room practices which will boost up their capabilities and professional development and thereby helpful in creating interest among students for better learning. Therefore, we may conclude that technology mediated teaching and learning is the need of hour and proper integration of web 2.0 resources in teaching and learning will surely have a positive impact in creating knowledge based society in the current educational scenario.

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