Strength of Traditional and Social Media in Education: A Review of the Literature

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Abstract: While media are very broad ranging from printed materials to advanced technological tools, each of them has different strengths and limitations in terms of purpose and types of tools itself (Smaldino, Lowther, & Russell, 2012, p.5). With the wide ranges of purposes, the applications of media are also greatly expanded without any limitation in the specific field. Thus, it is very important to know the various aspects of media for its meaningful application. This study is mainly concerned with the media in education and investigate different types of media and its impact in teaching and learning. In addition, it illustrates how traditional media and social media have been integrated in education. Finally, this study concludes the purpose of using traditional media. Moreover, the three major purposes of using social media in education as (i) instructional tool, (ii) collaborative learning tool and (iii) learner’s engaging tool were also discussed.

Keywords: instructional tool; collaborative learning tool; learner’s engaging tool.

I. Traditional Media

Traditional media like printed materials (newsletter, bulletin board), radio and television has been using in teaching and learning. Among which, printed materials and radio is considered as user friendly and cost-effective tools. Electronic media like TV is also very popular in educational settings.

Printed Newspaper

In 1998, program named newspaper in education (NIE) which was scheduled for every Monday, had been provided with the special school rates with the purpose of “exposing students to real world”, “making better citizens and entertain” and “creating future newspaper readers” to 750 (private and public) schools in the St. Louis of US. About 75,000 students and 2,500 teachers had access to that newspaper (NIE, 1998). In summary, the program aimed to enlighten the application of newspaper (providing access of newspaper to schools, teachers and students) in education. To find out the effectiveness of NIE program in real schools, Sargent and colleagues (2009) conducted a quantitative research to find out the answer to two major questions: (i) is the newspaper is as an “instructional tool”?; and (ii) to study the level of reading attitudes of boys and girls. Researchers had employed newspaper named newspaper in education in 12 classrooms (grade 3, 4, 5) including 217 participants from Midwestern school districts. Prior to the intervention, all participants were given the elementary reading attitudes survey during the first month of the school year. At this stage, results show that statistically it was not significant which means that all the participants do have the same level of reading ability. Then, newspaper (named newspaper in education) was implemented in six classes; the other six classes were not provided. The treatment group used newspaper at least once a week with small group work, where additional time was also provided to read newspaper independently. After this intervention, significant difference had been found. There was a difference between the treatment and control group regarding their reading attitudes. Results reveal that participants who used the newspaper on a regular basis enjoyed a higher reading attitude compared with those who did not use newspaper.

In addition, this study found out that there are no differences regarding gender. Researchers had concluded that newspaper is an instructional tool and does have a potential to increase the reading attitudes. Apart from the findings, since the treatment group had worked as a group (collaborative learning), there was a question about higher reading ability might be due to collaborative learning instead of newspaper itself, which was not clarified by this research. However, in spite of this, newspaper could be considered as a powerful instructional tool to engage learners in reading. Furthermore, newspaper had been found profitable tools to search specific information and to learn new vocabulary (Duke, 2000). Similarly, program named “Newspaper in Education” (NIE) (different from previous one) had been launched in 52 countries (including Canada) with the cooperative effort between newspapers and local schools (Ferrer, 2003; Ramsey et al., 2009). The main goal of this program was to inspire and motivate the school students by making the skills and concepts which had been taught in their classrooms more relevant and also more meaningful in the real life.

In this program, newspaper (by NIE) had been incorporated in studying any subject at various grade levels because NIE had been cooperated with numerous newspapers which do have a wide range of learning...
materials. During this program, local school teachers and students came up with many benefits of newspaper because it contains (i) interesting materials to read, and (ii) practical information; like daily temperature, schedule of TV programs, global issues, health and safety too. Therefore, newspaper could increase the interest (for the course) which might lead to learner’s motivation toward education. Following are the key points for the success of NIE program: (i) cooperating with many newspapers; (ii) conducting weekly literacy programs; (iii) providing teachers training and workshops. Because of these reasons, local school teachers were able to use newspaper as an effective instructional tool to motivate their students. However, the success report of this program is only limited to motivation which might or might not be lead their academic performance which was not discussed. Thus, these evidences reveal that newspaper had been incorporating with school curriculum to motivate students in their learning process and also to provide relevant information about the real world. In addition, using of newspaper as an “instructional tool” and “motivational tool”, it is cheap enough and contains wide range of materials, which does have something to anyone. However, it does not mean that entire newspaper could be considered for teaching and learning because there are different types of newspapers.

**Radio**

Radio which is open broadcasting in nature was considered to be an effective, inexpensive technology, wide-reaching, readily available resource (Jamison and McAnany, 1978) since early 19th century. In 1978, two million people of Tanzania had used radio for educational health campaigns (Jamison and McAnany, 1978). Prior to heath campaigns, School of the Air took place in the US around 1929 to 1975 (Bianchi, 2008). In the United States, radio has a long history but extensive implementation took place during the movement of “School of the Air” (SOA) which was for education. Numerous educational institutions and universities had operated its own SOA which had reached about 2.5 million students (10% of the nation’s student) and involved tens thousands of teachers and children directly in radio broadcasting (Bianchi, 2008). One of which and the most popular is the Wisconsin School of Air (WSA). In fact, SOA is similar to school but it was in the air, which does have its own organizational structures, operations, class schedule (based on the days) for the students between kindergartens to K-12.

Similarly, program named “Amateur Radio” (AR) had been launched in 2000 to improve the educational experience and develop skilled technology manpower for the future (Hill, 2002). The key strength of this program is a powerful partnership between schools, educators and mentors who brings AR as a life of middle school consisting of variety of educational scenarios which had been done free to school teachers because of many donors for this program. This program consisted of six major components: (i) introducing school teachers to AR, (ii) classroom bookshelf’s to assist teachers, (iii) online web books for teachers, (iv) grants to schools, (v) practical handbook to teachers, and (vi) power station to each school including power supply, which had three delivery systems of instruction by schools as (i) full curriculum, (ii) in-school enrichment program, and (iii) after-school enrichment program. Author found that schools in remote areas with no proper roads are benefited from this program. The presented report by Hill (2002) did not mention any achievement regarding its goals (educational experience and skilled technology) but a similar instrument had been used in emergency communication these days (McElory, 2007). This sudden transformation could be predicted due to cost issues and training for teachers (Hill, 2002). Nevertheless, radio (low technology to high technology) could integrate with educational curriculum with proper trainings to teachers which might be effective up to some extent. Furthermore, school teacher trainings practices via radio had been also found in Nepalese context. As discussed in the guidelines of teacher training by National Center for Education and Development (NCED), broadcasting of 120 radio lessons are equivalent to 40 hours for primary teacher training (Dixit, 2009). However, its effectiveness is still not discussed yet by NCED (Holmes, 1990).

Thus, after reviewing the previous research and projects report offers insight views for educators interested in using printed newspaper and radio to engage, motivate and update and make learners (students) in touch with the real world.

**Television**

Television is an audiovisual device to telecast programs from within the country and abroad, which does have an important role for entertainment and education of people all over the world. Television program which had been used for education is known as educational television (Lawrence, 1995). Educational television has been used in many developed countries for about a decade (p.326) with the “intention of broadening its knowledge or reinforcing the others sources of information” (p. 327), like: educative television (ETV) in Japan, USA and UK (Lawrence, 1995). In the context of developing and least developed countries of the world where, there is a gigantic problem to provide the basic nationwide education because of expensive traditional methods (teachers training, physical schools) and natural barriers (Bajracharya, 2014). Lawrence (1995) concludes that developing countries must help to establish ETV with experts and other key stakeholders “to enable poorly

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**Faculty use of social media**

Despite of high popularity of social media for personal use, a significantly low percentage were using for educational purposes. To offers insight and strategies, Chen and Bryer (2012) conducted a qualitative study to explore the uses of social media among faculty members to know about their experience and perceptions in teaching and learning. Initially, authors surveyed 57 faculty members (public administrative department) of 28

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The results revealed that majority of faculty members used Facebook for personal activities and LinkedIn for professional activities. In addition, all faculty members had been using some kind of tools (like: Blogger, Wiki, Blogs and many more) for leisure. Many of the faculty members strongly recommend using social media for education, however few of them perceive that social media is only for undergraduate students. Moreover, authors found that many faculty members had been incorporating “discussion” and “collaboration” as pedagogical strategies during their lectures. Eight interviewees had integrated “videos” and “case studies” to make learners-centered classroom with the integration of discussion and collaboration. But, only one faculty member (out of eight) would like to use social media because according to the other faculty members, social media is mainly for informal and unstructured process which might contradict the regular conventional classroom. Further investigation revealed that due to “privacy” and “cyber-security” issues, faculty members were not willing to use even though they know how to use in some instance.

Additionally, ethical issues like: faculty member who are at higher position seem to maintain some distance with their students and colleagues. However, apart from the findings and limitations (only within the public administration), issues like privacy and security always ranked as primary concerns during the process of using social media in education (Foulger, Ewbank, Kay, Popp, & Carter, 2009). Eventually, this study clarified the perceptions about social media from faculties’ perspectives which had been mainly focused on informal settings (like: to provide information about job-hunting, universities club activities, etc.). Multiple techniques and strategies could be incorporated for effective integration of social media. Among which “brainstorming” might be one, which could act as a positive catalyst to facilitate the thinking process and content matter for the learners (Garrido, 2002; Vijayakumar, 2011). However, the steps and process for brainstorming techniques are not easy to implement. It all depends on the instructors using different strategies to integrate social media in their lesson plans. Hence, it is important to understand the instructor’s beliefs about social media which could be considered as best predictor of the way, that they will practice in their classroom (Pajares, 1992).

Research studies show that “pedagogical beliefs”, “self-efficacy” and “beliefs about perceived value of technology for student learning” are three major components of technology integration responsible for instructor’s beliefs (Miller at al., 2003; Bebell& Kay, 2010; Miranda & Russell, 2012; Hsu, 2013; Park &Ertmer, 2007). Thus, perceptions and strategies of faculty members about social media are considered as a very important factor for effective integration because they are the key persons to teach students with the selection of an appropriate pedagogy and technology. Hence, intense focused need to be considered toward instructor’s beliefs rather than advancement of tools for social media, which could cause negative impact on academic performance.

Social media and academic performance

University students were considered as heavy users of social media. In particular, Facebook is the most popular among them. The main reason of this popularity is the availability of advance technological tools which makes users able to access social media with the use of mobile technologies and smart phones in their palms (Park, 2011). However, questions were raised on its main purposes: was it for entertainment or for educational purposes too. If it is used in education then its (social media) impact on the academic performance need to be considered.

Facebook

Kirschner and Karpinski (2010) addressed the relationship between Facebook and academic performance in their study where 219 university students had been surveyed. The findings reveal that integration of Facebook in education does not have any influence, if faculty members don’t use any instruction regarding issues like: “what to use”, “why learners need to use” and “how to use” those social media. Recent research studies show that over-participation or addiction of students using Facebook do have a negative impact on their academic performance (Kirschner&Karpinski, 2010). However, Facebook are increasingly being used by the instructors and college students (Mazer, Murphy, & Simonds, 2007; 2009). To enlighten influence of Facebook in education, research done by Thuseethan and Kuhanesan in 2014 had been discussed here. Authors surveyed 287 students (aged 18-24) from five different Sri-Lankan universities. The survey items contain three categories of Facebook users (1) heavy or frequent users (above 5 times/day and more than 5hrs. /day), (2) medium-frequent users (2-5 times/day and 2-5 hrs./day), and (3) light or occasional users (below 2times/day and below 2 hrs. /day). Findings show that heavy users of Facebook perform poor during examination compared with medium-frequent and occasional users. However, the academic performance between occasional and medium-frequent users does not have any difference in their GPA. In addition, employing more time on Facebook reduces their academic performance. The findings of this research had been only based upon the frequency and number of hours that had been used by the students but it does not mention in-depth about the subject matter of events.
students having higher and lower GPA. In general a STEM (Science, Technology, Engineering and Medicine) student does have high GPA compared with non-STEM student.

The study did not mention the validity of survey questionnaires hence reliability of the findings might not be trustful. Therefore, an in-depth literature needs to be done before concluding the negative impact of Facebook on learner’s academic performance. On the other hand, a study done by Al-rahmi and colleagues (2014) found positive effect of Facebook in academic performance. A quantitative research using survey questionnaire with 120 university students (undergraduate and graduate) aged 18-36 was conducted. The 35 item-questionnaire highlighted five major variables (interactive with peers, interactive with supervisors, engagement, perceived ease of use and perceived usefulness) to measure satisfaction and academic performance of the students via collaborative learning approach. The results showed that student’s satisfaction and academic performance is highly dependent on factors like interactivity with peers, student’s engagement and interactivity with the teachers, which contributes the improvement of student’s academic performance. The finding shows that utilization of Facebook in educational settings is an effective to improve the academic performance. It was also concluded that Facebook could be effectively integrated with the consideration of collaborative learning (pedagogical strategies).

Thus, Facebook does have a potential which might not be limited to the entertainment but also to improve academic performance with the consideration of appropriate pedagogical strategies and content of the subject matter. Additionally, literature shows that Facebook could be considered as an effective instructional tool where instructors were able to assign and guide homework to students (Al-rahmi& Othman, 2014; Westera, 2012). Therefore, Facebook could be effectively integrated with the subject matter but instructor and key stakeholders need to concentrate on the pedagogical approach before its wider implementation.

In essence, none of the research studies mentioned that enhancement of GPA was because of Facebook solely, because different pedagogical strategies had been incorporated with the contents of the course curriculum. In addition, constant or lower in academic performance had been also found with the application of Facebook where pedagogical strategies had not been employed.

Twitter

Twitter is another popular tool among university students. To know its impact, Evans (2014) conducted a research (12-week), where Twitter was selected as a communication tool between undergraduate students and tutors to find its effectiveness on their academic performance. In the 12-week research period, findings reveal that instead of academic performance, student’s engagement toward universities activities (clubs and groups) had been increased. “Without proper guidance and without any boundaries of application of Twitter” could be a reason for these findings. However, considering as “university activities” is an important part of student, Twitter could be considered as an effective tool for engagement. Similarly, research done by Dunlap and Lowenthal (2009) also found that Twitter does not have any impact on academic progress but does have a potential to enhance the social presence. Hence, Twitter might not be consider as educational achievement but still does have engaging strength.

Other social media

Apart from Facebook and Twitter “Educational blog”, “YouTube”, “Google moderator”, “Pinterest” and “Diigo” could also be an effective and an efficient for educational settings. Heatley and Lattimer (2013) reported that YouTube had found as effective tool to record own class lectures via a “YouTube Channel” to make class lectures ubiquitous for students. Since technology has been developing rapidly which provides many learning opportunities to today’s learners which is not limited within the four walls of physical classroom. Thus at this stage, “YouTube Channel” might be very effective. Additionally, the study found that Google moderator and Pinterest support to gather the ideas for class organization and lesson plans. Grigoriou and Photiou (2014) suggested that Educational blogs could incorporate with formal education for “knowledge construction” because blogs consist of many information on specific subjects. In addition to this, Garrison and Vaughan (2005) pointed that blogs could be perfect tool for blended form of learning. Blog which is also known as term of “web log” is an important tool of the Web 2.0 toolbox (Richardson, 2009) consider as very popular tool (Grigoriou&Photiou, 2014), which consists of four major categories (1) as online course tool (2) as discussion forum (3) as a research tool and (4) cognitive learning tool (Grigoriou&Photiou, 2014).

At Dubai Men’s college, Curcher (2011) found that (i) to create a “community of learning” who is taking same course and (ii) to provide cooperative learning (Cooperative learning stands to clarify the ideas and concepts through discussion, developing critical thinking, providing opportunities for learners to share information and ideas, developing communication skills (McConnell, 2000, p.26)) “Diigo” had been integrated with their formal curriculum. In addition, it was suggested that implementing Diigo in a foreign language for university students can enhance students learning ability.
III. Conclusion

Evidence shows that there are increasing users of social media compared with traditional media. However, based on the literature discussed above, printed newspaper, radio and TV still do have a potential to enhance the teaching and learning from different prospective. Specifically, (i) newspaper to provide the real and varieties of information about the society and world, (ii) radio can be consider for teacher training and integrating with the school curriculum and (iii) TV program to provide required knowledge and skills to many people’s as macro level. In essence, traditional media could be considered as an effective media both in the developed and developing countries of the world because its ease-of-use and low cost. Based on the literature discussed above, this study came up with three major purposes of using social media in an educational setting. Table 1.2 provides the overall concept about using social media in education as: (i) instructional tool, (ii) collaborative learning tool and (iii) learner’s engaging tool, which could be considered before wider implementation of social media in teaching and learning process.

Regardless of purposes and/or goals using social media, its basic function is as an instructional tool. *Medium to transfer an information, or as a tool to manage a tasks and deliver of contents from instructors to learners* is a primary function of social media (Al Musawi, 2011). Evidence shows that social media could be considered as an effective instructional tool for instructor. For example, instructors can record their class lectures and then upload in the YouTube where students could use that for revising purpose and teachers also could use for future and for those students who were absent during class lectures. Social media is an effective tool for collaborative learning. Google drive and Wiki could be considered for group and project works. However, when social media tools were solely used, it did not have any improvement neither in learner’s engagement nor their academic performance but could be effective if integrated with some pedagogical strategies. Similarly, learner’s engagement toward their studies is consider as a crucial part of student life which could be achieved with the application of different social media (like Facebook, Twitter and many more) to enhance the learning skills or different educational and non-educational club activities. And literature also discussed that social media does have an engaging power.

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<tr>
<th>Purpose</th>
<th>Tools/Software</th>
<th>Effects</th>
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<tr>
<td>Instructional tool</td>
<td>YouTube</td>
<td>Incorporating with curriculum which could be used for long term.</td>
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<tr>
<td>Collaborative learning</td>
<td>Wiki, Google drive</td>
<td>Working together with colleagues and groups of peoples.</td>
</tr>
<tr>
<td>Learner’s engagement</td>
<td>Facebook, Twitter</td>
<td>Incorporating with project works and assignments for learner’s engagement</td>
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Nevertheless, the rapid development of technology might enhance the furthermore development of social media with abundant users. Thus, instructors or teachers must also be aware of the characteristics of social media before integrating in real classroom situations or in lectures. Moreover, adoption of appropriate pedagogical strategies is highly suggested to enhance the effectiveness of social media in education because introducing social media solely do not have any effect on educational achievements. It’s all about pedagogical approach of using social media by the instructor. However, depending upon the type and feature of the academic institutions, awareness about social media might not be updated to its users and sometimes it might not be feasible due to the rapid growth of new social media; which might cause negative effect in educational settings (Kear, 2011; Chretien et al., 2009). Rutherford (2010) mentioned that the significance of employing social media in education is to aid teaching and learning. Scholars mentioned that one of the benefits of social media is “ability to facilitate collaborative learning” and “communication among peers” (Collins & Hide, 2010; Rowlands et al., 2011). Tools like Wiki, Facebook, Twitter, e-mail etc. help to enhance the collaborate learning which facilitates the knowledge sharing among teachers, students and peers (Al-rahmi& Othman, 2014; Rott& Weber, 2013). Literature has shown that Wiki had been widely implemented in language education in collaborative learning (Lund, 2008; Lee, 2010; Martinsen& Miller, 2012) which also contributed to learner’s academic performance (Slavin, 1995). However, some studies showed that collaborative learning do not always promote this because it is a group of individuals, so collaborative learning is dependent upon the groups (Johnson et al., 2008) which cause positive as well as negative outcome depends upon the group members. This reflects that adoptions of relevant instructional strategies are suggested before integrating social media in teaching and learning. Otherwise; addition of tools does not make any sense.

IV. Limitations
The research papers and project works discussed in this study is only limited up to the formal education settings. Indeed, there are many studies has been carried out in informal and non-formal education settings which has not been covered by this study. Moreover, in-depth reviewed had not been done about instructors’ beliefs and use of media which is considered as crucial part of integrating media in teaching and learning (Ndongfack, 2015).

V. Recommendations for Further Studies

The effect of social media on learners academic performance could be also different based on the “level of technological advanced regions”, “religions”, “availability of hardware and applications” (AI Musawi, 2011) and effectiveness of social media is also dependent on the subject matter like: mathematics, literature and natural science (Kramarski&Gautman, 2006) had not discussed in this paper which might be considerable factor in educational settings.

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