

# DEVELOPMENT AND ASSESSMENT OF SOCIAL SITES MEDIATED COURSE MODULE IN HIGHER EDUCATION

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**ABSTRACT--**With the increasing hours spent on social media and growing dependability on collaborative technologies by youth, higher education institutes are exploiting social sites world over in their courses for wider communication. The present research harnesses the possibilities of introducing full courses on social sites to make educational opportunities more accessible, interesting, collaborative, flexible and interactive. The study involved a mix method research with both quantitative and qualitative paradigms and it was a research and development by purpose. An extensive analysis was conducted of existing social site courses for higher education and keeping in view the strengths and weaknesses of the existing programs, a contextualized social site module was designed by the researchers on 'Instructional Technology Basics'. The module followed principle of 5Cs of online education; communication, collaboration, community, convergence and creativity. Two cohorts of 40 (total 80) mix ability, graduate and post graduate students were taught through Facebook with pre-test post-test experimental design within the population of higher education students of District Lahore, Pakistan. The pre and post tests were conducted through Survey Monkey incorporated in the course along with other formative assessments. After completion of each course session, electronic inbuilt interviews were conducted from the participants to find their experiences and reflections about how did they learn and their suggestions were sought for refining the course for increased effectiveness. The findings were encouraging enough to suggest all types of short and long theoretical courses to be taught through social sites, especially through Facebook. The study has implications for specific course designing and interactive tutoring at higher education using social sites.

**Keywords--** Social sites mediated courses, module development, higher education, assessment.

## I. INTRODUCTION

Social media is an electronic forum for sharing and discussing information and individual ideas. Mason (2008) stated that social networking is just like the exercise of spreading out knowledge by dint of establishing connections with like-minded individuals having similar interests. In the environment of social sites networking, Web 2.0 is associated to technology related software and services that enhance the possibility for all and sundry to connect with one another belonging to any place and at any period of time. The sites of Social networking are online spaces connected to a computer network which can be built to a great deal by the users, catering space for individually private details, that are completed by users for making connections with one another.

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Boyd (2007) stated that social sites are web-based networks managed by computers that allow people to prepare their profiles which may be public or semipublic within a specified system. All users simultaneously connect with each other from their sites and can share individual posts related to text, pictures and other media.

### ***Importance of social sites***

Social media is a versatile forum for the advertisement of brands and promotional information (De Vries, 2012) serving spoken or word-of-mouth communication (Chen, 2012), enhances sales (Agnihotri, 2012), disseminates information about the product (Lu, 2010) and attracts consumers to the business hubs (Ali, 2011; Ballantine, 2011). Social sites develop culture of sharing, communicating and establishing individual spaces that promote positive and trustworthy impact (Wu et al. 2010). At present, social media is diverse and multidimensional, suitable for every campaign and connecting people with different circles and characteristics. Companies and research organizations study consumer behaviors and find trends in different areas on social sites (Liang, 2011).

The Basics of Social Networking by (Wellman, 1997) provided definitions of social sites as the groups or organizations which come together for mutual interests and other sociable entities. Facebook is the biggest example of rapidly expanding connecting media for millions of people having similar interests while Twitter claims for 175 million consumers on board. LinkedIn holds 100 million users in 2011 and in 2010 and had 20 million active users only in Europe (Social Media Statics, 2011). It is common knowledge that

Americans spend twice the amount of time compared to other countries on online social networking. The percentage of usage of time being spent on internet messaging services is 36% (Nielsen, 2010).

Wang (2011) stated that the sites of Social network platform has spread learning opportunities both interactively and collaboratively. As we are familiar with the digital technology of new age, they transform visuals and money rates, as well as exchange ideas, views, opinion, feelings and information. As doing this, they are leaving impacts on the landscape education as well. Roughly speaking, 64% of students of college update and post their profiles on social media in duration of study times (Wang, 2011). Students experience the world through social sites greater than mere books and assignment. Their learning and adaptation to the moderately new trend of communication world is very fast.

Young (2011) elaborates that several colleges are likely to do over regulation of communications on social networking sites, while the other ones fail in doing so. Other hurdles are too adding the advantages of social sites in favor of the students on their respective career in searching, browsing, finding and reaching prospective staffs. It is valuable for both academic departments and students to recognize the “dynamics, effectiveness, and potential misuse” of social media (Aluri, 2015). While according to (Wankel, 2009) for a range of users and various generations of technological learners, the accessibility of social networking sites is rampant.

In this era, social media has become the part and parcel of individuals' life from electronic mails to shopping, business tool and education. Social media are playing an important role in the transformation of people's living style. Social media consists of blogs and social networking sites where it is easy for people to be able to connect to each other. Facebook and Twitter are the premier sources of news for journalists while organizations are performing really well and have obtained very high ratings. It has become a matter of routine for people to use these sites. Social media chiefly refers to “the many relatively inexpensive and widely accessible electronic tools that facilitate anyone to publish and access information, collaborate on a common effort, or build relationship.”

Junco (2010) noted that regular users on social media have larger involvement and participation in organizations and campus activities. The capability of developing a sense of belonging by engaging (Yan, 2011) is important definitely in a campus.

### ***Social and digital media***

Both of the terms “social” and “digital” refer to using social media as well as digital marketing more normally, and including the role of perceptive and effective sites. Educational institutes are getting much advantage of digital platforms and social media like Facebook, Twitter, podcasts and YouTube, to marketing and publishing their programs, whereas website designing is becoming a key part of how universities and colleges present themselves to potential clients. A recent analysis refers to the university website as “the ultimate brand statement,” a homepage according to the student experience is a chief component in, and has ability to accept or reject decisions about whether to attend or not.

### ***Trends of social Media***

For the purpose of achievement, it is common for universities to ensure that the entire content which students find online on their homepage should be clearly laid out on the portal. These websites are the hubs where clients/students are provided relevant information about the organization. It is meant that websites frequently present elements such as “well-placed navigation bars” involving visuals (e.g., slideshows, multimedia content, etc.) to keep clients updated.

The wide trends in the utility of social media platforms have revealed that during their use at universities, colleges, community colleges, and different educational institutes, students identify their popularity and salient features. Most of the institutes are focusing on making their attempts to control a versatile initiative accepted by several departments, programs, schools and academic units, which are leading to enhance their efforts.

A survey on social media in 2011 consisting of more than 950 institutions displayed that 96 percent of participants used social media actively, but many of them struggled to control their social media initiatives. The University of Massachusetts Dartmouth conducted several surveys for many years that tracked the use by universities of social and digital media for outreaching and marketing (Hanover, 2014). The modern poll shows that 100 percent of participant institutes are recently employing different forms of social websites for both academic and non-academic purposes but there is no availability of trustworthy data on how to effectively use such kind of tools with regard to enrollment or to inspire institutional values. Regarding certain platforms used, the researcher pointed out broader adoption of the social media platforms as for the following:

- 98% students have set their pages on Facebook and communicate with people having same interests
- 84% students possess a Twitter account and continuously use it
- 86% students use their institutional video channels/websites for updates
- 66% students reported having blogs of different kinds
- 47% of admission professionals reported using LinkedIn
- 41% reported the use of podcasting

Data obtained from recent years demonstrate significant development in the adoption of social websites such as LinkedIn and podcasting.

Armstrong (2008) have reported that social websites have set up a foundation on audio and visual information comprising of internet-blogs, social-web, wikis, spaces to share media, RSS Feeds, social media web networks which have functions to enable the user to promote synchronous or asynchronous transfer of information.

Currently university students have been observed as the larger base of users availing the opportunities provided by the social media because it helps in connecting themselves with other people at the same level. It helps promote sharing of ideas, as well has broadens the perspective through external exposure (Palen, 2007b). He laid emphasis that social media "...can afford modern ways for people in interaction and collaboration both within and outside the spatial bounds of the event" (p.468).

Some global events further confirmed the idea that social media plays a vital role in forming opinions and classifying different opiniated groups into their respective categories. Example includes London Riots in 2011, change of Libyan and Egyptian Rule in 2011 and a lot more (Palen, 2007a). Furthermore, social media was used as a tool to manipulate minds through targeted advertisement. Social Media websites use specifically designed algorithms to obtain a profile of likes and dislikes of the user which are then used to provide the right kind of ads to that specific user. WikiLeaks is an example of how the web can be used to convey information that is impossible to conduct otherwise.

University students have been spending a lot of time on their phones daily to interact and to communicate as well as to explore. This leads to mental and physical health issues when done in excess. However, the amount of use depends on the availability of technology depending on the country where it was used Smith (2009). He worked on a survey in New Zealand. It revealed that 83% of citizens of New Zealand are using internet; out of which 80% use it for daily communication, 33% use it for instant messaging, 25% use it for online gaming while 50% were found using the social networking sites.

Social sites (SS) promote virtual communities and virtual learning environments (VLEs) to increase (Hussain, 2005) the scope of learning among users. These students are interacting in their online communities without being physically together. They can easily share information about studies, job opportunities and personal well-being.

For educational purposes, different factors help in increased social media usage. (Armstrong, 2008) organized a very comprehensive report in 2008. This report shows that the students were using social websites in a variety of patterns to enhance and strengthen their learning, through collaborative activities and expression in virtual environment.

(Armstrong, 2008) study shows that the usage of social networking websites at the level of higher education is likely transforming the results of assessment of "Universities as a primary producer of knowledge, and gatekeeper may lose their privileged role by not being visible on social sites as knowledge is becoming more vastly accessible through other sources and is being produced by more people in more ways" into reality (p.24).

In this modern era using social media is helping students of universities and is an interesting part of research for academicians, social scientists and in different fields of human life. Hamid (2009) assessed that the availability of literature on social websites possesses user friendly designs and forms of using it on campus. It's easier to use and understand. Users can collaborate, share and interact with other users regarding any questions or queries. To ascertain the use of social media in higher education, there are different reasons behind it. It is valued by

highlighting the stance that it is employed to increase study opportunities by providing web-support services to the user (Dabner, 2011) It is employed for the purpose of communication between students in virtual communities. On the other hand, Facebook is appearing to be the most popular platform for teachers to interact with students (Mack, 2007).

In these days, the younger people named as Net-Generation is more inclined towards taking information using modern resources. The academic use of social media looks favorable at all educational levels but university students are benefiting the most out of the service (Davis, 2011).

Social media is appearing as a facilitator and students want their institutes to employ social websites to strengthen classroom instructions (Roblyer, 2010). In this view, (Madge, 2009) have noticed that social media can be used to boost up academic interactions and contacts. Furthermore, social media fills the learning gaps informally between “digital native” students and “digital immigrant” staff (Bull, 2008).

### ***Theoretical frame work of study***

In modern era the function offered by the newer technologies provide solutions to the problems faced by earlier generations. The main problem being the absence of communication between the students of different cultures, places and of different domains. Web has transformed the whole world into a global community (Mason, 2008). He supported the statement of Siemens (2004) that claimed that newer technologies have transformed the process of learning. The three basic pillars of the learning theory; behavioral, cognitive and constructive development are no longer sufficient to explain how we learn. So, it is necessary to construct a new framework that extends previous knowledge about human learning and the scope of interactions that the newer technologies can offer. Social sites are, therefore, a potential platform for offering a range of courses and information series to engage learners from all corners of the world.

### ***Statement of the problem***

Keeping in view the rationale discussed above, the researchers intended to conduct a study for the, ‘Development and assessment of social sites mediated course modules in higher education’.

### ***Objective of the study***

1. To develop a theoretical and technical background of the social site mediated course module.
2. To develop a course site and design course content for a two months’ ungraded course (Later may be used for certification) of ‘Instructional technology basics’ for post graduate students.
3. The assessment of social sites mediated course module thorough experimental research.
4. To determine the strengths and weaknesses of the module in different areas.
5. To make practical modifications in the module in the light of findings.

## **II. LITERATURE REVIEW**

A new forum for discussion is being presented by social networking websites and modern technologies, collaboration, and interaction to other subscribers. The domain shows mutual grounds where participants are sharing or exchanging their experiences, ideas, and knowledge. The Appreciative Inquiry (AI) theory for any

organizational change relies on the frameworks of social constructionism and on social constructivism. It is established on the Anticipatory principal (Magruder Watkins, 2001). (E. Wenger, McDermott, R., & Snyder, W.M., 2002) argue that a domain has a major source for the participants to share understanding and develop interest for personal meanings and strategical meanings to construct different domains. The theory behind social sites is social constructivism that revolves round following concepts.

### ***Community***

“The community creates the social fabric of learning” (E. Wenger, McDermott, R., & Snyder, W.M., 2002). Community means a group of people living and interacting to others and also learning new things, building relationships through mutual understanding and commitment (E. Wenger, 1998). On social websites, relationships and interaction are the main source of what is true for us or not. People probe about their peers’ lives who regularly use Facebook and My Space for creating shared worldwide information to other users with multicultural exposure to human life and its role in mediated learning and communication, therefore, the online social media leads to the development of culture of its own (Shuter, 1990); (Vygotsky, 1978).

### ***Practice***

The practice of knowledge is the important habit that a community develops, shares, exchanges and maintains (E. Wenger, McDermott, R., & Snyder, W.M., 2002). The nature of the tool or module developed through mediated communication impacts and modifies participants’ communication process in addition to ‘how they perceive their social roles.’ Social networks offer ways for participation through interactive dialogues and the means to conduct learning’ (Vygotsky, 1978).

### ***Context***

Context is stated as “the process of collective intelligence creation in social networking websites or environments” which is to start with the context of the website and context of intellectuals using the sites “Most knowledge is an interpretation of experience, based on schemas, often idiosyncratic and at least in detail, which enables or constrains individuals’ processes of sense-making” (Resnick, 1991).

Discourse is the consequence of an interaction where ‘each discourse is shaped’ or according to Wenger’s terminology, “negotiated” (E. Wenger, 1998) helps to extract the meaning, and it analyzes these discourses that can be seen how power and identity intertwine in the negotiation of meaning (Barton, 2005). We develop our personal process of employing linguistic choices to determine meaning. The individuals’ culture is shaped when users share their knowledge, experience, and insights of life with groups through discourse. Meaning is negotiated by reinforcing the strengths of interaction as an ordinary history starts emerging and members are inspired to give their contribution.

### ***Action***

It is the step to start the process of socially mediated cognition. A participant/ user identifies a goal of learning through tools used to connect with others who share aims, objectives and agreement to the task accomplishment. It is conducted by a person for engaging other users.

### ***Reflection***

Social sites incite users for critical observations and constructive feedback for peers. Here, the user focuses on the integration and reflection on the perspectives of diverse groups. As an action research group, the users reflect on this phase by reviewing the postings on site and discuss the relevancy of the learning theories proposed.

### ***Reorganization***

The step of reorganization follows the process of reflection as members come with new understandings and insights to advance the shared goals. Participants fit meaning and content within the social networking websites. This phase is comprised of the process of social constructionism and is accomplished by the synthesis of present and previous perspectives. Mediated by interactive technological process, the process of shared meanings gets advanced, users start reflecting on and adjust their understandings, and a concrete expression of shared meta-cognition is revealed.

### ***Socially mediated meta-cognition***

The first “five phases from context through discourse to action, reflection, and reorganization” are guided to meta-cognition which is socially mediated while users have ability to reflect and construct an equally accepted reasoning within a developmental phase. Mutuality is another important factor in peer to peer learning. This leads to constructing and reconstructing a logic or perspective based on shared values. Furthermore, peer-to-peer sharing creates a “collaborative zone of proximal development” (Goos, 2002). Goos et al. have noted that “collaborative metacognitive activity proceeds through offering one’s thoughts to others for inspection, and acting as a critic of one’s partner’s thinking” (p. 207).

### ***Background of social media***

Seaman (2013) argued that the social media background is typically identified as one’s individual expression of identity and conducting informal social activities, which is one of educational or learning support. The social sites are progressing far beyond the advertisement, business and recreation to educational context where out of institutional activities are linked with institutional projects and classroom interactions. It has found its place in academic context and gradually but surely provided an environment conducive to comfortable and sustainable learning into an academic context, where teachers can discover opportunities for accessible and affordable digital forum for learning and sharing. It makes students self-sufficient and confident.

Abdillah (2013) suggested that the Social media offers many opportunities in different areas and fields. Specifically, in this global world because it’s a time of latest technology like Informational Technology or Instructional Technology (IT) making up the educational world for accepting and engaging students in the process of learning.

There are some worries about whether or not Facebook may be used to maintain educational activities (Roblyer, 2010). (Bicen, 2011) recommended that in the future, there should be concerns about Facebook integration with education and also in profession of teaching. In his research, the author broadens the media for learning purpose

by having connection with Facebook social media because these social networking websites create interest for billions of cyber users, in particular young adults (SocialBakers, 2014).

**Table 1:** Facebook User Distribution Based on Social Bakers

No	County	Facebook user based on age		Facebook user based on gender	
		The Largest	The Second Largest	Male	Female
1.	USA	25-34	18-24	46%	54%
2.	India	18-24	25-34	76%	24%
3.	Brazil	18-24	25-34	47%	53%
4	Indonesia	18-24	25-34	59%	41%
	Mexico	18-24	25-34	50%	50%

The current situation of student learning behavior is affected by the growth of modern technology, like social media. The figure shows that the most of young people aged between 16 to 24 years are permanent users of the Facebook.

The Facebook being popular media is suggested for all educational purposes. The authors interested with technological use of social sites have described its manifold advantages for education like, ways for independent and collaborative learning at a time, ample opportunities of sharing, selection and dissemination of educational content and high and frequent accessibility of learning opportunities (Bi, 2014) etc.

The prominent features of Facebook are the activities where the environment of learning involves cyber environment for both students and faculty. Teachers are capable to present, develop learning resources, give assignments, disseminate knowledge and take online attendance to the students. On contrary, students are also capable to participate in learning scenario, submit their assignments, downloading course materials, showing their online presence in every meeting, to assign different tasks, give comments, give some URL links, pictures, videos and images, upload presentations, or discuss with their team and groups.

Meske (2014) explored that the Social media (Facebook), weblog application (Wordpress), mobile operating systems for Apple (iOS), blog application for iPhone (Wordpress for iPhone), and Facebook application for iPhone are the core softwares which can be used in education and research. Researchers also involve, Cloud storage services like Dropbox. It permits users or participants to store all files and to synchronize them with multiple devices. Also, DropBox transforms a class into a community of learning and working together at the same time with or without face-to-face interaction, whenever needed (Ries, 2012). The present research has catered the argumentation above and intends to develop and assess a social mediated course for university students to see its effectiveness and challenges.

### III. METHODOLOGY/MATERIALS

The study involves mix method research with both quantitative and qualitative paradigms and it is research and development by purpose.

- a) An extensive analysis was made for presently existing social site courses for higher education



- b) Keeping in view the strengths and weaknesses of the existing programs, a contextualized social site module was designed and constructed.
- c) An experimental research (pre-test post-test design) was conducted for three consecutive cohorts of students to assess the strengths and weaknesses of the module. The researcher mediated the module (taught and organized the material for students) for three months duration for one cohort.
- d) After completion of each course session, electronic inbuilt interviews were conducted from the participants of the module to find their opinion.
- e) Finally, in the light of participants' opinion and experiences, the module was refined and modified for further use.

### ***Population of the study***

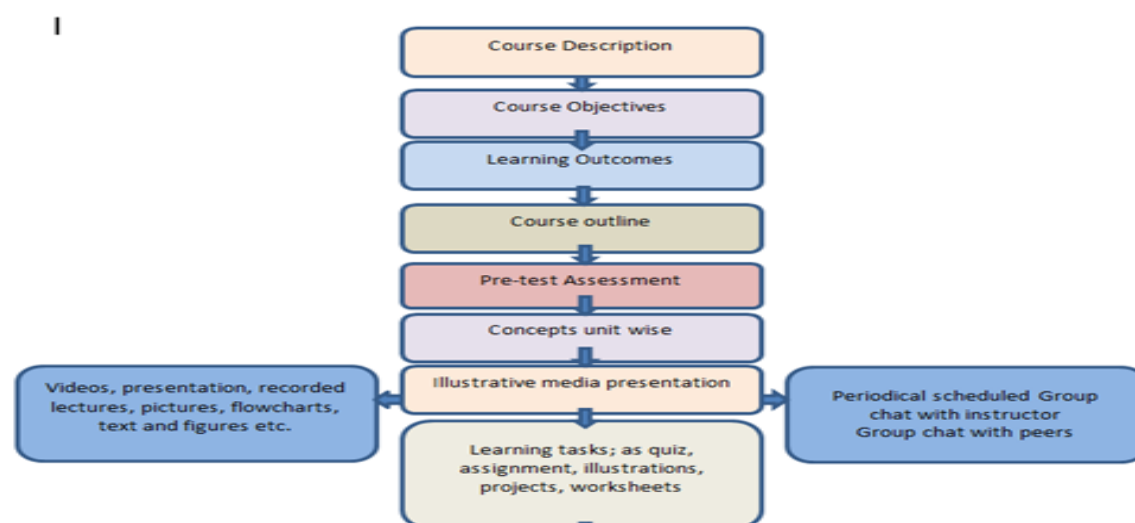
All post graduate students (MS/Phil & PhD) from subject of 'Education' in Pakistan were the population of the study.

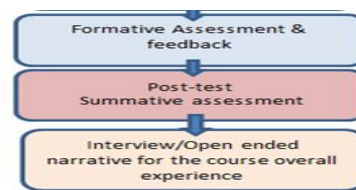
### ***Sample of the study***

For experimental research, 40 mix ability post graduate students who were willing to join the course were taken as the sample in consecutive two cohorts and thus total 80 students were engaged for assessment phase of the course.

### ***Module Development & Dissemination Procedure***

A Facebook mediated module titled, 'Instructional Technology Basics' was developed as per online course construction principles including 5Cs, communication, collaboration, community, convergence and creativity to acquire required level of mastery in the subject. The module development procedure is elaborated in the following Figure 2:





**Figure 1:** The module development procedure

The course was taught in two months on Facebook by registering the volunteers as per following sequence.

- A pre-test on ‘Survey Monkey’ was sent to students on the website and their suggestions and expectations for the course were sought.
- The course outline, objectives, outcomes and class schedule were shared with students.
- The units were taught through presentation of videos, PowerPoint presentations, PDF files, pictures and flowcharts etc.
- Students were invited to comment and ask questions about the presented material and share if any other material they can search from Internet.
- Students were engaged in teacher-student and student-student discussions/group chats.
- Question answer sessions were held to clarify concepts by the tutor.
- Small projects and assignments were given to students with intermittent assessments.
- Tutor and peer feedback was provided.
- Summative assessment was conducted by incorporating a time bound test ‘post-test’.
- Students’ suggestions and comments were sought for course improvement and challenges they faced during the course.

The course on ‘Instructional Technology Basics’ included

1. Introduction to Instructional Technology
2. History of Instructional Technology
3. Course Overview and Professional Expectations
4. Computing Basics
5. Spreadsheet Design and Management
6. Using Access for educational purposes
7. Creating Multimedia Presentations with Instructional Content and Lesson Elements
8. Blended Learning, Social Media, and Web-Based Tools

### ***Instrumentation***

The inbuilt achievement tests in the module were used to measure the progress of participants. The module was initiated with an inbuilt pre-test followed by three in built stage tests, the final post-test was designed within the module for finding the overall achievement. The tests were refined after completion of each cohort depending upon the performance of participants when needed.

### Data analysis

The research is developmental in nature so it is product oriented, however, the data obtained by experimental research was analyzed through descriptive and inferential statistics using SPSS for the purpose of finding significant differences among the two cohorts and the pre-test post-test differences within each cohort.

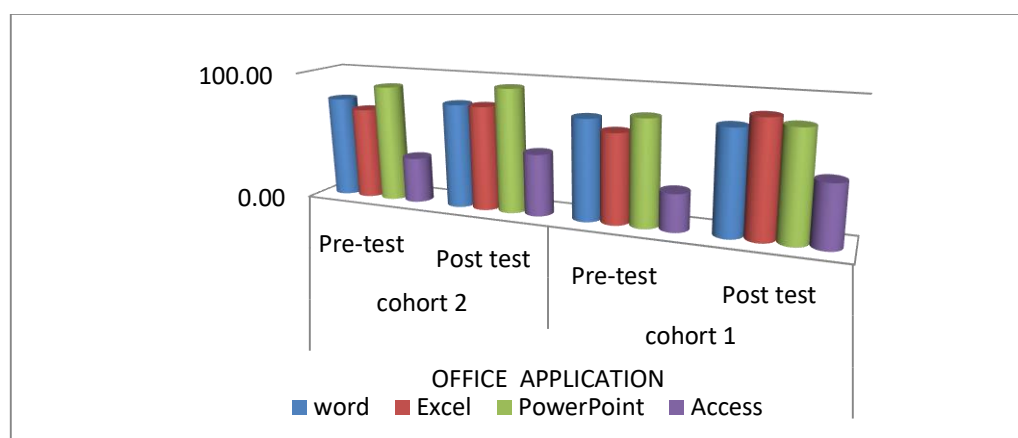
The data obtained by electronic interviews of the participants was analyzed inductively and major themes were derived for identifying strengths and drawbacks of the module. The themes encompassed both content and learning process related aspects of the module. The pre and post tests of each cohort were compared to estimate the difference in scores after completion of the IT course through calculating Group Mean. Descriptive statistics were used for the purpose.

## IV. RESULTS AND FINDINGS

**Table 2:** Comparison of pre test and post test scores of two cohorts for Office Applications

Office Application Names	Office Application			
	Cohort 2		Cohort 1	
	Pre-test	Post test	Pre-test	Post test
Word	78.00	80.00	77.56	78.57
Excel	70.59	80.23	68.29	87.10
PowerPoint	89.91	95.45	80.48	82.05
Access	34.87	47.22	28.41	46.86

Table 1 above shows that average of 1<sup>st</sup> cohort of pre-test in different office applications was; for Word (M=78%), Excel (M=70.59%), PowerPoint (M=89.91%) and Access was (M=34.87%) which increased after completion of course in post-test as; Word with (M=80%), Excel (M= 80.23%), PowerPoint (95.45) and Access (47.22%). Similarly, the scores of 2<sup>nd</sup> Cohort of pre-test in different office applications were; Word with (M=77%), Excel (M=68.29%), PowerPoint (M=80.48%), and Access (M=28.41%) before completion of IT online course and the results of post-test increased up to; Word with (M=78.57%), Excel (M= 87%), PowerPoint (M=82.05), Access (M=46.86%) which reveal that IT course module taught through Facebook was effective.



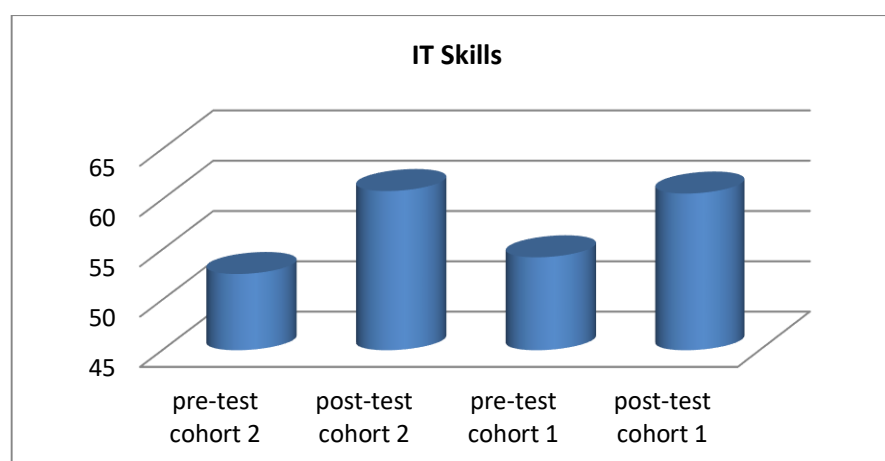
**Figure 2:** Graph for Pre and post test scores of two cohorts for Office Applications

The above bar graph shows increase in post test scores in Office Applications.

**Table 3: IT General Knowledge**

IT General Knowledge and skills	Using IT Terms			
	Cohort 2		Cohort 1	
	Pre-test	Post test	Pre-test	Post test
	52.58	60.83	54.24	60.58

Table 2 above shows that all students improved their scores after completion of Facebook course regarding use of IT general knowledge and skills in educational purposes. The students of 1<sup>st</sup> Cohort gained an average score in pre-test (M= 54.24%) and after completion of the course (M=60.58%). Similarly, the 2<sup>nd</sup> Cohort gained a pre-test score of (M=52.58%) and in post-test (M=60.83%).



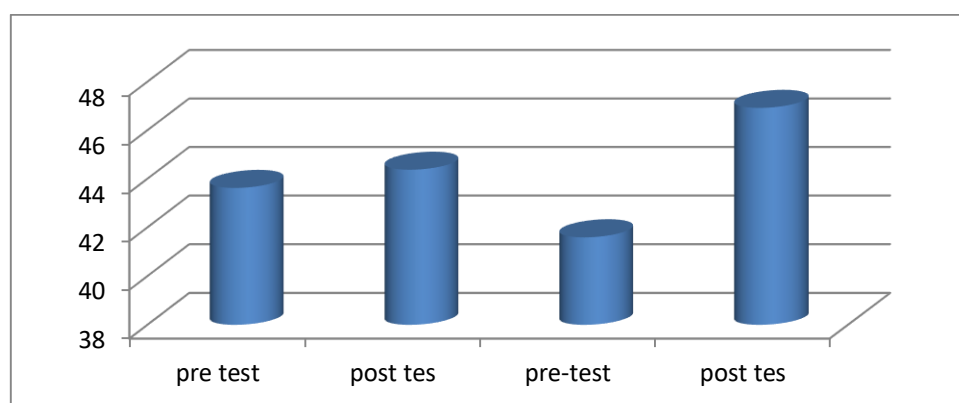
**Figure 3:** Graph for Difference in scores of pre and post tests in IT skills

The above bar graph shows that almost all of the participants gained higher scores in the post test.

**Table 4: Online learning tools**

	Cohort 2		Cohort 1	
Online learning tools	pre-test	post test	pre-test	post-test
	43.62	44.37	41.59	46.92

Table 4.3 above shows that students of 1<sup>st</sup> Cohort gained an average score in pre-test for online learning tools as (M= 41.59%) and after course completion obtained (46.92%). The 2<sup>nd</sup> Cohort gained scores in pre-test (M=43.62%) and after completion of the Online IT course obtained (M=44.37%).



**Figure 4:** Graph 3 for difference in scores of two cohorts for online learning tools

The graph above shows improvement in scores of two cohorts after completion of the course.

## V. DISCUSSION AND CONCLUSION

Online courses have been taught in the world with the advent of communicational technologies in the previous century but social sites like FaceBook have not been fully exploited for educational purposes in spite of its frequent use for social and recreational use (Mason & Rennie, 2008). A test module was developed for teaching through Facebook by the researchers. The two month course on 'Instructional Technology Basics' was designed keeping in mind the principles of online course development. The students of two consecutive cohorts from graduating classes who were engaged for the course obtained higher scores in the post-test as compared to the pre-test. The students of second cohort scored higher than the students of first cohort. It was due to refinement in outline and the changes in instructional process suggested by the first cohort students. It was concluded that social sites have great potential for disseminating education in future. The students enjoyed the course, remained connected and informed (Armstrong and Franklin, 2008; Wenger et al., 2002). Students appreciated the community features of sharing their ideas, getting feedback on assignments, online discussion, flexible class schedule, reading material and short clips related to the course concepts (Shuter, 1990; Vygotsky, 1978). They contributed by uploading their selected material and helped in reorganization and shaping of content by frequent comments and sharing their problems (Goos, Galbraith, & Renshaw, 2002). Most of the students supported the idea that universities can disseminate educational program, schedules and advertisements through social sites. Students commented that social sites are the cheapest, most accessible and engaging forum for non-formal and informal learning, therefore, it can be used effectively for on campus and off campus students (Bi et al., 2014; Rahadi & Abdillah, 2013; Baumgartner & Morris, 2010 and Abdillah, 2014). The participants suggested that education through social sites is possible in future because their features are growing rapidly. Most of the students agreed that social sites can be useful for international linkages, browsing new materials, establishing global interactions, dissemination of pictures, audio & video files and mutual discussion. The study recommended that universities need to introduce short term and long term purpose-built courses with certification for pre service and in-service student community to provide them flexible and interesting way to get education in their required fields.

### ***Implications of the study***

The study revealed strong feasibility of launching social site mediated long term and short term courses and certificate programs in higher education. The ever-growing features of social sites may be harnessed for all educational purposes and evolving highly interactive learning communities. The study holds following implications for higher education:

- Universities need to engage and manage students through social sites for educational programs especially deficiency courses in certain disciplines.
- Universities can extend the social media technology for MOOCs for the dissemination of professional content.
- Curriculum developers need to create curricula for social site mediated courses in different disciplines.
- Policy makers should assign accreditation for social site mediated courses.
- Teachers need to develop and manage popular social site mediated courses for professional, vocational and language programs.
- The under privileged students who have no access to universities for higher education in big cities may be accessed through social media.
- Students seeking extra help for their weak areas may join courses of their interest on social sites.
- Social site mediated courses need to engage all students with economic and accessible courses with time and place flexibility.

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