

## Social Networking Sites For Learning: A Review From Vygotskian Perspective

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**Abstract.** Social learning using Social Networking Sites such as Facebook.com and its relationship with the concepts of Vygotsky's Sociocultural Learning Theory are reviewed in this paper. Its potential effects to learners during social learning and possibility to be applied in learning institutes are discussed conceptually. Growth of users registered with Facebook gained interest for researchers to view its educational aspects especially from the concept of Vygotskian.

**Keywords:** Social Networking Sites; Vygotsky's Sociocultural Learning Theory; social learning; Facebook

### 1. Introduction

Social media websites such as social networks and email & messaging are popular and frequent visited by online population. Review on statistical number for online population [1, 2] most-visited website for worldwide and certain country [3] and the number of users registered in a Social Networking Site (Facebook.com; 4) are described in this paper. Statistically, number of online users visited social media websites are high throughout worldwide and certain countries consistent with number of users registered with a social networking sites. Users communicate to other user with similar interest, build and maintain social relationship and create connectedness with each other or groups they joint [5].

Growth and popularity of social networking sites have created millions of users socially connected through online [3, 4]. Does popularity of social networking sites influences academia or learning environment for students, teachers or faculty? Perspective from Vygotsky's Sociocultural Learning Theory (SLT) and its relationship to social networking sites is reviewed for teaching and learning environment.

Vygotsky's SLT has been widely referred by learning communities such as teachers, lecturers, researchers and students for his well known study on cognitive conceptual within zone of proximal development to achieve potential development for learners. Vygotsky described scaffolding within supportive environment will encourage deepen understanding of learning for learners [6]. In scaffolding, learners can be assisted by knowledgeable peer and external tools such as computer learning system, books, magazines or other technological agents such as computer application, mobile phone, laptops or websites. Learners scaffold with the help from the assistance to optimum their zone of proximal development (ZPD) and enhance from their current development to achieve their potential development (refer fig. 1).

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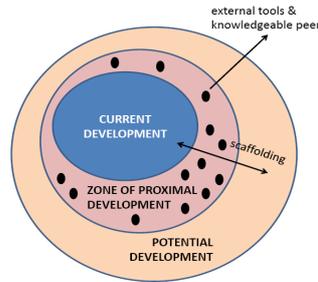


Fig. 1: Scaffolding using external tools between current and potential development by optimizing Zone of Proximal Development (ZPD) to achieve potential development.

Social interactions, communications or collaboration with more capable peers during problem solving will enhance the learners' understanding thus improve their cognitive conceptual during solving certain tasks. Instead of being told or taught by teachers in the class using drill and practices techniques, learners have the opportunity to actively participate in the class to communicate, interact, discuss and collaborate with their classmates, teachers or other knowledgeable peer [6, 7].

Students' active participation in learning are related to the interactivity between learners-teachers, learners-learners or peer critiques and feedback are encouraged [8] with the support from teaching and learning aids. Current technology using online and digital support is common and widely used by learning institutes [9, 10]. Social networking sites such as Facebook, MySpace, Friendster or Twitter have emerged as mediators for communication, collaboration and interaction between learners, teachers or faculty in the learning communities [11].

## 2. Social Learning In Learners

Social interaction during collaborative learning plays an important aspect in learning. Gokhale [12] described individual participation in group learning is significantly higher critical thinking compared to individualistic learning. This experimental result can be related to interaction and communication between individuals in a group will create cognitive conflicts thus stimulates learning to the learners [12, 13, 14]. Hrastinski [15] described social interaction in collaborative learning creates a positive impact on personal motivation and arousal; and increased learners' ability to reflect and process information.

Online discussion and chat between learners or exchange messages are communication techniques provided by social networking sites [10]. Resta & Laferrière [16] described social interaction using chat and discussion board contribute to cognitive advancement and influences academic achievement however monitoring from the teacher are needed for online learning [17] and collaborative learning [13].

Collaborative activities are enhanced by ability to create groups and allow users to join or invite other groups [18]. Groups' collaboration allows users to communicate, interact and discuss not just within friends but with other peer and experienced users on certain topics. Peer reviewing and scaffolding mediated with communication techniques in social networking sites are easier and effects curriculum activities [10].

Social Networking Sites such as Facebook and MySpace allow communication between users registered with the websites. Users communicate through chat tool or discuss learning topics using discussion board in the websites [11, 18].

Collaboration with other learners' not just user's friends such as groups [11] promotes connectedness and enhanced relationship between learners [9]. Sharing document and digital material positively influence discussion and peer reviewing to learners. Learner's posts, updates and comments on learning topic allows peer reviewing to be easier.

## 3. Growth Of Social Media In The Network

### 3.1. Current state for social media Websites

Socialbaker.com [4] reported that till November 2010 millions of users registered with Facebook.com in 213 countries worldwide. United States ranked #1 with 146, 805, 000 users, Australia ranked #15 with 9, 752, 300 users, Malaysia ranked #16 with 9, 544, 960 users, Taiwan ranked #17 with 8, 752, 760 and Thailand ranked #21 with 6, 915, 000. The number is suspected to be increased worldwide as statistics in Google Ad reveals social networking and email/messaging website listed in the most visited Top 1000 most-visited sites

on the web worldwide and 100 most-visited sites for certain countries as in October 2010 [3]. Facebook.com is the ranked #1 in the 1000-most visited sites worldwide with 37.90% followed by other social networking sites such Twitter.com ranked #13 with 6.80% and Hotmail.com ranked #28 with 3.20%.

Facebook.com has dominated the ranking according to statistics in 100-most visited sites such as Australia and United States ranked #1 with 56.30% and 51.30% from their online population while Taiwan, Hong Kong and Thailand ranked #2 with 51.20%, 61.20% and 46.50% from their online population. This list reveals slight difference in ranking percentile of visited-website between social networks category and email/messaging category [3] because social networks are basically expand from email/messaging functionality and users might not differentiate the category between social networking sites and email/messaging sites [10].

### 3.2. Social Networking Sites- Facebook.com in Malaysia

Statistically, countries listed in Google Ad [3] are using social networking web site to communicate, messaging and interacting actively. Socialbaker.com [4] calculated and statistically reviews Facebook.com penetrated in 213 countries worldwide. Users registered to Facebook.com in certain countries such as Malaysia, Indonesia, United States and South Korea are growing for the past six months [4]. Malaysia is ranked #16 worldwide with 9,544,906 users registered with Facebook.com and expected to increase consistent with growth of internet population in Malaysia according to Asia Internet Usage Statistic and Population Statistics [1] and Jabatan Perangkaan Malaysia [2]. Population of 28.25 million (until 2<sup>nd</sup> July 2010) and growth in online population at Malaysia had increased to 16 898 900 users (from 2000 – 2009) and estimated to be increased up to 59.83% in July 2010.

Facebook.com has gained popularity with users in all ages. Applications existed in the websites allows users to update profiles, communicate through chat tool and discuss on the walls, feedback to others topics through features (i.e. ‘comment’, ‘like’ and ‘share’), collaborate and interact with groups and friends and initiate learning skills with online games such as FarmVille, BarnBuddy and CupCakes [Facebook.com, 10]. These features promote users to socially interact, share interests and entertain themselves with online games offered in the websites at the same time.

## 4. Social Networking Sites For Learning?

Cain [5] and Roblyer et al.[11] described Facebook usage in higher learning institutes. The researches stated Facebook is more suitable with non-professional communication between students and faculty, however [12] suggested Facebook does have potential to be a platform for interacting and communicating with faculty or other student. Students who connect to Facebook help to build students-faculty relationship and maintain their connectedness to the faculty.

Mazman & Usluel [12] have proposed a model for educational usage of Facebook. In this study, the researchers have identified Educational Usage mediate with Purpose, Variables observed for Educational Usage are Communication, Collaboration and Material & Resource Sharing (refer fig. 2). 606 respondents participated in the online survey. Results revealed relationship between educational usage with communication, collaboration and material & sharing using Facebook.com equally have influenced positively to the respondents.

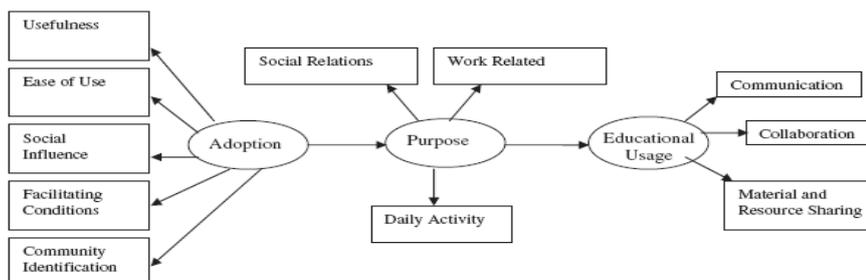


Fig. 2: Research model for educational usage of Facebook (Mazman & Usluel, 2010 [12])

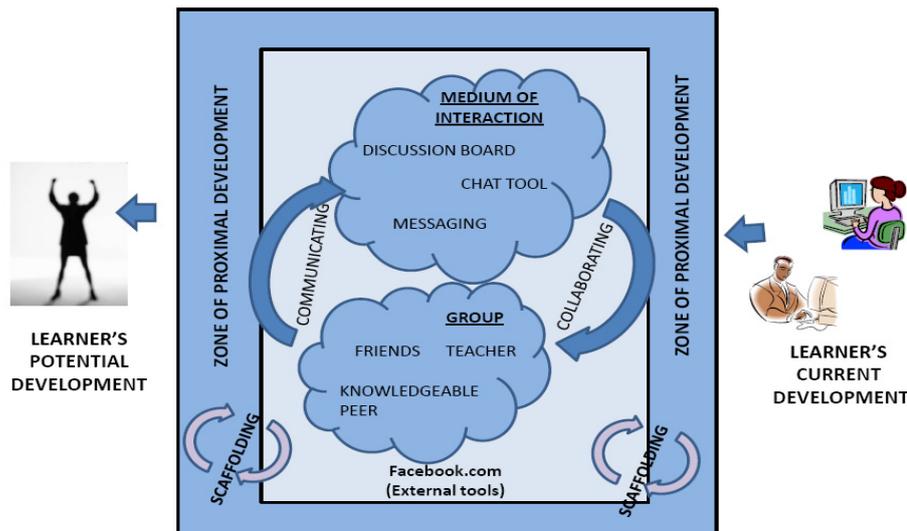


Figure 3: Learner's current development to learner's potential development by scaffolding within ZPD in Facebook.com as the external tools.

Vygotskian learning concept builds up with learners scaffolding within supportive environment [6]. Scaffolds in social networking sites [10] is possible through interaction medium features such as chat tool, discussion board and email & messaging provided by the website. Groups created such as "Educational Technology", "PhD-KPTM Candidate" and "ExMRSMB BP" [10] influence learners to collaborate and communicate easily.

Referring to figure 3, in learning situation, learners' scaffolds within supportive environment appeared in Facebook.com features. Groups consist with knowledgeable peer, teachers or friends; communicate using interaction medium to engage in discussion and peer reviewing for learning topics posted by learner. Groups' collaboration in Facebook.com application promotes learner-faculty relationship socially [5]. Jara et al.[8] described collaborative learning through online increase cognitive achievement and [16a] stated learning satisfaction is positively influenced by collaborative group learning.

Communication and collaboration during learning, scaffolds within supportive groups positively influences cognitive conceptual for learner's current development, optimise the learner's Zone of Proximal Development (ZPD) to achieve learner's potential development (refer fig. 3).

## 5. Discussions And Recommendations

Social networking sites in education or academic culture is common being used for nonprofessional communication within faculty-students or faculty-faculty relationship, however it does has positive influence for educational usage in communication, collaboration and resource/material sharing [12].

Malaysia's growth in online population and the possibility for number of users increment registered with Social Networking Sites [3, 4] creates potential to learn through social learning. Existing online teaching & learning facilities such as CIDOS (<http://www.jpp.gov.my>] for polytechnics and Moodle LMS for Universiti Sains Malaysia (<http://www.usm.edu.my>) or e-learning applications for learning institutes such as Open University Malaysia (<http://www.oum.edu.my>) and Universiti Teknologi PETRONAS (<http://www.utp.edu.my>); consistent with socialcultural learning explained in Vygotskian [6, 7].

Online teaching and learning applications in Malaysia's learning institutes indicate learners, teachers and faculties are aware of learning through internet. Researchers' observation identified that some users in learning institutes have took the advantage of having accounts in Facebook.com to post assignments, tutorial and had non-professional academics discussions [10]. Though studies revealed Facebook.com is suitable for non professional communication purposes between learners and teachers [10, 11], however it enhanced connectedness relationship within learning communities through social interaction [5].

Connectedness relationship through social interaction is reflected through active participation during visiting Facebook.com. Updating personal wall, feedback using comments, likes and share certain topics on friends'/ groups' wall and participate in online games featured in Facebook.com are common, frequent and

popular non-professional interactivity involved between users/friends. Users scaffolding between different level of difficulties, exercise certain skills such as management skills, decision making skills, calculation skills in online games featured, build interpersonal interaction skills between friends/groups and create informal learning environment to achieve professional skills are possible from application existed in Facebook.com.

Vygotskian concept of scaffolds and ZPD are consistent with Social Networking Sites such as Facebook.com mediates Malaysia's academia. This review recommends Social Networking Sites does have potential to be applied as one of teaching & learning aids at learning institutes in Malaysia.

## 6. Conclusions

Even though Social Networking Sites have influenced online worldwide popularity, significant impact on education or academic sectors are still preliminary. Researchers explained the relationship connectedness between students-faculty or students-students has potential to educational usage [5, 11, 12] and recommended scaffolds from existing applications in Facebook.com to initiate skills such as management skills, decision making skills and calculation skills. Chickering & Gamson [8] collaborative learning positively influenced learners understanding, however Dillenbourg [14] argued teacher/tutor monitoring during collaborative learning is required for learning management purposes. The researchers expressed teachers' monitoring learning activities (i.e. discussions, peer reviewing and communication) is essential to achieve learning tasks and objectives on certain subjects/topics given.

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