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Mentor Online: Students Social Ability and Their Openness to e-Mentoring

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Abstract

The traditional context of learning is experiencing a radical change. Learning is not merely based on face-to-face but also through virtual teaching. The growth of virtual teaching results in expansion of mentoring. Blending mentoring with virtual teaching create the opportunity for telementoring or e-mentoring. The purpose of this research is to discuss the e-learners experiences of socialisation in e-mentoring. The study aims to identify social ability possess by learners to engage in e-mentoring. By understanding learners social ability in online learning enables programme developers to establish communication patterns and programme goals that meet participant needs. The sample was made up of 205 distance learning programme. Multiple regression technique was carried out. Results have shown that socialisation was positively associated with e-mentoring. Limitations of the study and practical implications of these findings were discussed.

Keywords: online learning, e-mentoring, social ability, social belonging, social presence

Abstrak

Konteks tradisional pembelajaran adalah mengalami suatu perubahan yang radikal. Pembelajaran bukan hanya berdasarkan pengajaran bersemuka tetapi juga secara pengajaran maya. Kecenderungan yang meningkat terhadap pengajaran maya telah memperkembangkan aktiviti bermentor. Pemaduan aktiviti bermentor dengan pengajaran maya mewujudkan peluang untuk mengadakan telementor atau e-mentor. Tujuan penyelidikan ini ialah untuk membincangkan pengalaman e-pelajar tentang sosialisasi dalam e-mentor. Kajian ini bermaksud untuk mengenal pasti keupayaan sosial pelajar yang terlibat dalam e-mentor. Dengan memahami keupayaan sosial pelajar dalam pembelajaran secara dalam talian, pembangun program dapat mewujudkan pola komunikasi dan matlamat program yang mampu memenuhi kehendak peserta. Sampel terdiri daripada 205 jenis program pembelajaran jarak jauh. Teknik regresi berbilang telah dijalankan. Dapatan kajian menunjukkan bahawa sosialisasi berkait secara positif

dengan e-mentor. Kekangan kajian dan implikasi praktikal bagi penemuan ini dibincangkan.

Kata kunci: pembelajaran dalam talian, e-mentor, keupayaan sosial, kepunyaan sosial, kehadiran sosial

Introduction

People are looking for flexible learning to accommodate their needs for improvements. One option is through internet based learning or online learning. Internet has provided people with unlimited access to information. Over the past years, internet revolution has made online learning become popular tools for learning as an alternative to face-to-face learning. Online learning enables lifelong learning become more accessible. Internet has made the traditional context of learning experiencing a radical change. More and more universities have used internet for online teaching.

Online teaching offers vast opportunities to expand the learning environment for diverse student's populations (Keengwe and Kidd, 2010). In addition Pituch and Lee (2006) argued that students will get various instructional aids and communication methods from online learning. This is because there are a wide set of technology engage in online learning including computer based learning, web based learning, virtual classroom and digital collaborations (Urdan and Weggen, 2000). Further, online learning allowed students to participate regardless of geographic location, independent of time and place (Richardson and Swan, 2003).

Online learning or e-learning has received considerable attention as a means of providing alternatives to traditional face-to-face, instructor-led education (Douglas and Van Der Vyver, 2004). In e-learning, learning is based on learner autonomy and interactive learning action (Liaw, Huang and Chen, 2006a). Thus, guidance from instructor becomes essential to help students learning. Perhaps one way to encourage students' involvement in e-learning is to develop a mentor-mentee programme. The views are supported by Adams and Crews (2004) who stated that e-mentoring or telementoring are viable tools to help students to become involve in e-learning. Besides, e-mentoring provides synchronous "conversation" where students and instructor are able to interact at their

convenience. In addition, the telementoring do not limit their connection to specific regional location, as such more mentor and protégé can join in (Hamilton and Scandura, 2003).

Single and Muller (2001) described e-mentoring as a rapport set up between a more senior individual (mentor) and a lesser skilled individual (mentee). By using electronic communications, e-mentoring intends to develop and grow the skills, knowledge, confidence, and cultural understanding of the lesser skilled individual. Therefore, using e-mentoring to facilitate learning is important to distance learner in e-learning environment. This is due to e-learning environments offer group interaction such as learners to learners, or learners to instructors (Vygotsky, 1978). Further, Vygotsky stated that the interactions that take place in group represent cooperative learning that helps learners to make progress and feel connected by the activity in which they engage. Additionally Liaw, Huang and Chen (2006a) argued when learners increase their interaction with instructors and learners, they in turn raise their chances of building their own knowledge. This is due to most learning inevitably take place within social context, and the method includes the common construction of understanding (Bruner, 1971).

The proliferation of e-mentoring has raised questions about the quality of interaction between mentor and protégés. According to Dark et al. (2007) there are two features that impact learning in an online distance learning namely presence and interaction. To address this matter author such as Rouke et al. (2001) have raised the issues of immediacy and social present during asynchronous discussion because learning takes place during interaction (Cicciarelli, 2007). In addition, Tham and Werner (2005) pointed out that distance learners students are isolated and socialisation chances among classmates appeared unlikely.

Thus following this line of viewpoint, the present study seeks to find out the significant of socialisation in e-mentoring. The research question of interest to this study is to what extent do social ability influence e-mentoring. Specifically what is the connection between social ability and e-mentoring? The results deepen our understanding how student's view of social ability associates to the use of e-mentoring.

e-Mentoring

Bierema and Merriam (2002) defined e-mentoring as "a computer mediated, mutually worthwhile between a mentor and a protégé that provides learning, advising, encouraging, promoting, and modeling, that is often boundaryless, egalitarian, and qualitatively different from traditional face-to-face mentoring". On the other hand, Single and Muller (2001) described e-mentoring as the merger of mentoring with electronic communications and has also been termed telementoring, cybermentoring, or virtual mentoring. Similarly, Hamilton and Scandura (2003) defined e-mentoring as a method using electronic means as the primary channel of communication between mentors and protégés. Acknowledging e-mentoring used electronic communications, Stokes, Garret-Hariss and Hunt (2003) concluded that the key feature of e-mentoring lies in internet, using e-mail and list servers and non-face-to-face method of interactions. For the purpose of this research, considering learning occurs through online discussion, the author shares Single and Muller (2001) views of e-mentoring that is combination of mentoring and electronic communications.

Purcell (2004) noted there are many benefits of mentoring and more organisations are creating and experimenting with electronic mentoring. Bierema and Hill (2005) claimed that e-mentoring provides flexibility and easy access, reducing barriers to mentoring because of their gender, ethnicity, disability or geographical location. This view is supported by Fagenson-Eland and Lu (2004) who argued that barriers to gender, ethnicity and disability reduced in virtual relationships. Price and Chen (2003) suggested there are six benefits of telementoring. First, telementoring is available in a vast distance. Online chats and online bulletin boards allow mentors to "talk" to more than one mentee at a time (Adams and Crew, 2004). Second, mentee has opportunity regardless of time and place. Third, a vast guidance and support are available through online. Fourth, mentees are able to contribute and share knowledge among participant in the programme. Fifth, it creates a collaborative learning between teachers and learners. Sixth, organisations that opt for telementoring can choose the communication methods that are suitable for their use.

Unfortunately, there are several possible drawbacks in e-mentoring. Disadvantages may include lack of technology skills (Adams and Crew, 2004). Generally most e-mentoring programmes make the assumptions that participants have similar skill in technology and communications (Kasprisin and Single, 2005). Further, the author claimed that the assumptions tend to be false and can cause many problems to the programme effectiveness. Price and Chen (2003) argued that participant may also have different personality, motivation, involvement and value which will impact the effectiveness during the duration of e-mentoring. Participants may be unable to establish online relationship (Kasprisin and Single, 2005). As Loureiro-Koechlin and Allan (2009) argued that participants may be present online in the sense that they read discussion group message; however their present may be invisible to others unless they post messages or engage in online chat.

Johnson, Geroy and Griego (1999) stated that there are two critical forces that affect e-mentoring and these are the environment of the individuals and their relationships. Therefore Bierema and Hill (2005) raised the issues of difficulty in creating a virtual match and building a relationship based on trust. It is important to the developers of e-mentoring to create a cyberspace community to ensure participant involvements. According to Kasprisin and Single (2005), to ensure successful e-mentoring, the programme developer need to address these issues;

- Characteristics, needs, and expectations, of protégés and mentors in several areas (Bennett et al., 2003; Harris and Figg, 2000).
- Programme developers need to determine unique characteristics of the participants, the participants' ability to access the technology, and their ability to use it effectively (Friedman, Zibit and Coote, 2004; National Mentoring Center, 2002).
- The subject matters of interest to them (Harris and Jones, 1999).
- Programmes need to determine and match expectations of protégés and mentors in frequency and types of communications and programme goals (Neill and Harris, 2000).

Kasprisin and Single (2005) further stated that having this information will enable the programme developers to determine the technology, training and coaching needs of participants, and help establish communication patterns and programme goals that meet participant needs. While the

issues are critical to the success of e-mentoring, it is also important to a programme developer to consider the issues of participant's social ability. Individuals who participated in e-mentoring should have the ability to socialise in cyberspace. As Cutler (1995) said "Cyberspace technologies have changed the way people socialise where human interactions take place over electronic network". Social ability enables participants to project their presence in electronic communication.

Social Ability

The nature of online learning enable participant to communicate at the distance. Burgstahler and Crawford (2007) pointed out that communication in an electronic forum so called electronic mentoring or e-mentoring is another alternative for mentors and protégés. Essentially, connection established from electronic forum is convenience in time, location and low cost (Burgstahler and Cronheim, 2001; Cohen and Light, 2000; Harasim and Winkelmans, 1990; Ho, 2000; Sword and Hill, 2002). However this communication requires participants to possess trust beliefs, norms and values to determine successful collaborations (Kirschner and Kreijns, 2005). Further, the author noted that the social aspects mentioned above do not occur "by themselves". A person needs to develop their own socialisation as to belong to the community.

In e-mentoring, social ability become important to how participant associate themselves socially in online community. Participant's social ability explains how participants experience and perceive social interaction while they make relations with other individual, use social practice tools, and undertake task in online learning environment (Laffey, Lin and Lin, 2006). Social engagement enables participants to form relationship despite physical distance. Also, the role of social context has profound effect based on teamwork and shared resources (Laffey, Lin and Lin, 2006). Preece (2001) pointed out that communities with good sociability have social policies that support the community's purpose and are understandable, socially acceptable and practicable. Besides, Kreijns, Kirschner and Jochems (2002) claimed that social interaction appears to be particularly important for achieving shared understanding and the construction of knowledge based on the social negotiation of views and meanings. Further, the authors cited Hiltz (1994) stating that "the social

process of developing shared understanding through interaction is the 'natural' way for people to learn".

Social ability consists of three constructs that is social presence, social navigation and social connectedness (Laffey, Lin and Lin, 2006). Short, Williams and Christie (1976) were apparently the first to use the term social presence in their research. The authors define social presence as the "degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships". However, Garrison (2009) in his study referred social presence as "the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities". As such Lin, Lin and Laffey (2008) concluded that in online learning environments social presence includes the sense of "being there" and the sense of "being there with others". Besides, a study by Gunawardena and Zittle (1997) found that social presence is a predictor of learners satisfaction.

In the online context, social navigation is an important tool contributing to improved learners interaction. Dourish (1999) defined social navigation as "a particular phenomenon, in which a user's navigation through an information space was primarily guided and structured by the activities of others within that space". In other words, social navigation represents being able to use what others are doing as a primary guide for one's own actions (Lin, Lin and Laffey, 2008). Bolman et al. (2007) stated that navigation tools help learners to interact, which provide advice on the next module to study based on the numbers of time a module had been successfully completed by other learners.

A review of prior literature suggests that learning takes place when people interacting to each other (Vygotsky, 1978; Wenger, 1998). Slagter and Bishop (2006) suggested that within the social structure, learners build a feeling sense of belonging through interpersonal interaction and collaborative meaning making. Further, Ma and Yuen (2011) noted the need to stimulate goal-directed activities. According to the author, when people motivated to belong in a society, they will attempt to find a rapport as to build social connectedness. This will affect every aspect of an individual's cognitive and emotional processes, including learning. Lin, Lin and Laffey (2008) defined social connectedness as "an attribute

associated with social capital, refers to the social ties among participants and the sense of membership". However Rourke (2000) stated that there is a certain condition to occur in order to have students participating in the discussion which is "trust, feeling sense of warmth and belonging, and feel close to each other".

Methodology

Purpose of the Study

The purpose of this research is to investigate the role of social ability in e-mentoring. Specifically this research would like to answer how is social ability (social presence, social navigation and social connectedness) influence e-mentoring.

Given the fact that social ability was associate with learning outcome, the researchers believes that social ability also play a prominent role to facilitate e-mentoring. Social ability which focuses on social interaction (Preece, 2001) will expect to help students to engage to their mentors.

Subjects and Data Collection

The study was conducted at the School of Distance Education, Universiti Sains Malaysia. The School of Distance Education was chosen due to the nature of their adult learners, who are geographically dispersed and have conflicting schedules. Students meet their teachers both on-line and face-to-face during intensive weeks.

e-Portal was designed to cater teaching and learning processes at the School of Distance Education. The purpose of e-portal is to help students in learning processes. e-Portal enable students to access learning material, e-mail, live chat sessions, online discussions, forums, quizzes and assignment at any place and at any time. All students are required to use e-learning portals for their discussion, which allows teachers-students, and students-students asynchronous interaction. The teachers will act as a mentor to the students. Data was gathered through self-administered questionnaires.

A total of 500 questionnaires were distributed to the students with different programme namely humanities, social sciences, management and sciences. The overall response rate was 41% (205 students). Table 1 reports the demographic information.

Table 1 Demografic information

Demographic information		Numbers of respondents	Percentage (%)
Gender	Male	95	46.3
	Female	110	53.7
Race	Malay	138	67.3
	Chinese	39	19.0
	Indians	8	3.9
	Others	20	9.8
Programme	Management	30	14.6
	Humanities	18	8.8
	Social sciences	98	47.8
	Sciences	51	24.9
Study status	Year 1	49	23.9
	Year 2	49	23.9
	Year 3	46	22.4
	Year 4	54	26.3
	Year 5	5	2.4

Measurements

In measuring social presents, the researchers adopted a questionnaire from Swan and Shih (2005). These items measures respondents' perceptions of the social presence of peers, and instructors. Social navigation was assessed using 4-items scale developed by Laffey, Lin and Lin (2006), to indicate awareness of what others are doing as a primary guide for one's own action. Respondents indicated on a 5-point likert scale, with 1 = "strongly disagree" to 5 = "strongly agree".

Social connectedness was assessed based on sense of belonging questionnaires adapted from LaPointe and Reisetter (2008). The respondents were asked to evaluate how they felt about the importance of

online learning community in their learning. Social connectedness were evaluated using a five-point scale ranging from 1 = "strongly disagree" to 5 = "strongly agree.

E-mentoring was measured by adopting a questionnaire from Kasprisin et al. (2008). These items measured e-mentoring from three perspectives that are involvement, satisfaction and value. Respondents indicated on a 5-point likert scale, with 1 = "not at all" to 5 = "very much" (see Table 2).

Data Analysis

The data was analysed using SPSS version 18. Factor analysis was used to identify the underlying construct to assess social ability and e-mentoring. Following Parker, Endler and Bagby (1993) the following criteria were used in order to determine what items should be retained: (a) items had to load significantly (>.35) on a given factor and lower than .35 on the other factors, and (b) following the rational approach to scale construction, an item was eliminated if it lacked conceptual coherence with its factor. Reliability analyses were run to look for the robustness of the scale following Nunnally (1978).

Results

Factor Analyses and Scale Reliabilities

Factor analysis for social ability in this study was run separately. First, factor analysis was run for social presence and social navigation. The three factors emerged accounting for 62.95% of the variance. Eight items were eliminated because they loaded > 0.35 on more than one factor. Factor 2 was also eliminated because it appears as single items. Floyd and Widaman (1995) cited Comrey (1988) stated that in general, three variables per factor are needed to identify common factors. The factors were named as social presents and social navigation. The coefficient alpha ranged from .87 to. 74. (See Table 2).

Social connectedness was composed of three factors accounting for 71.85% of the variance. Four items were eliminated because they loaded > 0.35 on more than one factor. The factors were named as experience of belonging, importance of belonging and connectedness. The coefficient

alpha for "experience of belonging" was 0.90, "importance of belonging" was 0.91 and "connectedness" was 0.85. (See Table 2).

The factor analysis for e-mentoring produced two factors namely involvement with mentor and value of participation. The variance explained for the two factors are 64.43%. Five items were eliminated because they loaded > 0.35 on more than one factor. The coefficient alpha for "involvement with mentor" was 0.82, and "value of participation" was 0.87 (see Table 2).

Bivariate Correlation

The means, standard deviations, reliabilities, and intercorrelations of all study variables are listed in Table 2. As can be seen from the zero order correlations, the predictor variables (social ability) generally show moderate relationships with outcome variables.

Table 2 Descriptive statistics, Cronbach's Coefficient alpha, and zero-order correlations of all study variables

Variables	1	2	3	4	5	6	7
1. Value of participation	.87						
2. Involvement with mentor	.437**	.82					
3. Social presence	.382**	.221**	.87				
4. Social navigation	.327**	.104**	.497**	.74			
5. Experience of belonging	.405**	.235**	.539**	.484**	.90		
6. Importance of belonging	.430**	.214**	.541**	.455**	.680**	.91	
7. Connectedness	.361**	.236**	.502**	.365**	.690**	.695**	.85
Mean	3.55	2.66	3.71	3.86	3.49	3.64	3.44
Standard Deviation	.74	.97	.60	.54	.67	.71	.67

*Note: N = 205, **p < 0.01; Diagonal entries indicate Cronbach's Coefficient alpha*

Do Social Ability Influence e-Mentoring

To determine whether social ability will influence the engagement in e-mentoring, multiple regression analysis was conducted. Regression analysis was used to predict the independent variable of social ability (social presence, social navigation and social connectedness) and dependent variables of e-mentoring (involvement with mentor and value of participation). The results from regression analysis are shown in Table 3 and Table 4.

Table 3 shows the result of social ability and involvement with e-mentor. The results of this analysis showed that there is a moderate linear correlation between variables, R = .277 and R^2 = 0.077, indicating approximately 7% of the variance of the social ability contribute to involvement with e-mentor. Although the overall regression model was significant, F = (3.830, $p < 0.01$), individual predictor of social ability was not significant. Table 3 summarises the result of regression analysis.

Table 3 Regression results social ability and involvement with mentor

Predictors	Dependent Variable Involvement with e-mentor		
	β	***t***	**Sig**
1 (constant)		2.185	.030
Social presence	.128	1.441	.151
Social navigation	–.061	–.738	.461
Experience of belonging	.104	.976	.330
Importance of belonging	.033	.309	.757
Connectedness	.099	.944	.346
R^2	.077		
F	3.300*		

Table 4 shows the result of social ability and value of participation. The result of the regression indicated the two variables explained 25.8% of the variance (F = 13.710, $p < 0.01$). It was found that social presence predicted value of participation ($\beta = .160$, $p < 0.46$), as did importance of belonging ($\beta = .250$, $p < 0.09$). Thus, with one unit change in social presence, there is .160 increased in students valuing of participation in e-mentoring. So does

importance of belonging in predicting valuing of participation. When there is one unit change of the student's sense the importance of belonging, there is .250 increased in students valuing of participation.

Table 4 Regression results social ability and value of participation

Predictors	Dependent Variable Value of Partcipation		
	β	***t***	**Sig**
1 (constant)		3.116	.002
Social presence	.160	2.010	.046**
Social navigation	.078	1.039	.300
Experience of belonging	.117	1.215	.226
Importance of belonging	.250	2.626	.009*
Connectedness	.013	.136	.892
R^2	.258		
F	13.710*		

*$p < 0.05$, **$p < 0.10$

Discussion

The main purpose of this study is to examine the impact of social ability in facilitating e-mentoring. Future trends have shown that e-mentoring has became more popular (Kasprisin et al., 2008). To enhance e-mentoring for online students, social ability plays a prominent role as to ensure continuous commitment.

The result has shown that there was a significant positive correlation between social ability and e-mentoring. In other words, students who possess social ability will engage in e-mentoring. It appears that social ability is beneficial for e-mentoring. The students who are able to socialise in virtual environment allow the greater use of e- mentoring. Socialisation will stimulate learners intimacy which in turn give learner the opportunity to involve in learning. According to Kirschner and Kreijns (2005), "when social affordances are perceptible, they invite learners to engage in activities that are in accordance with these affordances".

This present study hypothesised that students who possess social ability will engage in e-mentoring. There are two elements involved in engaging

with e-mentor and they are the involvement with the mentor and value of participation. The researcher believed that when students have social ability, they will get engage with their mentors. In other words, students who have possessed social presence, social navigation and social connectedness will get involve with the mentors and valuing their participation in e-mentoring.

Multiple regression analysis revealed that the result is only partially supported. Social ability which consists of social present, social navigation and social connectedness (experience of belonging, importance of belonging and connectedness) were partly related to e-mentoring (involvement with the mentor and value of participation). Social ability was not related at all with student's involvement with their mentor. A possible explanation for this might be the students perceive a gap between them and the mentor and also due to the feeling of fear and anxiety to contact mentors. Moreover, in online learning environment, students sometimes feel disconnected since the mentors are at a distant. It seems that the instructor's role needs to be altered from a lecturer to a facilitator as to allow students to become active learners (Richardson and Swan, 2003). Teachers need to take an active role to facilitate interaction. Research done by Ni and Aust (2008) suggested that "when teachers' posting messages are more inviting, students will perceived higher degree of teacher immediacy and they will be more likely to post more often". This finding suggested that teacher immediacy concept is a possible solution to unfreeze the gap between students and instructors.

Mehrabian (1967) defined immediacy as communicative behaviors enhance interpersonal closeness in interpersonal communication. Woods and Baker (2004) stated that immediacy can have verbal forms (psychological closeness produced by word selection) and non verbal (psychological closeness produced by physical communicative behaviors). According to Kearney, Plax and Wendt-Wasco (1985), immediacy concept was found to associate with greater use of knowledge acquire. In addition a study by Menzel and Carrel (1999) found that teacher verbal immediacy was positively related to a student's perceived learning and willingness to talk in class.

Another important finding was that social ability was found to influence student's value of participation in e-mentoring. There are two dimensions

of social ability that influenced value of participation. They are social presence and social connectedness (the importance of belonging). The regression analysis indicated that importance of belonging was the most significant predictor (25%) of the variance in value of participation. It seems possible that this result are due to some learners need to belong to community in order to feel part of the group. Students engage more in e-mentoring when they feel they belong to the group. Furthermore, researchers also emphasise a student's need to belong to a learning community in order to achieve optimal learning (Baumeister and Learry, 1995; Osterman, 2000; LaPointe and Reissetter, 2008).

This study has shown that social presence contribute 16% of the variance in value of participation. The findings for these studies suggested that social presence is an important indicator of student's engagement in e-mentoring. Students with social presence highly valued participation in e-mentoring. Students are better able to project their presence in online interaction which encourages online participation. This finding is in agreement with Venkatesh and Johnson (2002) findings which showed that social richness has an effect on usage behavior.

Social ability does play a role in e-mentoring. Establishing social ability in online learning is important as students are isolated and remote. There is, therefore, a definite need for instructional design to consider socialisation features in their design. McInnerney and Robert (2004) have suggested three protocols to aid online social interaction; the use of synchronous communication (use software tools such as blackboard, web CT); the introduction of a forming stage (the use of chat room, forum); and the adherence to effective communication guidelines.

Further, teachers' active role as a facilitator enables student to reduce barriers in communication. Teachers need to give immediate feedback for students to feel a sense of belonging in online community. Additionally, it does encourage students more open to discussion and lead to students' interaction with the mentors. According to Hoskins and Hooff (2005), student will only sharing the information when they feel part of the community. Additionally, teachers also need to have skill in responding to students questions. Moreover, there is a different mode of expression involves in online learning comparing to face-to-face. Tiene (2000) stated that in online discussion people can only see the written expression. As

such teachers also need empathy skill to accommodate with the written skills.

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