Investigation of Assistance from Students that Influence Online Interaction

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Abstract: The purpose of the paper was to identify the usefulness of assistance from teachers in relation to the students' interaction in an online learning context. The findings of the study indicated that students possessed remarkably clear views as to the nature of the assistance from other students that influenced their online learning results. Online students may find these results useful in enhancing the effectiveness of online studying. The support may also assist in students' developing problem-solving skills, reaching deeper understandings, and achievement in successful online learning.

Keywords: assistance from students, online interaction, online learning

1. Introduction

Online interaction is an important element in the online learning context. In Berge's (1999) study, online interaction can assist in maintaining students' persistence with online learning. Berge (1999) further states that online learning can take place only after online students have engagement with interaction between them and online teachers.

Compared with the interaction between student and teachers, the interaction between student and other students is horizontal, which means the students can interact with each other at the same level (Overbaugh, 1994). Kennedy (2000) further states that teachers often use the strategies they experienced when they were students or they draw from the repertoire of widely accepted common practice; however, few teachers have any direct past online learning experience because they usually experienced their education in traditional classrooms (Jonassen et al., 1995). Therefore, the online interaction between student and students is important to students' success in online learning.

The study of interaction between student and other students is important for students to undertake successful online learning (Trentin, 2000). Researchers (e.g., Johnson, Aragon, Shaik & Palma-Rivas, 2000; Picciano, 2002; Richardson & Swan, 2003; Swan, 2002; Trentin, 2000) found that facilitating interaction among students could improve students' success in online learning. The interaction between student and other students is important for the online students in structuring and facilitating an effective online learning experience, and helping to establish an online learning community among the online students (Wilson, 2004). However, even in this horizontal interaction, certain students have more authority than others. These students can obtain the knowledge from the other information or textbooks and express their ideas efficiently; and some representations or arguments of these students may carry more weight than those of other students (Hubscher-Younger & Narayanan, 2003). Although these studies have presented some recommendations, such as to allow student to work alone and together, and to encourage divergence and lessen the effects of identity, there is still a need to investigate further the interaction between student and other students especially through examining the assistance from other students and how the assistance encourage online students to think diversely, compete less and realise their partiality. With the assistance from other students, students can benefit a great deal in collaboration and communication with other students in online discussion and/or communities (Jonassen et al., 1995; Warschauer, 1997). Kennedy (2000) stated that students' success in learning could be improved by adopting the helpful

strategies found by the successful online students. The assistance from other students may help online students to achieve successful online learning.

2. Hypotheses

In an attempt to build upon the previous research, the present study aimed to investigate the assistance from other students and how the assistance influences students' online interaction. Although much existing research has been undertaken about the interaction, further research is required to investigate the assistance from other students, which may influence online interaction and students' success in online learning. As far as the assistance is concerned, little research has been conducted about its usefulness in the online interactions. Further research is required to study the usefulness of the assistance from students; moreover, there is a need to investigate further to what extent the assistance may be found useful by the students for their online interactions and the reasons why the assistance are useful to students' success in online learning.

3. Method

3.1 Participants

One hundred and fifty-two English language-major full-time students, age range from 19 to 25 years old, in Changzhou University, China, participated in the questionnaire survey.

3.2 Instruments

The students' demographic background and their self reports about their liking of traditional classroom learning and online learning and their success in traditional classroom learning and online learning were investigated firstly. The identified factors in supports from teachers were obtained from a pilot study. A 4-point scale was used: *Not useful*, *somewhat useful*, *very useful*, and *essential*. The scale used the following: 1 = *not useful*, 2 = *somewhat useful*, 3 = *very useful*, and 4 = *essential*.

3.3 Procedures

The questionnaire survey was administrated with the assistance from the course coordinator and program directors. The survey was conducted at the beginning of Semester 2, 2005 and was 20 to 30 minutes in duration. Survey instruments were handed out to the students with the consent forms by the researcher and course coordinator.

4. Findings

4.1 Means and percentages of assistance from students

Table 1 presents the means and standard deviations of the ratings of the usefulness of the assistance from students. All the means of the assistance were rated above "somewhat useful", in which the factor "sharing different opinions with other students" was rated highest. The lowest rating of the means of the assistance from other students is the factor "helpful response/comments from other students".

Table 1

Usefulness of assistance from other students (means)

Assistance	Mean	*SD*	*N*
• Sharing different opinions with other students	2.89	0.69	151
• Tips on how I could succeed in online learning from other students	2.84	0.72	150
• Discussing the assignments	2.79	0.74	151
• Timely response/comments from other students	2.61	0.75	151
• Helpful response/comments from other students	2.57	0.69	151

Note: (a) The means of the ratings are presented in order, from highest to lowest, using a 4-point scale anchored 1 = not useful, 4 = essential. (b) A repeated measures ANOVA on the above means revealed a significant effect, $F(4, 596) = 9.6$, $p < .001$.

Table 2 presents the percentages of the assistance from other students. It was found that the two factors ("timely responses/comments from other students" and "helpful response/comments from other students") were rated very closely with 48% and 47% (respectively) as "a little useful" support while the factor "timely response/comments from other students" was rated higher with 12.5% than the factor "helpful response/comments from other students" with 7.9% as an essential factor by the respondents.

Table 2

Usefulness of assistance from other students (percentages)

Assistance	1	2	3	4
• Sharing different opinions with other students	1.3	23.7	57.9	16.4
• Tips on how I could succeed in online learning from other students	1.3	27.6	53.3	16.4
• Discussing the assignments	2.6	30.3	50.7	15.8
• Timely response/comments from other students	2.6	45.4	38.8	12.5
• Helpful response/comments from other students	2.6	44.1	44.7	7.9

Note: (a) All above figures represents percentages within each item.
(b) 1=not useful, 2=somewhat useful, 3=very useful, and 4=essential.

4.2 Students' online success level (OSL) and the assistance from students

The relationships between the ratings of the usefulness of the assistance from other students and the students' self-reported OSL are to be reported in this section. In Table 3, correlations between OSL and the ratings of the assistance from other students are shown.

Table 3

Correlation table of self-reported success in online learning context (OSL) with ratings of assistance from other students

Item	*r*	*p*
• Sharing different opinions with other students	0.12	*ns*
• Tips on how I could succeed in online learning from other students	- 0.05	*ns*
• Discussing the assignments	0.12	*ns*
• Timely response/comments from other students	0.05	*ns*
• Helpful response/comments from other students	0.09	*ns*

Note: N = 152

All the ratings of the assistance from the other students were not related significantly with the students' self-reported OSL (see Table 3).

The variable "Success2" was created by categorising the 6-point scale into two groups: 1 = less successful (from 1 to 3 in the 6-point scale), and 2 = successful (from 4 to 6 in the 6-point scale). Ninety-six students who reported 1 to 3 in the 6-point scale were less successful students in their online learning; while 55 students who reported 4 to 6 in the 6-point scale were successful students in their online learning (see Table 4).

Table 4

Frequencies of Success2

Success in online learning	*n*
Group 1: Less successful	96
Group 2: Successful	55

Note: N=151

The relationships between the ratings of the assistance from other students and the variable "Success2 (successful and less successful groups)" were reported. Despite the correlations between the findings of the assistance from other students and the students' self-reported OSL not achieving significance, the relationship between the ratings of the factors ("helpful responses/comments from other students", "sharing different opinions with other students", and "discussing the assignments") and the variable "Success2" was

found significantly related by using one-way ANOVA (see Table 5). Students who rated themselves as successful in their online learning rated these factors ("sharing different opinions with other students", "discussing the assignments with other students", and "helpful response/comments from other students") as relatively more useful (means shown in Table 5).

Table 5

One-way ANOVA table of Success2 with ratings of factors "helpful responses/comments from other students", "sharing different opinions with other students", and "discussing the assignments"

Item	*F (1, 148)*	*p*	*d*
1. Sharing different opinions with other students	5.44	0.02	0.39
2. Discussing the assignments	4.27	0.04	0.35
3. Helpful response/comments from other students	5.65	0.02	0.40

The reasons why the assistance from other students was useful were investigated. Students were asked to respond in writing to the probe "*Please state your reasons why the assistance from other students is useful*". Of the 152 students, 44 students responded, and the overall number of reasons given was 53. The reasons that the students mentioned were categorised as following, and the number in brackets represents the frequencies of reasons:

A) The assistance from other students helps the students exchange different opinions and understand each other better (26);

B) The assistance from other students helps students discuss the problems and questions more openly (15);

C) The assistance from other students improves the students' abilities of studying and filtering the useful information (10);

D) The assistance from other students improves the relationships among students (1);

E) The assistance from other students increases the students' learning interests (1).

5. Discussion and Conclusion

The findings showed that all the identified assistance from other students was rated above "somewhat useful" to students' online interactions. Similar findings were found in other studies (e.g., Jonassen, 1999; Jonassen et al., 1995; Trentin, 2000; Wagner, 1997; Warschauer, 1997; Wilson, 2004). Student who rated themselves as successful in their online learning rated the assistance relatively useful. It implies the assistance from other students is perceived as a significant factor to their online success level. It is consistent with some other findings (e.g., Jonassen et al., 1995; Kennedy, 2000). The finding of the present study reinforces the usefulness of the assistance from other students in the online learning context (e.g., Jonassen, 1999; Miller & Miller, 2000). The ratings of the three factors (*helpful response/comments*, *sharing different opinions*, and *discussing the assignments*) were found significantly different in the groups of the less successful students and the successful students. This aspect of results mirrors the statements from the studies in Johnson and Johnson (1996), Schneider (1994), Wagner (1997), and Warschauer (1997) that the major types of response/comments from the other students can help students benefit a great deal in communicating with other students by giving and receiving feedback, exchanging resources and information, and sharing exiting knowledge with other students. This aspect of the findings of Reasons A and B is consistent with statement from other researchers (Jonassen, 1999; Schneider, 1994; Wagner (1997). This aspect of the findings of Reason C again mirrors the statement that filtering information requires selective attention (Ryder & Hughes, 1997).Reason D support Teles and Rylands' (1998) findings that when students work collaboratively, there is increased motivation and learning Reason E mirrors the findings from other research. Compared with the support from teachers, the assistance from other students may be more easily accessed

because the interactions among students are on the same level and students can obtain knowledge from others (Hubscher-Younger & Narayanan's, 2003).

Further research is needed to investigate teachers' understanding about student's motivational factors and attitude towards the factors which may influence their online interactions and success in online learning, so that students can be involved actively in the online interactions with other students. Investigating the assistance from other students can be undertaken in future research to assist online teachers in enhancing the effectiveness of online scaffolding and online instruction.

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