

EFFECTS OF HELP SEEKING TARGET TYPES ON COMPLETION RATE AND SATISFACTION IN E-LEARNING

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Abstract

The purpose of this research was to investigate the relationships between students' help seeking target types and e-learning focusing on students' completion rate and satisfaction. In this research, 292 students in e-learning courses at a university in Japan were categorized into 4 types of help seeking target; (1) Unnecessary of help, (2) Necessary of help, Action (Formal Target), (3) Necessary of help, Action (Informal Target), and (4) Necessary of help, No action. The overall completion rate averaged .843 and the overall satisfaction ranging from 1 (Not satisfy at all) to 4 (Very satisfy) averaged 2.96. For data analyses, overall MANOVA with two dependent variables, completion rate and satisfaction, was significant ($\Lambda=.929$, $F(6, 574)=3.567$, $p=.002$). ANOVA was conducted for each dependent variable. The results showed that there was a statistical significance between help seeking types and satisfaction ($F(3, 288)=5.669$, $p=.001$), although no significance was found for the completion rates ($F(3, 288)=1.995$, $p=.115$). The results indicated that Type (3) may have positive effects on satisfaction in e-learning. This means that students who could use other resources as well as formal target such as teachers or mentors may actively engage their learning and lead to positive affective reaction after the course. The research findings should provide significant information to teachers, administrators, and researchers of e-Learning to plan and provide effective and appropriate helps to learners.

Keywords: e-Learning, help seeking, higher education, satisfaction, completion rate

1 INTRODUCTION

One of biggest differences between traditional classroom learning and e-learning could be ways to seek for help. In the classroom, students mostly ask questions to and consultant with their teacher or teaching assistants as formal resources and in most cases, they seek for help to their formal resources face-to-face. While e-Learning allow students to consult with other resources as well as formal resources and to use different means such as e-mail, bulletin board system of a learning management system (LMS), and social networking to ask question to their classmates and even to their teacher. In other words, target and means of help seeking may change in the setting where students are studying with networked computers. The purpose of this research was to investigate the relationships between students' online learning and their help seeking types focused on target. Satisfaction and completion rate for e-Learning were considered in this research. At the first stage of our research project, we designed and develop e-mentor support system (Yamada, Goda, Saito, Matsuda, Kato, & Miyagawa, 2011) based on a learner support prediction model for e-Learning (Goda, Yamada, Kato, Matsuda, Saito, & Miyagawa, 2010). Now our project is at the second stage and its goal is to develop a function for LMS to help online learners cultivate their self-regulated skills including help seeking while they are learning the study contents. This research serves a fundamental research to examine online learners' help seeking tendencies and conditions, which should be useful for us to design the function.

2 HELP SEEKING AND E-LEARNING

e-Learning provides less restriction in students' learning. In other words, students could learn at any time and any place. However, this less constraint learning setting requires students' self-regulation.

Self-regulation refers to the degree to which students are “metacognitively, motivationally, and behaviorally active participants of their own learning process” (Zimmerman, 1989). Help seeking can be an important self-regulated learning strategy (Karabenick & Newman, 2006) and it involves self-reflection and motivational regulation. In fact, a commonly used inventory for self-regulated learning, Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991) includes question items related to help seeking. Newman (2009) suggested there should be three key factors for adaptive help seeking; necessity, content, and target. Wolters and his colleagues (2003) showed subcategories for help seeking in their inventory, which were General Intention to Seek Needed Help, General Intention to Avoid Needed Help, Perceived Costs of Help seeking (threat), Perceived Benefits of Help seeking, Perceived Benefits of Help seeking, Instrumental (Autonomous) Help seeking Goal, Expedient (Executive) Help seeking Goal, Seeking Help from Formal Source (teachers), Seeking Help from Informal Source (other students), Perceived Teacher Support of Questioning. In our research project, we have been focusing on e-Learning and also found that help seeking is one of four important factors in self-regulated learning for e-Learning along with affective, cognitive, and self-independence factors (Goda, et al, 2010). In this research, we focused on target of students’ help seeking in e-learning with comparisons of formal (teacher and mentor) vs. informal (other students or people) resources and tried to investigate the relationship between the help seeking target types and students’ behaviour (completion rate) and attitude (satisfaction) for e-Learning.

3 METHOD

In this research, a survey and observation method was used to collect the data in e-Learning courses at a private university in Japan.

3.1 E-Learning Course Description and Research Participants

The target e-Learning courses were delivered full online with a learning management system (LMS) at the university and three courses of a same instructor were selected to minimize the effects of instructor characteristics. They were designed and developed by an e-Learning professional team at the university and implemented by an instructor and a mentor for an each course (Goda, et. al., 2009). The interactions and communications for learner support were done through mail and bulletin board systems on the LMS. Students could ask inquiry and consult with the formal resources (their teacher and mentor) with and without directing a respondent. There were total 410 students registered the target courses and the average course completion rate was 85.24%. The 292 students completed a researchers-developed questionnaire were analysed in this research.

3.2 Instruments and Data Collection

There were two dependent variables, completion rate and satisfaction towards e-Learning and one independent variable, help seeking target type in this research. In order to collect the data related to students’ satisfaction and help seeking target types, the researchers-developed questionnaire was utilized. The question items on the help seeking necessity during the semester, main help seek target, and actions of help seek were included to determine students’ help seek target types. An overall satisfaction for the course was asked with a 4-point Likert scale ranging from 1 (Not satisfy at all) to 4 (Very satisfy). The completion rate was calculated with the records on the LMS.

3.3 Procedures and Data Analysis

The questionnaire was conducted at the end of the semester with a questionnaire function of the LMS. The research participants were categorized into 4 types of help seeking target; (1) Unnecessary of help, (2) Necessary of help, Action (Formal Target), (3) Necessary of help, Action (Informal Target), and (4) Necessary of help, No action. The alpha was set .05 priori to the data analysis, and in order to avoid the alpha inflation, MANOVA was done first, and then ANOVA for each dependent variable was conducted once the MANOVA result was significant.

4 RESULTS

The results of help seeking target type and the inferential statistics were demonstrated below.

4.1 Help Seeking Target Types and Results of Descriptive Statistics

The students' help seeking target types were organized in Figure 1. The student numbers (percentages over 292 students) of Type (1) to (4) are as followed respectively: 118 (40.4%), 77 (26.7 %), 40 (13.6 %), and 57 (19.5 %). There are 118 students who did not need help during the semester, while 174 students encountered the occasions of the need for help. Then in the students with the necessity of help seeking, 67.3% of the students took action of help seeking either to formal or informal target.

Table 1 shows the results of the descriptive statistics for two dependent variables. The overall completion rate averaged .843 and the overall satisfaction averaged 2.962 over 4.000. The highest rate for completion rate was marked in Type (3) Necessary of help, Action (Informal Target) (90.2%) and Type (1) Unnecessary of help shows the lowest rate (80.2%). As to satisfaction, Type (3) Necessary of help, Action (Informal Target) indicates the highest average (3.25) and Type (2) Necessary of help, Action (Formal Target) averages the lowest score (2.73).

4.2 Results of Inferential Statistics

For data analyses, overall MANOVA with two dependent variables, completion rate and satisfaction, was significant ($\Delta = .929$, $F(6, 574)=3.567$, $p=.002$). ANOVA was conducted for each dependent variable. The results showed that there was a statistical significance between help seeking types and satisfaction ($F(3, 288)=5.669$, $p=.001$), although no significance was found for the completion rates ($F(3, 288)=1.995$, $p=.115$). The post hoc analysis for satisfaction with the help seeking types show the significance differences between Type (1) Unnecessary of help and Type (2) Formal Target, Type (2) Formal Target and Type (3) Informal Target, Type (3) Informal Target and Type (4) Necessary of help, No action (see Table 2).

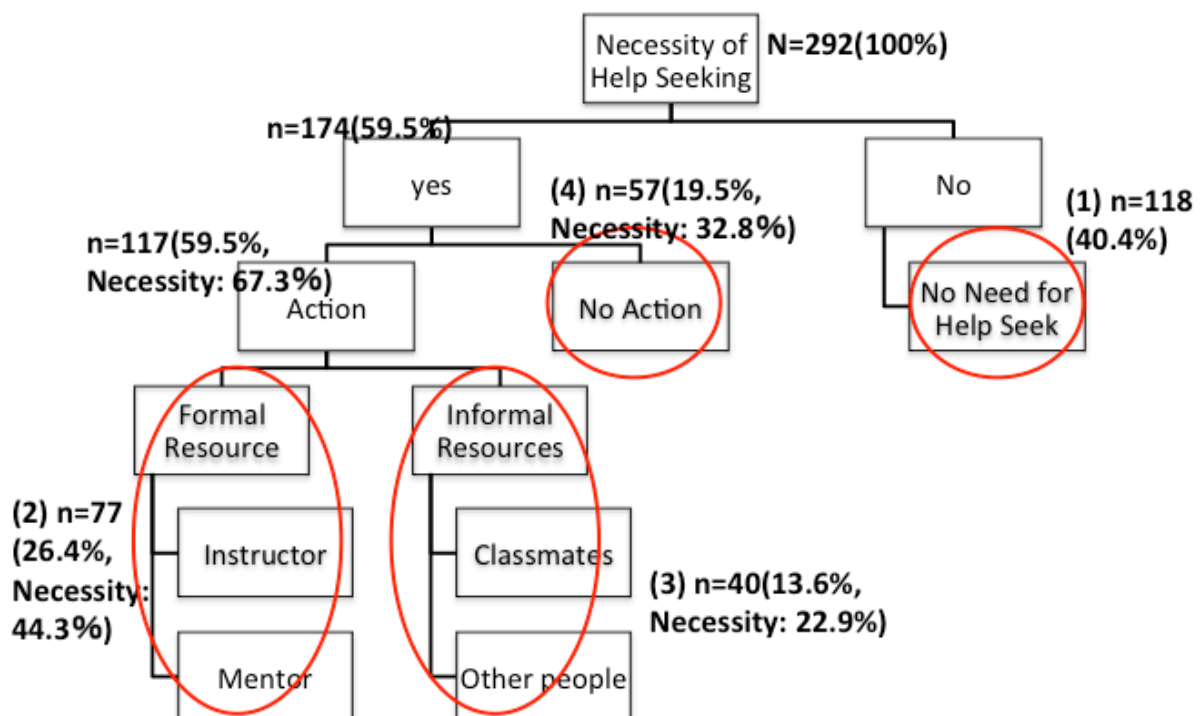


Figure 1. Students' Number and Percentage for Help Seeking Target Types. (1) Unnecessary of help, (2) Necessary of help, Action (Formal Target), (3) Necessary of help, Action (Informal Target), and (4) Necessary of help, No action. Necessity: The percentage over $n = 117$.

Type (3) Informal Target scores significantly higher than Type (2) Formal Target and (4) Necessary of help, No action. The satisfaction of Type (1) Unnecessary of help is significantly higher than Type (2) Formal Target.

Table 1. Completion Rate and Satisfaction of Help Seeking Target Types: Descriptive Statistics

		Help Seeking Target Type	<i>m</i>	<i>sd</i>	<i>n</i>
Completion Rate	(1) Unnecessary of help		0.853	0.195	118
	(2) Necessary of help, Action (Formal Target)		0.827	0.237	77
	(3) Necessary of help, Action (Informal Target)		0.902	0.202	40
	(4) Necessary of help, No action		0.802	0.205	57
	Sum		0.843	0.211	292
Satisfaction	(1) Unnecessary of help		3.093	0.679	118
	(2) Necessary of help, Action (Formal Target)		2.727	0.927	77
	(3) Necessary of help, Action (Informal Target)		3.250	0.809	40
	(4) Necessary of help, No action		2.807	0.854	57
	Sum		2.962	0.822	292

Table 2. Post Hoc results for Satisfaction with Help Seeking Target Types

Satisfaction	Help Seeking Target Type (i)	Help Seeking Target Type (j)	<i>m dif. (I-J)</i>	<i>Std. Error</i>	<i>p</i>	<i>95% CI</i>	
						<i>Low</i>	<i>High</i>
Tukey HSD	(1) Unnecessary of help	(2) Necessary of help, Action (Formal Target)	0.366	0.118	0.011	0.062	0.670
		(3) Necessary of help, Action (Informal Target)	-0.157	0.147	0.710	-0.536	0.223
		(4) Necessary of help, No action	0.286	0.129	0.123	-0.048	0.621
	(2) Necessary of help, Action (Formal Target)	(1) Unnecessary of help	-0.366	0.118	0.011	-0.670	-0.062
		(3) Necessary of help, Action (Informal Target)	-0.523	0.156	0.005	-0.927	-0.118
		(4) Necessary of help, No action	-0.080	0.140	0.941	-0.442	0.283
	(3) Necessary of help, Action (Informal Target)	(1) Unnecessary of help	0.157	0.147	0.710	-0.223	0.536
		(2) Necessary of help, Action (Formal Target)	0.523	0.156	0.005	0.118	0.927
		(4) Necessary of help, No action	0.443	0.166	0.039	0.015	0.871
	(4) Necessary of help, No action	(1) Unnecessary of help	-0.286	0.129	0.123	-0.621	0.048
		(2) Necessary of help, Action (Formal Target)	0.080	0.140	0.941	-0.283	0.442
		(3) Necessary of help, Action (Informal Target)	-0.443	0.166	0.039	-0.871	-0.015

5 CONCLUSION AND FUTURE IMPLICATIONS

The results indicated that Type (3) Necessary of help, Action (Informal Target) may have positive and significant effects on satisfaction in e-learning. Type (3) did not have a significant effect on completion rate, but the type averages the highest completion rate. Karabenick and Newman (2006) and Wolters et al. (2003) emphasized the importance of the formal target for help seeking, but the research results indicates the students with the informal target type (Type (3)) had higher completion rate and better satisfaction than those with the formal target type. This may imply that the informal target for help seeking could be important strategy for e-Learning. In other words, the students who could use other resources as well as formal target such as teachers or mentors may actively engage their learning and lead to positive affective reaction after the course. As discussed earlier, e-Learning requires more self-regulation than the traditional face-to-face instruction and this difference results in the preferable behaviour and attitudes toward e-Learning of Type (3). The completion rate and satisfaction of the formal target type were relatively lower, which indicates that students might need the different strategy of help seeking for successful e-Learning from one for the traditional instruction. The research findings may be significant for teachers, administrators, and researchers of e-Learning to plan and provide effective and appropriate helps to learners.

One of the biggest research limitations should be the categorization of students' help seeking target types based on their responses on the questionnaire. For further investigation, the actual help seeking behaviour, question contents, kinds of the informal resources should be considered. Available resources as informal target increase as the technology advances for e-Learning. The e-Learning trends shift toward the constructive approach including such as computer assisted collaborative learning (CSCL). Collaborative learning, with high interaction among learners is related to high performance in socio-emotional development (eg., increased personal satisfaction) (Benbunan-Fich, Hiltz, & Harasim, 2005) and their communication has diverse features (Yamada & Akahori, 2009). In future research, these research limitations should be focused as research factors.

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