

Design Tutoring Feedback to Increase Online Learners' Satisfaction

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Abstract. Online learners' persistence and high dropout rate is a crucial problem in online learning context. Online learners' satisfaction is a major factor affecting persistence. How to design feedback strategies to promote learners' engagement is a problem that needs to be solved. In this paper, the factors affecting online learners' persistence is analyzed. Based on these results, feedback strategies for promoting online learners' persistent and decreasing dropout are presented from three perspectives: cognition, metacognition and motivation. These strategies would direct to design feedback in the online learning context.

Keywords: Tutoring Feedback. Online Learning. Online Learners' Satisfaction.

1 Introduction

Online learning recently has become the focus of educational practitioners and researchers. More and more people register online learning, especial MOOC, which provide students the opportunities to study from excellent teachers around the world at anywhere and anytime if they want. However, high dropout rates have

been the central crisis for online learning[1]. So, one of the most difficult challenges of for online learning researches is to find out the factors influencing the students dropout, or to find out the methods to contain the completeness. Researches have proved that students' satisfaction is a major factor in students' decision to complete or drop from online learning. Persistent students or completers often had significantly higher satisfaction with online learning than dropout students[2].Meanwhile, students' satisfaction is also a key indicator of online learning performance. Students who reported higher levels of satisfaction with learning reported higher levels of learning than students who rated their satisfaction level as lower[3]. If students are satisfied, they are more likely to be successful.

Feedback is recognized one of the most powerful tools to promote learning in various instruction contexts, especial in online learning environments[4]. Online learners may incline to discourage or frustrate whenever the problems could not be solved by themselves, and discouragement and frustrating would directly lead to dropout. So feedback is very important to persist the students and promote students' satisfaction.

The strategies of feedback have been studied on how to promote the students' performance in the classroom or online environments. But few of researchers focus on how to design tutoring feedback to persist online learners or decrease dropout in online environments. In this paper, online learning feedback strategies for online environments is presented. These strategies would be directed to design or predict the persistence of online learning environments. In the following sections, we firstly summarized the factors influencing online learners' satisfaction. Based on these analysis, the online feedback strategies were presented. The final section presents the conclusion and some future relative researches.

2 The Factors affecting Online Learners' Satisfaction

Students' satisfaction with online learning is very complex, and it has been found to be correlated with a number of variables. Sun(2008) presented an integrated model with six dimensions to find out the critical factors affecting learners' satisfaction in e-learning. The six dimensions are learners, instructors, courses, technology, design and environment[5]. Sun analyzed the factors from macro point

of view, there are others researchers who studied from micro point of view to identify the factors affecting learners' satisfaction. These factors are motivation, computer anxiety, self-regulated skill, cognitive strategy, metacognitive skill, family or organization support, prior experiments of online learning etc al [6],[8].

According to Piccoli(2001) and Sun(2008), computer anxiety significantly affects online learners' satisfaction. Learners must access materials and study by computer, so fears of information technology would certainly hamper satisfaction[8],[3]. Self-regulation is another factor of success in online learning. In online learning environments, learners must regulate the time, control learning pace and strategies by themselves. So self-regulation may be more important for learners in online learning environments than in the traditional environments[3],[4],[5]. Cognitive strategies are the strategies employed by a learner to in the learning process. Specific strategies are rehearsal, elaboration, and organization. The research found that students who reported using cognitive strategies were likely to do better than those who reported less using cognitive strategies[3],[6]. Metacognitive skill, such as help-seeking skill is also important for learners in the context of online learning. Proper help-seeking skill would reduce the time of self-solving problems, and finally decrease the frustrating.

3 The Strategies of Tutoring Feedback to Increase Online Learners' Satisfaction

Proper feedback mechanisms are important to online learners because feedback provides a virtual bridge between learners and instructors, which will improve the learners' satisfaction. With the factors that contribute to students' satisfaction in online learning, we can intentionally design appropriate feedback strategies to improve students' satisfaction and engagement, decrease the rate of drop out[7]. According to the content, feedback can be classified into three dimensions: cognitive feedback, metacognitive feedback, and motivation feedback. Therefore feedback strategies of increasing online learners' satisfaction can be made from these three perspectives.

3.1 Cognitive feedback strategies

Cognitive feedback strategies of increasing learners' satisfaction can direct to design feedback presentation. There are three types of feedback to present, static text or pictures, audio, video. Researches showed that learners preferred to audio or video feedback instead of text feedback. There is an important evidence that audio or video feedback can have an impact on student engagement and strengthening learning motivation[10]. Audio or video feedback is very understandable, clear and fit to explain the complicated knowledge, so learners would more easily get the emphasis from the tone and facial expression of video by watching and listening video than reading feedback. Besides, the feedback about cognitive strategies that can remind learners to apply cognitive strategies such as rehearsal, elaboration, and organization would be taken in the online context.

3.2 Metacognitive feedback strategies

Metacognitive feedback is defined as feedback that triggered by learners' learning behavior (e.g., waste lots of time to think, avoid necessary help). Based on detecting learners' error learning behaviors, metacognitive feedback conveys the information to remind learners the desired learning behavior(e.g., advising the student to ask for a hint). Roll(2011) reported that immediate metacognitive feedback on learners' help-seeking errors can help students acquire better help-seeking skills[11], which would save the wasting time and decrease frustration.

3.3 Motivated feedback strategies

Motivation is a critical factor affecting learners' satisfaction in the online context. It is important to design feedback to promote learners' motivation. Researchers also reported that many learners ignore feedback completely or in some extent. Therefore, it is important to design feedback to promote motivation and engage learners. Embodying an agent that delivers feedback is a good manner. But

embodying an agent is not always effective. Lin(2013) reported that the feedback provided by an agent or non-agent is not difference, but the difference is significant when the feedback provided by an agent with elaborate verbal feedback compared to the same agent providing simple verbal feedback. During the process of learning with an agent delivering elaborated feedback, learners' social-interaction schema and meaningful learning are more evoked by the agent providing elaborate verbal feedback than the agent providing simple verbal feedback[9].

4 Conclusion

There are many factors that affect learners' satisfaction in the online learning context. Designing feedback strategies based on these affecting factors would persist online learners and decrease dropout. In this paper, several feedback strategies from cognitive, metacognitive and motivation perspective are presented for increasing online learners' persistence. We propose that these strategies will be taken in the online learning systems.

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