

SELF-REGULATED LEARNING: A STUDY OF FEEDBACK SEEKING BY INTEGRATING SELF-MOTIVES AND SOCIAL INFLUENCES IN AN ONLINE CONTEXT

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Abstract

To have an effective online communication, individuals need to be self-regulated and self-initiate online conversations when needed. Feedback seeking is a key strategy of self-regulated learning through which individuals can gain more knowledge and become more adapted. Existing studies on feedback seeking mainly focus on personal motivation rather than social factors. Drawing on the theory of planned behaviour, this study examines how both self-motives and social influence affect individuals' feedback-seeking behaviour. Moreover, based on the relational communication theory, we also investigate how the perceptions of informational and relational value mediate the relationships between self-motives, social influences and feedback-seeking behaviour. As learning styles can affect individuals' learning motivation and learning effectiveness, individuals' learning styles may interact with self-motives and social influence to affect their value perceptions toward feedback. We further examine whether learning styles moderate the effects of personal and social factors on value perceptions. A survey will be undertaken to collect the data and test the proposed hypotheses. This study is expected to inspire researchers and practitioners to pay equal attention to personal and social factors in online learning. The findings also attempt to shed light on the necessity of considering informational and relational value simultaneously in studying feedback seeking behaviour.

Keywords: Self-regulated learning, Feedback seeking, Self-motives, Social influence, Value perceptions.

1 INTRODUCTION

Online social learning, which is based on the success of web 2.0 technologies, provides a promising way for self-regulated individuals to acquire useful information (Ram et al. 2011). However, information obtained through online channels may be inappropriate or even outdated due to rapid environmental changes and unclear individual requirements (Rendell et al. 2010). Thus, to achieve effective social learning, one needs to be selective in choosing online information (Rendell et al. 2010). Self-regulation is a general skill that individuals possess to keep their focuses on the task, help them pay attention to the task progress, and explain success in various contexts (Santhanam et al. 2008). Some researchers have defined self-regulated learning as an individual's ability to engage independently and proactively in behavioural processes that increase goal attainment (Zimmerman, 2000). Online learning will be more effective if individuals self-regulate their learning activities and self-initiate conversations when needed. As a key self-regulated learning tactic, feedback seeking is valuable for individual learning (Ashford et al. 1991).

Feedback refers to the information provided by other individuals regarding their perceptions of one's performance (Hattie et al. 2007). Theories of learning have modelled learning as a behavioral adjustment in response to feedback about one's performance (Latham 1997). Upon feedback seeking, individuals can recognize their strengths and weaknesses, adjust their goal-directed behaviours, be conscious of their capabilities, manage their images, and enhance their task performance (Anseel et al. 2007). To date, research on feedback seeking is mainly focused on organizational contexts, and a lot of organizational factors have been identified (Ashford et al. 1983; Barner-Rasmussen 2003; VandeWalle et al. 2000). However, little attention has been paid to examine how individuals ask for feedback actively in an online learning context. Study of feedback seeking is important in online learning contexts because online feedback makes it easy for individuals to reach diverse information sources and to adapt to social contexts. Therefore, this study seeks to uncover antecedents of feedback seeking in an online social learning context.

Moreover, literature of feedback seeking mainly investigates the role of personal factors (e.g., motivations, goals) in determining feedback-seeking behaviour (Anseel et al. 2007). Few studies have uncovered how social factors affect individuals' feedback seeking in social learning contexts, despite social factors (e.g., social influence) have been regarded as an important determinant of individuals' behaviour in online contexts. Further, when discussing feedback seeking, a cost-benefit perspective is usually adopted, which suggests that individuals make a trade-off between benefits and costs to decide whether to seek feedback or not (Ashford et al. 1983; Janssen et al. 2007). However, most studies adopting this perspective regard value as an integral concept (VandeWalle et al. 2000) without distinguishing different value dimensions. In addition, learning styles have been suggested as an important indicator of learning motivation and effectiveness in web-based learning (Lu et al. 2003). Individuals holding different learning styles may behave differently even when they have the same motives and undergo the same social influences.

Therefore, the present study seeks to answer three research questions: (1) How do personal and social factors influence individuals' feedback-seeking behaviour in online contexts? (2) What the roles of different value perceptions (e.g., informational and relational value perceptions) in affecting individuals' feedback seeking behaviour? (3) How do individuals' learning styles affect individuals' reactions to motivational and social factors? To respond to these questions, we draw on the theory of planned behaviour to explain the impacts of both personal factor (i.e., self-motives) and social factor (i.e., social influence) on people's feedback-seeking behaviour. Then based on benefit-cost framework and relational communication theory, the mediating roles of informational value and relational value perceptions are also investigated. In addition, we examine the moderating role of learning styles. A survey among graduate students will be conducted. We expect our study to have implications to both researchers and practitioners.

2 BACKGROUND

2.1 The theory of planned behaviour

Over the years, theory of planned behavior has been widely used by IS researchers to study individuals' attitudes and behaviors toward information technology, represented by technology acceptance model and unified theory of acceptance and use of technology (Koufaris 2002; Venkatesh et al. 2003). In terms of online feedback seeking, an individual is not only a feedback seeker, but also a user of information technology. According to the theory of planned behaviour (Ajzen 1991), an individual's behaviour is determined by both attitude and subjective norms, which can also be traced back to motives and normative social influence in the current research. Whether people seek feedback out of personal interests or for external reasons is a matter of significance in feedback seeking research, and it reveals how people make sense of their own and others' behaviour (Ryan et al. 2000). Drawing on the theory of planned behavior, we will study how self-motives and social influence affect individuals' online feedback-seeking behaviour.

2.2 Relational communication theory

Relational communication theory suggests that people initiate a communication to obtain useful information and/or develop a good social relationship (Xu et al. 2010). An important implication of this theory is that people not only value task-relevant information but also value the social relationships developed in a communication process. Accompanying the emphasis on relationship in computer-mediated communication (Walther 1995), recent studies on information seeking have begun to take a relational view to explain the impact of social relationships on information seeking (Borgatti et al. 2003; Xu et al. 2010). People interact with each other in a learning setting and the relational dimension is as important as informational dimension. As social contexts and social relationships are of importance, researchers should not only examine the role of informational value in feedback seeking, but also shed light on how individuals' perception of relational value affect their feedback-seeking decisions.

3 RESEARCH MODEL AND HYPOTHESES

Figure 1 depicts the research model of this study. This model indicates that feedback seeking is directly affected by perceived informational and relational value, with self-motives and social influence being the antecedents of value perceptions. We also expect that people's learning styles will moderate the relationship between personal and social factors and value perceptions.

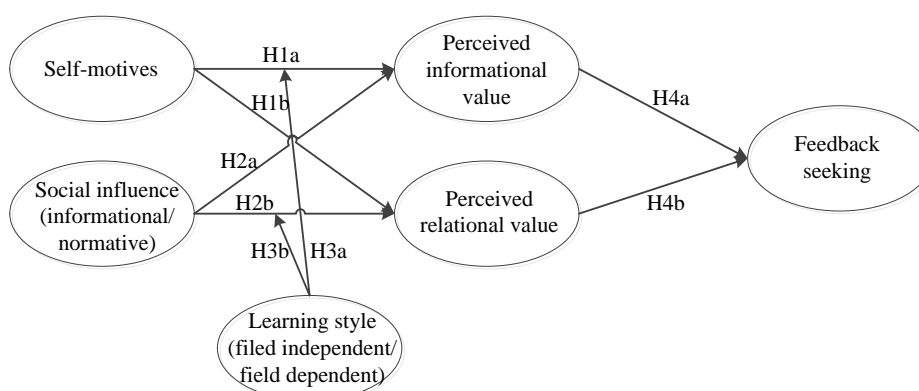


Figure 1. Research Model

3.1 Self-motives

Researchers on feedback seeking have attached great importance to the role of motives (Anseel et al. 2007; Tuckey et al. 2002; VandeWalle 2004). Self-motivated individuals will exert their volitions to do a task if this task interests them, and they value the pleasure and satisfaction derived from feedback seeking more than the material rewards (Deci et al. 1991). Self-determination theory is a general theory of motivation that explains individuals' needs within a social context (Chen et al. 2010). It indicates that individuals have three inherent needs (needs for competence, relatedness, and autonomy), and these needs provide a basis for understanding self-motives (Deci et al. 1991). Individuals will be motivated if they have the opportunity to satisfy their needs (Deci et al. 2001). Needs for competence describe people's desire to be competent to attain goals and to be efficacious in finishing a task; Needs for relatedness indicate that people strive to build connections and maintain good relationships with others; Needs for autonomy mean that people tend to self-initiate and self-regulate their own behaviours (Gagné et al. 2005). When people's inherent needs are expected to be satisfied by feedback information, they are more likely to seek feedback (Deci et al. 2001).

An investigation of the feedback-seeking process suggests that self-motives are not the direct determinants of feedback-seeking behaviour (Anseel et al. 2007). Ashford and Cummings (1983) proposed that on the basis of the activation of each motive, individuals make an assessment of the costs and benefits associated with feedback-seeking. The cost-benefits analyses can be exemplified in the concept of value, which is a trade-off between benefits and costs (Kim et al. 2007). Previous literature have identified two information types pursued in organizational contexts, with one relating to task information and the other relating to social information (Shah 1998; Xu et al. 2010). In social learning contexts, individuals not only want to acquire task information for improving performance but also desire to be well adapted to the social environment. The perceptions of informational and relational value are believed to affect their behaviours. Thus, the informational and relational value of the feedback are investigated in this study. Perceived informational value refers to feedback seekers' perceptions of whether the feedback information provided by certain sources is useful to improve their learning performance (Janssen et al. 2007). Perceived relational value is defined as the perceived value one can acquire by building and maintaining good relationships with others through feedback seeking (Xu et al. 2010).

Self-motivated individuals desire task information to develop their task-relevant skills, and they will be more engaged if they have such information (Deci et al., 2001). With the task and competence development in mind, motivated individuals will attach great importance to the informational value that they can get from feedback. In addition, the desire for competence development is similar to the focus of learning goal orientations. Previous study has demonstrated that individuals with a learning goal orientation think highly of the informational value of the feedback since the information contained is instrumental in improving individuals' performance (Anseel et al. 2007). Social information deals with formal or informal information about the social context, and it is conducive to building and developing social relationships (Xu et al. 2010). As learning is a social process, the opportunity to build social relationships during online interactions is valuable for individuals in learning contexts. Individuals' inherent needs for relatedness are also closely related to relationship commitment (Hofer et al. 2011). As such, self-motivated individuals with high needs for relatedness attach great value to social relationships and they tend to treasure the relationships built in social interactions. Therefore, we hypothesize that

H-1: Individuals' self-motives are positively related to their perceptions of (a) informational value and (b) relational value of feedback seeking.

3.2 Social influence

Two forms of social influences, i.e., informational and normative social influence, have been highlighted in previous studies (Kuan et al. 2014; Lee et al. 2011). We go beyond the theory of planned behaviour to study normative social influence as well as informational social influence in this study. Both informational and normative social influences can lead to a change in one's opinion and

behaviour. In the current study, informational social influence means that individuals tend to accept others' opinions and advices as the basis for their judgment; while normative social influence refers to the tendency to conform to the expectations of other individuals (Kuan et al. 2014). Although these two forms of social influence usually occur together, they differ in their drivers and have different effects on people's cognitions and behaviours.

Informational social influence leads people to adopt suggestions from influential others (Kuan et al. 2014). Informational social influence is especially important in a learning setting where uncertainty is involved. Social influence works through three processes, and informational social influence is said to be activated mainly through internalization (Burnkrant et al. 1975). In self-regulated learning, internalization is expected to occur when an individual views others as important information sources to acquire knowledge and master new skills. When internalization occurs, the information is believed to be valuable (McGuire 1968). Feedback seeking is an effective action to acquire valuable information to deal with the problems that one confronts (De Stobbeleir et al. 2011). Obtaining useful information is a critical goal in individuals' feedback-seeking decisions (Anseel et al. 2007). People under informational social influence tend to internalize information from external sources to build their own knowledge and skills, so informational value is especially important for these individuals. Therefore, informational social influence is more closely related to individuals' perception of informational value than relational value perception of feedback seeking.

Under normative social influence, individuals adjust their own opinions to conform to others' expectations. While Informational social influence works through internalization, normative social influence occurs mainly through identification and compliance (Burnkrant et al. 1975). Identification happens when an individual emulates an opinion or behaviour of others for the sake of being accepted by others (Kuan et al. 2014). When an individual conforms to others' expectations for obtaining a reward or avoiding a punishment, compliance occurs (Burnkrant et al. 1975). The conformity under normative social influence is driven by individuals' desire to be identified by others, their preference for rewards and aversion of punishment. The impacts of normative social influence are expected to be greater for individuals within a social group than for those outside a group (Deutsch et al. 1955). Whether individuals decide to seek feedback or not is influenced by other members in their social networks. Feedback-seeking literature views value perception as an important predictor of individuals' feedback-seeking behaviour (Ashford et al. 1983). On one hand, a desire for identification enables people to value their social relationships within the social networks during the feedback-seeking process. On the other hand, individuals who are more complied with others attach more importance to their social relationships. As normative social influence concerns with stimulating people to conform to positive expectations of others (Deutsch et al. 1955), it has a positive relation with people's perception of relational value. Therefore, we hypothesize that

H-2: Social influence is positively related to individuals' perceptions of informational and relational value of feedback seeking. (a) Informational social influence is more closely related to informational value perception than relational value perception. (b) Normative social influence is more closely related to relational value perception than informational value perception.

3.3 Learning styles

Learning styles refer to consistent personal attributes that determine an individual's typical modes of information processing, idea formation and problem solving (Chou et al. 2000). Among all the classifications of learning styles, the dimensions of field-dependence and field-independence are frequently studied (Witkin et al. 1975). Field-independent learning style refers to individuals' tendency to adopt internal referents as a primary way to form their perceptions and determine their decision making, while field-dependent learning style reveals individuals' tendency to depend on external referents for perception formation and decision making (Witkin, 1978). The distinctions between field-independent and field-dependent learning style can be understood from the perspective of psychological differentiation (Witkin et al. 1979), which indicates individuals' differences in autonomy versus reliance on external referents (Davis et al. 1990). The psychological differentiation of self-nonsel is believed to influence people's preferences for internal or external references when conducting information processing and making decisions (Witkin et al. 1979). Witkin (1978) also

indicated that people's reliance on internal or external referents is very important in that it can influence the formation of impersonal or interpersonal orientation.

Learners can be self-motivated as well as influenced by others in making feedback-seeking decisions. Field independence and field dependence describe the extent to which individuals' perceptions are affected by the perceptual or contextual field surrounded (Cao 2006). We assume that field-independent and field-dependent individuals differ in their formations of value perceptions in a feedback-seeking process. Field-dependent learners are assumed to be less autonomous and have great connections with other people (Witkin et al. 1979). They tend to rely on others to form their attitudes and perceptions (Lu et al. 2003). Prior literature have revealed that field-dependent individuals are more sensitive to social cues, more motivated by social factors, and more emotionally attached to others (Garity 1985). In this sense, during a feedback-seeking process, field-dependent individuals are more likely to be influenced by social factors and they are inclined to place more value on social relationships. Thus, we expect that when an individual is field-dependent, the degree to which he/she is socially influenced has a strong impact on his/her relational value perception of feedback seeking.

Field-independent individuals are more impersonal-oriented in a learning process and are assumed to have greater autonomy than field-dependent counterparts (Witkin et al. 1979). They appear to prefer the development of impersonal skills to interpersonal relationships (Lu et al. 2003). Field-independent individuals are less influenced by social factors than field-dependent individuals (Davis et al. 1990). Instead, they form their perceptions and make their decisions based on their own judgements (Cao 2006). When an individual is field-independent, his/her perception is more affected by the perceptual field than contextual field (Cao 2006). In this regard, we expect that when filed-independent, an individual's self-motives have a strong impact on his/her perceptions of informational value of feedback seeking.

H-3a: The effect of self-motives on perceived informational value will be stronger for an individual whose learning style is field independent.

H-3b: The effect of social influence on perceived relational value will be stronger for an individual whose learning style is field dependent.

3.4 Value perception

The cost-benefit framework has been widely adopted in existing feedback-seeking literature for explaining individuals' feedback-seeking behaviour (Ashford et al. 1983; Janssen et al. 2007). Individuals consider the potential benefits and costs before engaging in seeking feedback. Many benefit and cost factors have been identified in prior studies, including information quality (Xu et al. 2010), instrumental benefits, impression management benefits (Janssen et al. 2007), self-representation cost, effort cost, face loss cost, ego cost, and inference cost (Ashford et al. 1983; Janssen et al. 2007). Value perception is a trade-off between cost and benefit. Information delivery and social relationship development happen simultaneously within a communication activity (Xu et al. 2010). Relational communication theory, when applied to online interactions, can well explain people's online feedback-seeking behaviour. According to cost-benefit framework and relational communication theory (Janssen et al. 2007; Xu et al. 2010), both information value and relational value perception of feedback seeking are expected to affect learners' feedback-seeking behaviour.

Online contexts have some features that may impede individuals from feedback seeking by increasing seeking costs. Individuals may find it difficult to locate the targeted information sources for the sake of excessive information. Online channels also make it inconvenient to get timely and effective feedback information. When a great amount of costs need to be invested to obtain feedback, individuals are likely to withdraw especially when the feedback is perceived to be useless (Janssen et al. 2007; VandeWalle 2004). Individuals will make a trade-off between the informational benefits they will get and the costs they will spend (VandeWalle et al. 2000). When the informational value of the feedback is perceived to be high, individuals are willing to seek feedback.

Given the importance of social relationships in acquiring information (Borgatti et al. 2003), it is reasonable to consider relational dimension when discussing individuals' value perceptions in terms

of feedback seeking. Interpersonal sources are believed to be more important than impersonal sources in acquiring feedback (Zimmer et al. 2007), thus relational dimension is indispensable in making feedback-seeking decisions. Some researchers also argue that one possible explanation for the lack of online information seeking is due to the failure to manage interpersonal relationships (Xu et al. 2010). In a feedback-seeking interaction, individuals initiating inquiries expect to get immediate response from the one who has the information in demand (Dabbish et al. 2008). Interpersonal relationship between the seekers and the sources can affect how sources deal with feedback seeking (Dabbish et al. 2008). Therefore, when feedback seekers perceive a high relational value with a particular source, they are more likely to seek feedback from the source.

H-4a: Individuals' perceptions of informational value of feedback seeking are positively related to their feedback-seeking behaviour.

H-4b: Individuals' perceptions of relational value of feedback seeking are positively related to their feedback-seeking behaviour.

4 RESEARCH METHODOLOGY

To test the hypotheses, we will conduct a survey to collect data. We plan to recruit graduate students as subjects. The sample of graduate students is appropriate in this study for the following reasons. First, student subjects are appropriate for theory building (Lee et al. 2003). Since the current study is focused on building internal theoretical mechanisms, using student subjects is feasible. Second, the context of this current research is online learning, and graduate students are typical learners who are familiar with online interaction technologies. Graduate students often use internet to conduct formal and informal learning activities. Discussions on student-based research have suggested that when students are part of the population under investigation, the findings can be generalized (Compeau et al. 2012). Furthermore, for graduate students, feedback seeking is an indispensable part in their learning. Feedback seeking are commonly used when students encounter difficulties in their learning, when they are uncertain about their learning progress, and when they want to further improve their learning performance.

All the constructs in our research model can be measured by well-designed questionnaires. The measurement items for each construct are shown in Table 1. These items are developed by adapting the existing construct measurements to our own research context.

Moreover, we investigate several control variables to mitigate the confounding effects that they may bring. First, considering young people are more susceptible to be influenced than older people, we include age as a control variable. Second, gender and marital states are also included as control variables because studies have suggested that women are more likely to be influenced than man and married individuals are less susceptible to be influenced in making their decisions than married ones (Korman 1970). Third, although we are interested in online feedback-seeking behavior, the physical location may also matter even though we talk about online interactions. Therefore, we include the physical location of the feedback provider as a control variable as well (Borgatti et al. 2003).

5 CONCLUSION

This research-in-progress seeks to understand individuals' feedback-seeking behaviour in an online social learning context. Specifically, drawing on the theory of planned behaviour and the relational communication theory, this study investigates how personal and social factors affect individuals' feedback seeking, which is mediated by individuals' perceived informational and relational value of feedback seeking. We hypothesize that self-motives and social influence affect individuals' informational and relational value perceptions in different manners, with learners' learning styles moderating the relationships between them.

The current study has a number of implications for researchers. First, by adopting the relational communication theory, the single task-related explanations of feedback seeking can be complemented by a relational explanation. Second, this study examines the impact of both self-motives and social

influence on feedback seeking, a good expansion of existing studies that emphasize only one aspect. Third, the discussion of learning styles sheds light upon the role of learning styles in self-regulated learning, which is ignored in prior feedback seeking literature. Our findings will also have implications for practitioners. First, considering the importance of relationships in feedback seeking, it will be important for system analysts to design system mechanisms that support relationship building and development. Second, if learning style is proved to be important in self-regulated learning, it will be wise for supervisors to take further actions to foster students' learning styles.

Much future work can be done following our study. First, future researchers can examine more specific aspects of feedback seeking, such as the types of feedback, the frequency of feedback seeking, and which feedback sources are more preferred by feedback seekers. Furthermore, we treat feedback-seeking behaviour as our dependent variable and ignore the linkage between feedback seeking and learning performance. Future work on this aspect can be done as well.

Constructs	Items	Source
Self-motives	It is important to me to obtain useful information about my performance; Seeking feedback about my performance helps me improve my skills; Obtaining useful feedback is not very important to me; I don't really require more feedback to let me know how I am performing; I like people to know my good performance at work; I want people to know when I ask for feedback so I can show my responsible nature.	(Tuckey et al. 2002)
Information social influence	I often observe whether others seek feedback online before I seek feedback; I often consult others on whether I should seek online feedback; I frequently gather information from friends or family before I seek feedback online.	(Bearden et al. 1989)
Normative social influence	Most people who are important in my life think I should seek online feedback during my learning; Most people who are important to me would approve of me seeking online feedback during my learning. Most people around me who seek online feedback have more prestige than those who do not. Seeking online feedback is considered a status symbol among my friends.	(Lu et al. 2005; Tsai et al. 2014)
Learning style	Group Embedded Figure Test (GEFT)	(Witkin et al. 1971)
Perceived informational value	The feedback information will help inform my decisions. I trust the feedback information to be factually correct. The feedback information is trying to educate me. I can learn something from the feedback information. I think that the feedback information is accurate.	(Pavey et al. 2009)
Perceived relational value	Seeking feedback from him or her can help improve our relationships and bring us closer. Seeking feedback from him or her is one way to maintain our relationships; I consider seeking feedback from him or her as one way of acquainting myself to him or her, so that he or she may have a better idea of how I am doing; Seeking feedback from him or her is one way to show that we need each other.	(Xu et al. 2010)
Feedback seeking	How frequently do you directly ask for feedback about your learning? How frequently do you directly ask for an informal appraisal of your learning?	(De Stobbeleir et al. 2011)

Table 1. Measurement of Constructs

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