Exploring pre-service teachers' perceptions of and participation in online communities

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Abstract: The study focuses on the participation of pre-service teachers in a course website set up on Moodle and a website developed by students on their own initiative to support their Teaching Practice. It explores PSTs' experiences and perceptions of the two different types of websites and how their online participation linked with the sense of community. Utilizing questionnaire as the main source of data, the paper reveals that the student teachers had more positive perceptions of the self-initiated website which was regarded as a useful platform for exchanging teaching ideas, sharing resources, gaining support, and maintaining communication with their fellow coursemates. The frequency of reading the self-initiated website was also correlated with the sense of community.

Keywords: online community, perceptions, pre-service teacher

1. Introduction

The study focuses on the participation of pre-service teachers in a course website set up on Moodle and a website developed by students on their own initiative to support their Teaching Practice (TP). We seek to understand how students participated in and perceived the teacher-initiated and self-initiated website and how their perceptions and participation are associated with their sense of community. Adopting the case study methodology, the study investigates the experience of 31 final-year student-teachers in the Faculty of Education at an university in Hong Kong. The particular questions that guide the inquiry are: (1) How do student-teachers perceive the course website and the self-developed website for TP? (2) How are student-teachers' perceptions associated with their sense of community?

2. Literature review

The proliferation of web-based tools opens up new dimensions and brings new meaning to the notion of community. A community is no longer conceptualized merely in terms of physical proximity, but in terms of social networks [11]. [5] identified five dimensions of an online community: commonality, computer system, interaction, social infrastructure, and social relationships. Online communities could provide their members with multiple resources including information, social support and emotional support [8]. For some researchers, an online community is more closely associated with the participants' sense of community. According to [13], a sense of community is "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). [4]

defined community as a "general sense of connection, belonging, and comfort that develops over time among members of a group who share purpose or commitment to a common goal" (p. 2).

There is a type of online community labeled as a "blended community" or "hybrid community" which is enabled and supported by both online and offline methods of communication [6]. Such communities are grounded in the rationale that the relationship between online and offline communication can be supplementary (see [9]). In blended communities, the existing social relationships, too tight or too loose, might have negative effects on members' engagement and commitment [5]. On one hand, a close community with abundant opportunities for its members to interact through traditional ways might make the additional online interaction redundant [1]. On the other hand, if there is only a loose connection between community members, the incentive for extending communication to online space will also be low.

A community cannot survive without active and ongoing participation of its members [10]. Active participation takes the form of creating and consuming content [3]. [14] assert that the more people participate in online group activities, the more likely they are to develop online relationships. Likewise, [15] reports that the more time and effort people invest in the community activities, the greater the chances are for their sense of community to be ingrained. The reverse is also the case: a sense of community enhances participation [17]. However, the degree of participation varies significantly among the members of same community. [2] reported that both participation and achievement levels were uneven in an online learning community based on voluntary participation. Since the contribution will turn into public good, the temptation of enjoying the free-ride without contribution is pretty high [10]. This stems from a social phenomenon known as "social loafing" which refers to the tendency of exerting less effort in collective tasks than individual tasks [12].

3. Methods

3.1 Research setting

The study includes a group of 31 final-year pre-service teachers enrolled in an English educational program in a comprehensive university in Hong Kong. The course the study focuses on is a core course with an eight-week Teaching Practice (TP). The instructor was an enthusiastic and experienced user of educational technology. She set up a course website on Moodle and tried to engage students in voluntary online discussion as an extension of face-to-face teaching. She herself was active in facilitating online interaction among students and responding to students' questions. However, the overall level of online participation was rather sporadic. During the TP, the students themselves took the initiative to create a website for sharing teaching resources and lesson plans. This stimulated our interest in the study that examines the phenomenon of student online participation and their perceptions of the two types of websites.

3.2 Data collection and analysis

The study utilizes questionnaires as the main source of data. The purpose of the questionnaire was to capture the overall picture of students' online behavior and their perceptions and attitudes towards the two websites. The questionnaire items were developed based on the researchers' previous work on online participation [18] and [16]'s instrument for measuring participants' sense of community. The first section of the

questionnaire allowed the researchers to gather data about the participants' general computer skills and comfort level with the use of technology. In the second section participants were invited to report on their online behaviors such as their frequency of reading messages. The third section consisted of Likert-type questions that tapped into participants' perceptions, in particular, their perceived usefulness of the websites and their sense of community (adapted from [16]). The questionnaire was administered on 31 students, yet one student did not complete it, which left the researchers with 30 valid responses.

4. Results

According to the results from the questionnaire, this group of students was quite comfortable with computer-mediated communication (Mean =3.17 on a scale of 4 with 1= very uncomfortable and 4= very comfortable). Their average level of self-rated computer skills was close to average (Mean = 1.9 on a scale of 3 with 1= weak, 2 = average, 3=high).

4.1 Descriptive data on online activities

Under "Learning Forums" on Moodle, there were 10 forums created. The first forum (Forum 1) had the highest number of posts (18) followed by Forum 7 (10). The number of students who took part in the online discussion as writers was also quite limited. There are five students who posted in Forums 1, 2, and 7, four in Forum 3 and one in Forum 9. To provide support and foster interaction among students during TP, the instructor set up a forum on course Moodle (Forum 10). However, there was no activity in this space at all. We also asked the students to report on their frequency of reading the content on course Moodle on a scale of 5 ranging from "never" to "always". 4 students (13%) "often" and, 16 (53%) "sometimes" read the content on course Moodle, but 10 (33%) "rarely" or "almost never" (M=2.77) did so.

"TP no worries" is set up on Google Sites as a publicly accessible website. In addition to the homepage, there are 12 pages created which are organized under two major categories: "Teaching Materials" and "Other reference". During TP, the student-teachers shared quite a number of teaching resources among one another, including their lesson plans, worksheets, audio and video files. The other section –"Other reference" included four pages that contained references such as bookmarks, video links, and useful evaluation forms contributed by students as well. Through the questionnaire, they reported on the frequency of reading the content on the "TP No Worries" website. 7 claimed that they had never accessed the site, 10 (33%) "rarely" or "almost never" visited the site, 11 "sometimes" (37%), and 2 (6.7%) "often" did so (M=1.93).

4.2 Perceptions of usefulness

In the questionnaire, students were asked about their perceptions of the usefulness of the two websites. For the course website on Moodle, the students basically thought of it as a storage place for course materials. Less than one quarter of the students felt the course website was useful for exchanging ideas and gaining insights into teaching. Students' responses on their perceptions of TPNW were more positive. 87% of them agreed to the statement that TPNW fostered the exchange of teaching ideas and sharing of teaching resources, and helped them get peer support from one another during TP. 83% also acknowledged that the platform supported their communication among peers. 61% felt

that TPNW prompted them to reflect on their own teaching and 52% agreed the website helped keep them connected despite being in different physical locations for the TP.

We also explored the relationships among the students' perceived sense of community, their online participation, and their perceptions through running the Pearson correlation. The sense of community (SOC) score was obtained by computing the mean value of the four items that aimed to gauge students' sense of community. The results show that SOC is correlated with the frequency of reading TPNW (r =.43, p< . 05), but not with the frequency of reading on Moodle (r =-.1, p> . 05). No association was detected between SOC and students' perceptions of the course website on Moodle. Yet SOC was strongly correlated with the perceived value of TPNW for exchanging ideas (r =.6, p< .001), sharing teaching resources (r=.65, p< .001), enabling peer support (r = .55, p <.01), prompting reflection on teaching practice (r=.46, p<.05), and fostering peer communication (r= .47, p<.01).

5. Discussion and conclusion

The two websites in the study were developed and used quite differently. The course Moodle site was set up by the instructor as a place for sharing course materials and extending in-class discussions. The "TP No Worries" (TPNW) website was purely designed, developed, and maintained by the students themselves to promote a stronger sharing culture during TP. As to the locus of control, the course Moodle site was perceived by students to be implemented in a top-down fashion with the instructor taking the leadership and a supervisory role; the TPNW website was a student- initiated website emerging from the students' genuine personal needs for sharing and connection during their TP. This echoes the findings in [6] about grass-root-initiated online communities. It was thus interesting to note that the students were found to be less active readers on TPNW than they were on the course website. This may be interpreted by the fact that the students all needed to access the course materials on the website at some point in time during the course. However, their frequency of accessing the course website was not associated with their sense of belonging to the group. That implies that when CMS is used mainly for storing information, it did not give students a sense of ownership and hence it fails to generate a community spirit among them. In line with previous studies (e.g. [7]), student-teachers in the present study did not perceive the Moodle CMS as a platform for exchanging ideas and having insightful discussions, thus contributing to their limited interest in online participation.

On the contrary, those who used TPNW responded very positively to its impact in fostering peer sharing, communication and support. TPNW was regarded as a useful platform for student-teachers to exchange teaching ideas, share resources, gain support, and maintain communication with their fellow coursemates during their TP. It is worth highlighting that although the results show a lower frequency of reading the content in TPNW as compared to that in their course Moodle website, the frequency was correlated with their felt sense of community. Those who were active in TPNW tended to feel a stronger sense of community. When students visited such the website with lesson plans, teaching materials and resources all shared by their peers, their sense of belonging was strengthened and their inclination to access the website heightened. This may have implications for enhancing students' skills in developing and maintaining websites for their own learning.

Acknowledgement

The study is funded by the seed funding provided by Hong Kong Baptist University.

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