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Enhancing the quality of the student experience online: Revisiting the imperative of learning as socially based

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Abstract: Delivery of quality educational services and opportunities is becoming increasingly more complex as Web-based learning tools and support structures continue to evolve. Although much effort is devoted to examining the use of technology to teach course content, an emerging area of some importance in online teaching is how to enhance the student experience of learning and communicating online. Associated with this is the creation of social and supportive environments for learning when there is little face-to-face contact between distance learners and their teachers. This paper provides a framework and a set of strategies that can be used to create a supportive learning climate, and illustrates a range of tasks that create positive social, learning experiences.

Keywords: Online community, social presence, distance learning, process-based learning

The Student Experience Online: Areas of Concern

Evaluations of technology innovations have shown that the weakest part has been the implementation of the technology, and the failure to consider environmental and contextual factors that impinge on the learner and the teacher (Alexander & McKenzie, 1998). Social and contextual support for learning is essential, as often online learners have little direct contact with tutors and other students. While constructivist theory provides us with guidelines and principles indicating that successful learning occurs when it is contextualised, social, conversational, collaborative and reflective, translating these principles into effective pedagogy and support for learning remains the greatest challenge. There are several empirical studies attesting to negative learner experiences online, and to feelings of anonymity and isolation. Wegerif's (1999) study of an online group of learners found that individual success related to the degree to which participants were able to cross a threshold from feeling like outsiders to becoming insiders. Social factors such as the degree of support, connectedness and peer feedback have been found to be powerful determinants of success and satisfaction in online courses of study (Barab, Thomas & Merrill, 2001). Constraints that operate in online computer conferencing environments are often what Sherry (2001) refers to as "finding a voice and having something to say". Affirmation that students need to feel the human touch in online learning has long been recognised by adult and distance learning theorists (Rowntree, 1992; Kearsley, 2000). Social, interactive and affective dimensions of the

learning experience remain powerful determinants of successful learning, according to research in social psychology. Common themes that distance educators embrace are the need to make the learning experience personalised, affective, interactive and positive (Hiltz, 1998).

What Social Experiences do Students Value?

Investigations of student perceptions of online learning have provided evidence that students value the increased peer interaction, control, convenience, flexibility and sharing of personal experience (Coomey & Stephenson, 2001; Collis & Moonen, 2001). In depth studies of student learning and interaction online has shown that students value the following aspects of online interaction (eg Laurillard, 1994; Salmon, 2000).
- active participation and sharing of ideas
- the provision of responsive and constructive feedback
- an affective climate for learning focused messaging.

Despite the many acclamations that online experience is positive and valuable, there remain valid calls from educators and researchers to improve and investigate online learning, to research the human dimension with a view to supporting students more effectively. Eastmond (1995) maintains that learning tasks and human factors are central to successful teaching and learning online, while Coomey & Stephenson (2001) suggest that paying attention to overcoming negative aspects of the student experience is also important. This means addressing issues of isolation, motivation, the need for connectedness and personalised feedback. Overall, the most salient issues to emerge from the literature on online learning are the need to increase feedback, reciprocity and support for interpersonal interaction (Gunawardena, 1995, Chickering and Gamson, 1998).

Responses to the Need for Socialisation Support

Throughout the literature there are common factors that emerge in discussions of student support online. Tait (2000) proposes a threefold functional model of student support that include cognitive, affective and systemic elements. The cognitive dimension covers provision of appropriate learning resources, the affective includes the provision of a supportive student-centered environment to enhance self-esteem and the systemic aspect entails the provision of administrative process that are effective, transparent and student friendly. The literature refers to many kinds of support needed by individuals to assist them to perform tasks and interact online. Most frameworks are supported by theories of socio-cultural learning and refer to the pedagogical roles of the teacher as coaching, scaffolding and guidance (Hannafin & Land, 1997).

Bonk (2000) responds to the call for increased support by suggesting that there are four overlapping roles for the online instructor. These are administrative, pedagogical, social and technological. Rourke et al (1999) propose a community of inquiry model where learning occurs through the interaction of three core components; cognitive presence, teaching presence and social presence. Laurillard's (1995) iterative model of conversational dialogue leading to learning is an example of a communication model that can involve learners socially and cognitively. All three theorists recognise the primacy of the social dimension.

Research indicates that that there are intersecting concerns that needed to be addressed in assisting the learner: affective, regulative and cognitive (Vermunt & Verloop, 1999). If we conceptualise these roles from a socio-cultural perspective, all three dimensions of supporting learning can be viewed as scaffolding. For example, teaching on-line requires attention to the cognitive dimension and this could be achieved by creating tasks and problems sufficiently

complex so as to stretch students' current level of understanding: having them present cases, arguments and conflicting views so as to encourage articulation and justification of ideas. Tutors can provide the affective dimension by giving students personal responsibility for learning, by enabling them to achieve success and by emphasising the importance of setting personal goals that can be realised. The regulative or metacognitive dimension of learning may be supported by allowing students to monitor their own and others' progress, by fostering reflection through learning logs or diaries and by incorporating self-assessment. Other indications of the need for socialisation support are signalled in the literature on social presence and knowledge building communities (Murphy & Cifuentes, 2001; Leh, 2001; Richardson & Swan, 2001).

Seven Design Recommendations for Provision of Socialisation Support

While social constructivist theory is driving the design of online environments and recognises the need for social interaction and dialogue, many studies assume that students come prepared and equipped with skills to maximise their learning potential. Cognitive approaches to Web-based instruction do not sufficiently acknowledge social and affective dimensions of learning and tend to highlight the cognitive processes involved in learning such as information organization and access and acquiring declarative knowledge (Sugrue, 2000). Balancing cognitive and social aspects of learning means that each cognitive function is driven and supported by a corresponding social process, involving self, peers, and interactions within the learning environment.

The following recommendations on supporting learning as social experience are derived from the literature on social presence theory, constructivist learning and frameworks for knowledge building communities.

Strategy 1: Design for social activity and interactive learning
In order to ensure a motivating learning context, learning activities should not only seek to foster cognitive outcomes but also develop social skills and processes. Cooperative learning activities such as group investigations, team and project-based learning enable the integration of interpersonal, social and cognitive aspects of learning online. Providing effective models and examples of group interaction protocols online, or by direct modelling in computer conferencing, provides scaffolding for social skills.

Strategy 2: Foster intentionality and goal setting in learning
Scardamalia and Bereiter (1993), in their work on creating knowledge building communities, state that the capacity to acquire expertise and high level reasoning is determined by intentionality. Intentional learning is defined as cognitive processes that have learning as a goal rather than an incidental outcome. This kind of intentionality can be fostered be giving students more agency in learning, and by allowing expression of personal and collective goals for learning. Students need to perceive themselves competent in self-managing their learning and coming to terms with new knowledge. Among distance learners, self-perceptions of scholastic competence are essential to motivation (Tait, Spectre & Entwistle 1995). It is important to provide resources to students that allow them to acquire study competence across fields of study.

Strategy 3: Use role differentiation
Online environments provide scope for students to assume multiple participatory roles, enabling varying levels and forms of responsibility for contributing, questioning, mentoring and demonstrating expertise. Role differentiation puts learners in alternating roles of novice,

researcher and expert. Reciprocal teaching enables learners to develop process skills, self-regulation and confidence (Bonk & Cunningham, 1998).

Strategy 4: Ensure that feedback becomes a constructive social experience
The provision of regular, timely and personalised feedback is important in counterbalancing the impersonal effects of online learning. Well-timed constructive feedback increases students' perception of positive social presence (Gunawardena, 1995). Another strategy for feedback in online forums is to focus on group problems of understanding and to clarify misconceptions to the group as a whole. Students can also be encouraged to provide responses to teacher feedback openly, and engage in dialogue about what forms are most helpful.

Strategy 5: Foster metalearning
Students new to online learning often need an orientation to learning in this new mode and an opportunity to talk about and reflect on their experiences. Often student satisfaction with online learning is a product of their use and comfort with the technology. In creating a supportive environment for online study, with attention to self-appraisal, reflective practise and peer review, students learn metacognitive skills and the capacity to judge their own performance and that of others (Lin et al., 1999).

Strategy 6: Enable student autonomy and a sense of ownership
Ownership for learning is linked to self-regulation as it sees learners as socially, metacognitively and motivationally proactive in their own learning (Zimmerman, 1995). Equally, to participate in the knowledge building community, learners need to take primary responsibility for setting learning goals, accomplishing tasks and self-evaluating their own performances. Teachers need to foster self-regulatory behaviours and self-directed learning, by offering tasks that require both collaborative and independent work.

Strategy 7: Balance both personal and interpersonal orientations
While learners need to orient themselves to the content domain and course outcomes, they also need to be given scope to discuss the perceived relevance of the course and articulate reasons for taking the course. This can be achieved through conferencing and discussion. The relational element of learning is a product of our desire for affiliation, association and connection (Walther, 1992). Establishing relationships with students online is therefore a priority, while ensuring that students know that sources of help are available. The following examples, depicting an authentic online environment, exemplify these principles.

A Case Study

Final year students enrolled in the Interactive Multimedia course at Edith Cowan University are required to develop skills and expertise in project managing the development of multimedia products. These skills are taught through a Project Management Methodology unit where students practice creating web sites using project management models, performing needs analysis, developing design specifications, and conducting formative and summative evaluation. The unit consists of thirteen, three-hour class sessions and runs over a full semester, or thirteen weeks. Each session consists of a one-hour lecture followed by a two-hour team-based activity. Social and communicative skills and collaboration are continually promoted and reinforced throughout the unit with teams of four or five students working together to build the web site. Learning outcomes include:
- working in teams to develop a team-based web-based product
- creating and developing suitable project management models

- documenting and reporting on QA procedures, communication strategies, timesheet estimates, overall costs, proposal, legal, design etc which are representative of industry expectations
- evaluating the quality and effectiveness of the product
- communicating and collaborating in a team-based environment to solve problems, resolve conflict and make appropriate decisions.

In the environment, learning activities are designed to promote self-regulation, team skills, social and peer accountability as well as reflection and metalearning though peer and self-assessment. Using these seven instructional strategies outlined above, the design process focuses on developing learning activities to support the required outcomes. This process firstly required decisions to be made about the form of assessment and what proportion would be allocated to team and individual activities.

Example of Strategy 1: Design for social activity and interactive learning

An example of social learning activity based on self and peer assessment uses the "Conference Centre" in which all student teams complete weekly tasks based on key concepts related to the unit outcomes. Students are given both print and on-line resources to help develop solutions for these tasks. Solutions have to be submitted to the conference centre at a specific time, after the system is "locked" to prevent late postings. Student teams are then asked to peer review other team submissions. Tutors also provide feedback to solutions and post grades and feedback to the Conference Centre, as well as the best three solutions for the week. This approach to learning is highly social and engaging, while allowing student opportunities for peer interaction and review.

Example of Strategy 2: Foster intentionality and goal setting

To help foster intentionality, students are encouraged to complete a student contract at the beginning of the semester, signed by themselves and team members. The contract outlines students' responsibilities needed for developing the Web site and weekly tasks. Students are expected to choose a project topic, defined their team role, choose topics for their portfolio, and plan the amount of time they intend to commit to achieve these tasks. This is completed in week 3, with a meeting of all team members so that there is agreement on roles, tasks and responsibilities. This helps both individuals and teams to set realistic goals and also creates a collaborative environment in which there are clearly agreed and negotiated objectives.

Examples of strategy 3 & 4: Support role differentiation and feedback

Throughout the semester students perform a number of different roles such as redesigning web pages, supporting peers, giving critical advice, researching and synthesising information. In most cases, students were assessed on their performance and given feedback on these roles through an assessment system that allowed students to consider their own and other team members' contributions through on-line weekly journals completed at the end of each week. This gave an indication of team members' progress in completing a variety of different tasks to the required quality and within time. The weekly journal allowed students to assess how they perceived others had performed and also gave comments in support of their assessment.

Example of strategy 5: Foster metalearning

The approach to assessment based on self and peer evaluation, combined with the online facility for the online journal and conference center, provided scope for the adoption of multiple roles and gave students multiple sources of feedback and opportunities to reflect on their own learning. Once formed, student teams remained together for the whole semester, and relied on each other to develop the web site and solve weekly problems. The learning environment promoted activities that were highly representative of real-life industry practice.

Project proposals, design specifications, budgets, progress reports and legal contracts are all needed in commercial jobs. Students were engaged in developing these reports for clients who had "real" needs within the industry. Within this context, students recognised that clear and effective communication protocols were needed to convey messages between the team and the client, as well as within the team. This included written documentation, speaking skills, listening skills, and presentation skills.

Example of strategy 6 & 7: Balance both personal and interpersonal orientations
In this learning environment where teams worked together to produce Web designs, peer support and feedback was part of the learning experience. Individuals and teams also had the opportunity to utilise the bulletin boards to make comments about any topic. This enabled a free and open environment that promoted dialogue between the students. For example, many students felt that their peers may not have had the skills to assess solutions that were posted to the "Conference Centre". This allowed open discussion on aspects of the peer review systems.

Students were given an orientation and advice on how to structure teams, and the importance of effective teamwork. Much time was spent at team meetings considering how the team would develop their product, and within this setting all team members were expected to contribute ideas and solve problems.

Summary

There are a number of different approaches to conceptualising effective learning environments. The approaches adopted in this paper emphasize the social (rather than cognitive) aspects of the learning experience, based on theories of social interaction, social psychology and constructivist knowledge building communities. It is not being suggested that cognitive aspects are less important, but rather, that social aspects of design may be overlooked. Taken on their own, each approach is piecemeal, but essential. This means that educators need a holistic perspective and a framework for supporting learners by creating environments that value the social, experiential, participatory and interpersonal. For educators, the most important lesson learnt from a decade or more of online learning is that students need environments that provide support for learning through social interaction, engagement and community building.

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