Chapter 2
Identifying Factors Influencing Students' Motivation and Engagement in Online Courses

Dilani Gedera, John Williams and Noeline Wright

2.1 Introduction

The emergence of educational technologies offers flexible learning opportunities to the twenty-first-century learners. Research affirms that online courses provide learners with some flexibility in terms of time, place and pace (Gedera and Williams 2013). However, the anonymous nature of the online learning environment can lead to demotivation and disengagement with subsequent minimal participation or even withdrawal. In face-to-face classrooms, students' levels of motivation can be observed to a certain extent with few of the physical cues available. However, online courses present challenges and concerns in relation to students' motivation and active participation. The challenge of engaging online learners seems common across subject matter, levels and institutions. Therefore, in order for the learners to have positive learning experiences, it is vital to identify factors that affect students' motivation and engagement in online courses. Through a case study, this chapter highlights some pedagogical and practical ideas and strategies that teachers may like to consider when designing online courses to enhance students' motivation and engagement.

2.2 Student Motivation and Engagement

The term motivation is derived from the Latin word 'movere' which means 'to move'. The idea of movement in relation to motivation is understandable if we look at some of the definitions of motivation. For example, Ryan and Deci (2000) say:

> To be motivated means to be moved to do something. A person who feels no impetus or inspiration to act is thus characterized as unmotivated, whereas someone who is energized or activated toward an end is considered motivated. (p. 54)

D. Gedera (✉) · J. Williams · N. Wright
University of Waikato, Hamilton, New Zealand
e-mail: dilani.pahalagedera@gmail.com

C. Koh (ed.), *Motivation, Leadership and Curriculum design,*
DOI 10.1007/978-981-287-230-2_2

This denotes that motivation can be something that keeps us 'moving'. Motivation is defined as the 'desire or willingness to do something' (Oxford Dictionary 2013), the condition of being eager to act or work, a force or influence that causes someone to do something (Merriam Webster 2013). There are two different kinds of motivation: intrinsic and extrinsic. Intrinsic motivation comes from within and is associated with the joy or passion that the task gives the learner rather than any reward it brings (Irvin et al. 2007). Extrinsic motivation is something to do with external factors associated with the task such as assessment. External factors can also be related to instructional strategies, learning conditions, educational technologies and other elements in activity systems.

Motivation can be a prerequisite of learner engagement. For instance, because of a long-term goal for credentials, learners can be motivated to engage in courses. Motivation can also be a feeling of satisfaction/success when being engaged in worthwhile learning. Either way, student motivation and engagement are closely related elements of student learning that can have an impact on learning outcomes. Beer et al. (2010) state that in spite of the fact that there is no universally accepted definition of what comprises engagement, student and college success, student retention and student motivation are always linked to engagement. For instance, some of the early studies defined engagement in terms of aspects such as interest (Dewey 1913), effort (Meece and Blumenfeld 1988), time on task (Berliner 1990) and motivation (Skinner and Belmont 1993). For the purpose of this chapter, online learner engagement is defined as students' active participation in e-learning activities (i.e. discussion threads, virtual classroom) to achieve learning goals. Motivation is considered an essential element to engage learners and thereby enhance students' learning experiences.

2.3 Methodology

This chapter is based on a case study carried out in one of the universities in New Zealand in a course offered in semester A of each year which is part of a Post Graduate Diploma. The data collection took place in 2012 and seven students and their lecturer participated in this study. In order to capture the experiences and perspectives of the participants in this research, individual interviews with the students and teachers, observation of online learning activities, online profile questionnaire and document analysis were used as methods of data collection. The learning technologies that facilitated the synchronous and asynchronous learning activities of this course comprised Adobe Connect virtual classroom and the university learning management system (LMS), Moodle.

The aim of this study was to examine factors that affect students' motivation and engagement in a specific online learning environment. In exploring mediational factors that affect students' motivation and engagement that exist in activity systems, Engeström's (1987) Activity Theory framework was used in this research. The constituents of an activity system include *subject, object, tools, rules, community* and

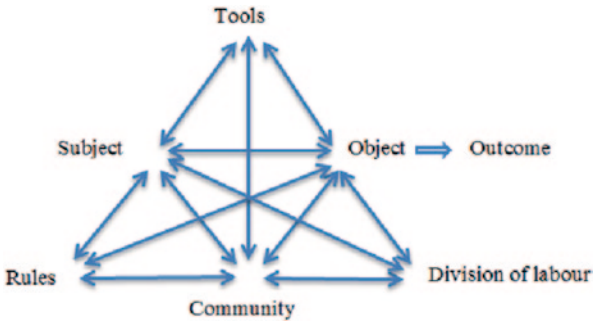

Fig. 2.1 The basic structure of an activity system. (Adapted from Engeström 1987)

division of labour. Activity Theory provided a framework to guide data collection, analysis and interpretations of our study. The framework allowed us to recognize the whole structure of the course and learning activities as activity systems and examine how different elements of activity systems influenced and affected each other in this context. Figure 2.1 shows the basic structure of the Activity Theory.

2.4 Factors Affecting Students' Motivation and Engagement

This Post Graduate Diploma course was taught fully online for a period of 12 weeks and delivered via the university LMS. The participants included seven students (six New Zealanders and one from the Middle East) and the lecturer (New Zealander). The activities which provided the data for analysis included synchronous virtual classroom and discussion forum that was facilitated by the LMS.

In this context, the elements—*tools* and *community*—seemed to mediate students' active participation and motivation in the process of achieving their (*subject*) learning objectives (*object*). Tool mediation, which is a key principle of Activity Theory, highlights that human activity is mediated by various tools (Kaptelinin 1996). These tools can be external (physical)—a computer or a book—or internal (psychological)—a mental model, concept or a plan, for instance. The tools that mediated students' motivation and engagement in this context included the educational technologies—Adobe Connect virtual classroom and the university LMS, Moodle.

The Adobe Connect virtual classroom facilitated a synchronous activity in this case as an individual assignment which represented 30% of the marks students received. The objective of this activity was to present their research to the members of the class in the virtual classroom environment. The dates of presentations were predetermined and posted on the Moodle site for students to choose the day that best suited them (out of 3 days from 7.30 to 9 pm). The presentations took place during week 10 of the semester. Figure 2.2 shows the virtual classroom activity system that is overlaid in Activity Theory framework.

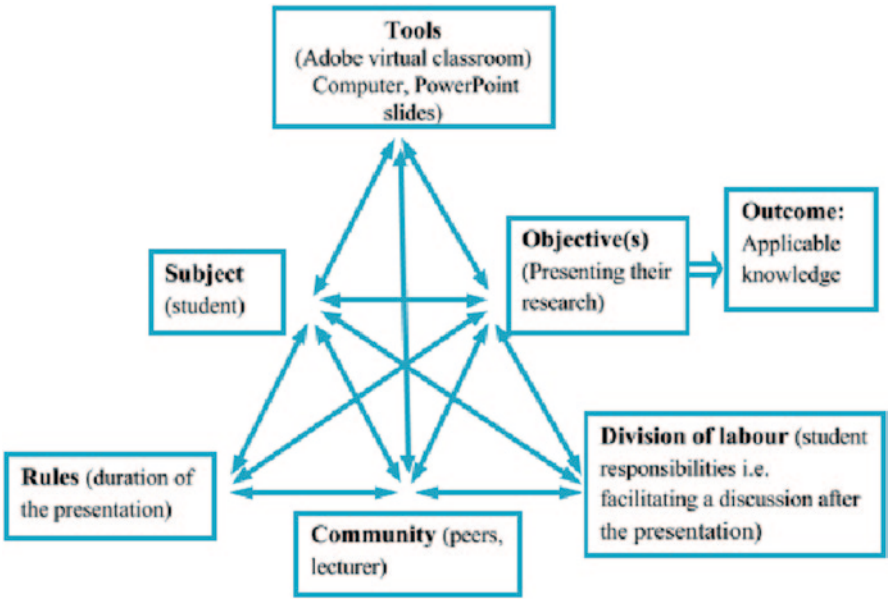

Fig. 2.2 Virtual classroom activity system. (Adapted from Engeström's Activity Theory framework 1987)

For students to access this password-protected virtual class, they clicked on a specific URL, entered their password and joined the activity. Figure 2.3 shows the layout of a typical virtual classroom that included video/audio, participants, PowerPoint slides of the presenter, text chats, file sharing and polling features.

In the virtual classroom activity system, the affordances of virtual classroom software allowed the participants to see each other in real time, and the participants perceived this as a benefit, as they could get to know each other better. Alex commented:

> I would like to see more synchronous. Only because I like seeing people when I'm talking to them and stuff like that. I like that backwards and forwards that can happen very easily in that environment. (Alex, interview 2)

Another feature of virtual classroom that supported students' active participation was the ability to have an oral discussion in real time right after each presentation. As part of students' responsibilities, each student was nominated by the lecturer to ask three questions from another student in the form of a discussion. The dates, list of the names of presenters and the reviewers were posted on Moodle 2 weeks before the activity. Having a discussion after each presentation allowed the students to immediately clarify the issues related to the topic as well as provide some instant feedback.

In synchronous learning, instant feedback and the interactions with peers and the facilitator seem to increase motivation and student learning (Schullo et al. 2007). The findings of our research also suggested that by having audio and video features,

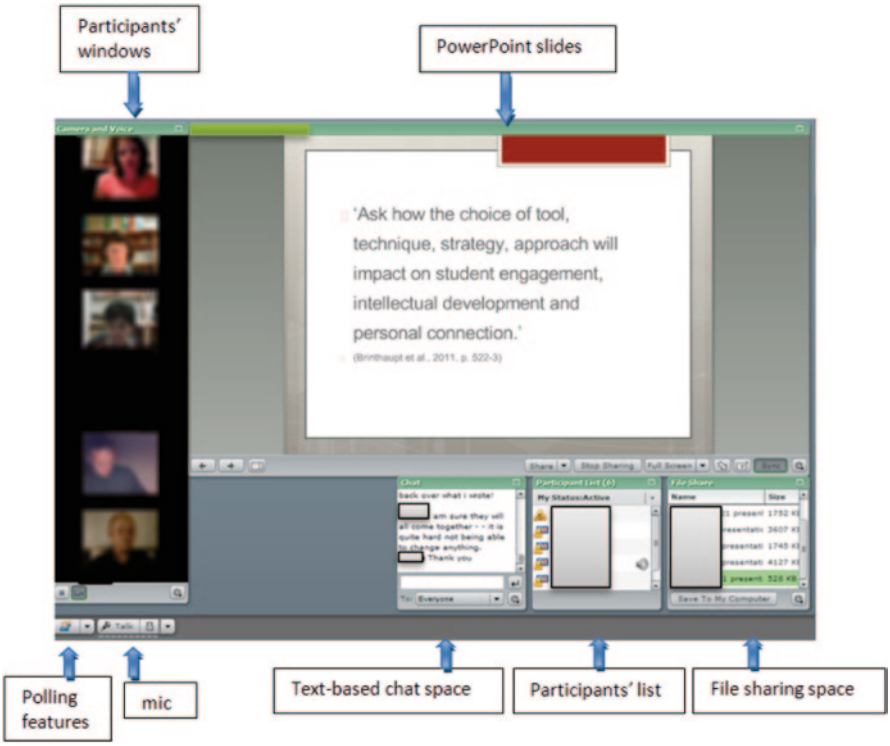

Fig. 2.3 Virtual classroom activity (9 May observation)

the virtual classroom facilitated reciprocal communication among participants where they could clarify issues and provide instant feedback as they were engaging in the activity. Students also acknowledged the value of physical cues in the virtual classroom environment.

As a group, they were also motivating each other by giving words of encouragement after their presentations. The words exchanged included 'very interesting', 'well-done' and 'excellent presentation'. Apart from the video and audio functions, the virtual class also allowed the students to have a text-based chat during this activity. This was particularly useful when they had questions to ask from a particular person in private or in public as well as to have a chat before the facilitator (lecturer) joined the group where they could support and motivate each other to do well in the activity. An example of a text-based chat is shown below.

Alex: Hi Fiona… I hope you're not too nervous :)
Guest: Hi Alex and Fiona hope technology is on our side tonight
Fiona: no I am not
Alex: That's good.
Guest: Debbie here I'm nervous
Guest: How do we see each other?
Brent: Richard will come on at some stage and enable all that business and then you click the camera button that will appear at the bottom of the "Camera and Voice" thingy at the top left :-)

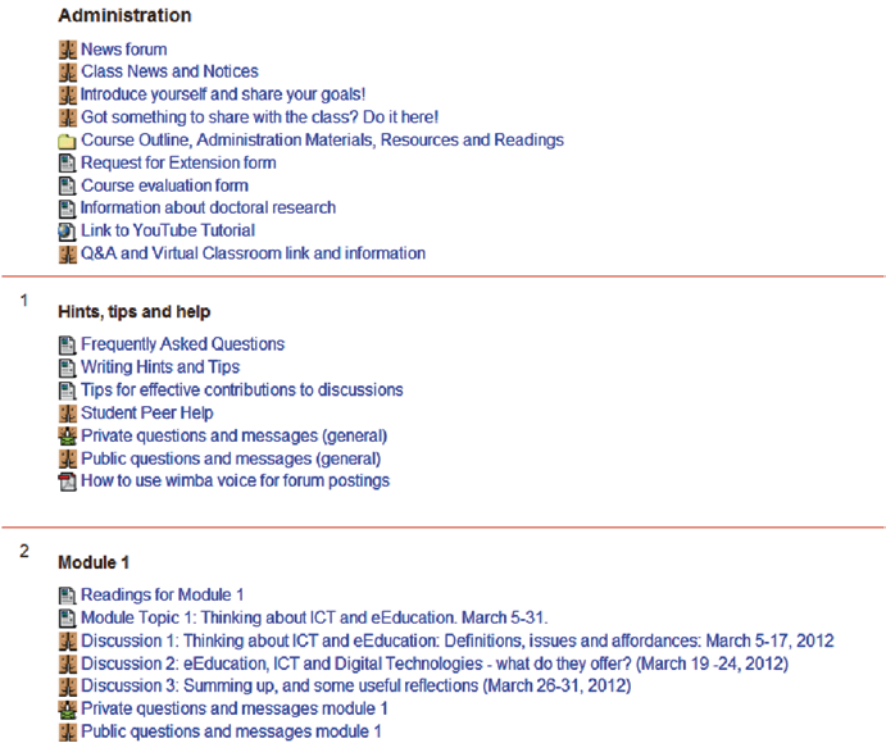

Fig. 2.4 Case study one: Moodle course layout

The conversation above shows how the students were supporting each other by giving instructions how to set the camera and also encourage them to do well without being nervous.

2.5 Learning Management System

Anderson et al. (2001) suggest that 'Thoughtful design of learning activities is critical to the attainment of educational outcomes' (p. 15). The design and the way courses are structured can be vital factors that are associated with students' motivation and positive/negative experiences of learning online.

Figure 2.4 shows the course layout in Moodle. The data indicated that Moodle as a virtual *tool* also affected students' motivation and engagement. The Moodle page of this course was well-structured and the lecturer deliberately used several structural strategies in its design. As the lecturer, Richard acknowledged, 'students did not have to wrestle with the interface or find resources to be able to learn' (interview 1). In particular, the lecturer's design in embedding all the teaching materials and

resources within texts and hyperlinks in logical order made students' learning experience as easy as possible. This is supported by the strategies suggested by Savenye et al. (2001) in providing students with easy access to hyperlinked resources and materials that are well-organized in modules. The University of Texas (2013) states that to help motivate students, it is crucial to structure courses where students know what to expect. In this case, the lecturer, Richard acknowledged this factor and mentioned that 'patterns are important in online learning' (Richard, interview 2). He explained:

> A lot goes down to the fact that I must stick to the uniformity and the design of the interface. Anything that is neat and tidy…and the same order for each module…, so it's predictable.

The importance of a structured course was also highlighted by the students and they appreciated that the lecturer 'has been a very good coordinator and his work is structured' (Christine, interview 2). Students also mentioned that all the information is there and they can read in their own time. Brenda acknowledged that the course has a logical organization of materials and concepts that help students to understand the subject better.

> We read all those papers where things haven't been going that well. That was fascinating because we kind of looked at the history and then we looked at the potential benefits and then we looked at how things are not going that great, but we already got ideas of potential benefits, I like the way he puts things together. (Brenda, interview 2)

Brenda here refers to the reading materials that Richard has put together to suit the topics that are covered in the course. In summary, the logical arrangement of the learning materials to provide a well-structured course seemed to sustain students' interest and led students to actively participate in learning activities.

Creating conducive environments for learning and a community of learning where students feel supported is seen as another factor that can motivate students to actively participate in class activities (University of Texas 2013). This was apparent in the case of my research. The aspect of *community* influenced students' motivation and engagement in learning activities in this context. In designing the course, Richard created several spaces for students to interact and communicate. As Fig. 2.4 shows, these spaces comprised class news and notices, private and public communication spaces, sharing spaces, peer support spaces, FAQ and Q&A spaces for each module.

These spaces seemed to foster closer connections among students where they felt supported. The personal introductions the participants were to share with the class at the beginning of the course included details about themselves and their families, their goals and also their photos. Students seemed to value these detailed personal introductions, as it helped them to get to know each other a little better. As Fiona explained, in face-to-face classrooms there is a chance for students to get to know each other well, as they meet each other often, unlike in a fully online environment. She further explained how the detailed introductions helped to know more about other students in the class; 'at the beginning of the paper we had to introduce ourselves, not just the name' (Fiona, interview 1). The importance of sharing their photos with the personal introductions was also emphasized by Debbie:

> I've been surprised…it was better than I thought. It's not face-to-face, but it's amazing. You introduce to each other and you see a face and then you contribute and when you are reading someone's post, you are replying whatever the personality you are imagining you know. (Debbie, interview 2)

By creating several spaces for communication, the students were given a choice to suit their needs. The lecturer's deliberate attempt in creating strategies such as social, communication and sharing spaces clearly facilitated closer connections among students. This is supported by Schwier's (2007) views that 'communities cannot be created; rather they emerge when conditions nurture them' (p. 18). These social interactions among students maximize students' motivation and peer collaboration in learning (University of Texas 2013).

Learning from more capable peers is aligned with Vygotsky's (1978) concept of zone of proximal development (ZPD)—that is, the distance between what an individual can achieve on his or her own and what one can achieve by the help of others. This concept was evident in this case where students achieved more by interacting with each other than on their own. By introducing and sharing with others about useful software such as PDF reader, tips to show how to include a video clip into a post and dock blocks as well as offering technological knowledge, the more capable students assisted their peers to achieve their objectives. For instance, when Christine was looking for help with one of her assignments where she had to make a YouTube video clip:

> Making the YouTube clip…that really was a disaster. I thought that was quite frightening and I honestly didn't have a clue what to do. One day I asked 4 people at work and no one could help me. And then I sent out a question on the public Question place. Alex came in and sent me an email how to do it. To me, it was little bit like a miracle because I had no knowledge of how to do either of those the Movie maker or the YouTube. (Christine, interview 2)

A teacher's presence in learning activities and as part of community in online learning environments is motivational (McIntyre 2011). In this case, Debbie felt that the lecturer's presence was a vital factor that helped to create a sense of belonging to a learning community. Almost all the students clearly expected the lecturer to be part of forum discussions in this context because they believed that the lecturer needed to be there to direct them, guide them, provoke them to think further and also to help develop a depth of knowledge. The students felt that 'he is present' (Alex, interview 2) and that motivated them to engage in learning activities. It was interesting to note how Alex felt that the lecturer was just focusing on them and also the concern that the lecturer must be waiting for the students to respond:

> Definitely it's better that he is there. I like the way Richard has been involved. It's like he is present. And even though I know that he must have other responsibilities sometimes I feel that he focuses just on us. And I guess that's another aspect of the asynchronous nature of what we're doing as well. I mean sometimes I'm thinking Richard must be wondering what on earth I have been doing or where I've been. He is good at it and it's good to have him there…. I mean if we were in face-to-face situation, we probably have quite I think with the nature of some of the people in the course we probably would have very dynamic conversations without him … he wouldn't need to be there. However, he does guide us, he ends it with the things he likes us to consider, so that has been good. (Alex, interview 2)

Alex's analogy to face-to-face contexts highlights the need for a teacher's presence in online contexts where other means of having dynamic conversations are not possible. In addition, the students expected the lecturer to acknowledge their participation and contributions online.

According to McIntyre (2011), students can be greatly motivated when their comments are acknowledged as contributions of relevance and interest to the peers. In this case, the students stressed that their participation and contribution 'need to be acknowledged. Otherwise why are you doing it?' (Brenda, interview 2). Others pointed out that he needed to be there in order for them to be guided.

> I think his presence is absolutely vital. I hate not to have Richard there. He directs and he sort of tells us and I think we'll be like a head…going to 100 different directions if we didn't have Richard. I'm very grateful that he is there. (Debbie, interview 2)

Richard, the lecturer, also believed that there is a strong correlation between tutors' presence and students' active participation in online discussions. There is substantial support for this view in the literature. The significance of tutor presence in online discussions is supported by multiple studies in the review of literature conducted by Tallent-Runnels et al. (2006). Similar to the findings of my research, these studies highlight that the students' active participation is influenced by the reciprocal interactions of the staff (Dennen 2005). The findings of the qualitative study carried out by McIsaac et al. (2006) on students' and teachers' perception of interactions in online courses replicate some of the perceptions of our research participants. McIsaac et al. (2006) found that students' interactions and positive learning experiences could be promoted by the teacher's effort in providing immediate feedback, participating in discussions, encouraging social interactions and using collaborative learning strategies. These efforts by the instructors do seem to motivate students' participation in learning activities in online learning environments (McIntyre 2011).

2.6 Conclusion

The aim of this chapter was to illustrate factors that affect students' motivation and engagement in a specific online learning environment. The findings of the case under study suggested that students' motivation and engagement were affected by the *tools*—Adobe virtual classroom and the LMS that facilitated the design of the course and forum discussions. With the audio-, visual- and text-enabled features of the virtual classroom, students were able to see and hear each other in real time, provide instant feedback and encourage each other which enhanced students' motivation and students' active participation in this case. In addition, the aspect of *community* was another factor that affected students' motivation and active participation in learning activities in this case. In particular, the deliberate strategies the lecturer employed in the Moodle design of the course facilitated easy access to learning materials and fostered a community of learning. The academic and social interactions enabled the students to have closer connections and a sense of belonging to

the learning community where they felt supported and motivated. The lecturer's presence as part of the community that was reflected through the instructional strategies, acknowledgements and feedback also seemed to have an impact on students' motivation and active participation in this online course.

References

Anderson, T., Rourke, L., Garrison, R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning Networks, 5*(2), 1–17.

Beer, C., Clark, K., & Jones, D. (2010). *Indicators of engagement. Proceedings of Ascilite Sydney 2010* (pp. 75–86). Sydney: Ascilite.

Berliner, D. C. (1990). What's all the fuss about instructional time? In Ben-Peretz, & R. Bromme (Eds.), *The nature of time in schools: Theoretical concepts, practioner perceptions* (pp. 3–35). New York: Teachers College Press.

Dennen, V. (2005). From message posting to learning dialogues: Factors affecting learner participation in asynchronous discussion. *Distance Education, 26*(1), 127–148.

Dewey, J. (1913). *Interest and effort in education*. Boston: Riverside Press.

Engeström, Y. (1987). *Learning by expanding: An Activity-theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.

Gedera, D. S. P, & Williams, P. J. (2013). Using Activity Theory to understand contradictions in an online university course facilitated by Moodle. *International Journal of Information Technology and Computer Science (IJITCS), 10*(1), 32–40.

Irvin, J. L., Meltzer, J., & Dukes, M. S. (2007). Taking action on adolescent literacy: An implementation guide for school leaders. http://www.ascd.org/publications/books/107034/chapters/Student-Motivation,-Engagement,-and-Achievement.aspx. Accessed 20 Oct. 2011

Kaptelinin, V. (1996). Activity Theory: Implications for human-computer interaction. In B. Nardi (Ed.), *Context and consciousness: Activity Theory and human-computer interaction* (pp. 103–116). Cambridge: MIT Press.

McIntyre, S. (2011). Learning to teach online: Engaging and motivating students. http://www.academia.edu/612888/Engaging_and_motivating_students. Accessed 1 Feb. 2012

McIsaac, M. S., Blocher, M. J., Mahes, V., & Vrasidas, C. (2006). Student and teacher perceptions of interaction in online computer-mediated communication. *Educational Media International, 36*(2), 121–131.

Meece, J. L., & Blmenfeld, P. C. (1988). Students' goal orientations and cognitive engagement in classroom. *Journal of Educational Psychology, 80*(4), 514–523.

Merriam Webster. (2013). Merriam Webster. Merriam-Webster. http://www.merriam-webster.com/dictionary/motivation. Accessed 3 Jan. 2013

Oxford Dictionary. (2013). Oxford Advanced Learners' Dictionary. Oxford University Press. http://oald8.oxfordlearnersdictionaries.com/dictionary/motivation#motivate__43. Accessed 6 Jan. 2013

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*, 54–67

Savenye, W. C., Olina, Z., & Niemczyk, M. (2001). So you are going to be in an online writing instructor: Issues in designing, developing, and delivering an online course. *Computers and Composition, 18*(4), 371–385.

Schullo, S., Hilbelink, A., Venable, M., & Barron, A. E. (2007). Selecting a virtual classroom system: Elluminate live vs. Macromedia breeze (adobe acrobat connect professional). *Merlot, 3*(4), 331–345.

Schwier, R. A. (2007). A typology of catalysts, emphases, and elements of virtual learning communities. In R. Luppicini (Ed.), *Online learning communities* (pp. 17–40). USA: Information Age.

Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educationl Psychology, 85*(4), 571–581.

Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., & Liu, X. (2006). Teaching courses online: A review of the research. *Review of Educational Research, 76*(1), 93–135.

Vygotsky, L. S. (1978). *Mind in society*. Cambridge: Harvard University Press.