Why Hong Kong students favour more face-to-face classroom time in blended learning

Why traditional learning environments matter in Hong Kong

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Abstract

A three year study in student characteristics, needs and learning styles guided instructors at the University of Hong Kong Faculty of Education to improve teaching and learning in a core module: Information Literacy. A mixed-method approach analyzed data collected from undergraduate, in-service teachers in a BEd program, and helped instructors in the program to gain insight into the Hong Kong teacher working, post-service towards a BEd in Library and Information Science. Part-time students indicated a preference for a combination of online and face-to-face teaching, with more face-to-face class time in that mix. These findings would also be informative for other part-time programs using blended teaching and learning models.
Keywords: Learning; Technology; Measurement.

Porque estudantes de Hong Kong preferem aulas presenciais na aprendizagem mista

Resumo

Um estudo, realizado durante três anos, sobre as características de estudantes, necessidades e tipos de aprendizado na University of Hong Kong Faculty of Education tinha o objetivo de melhorar o ensino e a aprendizagem relacionada às Tecnologias da Informação e Comunicação. Um método misto de abordagem analisou as informações coletadas com estudantes universitários, professores em treinamento em serviço em um Programa de Aprendizagem Mista (PAM), e colaborou com os instrutores do programa a ter uma visão sobre o trabalho docente em Hong Kong e a prestação de serviços ulterior de um PAM na biblioteca e para informações científicas. Estudantes de meio período indicaram preferência por uma combinação de ensino online e presencial, com mais aulas presenciais. Descobertas também poderão ser informativas para outros programas de meio período que utilizam modelos mistos de ensino e aprendizagem.
Palavras chave: Aprendizagem; Tecnologia; Medida

Por qué estudiantes de Hong Kong prefieren clases presenciadas en el aprendizaje mixto

Resumen

Un estudio realizado durante tres años sobre las características, necesidades y tipos de aprendizaje de estudiantes en la University of Hong Kong Faculty of Education tuvo el objetivo de mejorar la enseñanza y el aprendizaje relacionado a las tecnologías de la información y comunicación. Un método mixto de abordaje analizó las informaciones cosechadas con estudiantes universitarios, profesores en entrenamiento en servicio en un Programa de Aprendizaje Mixto (PAM), y colaboró con los instructores del programa en el sentido de tener una visión sobre el trabajo docente en Hong Kong y la prestación de servicios posteriores de un PAM en la biblioteca, así como también para informaciones científicas. Estudiantes de medio período indicaron preferencia por una combinación de enseñanza online y presencial, con más clases presenciadas. Hallazgos también podrán ser informativos para otros programas de medio período que utilizan modelos mixtos de enseñanza y aprendizaje.
Palabras clave: Aprendizaje; Tecnología; Medida.

Introduction

A study of part-time students' characteristics and learning styles was conducted at the University of Hong Kong, Faculty of Education in 2003. Further studies in 2004 and 2005 examined two more spirals and their effects of the study's action research approach. This paper will focus on the 2005 data and results.

The study called Innovative Pedagogical Practices Online (IPPO), provided data for instructors to identify measures to improve teaching and learning. The study was completed using data from students enrolled in the BEd Information and Technology Studies and Library and Information Studies students. These programs are for in-service teachers and thus employ flexible delivery to enhance learning and mitigate some of the challenges in continuing education for busy professionals.

The paradigm of action research was well-suited to instructors involved in this study as reflective practitioners modeling for the importance of reflective practice for in-service teachers enrolled in their courses. This study allowed instructors to use data and feedback to improve their own teaching in Library and Information Studies programs. The focus of this paper includes the lessons learned from the action research in specifically in the core undergraduate module 'Information Literacy'.

The program at HKU equips teachers with Information and Communication Technology (ICT) Information Services to meet the ongoing reform in education and its emphasis on learning to learn and life long learning-arising out of a series of education reports that highlighted the need for transformation in schooling (CDC, 2001; HKSAR, 2001). Significant funding has been provided to the school sector to enhance Information and Communication Technology (ICT) and information services, including the provision of computer labs, and libraries and the employment of IT coordinators and teacher librarians.

The BEd (ITE/LIS) program prepares students in the various aspects of leadership and information management within schools. The program is delivered using an online course-room Interactive Learner Network (ILN) to supplement face-to-face classes and therefore attempts to provide the best of the online and face-to-face traditions. The ILN allows for storage and access to course materials, discussion forums (asynchronous communication), chat (synchronous communication), assessment submission and student evaluation of the course.

The in-service program in the Faculty of Education, Information and Technology in Education program a the University of Hong Kong is underscored by a recognition that best practice is framed by reflective practice and that learning is a lifelong endeavor supported by mastering information literacy skills. Learning is self-directed, autonomous and should be modeled by the school teachers in their own continuing education.

The IPPO study was initiated because instructors regularly commented on a perceived and significant variation in the motivation among students— evidenced by such indicators as late attendance, lack of reading and out of class activity, and reluctance to participate in class group work.

To address this question, instructors involved in a collaborative research project, believed that data was needed to provide a snapshot of the student body, to indicate what learning preferences students had and determine variables affecting their success. A learner management system was used to evaluate workload, assessment modes, and delivery options. The BEd(LIS) program uses a combination of online and traditional approaches, making use of the in-house platform (ILN) developed for delivering materials and synchronous and asynchronous communication between students and instructors. Face-to-face lectures are enhanced with the integration of ICT. The IPPO study intended to identify the learning styles of students enrolled in the Bed (LIS) program. It was posited that self-directed learners are better able to adjust to their learning environments by juggling busy work and study lives.

Instructors involved in the study designed innovative teaching and learning situations or approaches to test better delivery modes to suit busy students. Information technology skills and self-directed learning were essential for completing the

materials and assessment. A bias that had been reported anecdotally by post-secondary instructors in Hong Kong is that the learning culture relies heavily on rote-learning style approaches. Yet, our students are not unique in facing a more self-directed type of learning in Hong Kong.

Student characteristics did not significantly change over the three year period thus findings and recommendations within the action research methodology will be emphasized, particularly in the third round of the study.

Survey of the Literature

The learning environment

The construct of the real world is imposed on online learning. We use the term Web *page; discussion forums*, and anything preceded by the letter *'e'* to define the abstract concepts the Web creates. To define better what the literature dissects in contemporary classrooms, real and virtual, three types of delivery are often described.

Traditional learning environments are those with face-to-face course delivery; online learning uses online technology exclusively for course materials, communication and assessment; and blended delivery involves a mix of both traditional and online learning. (Tallent-Runnels et al, 2006). Assessment of these environments often takes on a comparative approach, investigating which approach students prefer. Some studies have examined student performance and frame studies on a comparison of the approaches. Recurring issues include communication and isolation, independent learning, and student performance.

Tabor and colleagues designed a blended learning approach for a course that was fairly technical. They identified issues common to the findings of other research. They note that student communication is critical but more effective for groups if contact is initially made in person. A blended approach thus makes the most of economizing time, travel and parking inconvenience and the need for face-to-face engagement. The authors note that despite the increase of both research and theory in online learning, there are inconsistent results in the 'quality of learning outcomes.' (Tabor, 2007, p. 48) Some of the lessons learned in their faculty study indicate that 'meaningful online discussion activities that contribute to learning…helps to achieve social interaction, but are often difficult to develop. Students are quick to judge activities as busy work if they do not clearly see a benefit' (Tabor, 2007, p. 49).

Self-directedness and motivation factors

Learning environments have evolved and changed radically with inquiry-based learning now common in schools and higher education. Most universities have learning and teaching centers, dedicated to support faculty in using active learning, group work and authentic assessment that reflects more accurately the 'real' world of work and professional engagement. Critical thinking and problem solving are central to a social constructivist teaching philosophy. This development has also been shaped by the prevalence of web-based learning either isolated in distance education or through hybrid delivery of face-to-face classrooms and online learning. These learning environments require self-directed learners.

Several studies have examined self-directed learning and self-management in students in higher education (Amour, Cheng & Talpin, 1999; Kember, Lee & Li, 2001; Moore & Kearsly, 1996; Romano et al, 2005; Smith et al, 2000).

A study by Li et al (2000) of Hong Kong part-time students focused on self-management of learning and to a lesser extent, personal autonomy in learning. A major focus was how students coped with their courses. Li's study found that some students felt a degree of self-direction was necessary. The study also noted a passive approach to learning, reinforced by years of spoon-feeding in schools. Adjustments are thus required to help learners learn best. The study did find though, despite students' past learning experiences, they seemed to want autonomy in their study (Li et al, 2000, p. 25). Vogel et al (2002) found that Hong Kong students studying online needed to have self-motivation in the absence of more formal structure.

Ponton, Derrick and Wiggers (2004) note that autonomous learning is an ambiguous term, further characterizing the debate between a process

perspective or a personality characteristic perspective. They assert that although the former approach dominates, the personality perspective should not be underestimated in analyzing the effectiveness of Web based learning that requires a degree of autonomy and self determination.

Joo et al emphasized motivation and learning related variables in their examination of Web-based learning, finding that students' perceived self-efficacy for self-regulated learning was an important variable in their study (Joo, Bong & Choi, 2007).

Communication and interaction

Many authors remind us that the importance of interaction is not a new discovery and that education theory has always emphasized its contribution. Ideas from Vygotzky and Bloom indicate our learning is shaped by social interaction and iterative development. How these concepts are supported and shaped by Web-based learning has been examined in several studies. Yang examined how online asynchronous communication such as discussion forums can enhance critical thinking which is essential for learning. Tang and Byrne completed quantitative analysis comparing online, traditional and blended delivery, noting that students preferred blended over traditional and completely online learning environments.

Collaboration should be included in the asynchronous learning environment to promote the feeling of a learning community striving to achieve the same goals or outcomes. (Weidmaier & Crews) Intensive interaction with instructor and classmates supports undergraduates better as they develop their self-directed learning skills (Li, 2007).

The use of a Web-based learner management system can be considered innovative practice allowing for 'anytime learning.' Grabe and Christopherson (2005) studied student use of online lecture notes. Their findings indicated that students made most use of online notes while following them in a face-to-face class. Student usage on online notes was higher in those who consistently attended classes.

A study and literature review by Lebec and Luft (2007) summarize the problems with studies in online

learning, noting that the comparison of student achievement in online versus traditional environments is not conclusive. However they do acknowledge the impact Web-based instruction has on reflection and communication.

The literature also strongly suggested providing more time for interaction between students and the interaction between classmates becomes part of an important support network to cope with demands (Li et al., 2000, p.23). Communication requires opportunities for sharing amongst students but this also needs to be structured carefully and provide sufficient support to achieve outcomes (Li et al, 2000; Smith et al, 1996; Vogel et. al, 2002).

Impact of the IPPO study

Zhao et al (20s05) completed a meta-analysis of distance vs. traditional learning, asserting that online learning has been studied mostly in comparison with face-to-face learning. They cite contemporary scholarly attitudes to this comparative framework as holding less relevance and meaningful potential to advance the research in online learning mileu. However Zhao et al disagree and suggest what is needed in analyzing online learning effectiveness is a different 'lens'. Meta-analysis of online learning is insightful because those studies that found differences in their comparisons can shape the development of principles and practice for online learning. Thus, although the IPPO study included a specific student group: in-service teachers-the lessons learned will help to inform teaching, learning and curriculum development.

This paper focuses on two of the project's research questions and the results for this piece of action research:

- What are these student perceptions towards using various modes of flexible delivery compared to a traditional face-to-face approach?
- How do the introduction of variations in content delivery and pedagogy impact on performance and motivation?

As well, the objective of the study in the third round follow the action research paradigm and to continue to trial a range of innovative and flexible

pedagogies in selected modules to determine their effect on academic performance and participation. Most importantly, instructors needed feedback regarding the online components of the class.

The focus of this paper is the module Information Literacy as it was shaped to implement the feedback from students for improvement in 2004 and 2005. The module was a required module for both Library and information studies and information technology in education (ITE) students.

This project employed both quantitative and qualitative methodology. The quantitative approach was used to enable benchmarking of existing student characteristics. Qualitative approaches were used by way of introducing variations/interventions to practice and to enable evaluation of the success of the innovations through student feedback and interviews.

2003 IPPO study round 1: Variations to practice

Assessment tasks required more interaction online using the discussion forum. Structured readings for assigned groups framed discussion and the group was to synthesize main points and reflections, for posting to the ILN discussion forum (asynchronous communication tool). Groups were to provide feedback to other groups with those summaries also posted to the ILN forum. Also to be completed: self-assessment of ILN discussion forum in a structured rubric.

The most significant innovative intervention was that the module was delivered entirely online.

2004 cohort

Students suggested assessment was too heavy so it was changed to include a portfolio. This combined the group discussion task in the discussion forum and the self-assessment of student learning. Self assessment was changed as well to a more reflective essay based on semi-structured/guided set of questions as well as their participation in the discussion forum. Instructors provided a "Question of the week" for reflection and debate and students reflected on how their contributions to these topics helped them learn.

2005 cohort

One 100% task combined in the portfolio. Highly structured to include assigned groups and assigned readings for groups to debate and synthesize for posting on the ILN discussion and further analysis and response from other groups. A paired Webquest design as in previous years, but posting the Webquest on the discussion forum for feedback and critique, reflection about the process included and graded in the portfolio (not grading the actual Webquest), plus individual reflections on weekly questions relating to the lesson topic. The assessment task became a highly reflective essay about the student's learning

In the end, the intervention in the third round of the IPPO study was to eliminate online lessons. All lessons were held in a computer lab, attendance required, face-to-face. Instructors also returned to a class composed of BEd students only, not a combination with the graduate students. Although online lessons were not used in delivery, the online discussion forums played a large part in gathering material and reflection for the portfolio task – the ILN was heavily used.

Data collection

For the larger IPPO study, four methods of data collection were used.

1. An online questionnaire comprising closed and open questions was administered. This benchmarked learning style, motivation, work and lifestyle habits of the part-time students undertaking further tertiary study and factors affecting studying such as time for travelling to and from lectures. In order to study whether students' learning styles and time usage was related to factors such as age, teaching position and teaching experience, a one-way Anova was applied to analyse the collected data. Reliability analysis based on Cronbach alpha was also adopted to study the consistency of measuring items. In both cases, SPSS 11.0 was employed to run the tests.

2. Interventions into practice, addressing the benchmarking, were conducted within an action research paradigm. Action research is a cycle of inquiry, whereby: 1) the present situation is analysed, 2)

questions are raised, 3) factors are identified, 4) solutions are proposed, 5) interventions are developed and measured, 6) data are gathered and analysed, and 7) new questions are posed. Action research provides a systematic approach and encourages reflective decision-making (Farmer, 2000, p.1). Action research is cyclical in nature and is intended to foster deeper understanding of a given situation, starting with conceptualizing and particularizing the problem and moving through several interventions and evaluations.

3. Monitoring of motivation, participation, and performance was undertaken by the researchers who used this data as a basis of evaluation of the efficacy of the innovation. During the module the learning process was monitored and data collected to investigate the efficacy of flexible learning compared to conventional learning and other factors that influence pedagogical progress.

4. On completion of each module, interviews with representative focus groups explored the students' experience and whether their expectations were fulfilled. A series of questions were also used to further investigate student learning styles, profiles as a learner and importantly, how they compared the efficacy of online learning. This data was used to explore whether the innovative practices used in the modules had been effective. A focus group is a group of individuals selected and assembled by researchers to discuss and comment on a research topic from their personal experience (Powell et al., 1996) and benefit from interaction and group dynamics (Gibbs, 1997). Interaction enables respondents to ask questions of each other, as well as to re-evaluate and reconsider their own understandings of specific experiences (Kitzinger, 1995). Semi-structured interviews were conducted with a sufficiently open-ended framework to allow for focused, conversational, two-way communication. The flexibility of the interview schedule enabled re-ordering of content, encouraged digressions and expansions, revealed new topics, and identified any needed further investigation (Cohen et al., 2000). Focus groups, alongside semi-structured interviews, allowed the researcher to keep

the session focused and at the same time they enabled focus groups to elicit information in a way which allows researchers to find out why an issue is prominent, as well as what is prominent about it (Morgan, 1988). As a result, multiple explanations of their behaviour and attitudes were more readily articulated when the respondents revealed their understandings and meanings (Lankshear, 1993).

Telephone interviews of students were conducted in the Stage II study due to time constraints. Standard student evaluations with detailed essay responses informed instructors in Stage II and Stage III of the study.

Discussion and Results

The sample size of students in Round II and II were small, however the feedback and the action research approach both indicate that lessons learned support findings discovered in the literature review. Self-directed learning is important according to students, yet isolation in virtual classroom communication has a negative impact on learning.

It was learned that students did not spend a great deal of time preparing for study beyond class time. Responses to the first study (entirely online) were mixed. Some students were pleased to save time from commuting, which can be extraordinary in Hong Kong and the New Territories. Although not all students were convinced that learning online is better.

The most surprising lesson from analysis of the first IPPO study was that students – despite some very long commutes – wanted face-to-face classes for completion of class assignments. They would meet in groups to work on assignments while eating dinner and during class breaks. As well, group work was tackled during class when group discussions were held. Students economized their time on campus. Thus in an online environment, they were isolated from social engagement and also from structured group meetings. Students were accustomed to a regular time to socialize and meet established by authority of the class timetable; seemingly unable to set up their own off-campus or virtual settings to complete group work.

Some very negative feedback was expressed regarding a lack of face-to-face classes. Students struggled with the emphasis on reflection in the assignments and many students reacted strongly to instructor-determined groups, necessary for quickly and efficiently coordinating group discussion.

In the final round of the IPPO study, students were asked what ratio of online and face-to-face classes would be best. Of the seven students who provided qualitative responses,

Three responded: Online 60%- 79%; one responded online 30% and three recognized a mix was preferred, but did not indicate exact ratios.

A limitation of this study is that there was no conclusive data to indicate that negative attitudes toward online learning, even when situated in a real classroom, was based on the culture of these students, that traditional environments and traditional methods are the only type of learning they know.

Students were asked on their evaluations: Do you prefer online or face-to-face course delivery?

For seven qualitative responses, three students said they preferred online. One student preferred face-to-face and three students felt they learned well in a blended environment.

Another student did not agree that online components saved time and said:

> It is not so essential to save travelling time. It is imperative to help learners achieve their learning goals. This module's online session could not help learners because they were just provided with a pack of articles for self reading. This is an extra assignment. No time has been saved.

In IPPO round II instructors in the Information Literacy module were mindful to build in some face-to-face lessons. The first lesson clarified course expectations and described assignments. An optional class was on the schedule, should students have required further clarification and needed a time for group meetings. Students still struggled with the reflective nature of assessment, continued to dislike the predetermined groups and surprisingly, a small number attended the optional face-to-face class.

Nevertheless, negative feedback was expressed about the flexible, mixed-mode of online delivery. The analysis of student evaluations indicated that the mix of undergraduate and graduate classes was not a significant factor in learning.

In IPPO round I and II instructors were mindful to structure the online environment. This follows research indicating that guided and collaborative work is imperative for success in online learning. Opportunities for sharing amongst students are required but needs structure and support to achieve outcomes.

In 2004, Instructors used a mixed delivery for lessons as students in the previous cohort favoured a mix. As well, because the student characteristic of having a very long commute had not changed, instructors believed time saved in travel could be mitigate demands of class preparation. Self-directed learning was required still, because of a mixed delivery of face-to-face and online lessons. One student commented:

> Frankly speaking, we were on our own most of the time. For the more capable learners, this online mode of learning is an excellent one but I doubt if all of us can be so independent in our own learning.

Sitzmann et al (2006) completed a meta-analysis of classroom vs. Web-based instruction and found that WBI was more effective, however, it is the "unique instructional methods" afforded and employed in WBI that are "driving observed differences in the effectiveness of WBI relative to CI (647)." In other words, Sitzmann et al conclude that their findings support an earlier study by Clark that argues "instructional methods rather than delivery media determine learning outcomes (Sitzmann, 2006, p. 654)." Furthermore, the IPPO study conclusions support Sitzmann et al in that further investigation regarding the affective side of learning and assessment of attitudes, motivation and anxiety are "underlying causal mechanisms driving differences in the effectiveness of WBI and CI (p. 653)."

Another student noted that "it is hard for us to learn efficiently by the use of the discussion forum"

indicating some impatience at the need to read, reflect, type and critique. The assessment for the second round was far more reflective than the first round of the IPPO study and these comments raise awareness that part-time students simply want answers provided. Lack of time continued to be a concern raised by students and amount of assessment was a recurring complaint in the qualitative data. Four out of the seven students interviewed as part of IPPO stage II in the Information Literacy class, stated that the assessment was too heavy. Three out of the seven students identified lack of time as their major obstacles to studying. Class evaluations echoed these comments noting that the expectation of contributing to a discussion topic every week was "really time consuming and not flexible at all."

Conclusion

In-service students at the University of Hong Kong Faculty of Education maintain very "busy" lifestyles. A set of innovative interventions to implement flexible learning to reduce travel time was used to mitigate work/life challenges. A focus on this faculty response to student needs in the Information Literacy module was analyzed using the qualitative results from student evaluations in this paper. These results combined with initial studies and finding in this action research approach provided information about the potential of flexible teaching and learning. The study contributed to important improvements flagged by student and indicated that some students manage their study preparation better in a structured timetable of face-to-face lessons. Less anxiety results from immediate and personal contact with instructors and set times where students can meet with group mates to complete assessment tasks.

References

Arbaugh, J. B. (2004). Learning to learn online: A study of perceptual changes between multiple online course experiences. *Internet & Higher Education, 7*(3), 169-182.

Benfield, G. (2002). *Designing and managing effective online discussions.* [On-line]. Retrieved September 10, 2003, from http://www.brookes.ac.uk/services/ocsd.

Cohen, L., Manion, L., & Morrison, K. (2000). *Research Methods in Education* (5th ed.). London: Routledge Falmer.

Farmer, L. (2001). *Information literacy: A whole school reform approach*. Paper presented at the 67th IFLA Council and General Conference, Boston, August 16-25. [On-line]. Retrieved March 30, 2003, from http://www.ifla.org/IV/ifla67/papers/019-106e.pdf

Gibbs, A. (1997). Focus groups. In N. Gilbert (Ed.), *Social Research Update*, issue 19. Surrey: University of Surrey.

Grabe, M., & Christopherson, K. (2005). Evaluating the advantages and disadvantages of providing lecture notes: The role of internet technology as a delivery system and research tool. *Internet and Higher Education, 8*(4), 291-298.

Henri, J., Lee, S., Trinidad, S. Kwan, A., Lai, M., & Siu, F. (2003). Adapting education for school librarianship: Addressing the needs of the part time student. In S. Zinn, G. Hart & E.

Howe (Eds.), *IASL Reports, 2003 School Libraries: Breaking down barriers: Selected papers from the 32nd annual conference of the International Association of School Librarianship and the 7th International forum on research in school librarianship 7-11 July,* (pp. 83-98). Seattle, WA: International Association of School Librarianship.

Henri, J., Lee, S., Trinidad, S. Kwan, A., Lai, M., & Siu, F. (2003). Building the self-directed learner: Improving teaching practice in education for teacher librarianship in *Hong Kong. Impact, 12*(3), 28-31.

HKSAR, Hong Kong Special Administrative Region. (2001). *Digital 21 Hong Kong: Building a digitally inclusive society*. Hong Kong: Hong Kong Government Report, September.

Joo, Y., Bong, M., & Choi, H. (2000). Self-efficacy for self-regulated learning: Academic self-efficacy, and Internet self-efficacy in Web-based instruction. *Educational Technology Research and Development, 48*(2), 5-17.

Jung, I., Choi, S., Lim, C., & Leem, J. (2002). Effects of different types of interaction on learning achievement, satisfaction and participation in Web-based instruction. *Innovations in Education and Teaching International, 39*(2), 153-162.

Kember, D., Lee, K., & Li, N. (2001). Cultivating a sense of belonging in part-time students. *International Journal of Lifelong Education, 20*(4), 326-341.

Kitzinger, J. (1995). Introducing focus groups. *British Medical Journal, 3*(11), 299-302.

Lankshear, A. J. (1993). The use of focus groups in a study of attitudes to student nurse assessment. *Journal of Advanced Nursing, 18*, 1986-1989.

Lebec, M., & Luft, J. (2007). A mixed methods analysis of learning in online teacher professional development: A case report. [On-line serial]. *Contemporary Issues in Technology and Teacher Education, 7*(1). Retrieved May 28, 2007 from http://www.citejournal.org/vol7/iss1/general/article1.cfm

Li, M. (2007). Lessons Learned from Web-Enhanced Teaching in Landscape Architecture *Studios. International Journal on E-Learning, 6*(2), 205-212.

Morgan, D. L. (1988). *Focus groups as qualitative research.* London: Sage.

Oberg, D., & Henri, J. (1999). Changing concerns in distance education for teacher librarianship. *Education for Information, 17*(1), 21-24.

Ponton, M., Derrick, G., & Wiggers, N. (2004). Using Asynchronous E-learning to Develop Autonomous Learners. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2004* (pp. 1437-1441). Chesapeake, VA: AACE.

Powell, R. A., Single, H. M., & Lloyd, K. R. (1996). Focus groups in mental health research: enhancing the validity of user and provider questionnaires. *International Journal of Social Psychology, 42*(3), 193-206.

Romano, J., Wallace, T. L. Wallace, H., Helmick, I.Carey, L. M., & Adkins, L. (2005). Study procrastination, achievement, and academic motivation in web-based and blended distance learning. *Internet and Higher Education, 8*(4), 299-305.

Smith, I., Choi, S. H., & Cairncross, S. (2000). *Does on-line flexible learning fulfill students' needs and expectations?* Paper presented at the 7th International ALT-C Conference Sept 11-13, 2000. Retrieved Mar. 30, 2003, from http://www.dcs.napier.ac.uk/~ismith/altc2000/index.html

Tabor, S. (2007). Narrowing the distance: Implementing a hybrid learning model for information security education. *Quarterly Review of Distance Education, 8*(1), 47-57.

Tallent-Runnels, T. et al (2006). Teaching courses online: A review of the research. *Review of Educational Research, 76*(1), 99-135.

Tang, M., & Byrne, R. (2007). Regular Versus Online Versus Blended: A Qualitative Description of the Advantages of the Electronic Modes and a Quantitative Evaluation. *International Journal on E-Learning, 6*(2), 257-266.

Vogel, D., Shroff, R., Lee, F, Kwok, S., & Combes, J. (2002). *Student e-learning intrinsic motivation: A qualitative analysis.* Paper presented at the PACIS2002: The Next e-What? for Business and Communities, 2nd-4th September, Tokyo, Japan.

Yang, Y. (2002). Asynchronous On-Line Discussions: Facilitating Critical Thinking Skills Within Traditional Classrooms. In C. Crawford et al. (Eds.), Proceedings of Society for Information Technology and Teacher Education International Conference 2002 (pp. 335-336). Chesapeake, VA: AACE.

Zhao, Y., Lei, J., Yan, B., Lai, C., & Tan, H. (205). What makes the difference? A practical analysis of research on the effectiveness of distance education. *Teachers College Record, 107*(8), 1836-1884.

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