GENERAL ONLINE LEARNING – ANNOTATED

(2008). Perceptions of Roles and Responsibilities in Online Learning: A Case Study, Informing Science. **4:** 205-223.

The extensive introduction of online technologies to support teaching and learning is impacting how teachers teach and students learn. It is also affecting both teaching staff's and students' perceptions of what each others' roles are. The research reported here is part of a larger study that explored different aspects of teaching and learning in online environments. This study was undertaken within an Australian university and involved an institution-wide survey of students. The paper reports on students' perceptions of their roles as online learners and the expectations they have of online teachers. The outcomes of the research suggest that different cohorts of students have different expectations. These expectations are informed by their mode of study and also by their perceptions of how staff engage with online teaching. Recommendations include proactive management of student expectations by staff, as well as a commitment by staff to meet those expectations. [ABSTRACT FROM AUTHOR]

Abrami, P., et al. (2011). "Interaction in distance education and online learning: using evidence and theory to improve practice." Journal of Computing in Higher Education **23**(2/3): 82-103.

In a recent meta-analysis of distance and online learning, Bernard et al. () quantitatively verified the importance of three types of interaction: among students, between the instructor and students, and between students and course content. In this paper we explore these findings further, discuss methodological issues in research and suggest how these results may foster instructional improvement. We highlight several evidence-based approaches that may be useful in the next generation of distance and online learning. These include principles and applications stemming from the theories of self-regulation and multimedia learning, research-based motivational principles and collaborative learning principles. We also discuss the pedagogical challenges inherent in distance and online learning that need to be considered in instructional design and software development. [ABSTRACT FROM AUTHOR]

Akdemir, O. and T. A. Koszalka (2008). "Investigating the Relationships among Instructional Strategies and Learning Styles in Online Environments." Computers & Education **50**(4): 1451-1461.

This exploratory study tests the assertion that instructional strategies that match field-dependence status of students are most effective. The study conducted with 12 graduate students registered in a graduate level online course. An online version of the Psychological Differentiation Inventory was used to measure the field-dependence status of students. Students' perceived learning outcomes, their effort and involvement, and level of interaction that they perceived in online course module were measured through an online questionnaire. Results suggested that matches between students' learning styles and instructional strategies did not affect learner perception of their own learning outcomes, level of effort and involvement, and level of interactions in the course. Data also indicated that no single instructional strategy, among three instructional strategies tested, emerged as superior for high and low field-dependent online students.

Artino, A. R., Jr. and J. M. Stephens (2009). "Academic Motivation and Self-Regulation: A Comparative Analysis of Undergraduate and Graduate Students Learning Online." Internet and Higher Education **12**(3-4): 146-151.

To succeed in autonomous online learning environments, it helps to be a highly motivated, self-regulated learner. The present study explored potential differences between undergraduate (n = 87) and graduate students (n = 107) in their levels of academic motivation and self-regulation while learning online. In particular, this study provides a comparative analysis of undergraduate and graduate students' motivational beliefs (task value and self-efficacy), use of deep processing strategies (elaboration and critical thinking), and motivational engagement (procrastination and choice behaviors). As hypothesized, graduate students learning online reported higher levels of critical thinking than undergraduates. Moreover, after controlling for experiential differences, a logistic regression analysis indicated that graduate student membership was predicted by higher levels of critical thinking and lower levels of procrastination. On the other hand, undergraduate membership was predicted, somewhat paradoxically, by greater task value beliefs and greater intentions to enroll in future online courses. Implications for online instructors and suggestions for future research are discussed. (Contains 2 tables.)

Artino Jr, A. R. (2008). "Promoting Academic Motivation and Self-Regulation: Practical Guidelines for Online Instructors." TechTrends: Linking Research & Practice to Improve Learning **52**(3): 37-45.

The article provides an analysis of online instructions. In a research that was conducted to compare the attitudes and academic achievements of online students versus traditional classroom students, there was no significant statistical difference in various outcomes. However, several experts in the field of online learning suggest that researchers should focus on the attributes of learners who perform well in online learning situations. Several empirical studies used cognitive views of self regulation to understand students' success in online courses, empirically based guidelines for online instructors and motivations for online teachers to encourage their students' learning.

Baker, C. (2010). "The Impact of Instructor Immediacy and Presence for Online Student Affective Learning, Cognition, and Motivation." Journal of Educators Online **7**(1).

This study sought to examine instructor immediacy and presence in an online learning environment in relation to student affective learning, cognition, and motivation. It found a statistically significant positive relationship between instructor immediacy and presence. It also found that the linear combination of instructor immediacy and presence is a statistically significant predictor of student affective learning, cognition, and motivation. However, it did not find instructor immediacy to be a significant individual predictor of the aforementioned variables, whereas it did find instructor presence to be a significant individual predictor. The study also showed that students in synchronous online courses reported significantly higher instructor immediacy and presence. Implications for researchers and practitioners of online instruction are discussed at the conclusion of the paper. (Contains 6 tables.)

Baran, E. and A.-P. Correia (2009). "Student-led facilitation strategies in online discussions." Distance Education **30**(3): 339-361.

This study explored student-led facilitation strategies used to overcome the challenges of instructor-dominated facilitation, enhance the sense of learning community, and encourage student participation in online discussions. It presents a series of cases of students' facilitation strategies and using qualitative data analysis of discussion threads within the naturalistic inquiry framework, identifies three facilitation strategies: inspirational; practice-oriented; and highly structured. The study shows that these facilitation strategies generated innovative ideas, motivated students to participate, and provided a risk-free and relaxed atmosphere for participation. [ABSTRACT FROM AUTHOR]

Barnard-Brak, L., et al. (2010). "Profiles in Self-Regulated Learning in the Online Learning Environment." International Review of Research in Open and Distance Learning **11**(1): 61-80.

Individuals who are self-regulated in their learning appear to achieve more positive academic outcomes than individuals who do not exhibit self-regulated learning behaviors. We suggest that distinct profiles of self-regulated learning behaviors exist across learners. In turn, these profiles appear to be associated with significantly different academic outcomes. The purpose of the current study was to examine whether profiles for self-regulated learning skills and strategies exist among learners. To achieve this purpose, we conducted two studies using two different samples. We administered the Online Self-Regulated Learning Questionnaire (OLSQ), a 24-item scale with a 5-point Likert-type response format, to students enrolled in online degree programs at a large, public university located in the Southwestern United States. The OSLQ consists of six subscale constructs, including environment structuring, goal setting, time management, help seeking, task strategies, and self-evaluation. Latent class analyses were performed with participant subscale scores from the OSLQ. Our results indicate the presence of five, distinct profiles of self-regulated learning replicated across both study samples: super self-regulators, competent self-regulators, forethought-endorsing self-regulators, performance/reflection self-regulators, and non- or minimal self-regulators. Results also indicate that individuals differ significantly in their academic achievement according to their profile membership; for example, minimal and disorganized profiles of self-regulated learning are both associated with similar, poorer academic outcomes (e.g., lower GPAs). These profiles in self-regulated learning may be viewed as contributing to the development of theory by elucidating how exactly individuals are and are not self-regulated in their learning. The authors suggest future research directions. (Contains 6 tables and 2 figures.)

Bixler, B. A. and S. M. Land (2011). "Supporting College Students' Ill-Structured Problem Solving in a Web-Based Learning Environment." Journal of Educational Technology Systems **39**(1): 3-15.

The purpose of this research was to investigate the effects of using cognitive and metacognitive prompting strategies in a web-based learning environment to engage college students in a complex, ill-structured task. The course context was a freshman/sophomore level Information Sciences and Technology course, and the topic was web design. Four ill-structured problem-solving outcomes were measured: problem representation, developing solutions, making justifications, and monitoring and evaluation. Findings showed significant effects of the prompting treatment on all four ill-structured problem solving outcomes. (Contains 5 tables and 1 figure.)

Bolliger, D. U., et al. (2010). "Impact of Podcasting on Student Motivation in the Online Learning Environment." Computers & Education **55**(2): 714-722.

Researchers investigated the impact of podcasting on student motivation in the online environment during fall 2008 and spring 2009. Data were collected from students enrolled in fourteen online courses at a research university in the United States. One hundred and ninety-one students completed a modified version of the Instructional Materials Motivation Survey (Keller, 2006); it has four subscales: attention, relevance, confidence, and satisfaction. Strong positive relationships between all subscales were detected. Results indicate students were moderately motivated by the use of podcasts in their online courses. Statistically significant differences in student motivation based on gender, class standing, and prior online learning experience were found. Benefits of using podcasts and recommendations for improvement of the multimedia files were offered by users. (Contains 6 tables.)

Brindley, J. E., et al. (2009). "Creating Effective Collaborative Learning Groups in an Online Environment." International Review of Research in Open & Distance Learning **10**(3): 1-18.

Collaborative learning in an online classroom can take the form of discussion among the whole class or within smaller groups. This paper addresses the latter, examining first whether assessment makes a difference to the level of learner participation and then considering other factors involved in creating effective collaborative learning groups. Data collected over a three year period (15 cohorts) from the Foundations course in the Master of Distance Education (MDE) program offered jointly by University of Maryland University College (UMUC) and the University of Oldenburg does not support the authors? original hypothesis that assessment makes a significant difference to learner participation levels in small group learning projects and leads them to question how much emphasis should be placed on grading work completed in study groups to the exclusion of other strategies. Drawing on observations of two MDE courses, including the Foundations course, their extensive online teaching experience, and a review of the literature, the authors identify factors other than grading that contribute positively to the effectiveness of small collaborative learning groups in the online environment. In particular, the paper focuses on specific instructional strategies that facilitate learner participation in small group projects, which result in an enhanced sense of community, increased skill acquisition, and better learning outcomes. [ABSTRACT FROM AUTHOR]

Brown, A. H. and T. Green (2009). "Time Students Spend Reading Threaded Discussions in Online Graduate Courses Requiring Asynchronous Participation." International Review of Research in Open & Distance Learning **10**(6): 51-64.

The authors report the results of a study that provides bases for comparison between the time necessary to participate in courses delivered asynchronously online and courses delivered in a traditional classroom setting. Weekly discussion threads from 21 sections of six courses offered as part of online, degree-granting, accredited, graduate programs were examined. The purpose of this research is to determine whether students are spending more or less time participating in an online course than in a traditional classroom. The discussion size (i.e., the number of words per discussion) was determined using the automatic word count function in MS Word. Once the word counts for each course section were determined, the average words per discussion were calculated. The authors used 180 words per minute to calculate the average reading time, based on the work of Ziefle (1998) and Carver (1985, 1990), in order to determine the average minutes per week a student spent reading the discussions. The study indicates that a typical, graduate-level, online, asynchronous discussion requires about one hour a week of reading time, and the time commitment for participatory activity is similar to that of traditional, face-to-face courses, given that it takes under two hours to compose initial messages and responses to the discussion prompt. Although these findings are informative, further research is recommended in the area of time spent on online course activities in terms of student hours earned to enable a direct focus on various student characteristics, such as English language competency and student level. [ABSTRACT FROM AUTHOR]

Bures, E. M., et al. (2009). ""Developing a Perspective", "Inter-Connecting", and "Bringing It Together": Who Chooses to Use a Labelling Feature in Online Conversations in a Graduate Course?" Educational Media International **46**(4): 317-334.

This study explores a labelling feature that allows students to tag parts of their online messages. Data comes from four sequentially offered sessions of a graduate education course. Students engaged in two to three online activities in groups of three or four. Students (n = 53) contributed from 0 to 56 labels (M = 12.42, SD = 13.50) and 18 to 114 messages (M = 39.70, SD = 18.04). Groups (n = 17) contributed from 0 to 109 labels, and 57 to 227 messages. Field-notes and descriptive statistics suggested there were seven labelling groups, seven non-labelling groups, and three groups difficult to categorize. None of the individual characteristics hypothesized to predict labelling did. Still, categories of users and non-users emerged from qualitative analyses: strategists, trusters, and techies contrasting with fringe participants, surface coasters, techie-shy, and fluid writers/thinkers/readers. Labelling appeared to be largely a family affair--which group a student belonged to correlated to how much he/she labelled. MANOVA gives for labelling usage F(16, 36) = 2.697, p less than 0.01. (Contains 3 tables and 5 figures.)

Bye, L., et al. (2009). "Reflection Using an Online Discussion Forum: Impact on Student Learning and Satisfaction." Social Work Education **28**(8): 841-855.

The quasi-experimental study reported in this paper examined whether students were more satisfied and learned more using an online discussion with peers or a hardcopy reflection with one-time feedback from the facilitator/instructor. A t-test was used to measure the difference between an experimental section and a comparison section of the same course on: post-course ratings of how well the course objectives had been achieved, what students hoped to gain from the course, satisfaction with the course, and student end-of-the-semester grades. Students in the group who participated in the weekly online discussions with peers indicated higher rates of accomplishing what they hoped to gain from the course than those who turned in weekly hardcopy reflections with one-time feedback from the facilitator/instructor. Students expressed a preference for the method of reflection used in their course section. However, the students' ages emerged as an important variable in their preference for online discussion. There was significant difference between the groups on ratings of how well the course objectives had been achieved, but not in satisfaction with the course, or course grades. [ABSTRACT FROM AUTHOR]

Chyung, S. Y. (2007). "Invisible Motivation of Online Adult Learners during Contract Learning." Journal of Educators Online **4**(1).

In a face-to-face classroom, the instructor can easily diagnose students' motivational status by observing their facial expressions and postures, but such cues are absent in an online classroom. Therefore, online instructors often estimate students' motivational level based on their online behavior such as the number of messages they post, and look for effective strategies to help them actively participate in online dialogues. One such strategy is contract learning which facilitates self-directed behaviors through structuring an agreed learning process. This study reports a contract learning strategy in a graduate-level online class, examining whether a sample of 28 students' motivation could indeed be predicted by their online behavior. Results from the study found that the students' online behavior was not a predictor for their motivational status, though there were age and gender differences in their online behavior. The students felt more self-directed and motivated during contract learning, but what they really liked was being able to select assignments that were relevant to their interests and needs. This paper concludes by discussing practical implications of the findings at the end. (Contains 4 tables.)

Darabi, A., et al. (2011). "Cognitive Presence in Asynchronous Online Learning: A Comparison of Four Discussion Strategies." Journal of Computer Assisted Learning **27**(3): 216-227.

Some scholars argue that students do not achieve higher level learning, or cognitive presence, in online courses. Online discussion has been proposed to bridge this gap between online and face-to-face learning environments. However, the literature indicates that the conventional approach to online discussion--asking probing questions--does not necessarily advance the discussion through the phases of cognitive presence: triggering events, exploration, integration and resolution, which are crucial for deep knowledge construction. Using mixed methods, we examined the contribution of four scenario-based online discussion strategies--structured, scaffolded, debate and role play--to the learners' cognitive presence, the outcome of the discussion. Learners' discussion postings within each strategy were segmented and categorized according to the four phases. The discussion strategies, each using the same authentic scenario, were then compared in terms of the number of segments representing these phases. We found that the structured strategy, while highly associated with triggering events, produced no discussion pertaining to the resolution phase. The scaffolded strategy, on the other hand, showed a strong association with the resolution phase. The debate and role-play strategies were highly associated with exploration and integration phases. We concluded that discussion strategies requiring learners to take a perspective in an authentic scenario facilitate cognitive presence, and thus critical thinking and higher levels of learning. We suggest a heuristic for sequencing a series of discussion forums and recommend areas for further related research.

Debuse, J. C. W., et al. (2009). "Learning Efficacy of Simultaneous Audio and On-Screen Text in Online Lectures." Australasian Journal of Educational Technology **25**(5): 748-762.

This study investigates the application of voice recognition technology to online lectures focusing on the efficacy of the text component of a multimedia presentation. Specifically, participants were provided with online access to multimedia instructional packages comprising an image of the lecturer with accompanying computer slides, plus simultaneous scrolling text of the words spoken during the lecture. Participants' knowledge was measured before and after the lecture presentation. Contrary to cognitive load theory, the results did not show a negative redundancy effect, that is, there were no differences in learning efficacy between the conditions with and without on-screen text. Further, participants found no difference between text edited for semantic breaks compared to unedited text. The implications for online instructional design are that resources are better spent providing a combination of audio and slides rather than text and slides, and that if text is provided then editing for semantic line breaks is not warranted. (Contains 3 tables and 1 figure.)

Fearing, A. and M. Riley (2005). "Research for practice. Graduate students' perceptions on online teaching and relationship to preferred learning styles." MEDSURG Nursing **14**(6): 383-389.

As the nursing faculty shortage continues, the online format is being used more frequently for delivery of graduate nursing courses. Its effect on students' learning and their perceptions of online teaching needs to be investigated. This descriptive study examines the students' learning styles; their perceptions of six online nurse educator courses, the faculty, and the asynchronous format; and their overall perceptions of online teaching and learning.

García, P., et al. (2008). "An enhanced Bayesian model to detect students’ learning styles in Web-based courses." Journal of Computer Assisted Learning **24**(4): 305-315.

Students acquire and process information in different ways depending on their learning styles. To be effective, Web-based courses should guarantee that all the students learn despite their different learning styles. To achieve this goal, we have to detect how students learn: reflecting or acting; steadily or in fits and starts; intuitively or sensitively. In a previous work, we have presented an approach that uses Bayesian networks to detect a student's learning style in Web-based courses. In this work, we present an enhanced Bayesian model designed after the analysis of the results obtained when evaluating the approach in the context of an Artificial Intelligence course. We evaluated the precision of our Bayesian approach to infer students’ learning styles from the observation of their actions with a Web-based education system during three semesters. We show how the results from one semester enabled us to adjust our initial model and helped teachers improve the content of the course for the following semester, enhancing in this way students’ learning process. We obtained higher precision values when inferring the learning styles with the enhanced model. [ABSTRACT FROM AUTHOR]

Greener, S. (2009). "e-Modeling--Helping Learners to Develop Sound e-Learning Behaviours." Electronic Journal of e-Learning **7**(3): 265-272.

The learning and teaching relationship, whether online or in the classroom, is changing. Mentis offers a typology of teacher roles gathered from current literature on e-learning including instructor, designer, guide, mediator, curator and mentor, which offer the university teacher a striking range of ways in which to develop relationships with students in the mutual development of knowledge and understanding. A study of Higher Education teachers in the UK proposed a shift in their role and behaviour concomitant with the explosion of VLE usage in universities. As online and blended learning become familiar features in the university landscape, pedagogical discussions are being given more priority and ideas about how students can be enabled to learn appropriate skills for employability and lifelong learning, as well as higher order thinking, claim attention. Online, the teacher's status can easily be eroded, as learners can compare teacher-designed resources with video lectures from across the world on similar topics and chat directly with experts in the field through their blogs. Teachers who are open to new ways of thinking about their subject, and welcome such self-directed behaviour from learners, are most likely to integrate new technology into their teaching, and their own competence with technology will be a factor in how such integration works. But it is vital in these discussions not to lose sight of classroom behaviour in the rush to develop e-moderating and blogging skills for teachers. What teachers say and do in their face-to-face classes has always had a major impact on not only what is learned but also how it is learned. Bandura suggests that most human learning is done by observing and imitating others' behaviour provided the potential learner attends, can retain, reproduce and wants to do these things. So if we aim to integrate at least the affordances of VLEs into teaching design for blended learning, one of our considerations must be how the teacher uses the VLE in front of the learner. There is no doubt that teachers are increasingly uploading materials and weblinks etc into VLEs to support learners (or are made to by institutional policy). However there is less evidence that teachers are role-modelling effective e-learning to their learners. Some of this is about competence, but it is rare for a teacher to lack the ability to learn basic technology use. More of this reluctance is about fear and anxiety, to be shown up as incompetent in class to what are considered the net generation. This paper will explore the concepts and behaviours implied in the role-modelling of effective e-learning in the classroom, drawing on data from teachers and learners involved in using VLEs and other Web resources in face-to-face sessions. (Contains 1 table.)

Hsieh, S.-W. (2011). "Effects of Cognitive Styles on an MSN Virtual Learning Companion System as an Adjunct to Classroom Instructions." Educational Technology & Society **14**(2): 161-174.

This study designed a chatbot system, Confucius, as a MSN virtual learning companion to examine how specific application design variables within educational software affect the learning process of subjects as defined by the cognitive continuum of field-dependent and field-independent learners. 104 college students participated in a 12 week Microsoft certification course that used Confucius as an adjunct to classroom instruction. The study considered to what extent the two distinct learning modes offered by Confucius would affect the learning gains of two distinct cognitive styles. Each of the two learning modes available within the Confucius was designed to conform to the specific requirements of field-independent or field-dependent learners. The results of this study reveal that a discussion mode offers far greater benefit to field-dependent learners than to those whose cognitive style is field-independent. Conversely, a lecture mode is substantially more beneficial to field-independent learners than to field-dependent learners. (Contains 10 tables and 4 figures.)

Jones, I. M. (2011). "Can You See Me Now? Defining Teaching Presence in the Online Classroom through Building a Learning Community." Journal of Legal Studies Education **28**(1): 67-116.

In the online environment, students and instructors are virtually, but not physically, present in the same environment. In the online environment, technology mediates learning: it mediates communications and information transfer between the student and the instructor, between the student and the content, and among the students. Critics fear that the lack of face-to-face, personal contact with the instructor and other students creates a remoteness that inhibits learning. The purpose of this article is to describe and analyze two online legal environment courses to determine whether the instructor successfully used technology to create an effective online teaching and learning environment. The central focus is on the concept of "teaching presence" in physical and online environments and how teaching presence can be created in an online environment. Part I of the article begins by discussing trends in online education, explaining tools used to promote learning in the online environment, defining education, and summarizing theories of teaching and learning. This part also examines the lecture as a method of teaching and promoting learning. In Part II, the author discusses the role of the teacher and the concept of teaching presence. This part also comprehensively describes the author's online courses, one graduate and one undergraduate, which were designed to convey a sense of teaching presence. Finally, Part III reports and evaluates the results of student surveys conducted to confirm whether the author, as the instructor, was present in these online courses. The article concludes with recommendations for ensuring teaching presence in online courses. (Contains 8 tables and 69 footnotes.)

Jones, R. E. J. and L. Cooke (2006). "A Window into Learning: Case Studies of Online Group Communication and Collaboration." ALT-J: Research in Learning Technology **14**(3): 261-274.

The two case studies presented explore the potential offered by in-depth qualitative analysis of students' online discussion to enhance our understanding of how students learn. Both cases are used to illustrate how the monitoring and moderation of online student group communication can open up a "window into learning", providing us with new insights into complex problem-solving and thinking processes. The cases offer examples of students' "thinking aloud" while problem-solving, showing how and why they arrived at particular outcomes and the underlying thought processes involved. It is argued that these insights into students' learning processes can in turn offer us the opportunity to adapt our own teaching practice in order to achieve a better pedagogical "fit" with the learning needs of our students; for example, through a more precise or more timely intervention. It is also suggested that looking through this "window" enables us to concentrate our assessment more closely on the "process" of task completion, rather than focusing solely on the end "product".

Kim, K.-J. (2009). "Motivational Challenges of Adult Learners in Self-Directed E-Learning." Journal of Interactive Learning Research **20**(3): 317-335.

Learner motivation is a key to effective instruction and is critical to creating a successful online learning environment; yet, there is a paucity of theory and empirical research on how to create a motivating online learning environment. The purpose of the present study was to explore and describe the experiences of adult learners in a self-directed e-learning environment, thereby helping us understand the motivational challenges that they face during their learning process. To this end, twelve adult learners who had taken self-directed e-learning courses in either academic (e.g., universities) or workplace settings were interviewed on their motivations in self-directed e-learning. Results of this qualitative interview study showed that learners found courses with a low degree of interactivity and lacking in the application and integration of content by the learner motivationally challenging. In contrast, courses that provide learners with authentic and interactive learning activities, such as animations and simulations, a positive learning climate, and the control over the pace and sequence of instruction were found motivating to the learner. It is expected that the descriptions of the motivational challenges of learners in the present study provide researchers and practitioners with an empirical basis on and insights into how to enhance the motivational design of self-directed e-learning courses. (Contains 1 figure, 1 table, and 1 note.)

Kim, K.-J. and T. W. Frick (2011). "Changes in Student Motivation during Online Learning." Journal of Educational Computing Research **44**(1): 1-23.

Self-directed e-learning (SDEL) refers to electronic learning environments where there are often no peer learners or instructors regularly available. Past studies suggest that lack of time and lack of motivation are primary causes of learner attrition "in online settings." However, little is known about what influences motivational change during SDEL. We surveyed 368 adult learners from both higher education and corporate settings who had used commercial SDEL products. Results from stepwise regression analysis indicated that the best predictors of "motivation to begin" SDEL were perceived relevance, reported technology competence, and age. The best predictors of "motivation during SDEL" were perceived quality of instruction and learning (e-learning is right for me) and motivation to begin. Motivation during SDEL was the best predictor of "positive change in motivation", which in turn predicted learner satisfaction with SDEL. Instructional design principles for sustaining learner motivation in SDEL are identified from the findings of the present study. (Contains 2 figures and 2 tables.)

Kraska, M. (2008). "Retention of Graduate Students through Learning Communities." Journal of Industrial Teacher Education **45**(2): 54-70.

This manuscript addresses learning communities (LCs) as a strategy to retain graduate students until program completion. Definitions of LCs and their early development are presented. The benefits of LCs to groups of students with common interests are discussed. In addition, reasons for early graduate student attrition are included. Common models of LCs and characteristics of effective LCs are elaborated. Finally, suggestions for further research are given.

Lam, P. and C. McNaught (2006). "Design and evaluation of online courses containing media‐enhanced learning materials." Entwurf und Auswertung von Online-Kursen, die mediengestützte Lernmaterialien enthalten. **43**(3): 199-218.

With the current state of web technology, multimedia materials are readily accessible by students. This paper reports on the design and evaluation of three online courses from a university in Hong Kong which incorporate media‐enhanced learning materials. These cases are at different positions with respect to the types of knowledge and levels of cognitive reasoning outlined in the revised Bloom’s taxonomy. Evaluation data give qualified support for media‐enhanced aspects of the courses being beneficial to student learning. The study has also highlighted factors that influence the success of the learning experience: attention to the quality and design of the media, considering student motivation and focusing on feedback on learning during the course. Media and learning design, thus, are inextricably intertwined in a complex relationship.

Lim, D. H. (2004). "Cross Cultural Differences in Online Learning Motivation." Educational Media International **41**(2): 163-175.

Globalization and technology are two of the many drivers that impact today's education, locally and internationally. The purpose of the research study was to identify how online learners in Korea and the US perceived online learning motivation differently and what learner characteristics and cultural orientation affected the online learners' learning motivation. Major findings revealed that there was a significant difference in learning motivation between the US and Korean online learners. The study also discusses how cultural orientation and learner characteristics affected the learning motivation of online learners for each country.

Lim, D. H. and H. Kim (2003). "Motivation and Learner Characteristics Affecting Online Learning and Learning Application." Journal of Educational Technology Systems **31**(4): 423-439.

Many studies have been conducted to verify the effect of learner characteristics and motivation in traditional classrooms, but very few are found in online learning research. This study sought to identify what learner characteristics and motivation types affected a group of undergraduate students' learning and application of learning for a course conducted online. Utilizing quantitative and qualitative analyses, the study found that gender and employment status affected online learners' learning and learning application. Several motivation variables were also found to significantly influence online learners' learning application. Discussions of instructional strategies to promote learner motivation and satisfaction in online learning environment were included.

Liyan, S. and J. R. Hill (2009). "UNDERSTANDING ADULT LEARNERS' SELF REGULATION IN ONLINE ENVIRONMENTS: A QUALITATIVE STUDY." International Journal of Instructional Media **36**(3): 263-274.

The reported qualitative study investigated adult learners' self-regulation in an online course. Specifically, the study examined what resources learners utilized to accomplish learning, what learning strategies they employed in their online learning, and how adult learners were motivated to participate in online learning activities in the online course. The results of the study indicated that the motivation for participants to take part in online activities came in various forms including course requirements, social interaction, monitoring learning progress, and desire for knowledge. Collaboration and "mini-steps" are among the learning strategies that participants reported using in their online learning. Participants reported extensive use of peers as resources in the online course to help them monitor their learning progress. Implications for research and practice are explored. [ABSTRACT FROM AUTHOR]

Lowerison, G., et al. (2006). "Student Perceived Effectiveness of Computer Technology Use in Post-Secondary Classrooms." Computers and Education **47**(4): 465-489.

This study investigated the relationship between the amount of computer technology used in post-secondary education courses, students' perceived effectiveness of technology use, and global course evaluations. Survey data were collected from 922 students in 51 courses at both the graduate and undergraduate levels. The survey consisted of 65 items broken down into seven areas, namely: (1) student characteristics, (2) learning experiences and course evaluations, (3) learning strategies, (4) instructional techniques, (5) computer use in course, (6) perceived effectiveness of computer use and (7) personal computer use. Contrary to expectations, no significant relationship was found between computer use and global course evaluations, nor was there a relationship between perceived effectiveness of computer use and global course evaluations. However, the results did yield a positive relationship between global course evaluations and the learning experiences that students engaged in. Students also indicated that they valued the use of computer technology for learning. Descriptive statistics on questions related to personal computer use show a strong favorable response to computer use and: facilitation of learning, value-added aspects such as usefulness to other classes and/or career, learning material in a more meaningful way, and working in groups with other students.

Maidment, J. (2005). "Teaching Social Work Online: Dilemmas and Debates." Social Work Education **24**(2): 185-195.

The stampede towards delivering tertiary education online has been well documented in the academic literature and newspaper media. A great deal of this writing has been characterised by an acute division between those who support and those who deplore this paradigm shift in the way education is offered to students. Not withstanding a few notable exceptions, social work as a discipline has yet to fully engage in this debate, watching, as emerging technologies radically change the way education and social services are delivered. This article provides an overview of the literature related to online learning in social work. In particular the global context influencing the delivery of education is investigated; the major themes emerging from the literature are highlighted; the opportunities and obstacles for teaching and learning social work online are examined, and finally questions relating to the cultural implications for delivering social work education online are identified using a constructivist framework. [ABSTRACT FROM AUTHOR]

Martens, R., et al. (2007). "New Learning Design in Distance Education: The Impact on Student Perception and Motivation." Distance Education **28**(1): 81-93.

Many forms of e-learning (such as online courses with authentic tasks and computer-supported collaborative learning) have become important in distance education. Very often, such e-learning courses or tasks are set up following constructivist design principles. Often, this leads to learning environments with authentic problems in ill-structured tasks that are supposed to motivate students. However, constructivist design principles are difficult to implement because developers must be able to predict how students perceive the tasks and whether the tasks motivate the students. The research in this article queries some of the assumed effects. It presents a study that provides increased insight into the actual perception of electronic authentic learning tasks. The main questions are how students learn in such e-learning environments with "virtual" reality and authentic problems and how they perceive them. To answer these questions, in two e-learning programs developed at the Open University of the Netherlands (OUNL) designers' expectations were contrasted with student perceptions. The results show a gap between the two, for students experience much less authenticity than developers assume. (Contains 4 tables.)

Nehme, M. (2010). "E-LEARNING AND STUDENTS' MOTIVATION." Legal Education Review **20**(1/2): 223-239.

'E-learning' can be defined as a method of learning that is supported by the use of information technology ("IT'). It is believed that e-learning has the power to transform the way we teach and that it may improve learning. However, when designing an online environment, lecturers do not always take into consideration certain crucial elements of teaching - including the motivation of their students. Similarly, the research has largely ignored the role of motivation in the online learning environment due to the assumption that e-learners are self-motivated and active learners. This article looks at certain elements that can be used to foster the motivation of students in the online environment. [ABSTRACT FROM AUTHOR]

Paulus, T. M., et al. (2006). ""Isn't It Just like Our Situation?" Engagement and Learning in an Online Story-Based Environment." Educational Technology Research and Development **54**(4): 355-385.

Teamwork skills such as conflict resolution and communication strategies are challenging to teach. The use of stories may help develop these complex skills. Although engagement is generally seen as a key component of learning environments, what constitutes engagement has not been fully explored. The purpose of this study was to examine how graduate instructional design students engage with and learn from stories in an online environment. This WisdomTools Scenario (Scenario) was designed specifically to facilitate the development of teamwork skills. Students followed the experiences of two fictitious student teams and discussed what happened asynchronously with small dialogue groups. Through a qualitative case study analysis, four themes emerged which captured how students engaged with and learned from this environment. First, engagement was evident through students' emotional reactions to the characters. Second, this engagement was affected by perceived credibility and relevance of the scenes. Third, students often reflected on their prior experiences and demonstrated an increased awareness of teamwork issues. Fourth, students reported various degrees of application of what they learned to their team practice. Implications for the design of story-based learning environments are explored.

Pruitt, R. A. (2011). "The Application of Cognitive-Developmental or Mediated Cognitive Learning Strategies in Online College Coursework." Teaching Theology & Religion **14**(3): 226-246.

This research article explores the active use of cognitive-developmental or mediated cognitive learning strategies in undergraduate online courses. Examples and applications are drawn from two online sessions integrating online interaction, essay and discussion assignments, as well as a variety of multimedia components conducted during the spring of 2008. While focus on the interaction among students remains an important aspect of the online discussion environment, particular attention is given to the interaction between the student and the instructor. This paper argues that while online learning environments are ultimately student-controlled, they should be teacher-centered. The findings of this research suggest that students are more directly influenced by an instructor's intentional effort to mediate the learning process than by the course objectives, material, or subject matter. Successful use of online technologies requires deliberate action on the part of the instructor to integrate various mediated cognitive learning strategies: (a) student participation and response is significantly increased, and (b) student motivation and morale is dramatically influenced.

Quay, S. E. (2007). "Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More." Journal of Popular Culture **40**(5): 900-902.

The article reviews the book "Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More," by Derek Bok.

Rakes, G. C. and K. E. Dunn (2010). "The Impact of Online Graduate Students' Motivation and Self- Regulation on Academic Procrastination." Journal of Interactive Online Learning **9**(1): 78-93.

With the rapid growth in online programs come concerns about how best to support student learning in this segment of the university population. The purpose of this study was to investigate the impact of effort regulation, a self-regulatory skill, and intrinsic motivation on online graduate students' levels of academic procrastination, behavior that can adversely affect both the quality and quantity of student work. This research was guided by one primary question: Are online graduate students' intrinsic motivation and use of effort regulation strategies predictive of procrastination? Results indicated that as intrinsic motivation to learn and effort regulation decrease, procrastination increases. Specific strategies for encouraging effort regulation and intrinsic motivation in online graduate students are presented. [ABSTRACT FROM AUTHOR]

Reeves, P. M. and T. C. Reeves (2008). "Design considerations for online learning in health and social work education." Learning in Health & Social Care **7**(1): 46-58.

Increasingly, health and social work educators are joining their colleagues throughout higher education in exploring the possibilities of teaching and learning online. Online teaching and learning initiatives have been aided by both proprietary and open source course management systems such as BlackBoard and Moodle. However, the rush to put courses online is rarely informed by adequate consideration of the affordances of the World Wide Web to support different types of pedagogical dimensions or instructional design. In addition, academic staff members may jump into teaching online without sufficient consideration of the design components that can be implemented in online courses. This study provides an introduction to 10 design dimensions, derived from research and theory in instructional technology, cognitive science and adult education, for guiding the design and evaluation of online learning environments for health and social work education. It concludes by addressing the rewards and risks of online learning.

Reisetter, M., et al. (2007). "The Impact of Altered Realities: Implications of Online Delivery for Learners' Interactions, Expectations, and Learning Skills." International Journal on E-Learning **6**(1): 55-80.

Although research consistently demonstrates that students learn content in online classes as well as their campus based counterparts and are equally satisfied with the quality of their learning, more information is needed that describes how the learning experiences themselves may vary. A traditional group of students was compared with an online group taking the same graduate class in research methods using the same materials and with the same instructor. Data representing learning outcomes, attitudes toward coursework, and beliefs about the nature of their experiences were gathered and compared. Both groups scored equally on the pre and postquantitative measures of learning outcomes and satisfaction, but described decidedly different learning experiences. They valued different kinds of interactions, held different expectations for the courses, and described development of contrasting learning skills and strategies that led toward success in the course. Online learning was revealed as a distinctly different experience than face-to-face learning, offering insight into better understanding the nature of the experience of online learning and suggesting that online course designers focus their attention on particular elements that support the unique experiences of student who select this delivery mode. (Contains 4 tables.)

Richardson, J. C. and T. Newby (2006). "The Role of Students' Cognitive Engagement in Online Learning." American Journal of Distance Education **20**(1): 23-37.

This study investigated the degree to which students cognitively engage with their online courses. Cognitive engagement was defined as the integration and utilization of students' motivations and strategies in the course of their learning. Given this, the study utilized J. B. Biggs's (1987a) Study Process Questionnaire to measure motivations and strategies in general, rather than for a specific task. Statistically significant findings were observed for program focus, gender, age, and prior online experience in accordance with students' learning strategies and motivations. Specifically, the findings indicate that as students gain experience with online learning, they come to take more responsibility for their own learning. The findings have implications for how instructors facilitate online courses as well as how designers organize online courses.

Robertson, J. (2011). "The Educational Affordances of Blogs for Self-Directed Learning." Computers & Education **57**(2): 1628-1644.

To be successful university learners, students need to develop skills in self-directed learning. This encompasses a range of cognitive and meta-cognitive skills including generating one's own learning goals, planning how to tackle a problem, evaluating whether learning goals have been met, and re-planning based on this evaluation. The educational affordances of blogs offer opportunities for students to become self-directed learners in a supportive social environment. Based on qualitative analysis of design diaries written by 113 computer science students about a creative project, this paper presents a framework of the ways in which blogging activities can assist groups of students and their teachers in the development of a range of cognitive, social and self-directed learning skills. Although the students in this study used the commenting feature of blogs effectively for the purpose of praising and encouraging their peers, and giving hints and tips for solving problems, they did not coach each other on higher order skills. The paper discusses how this could be achieved in order to extend the educational value of blogging within a university learning community. (Contains 12 tables and 3 figures.)

Rodriguez, M. C., et al. (2008). "Students' Perceptions of Online-learning Quality given Comfort, Motivation, Satisfaction, and Experience." Journal of Interactive Online Learning **7**(2): 105-125.

Understanding factors in successful online course experiences can provide suggestions for instructors and students to promote improved learning experiences. A survey of 700 students regarding perceptions of online-learning quality was analyzed with a structural equation model. For students with online-learning experience, comfort with technology and motivation to learn technology skills were related to satisfaction with online courses, which was related to perceived quality. For students with hybrid-learning experience, comfort was related to motivation and perceived quality, motivation was related to satisfaction, and satisfaction was related to perceived quality. For students with no online-learning experiences, comfort was related to motivation to learn technology skills, but neither of these factors was related to perceived quality of online courses. [ABSTRACT FROM AUTHOR]

Roper, A. R. (2007). "How Students Develop Online Learning Skills." EDUCAUSE Quarterly **30**(1): 62-65.

More and more, adult learners are finding the convenience and flexibility of online learning a match for their learning goals and busy lifestyles. Online degree programs, courses, and virtual universities targeting adult learners have proliferated in the past decade. Although students can easily locate an online course or degree program that's both convenient and accessible, they may face significant challenges in developing a new set of skills for this type of instruction. Educators have speculated on the development of student skills necessary to succeed in online learning, but relatively few publications cover the topic from the perspective of successful online students. In this article, the author presents the summary of his study to provide this perspective and to identify useful strategies that instructors can promote in their online courses. (Contains 1 endnote.)

Rovai, A. P. (2003). "The relationships of communicator style, personality-based learning style, and classroom community among online graduate students." Internet & Higher Education **6**(4): 347.

This study examined the relationships among communicator style, personality-based learning style, and sense of classroom community among 72 graduate students enrolled in online doctoral coursework. Findings suggested that communicator style patterns were related to learning styles and to classroom community. Moreover, the results of a canonical correlation suggested that friendly and open communicator styles were significantly related to feelings of being connected and the precise communicator style was related to both feelings of connectedness and to feelings that membership in the online learning community fostered educational goal attainment. No significant relationships were found between learning styles and classroom community. [Copyright &y& Elsevier]

Sansone, C., et al. (2011). "Self-Regulation of Motivation when Learning Online: The Importance of Who, Why and How." Educational Technology Research and Development **59**(2): 199-212.

Successful online students must learn and maintain motivation to learn. The Self-regulation of Motivation (SRM) model (Sansone and Thoman 2005) suggests two kinds of motivation are essential: Goals-defined (i.e., value and expectancy of learning), and experience-defined (i.e., whether interesting). The Regulating Motivation and Performance Online (RMAPO) project examines implications using online HTML lessons. Initial project results suggested that adding usefulness information (enhancing goals-defined motivation) predicted higher engagement levels (enhancing experience), which in turn predicted motivation (interest) and performance (HTML quiz) outcomes. The present paper examined whether individual interest in computers moderated these results. When provided the utility value information, students with higher (relative to lower) individual interest tended to display higher engagement levels, especially when usefulness was framed in terms of personal versus organizational applications. In contrast, higher engagement levels continued to positively predict outcomes regardless of individual interest. We discuss implications for designing optimal online learning environments.

Schmidt, J. T. and C. H. Werner (2007). "Designing Online Instruction for Success: Future Oriented Motivation and Self-Regulation." Electronic Journal of e-Learning **5**(1): 69-78.

Given the high rate of student drop-out and withdrawal from courses and programs using an online learning format, it is important to consider innovative ways to foster and encourage student success in online environments. One such way is to incorporate aspects of student future orientation into the design of online instruction. This paper presents an overview of a program of research examining whether perceptions of student motivation, self-regulation, and future time perspective can be positively influenced through future oriented instruction in a blended learning (semi-virtual) environment at a German university. Individual differences in student future time orientation can provide insight into this interesting connection between the influence of attitude toward time on motivational and self-regulatory processes in learning. In conclusion, the practical implications of this topic for the design of online learning environments must be considered: Increased effort needs to be taken for developing methods for online instruction to tap into and encourage the future orientation of students, and for providing meaningful connections to the content and possible future outcomes. This paper intends to provide insight into and examples of how an online course or semi-virtual programs can benefit from a future oriented design. [ABSTRACT FROM AUTHOR]

Silvers, P., et al. (2007). "Strategies for Creating Community in a Graduate Education Online Program." Journal of Computing in Teacher Education **23**(3): 81-87.

This article describes the practical application of social learning theory to build and sustain community in an asynchronous online learning environment. It presents ways that community-building can occur in a graduate online education program through the shared meaning-making processes occurring among students within and across interdisciplinary online courses as communities of practice emerge. Three professors share their experiences and strategies for developing, teaching, reflecting, and learning about creating communities of practice. Strategies include using interactive learning experiences, flexible grouping, extended online discussions, e-mail and journaling, video, digital storytelling, and power point presentations. Examples of online discussions show how student learning is situated in the group interactions revealing shared values, beliefs and practices generated within the online community.

Song, L., et al. (2004). "Improving Online Learning: Student Perceptions of Useful and Challenging Characteristics." Internet and Higher Education **7**(1): 59-70.

Online courses and programs continue to grow in higher education settings. Students are increasingly demanding online access, and universities and colleges are working to meet the demands. Yet many questions remain re: the viability and veracity of online learning, particularly from the learner perspective. The purpose of this study was to gain insights into learners' perceptions of online learning. Seventy-six (76) graduate students were surveyed to identify helpful components and perceived challenges based on their online learning experiences. Results of the study indicated that most learners agreed that course design, learner motivation, time management, and comfortableness with online technologies impact the success of an online learning experience. Participants indicated that technical problems, a perceived lack of sense of community, time constraints, and the difficulty in understanding the objectives of the online courses as challenges. Suggestions for addressing the challenges are provided. (Contains 3 tables.)

Stoyanov, S. and P. Kirschner (2007). "Effect of Problem Solving Support and Cognitive Styles on Idea Generation: Implications for Technology-Enhanced Learning." Journal of Research on Technology in Education **40**(1): 49-63.

This study investigated the effect of two problem-solving techniques: (a) free-association with a direct reference to the problem, called shortly direct, and (b) free-association with a remote and postponed reference to the problem, called remote, on fluency and originality of ideas in solving ill-structured problems. The research design controlled for possible effects of cognitive style for problem-solving--adaptor versus innovator. The results showed that both groups significantly outscored a control group on fluency and originality. The remote group outperformed the direct and control groups on originality, but not on fluency. Innovators scored significantly better than adaptors in the control group on fluency, but not on originality. No significant difference was found between innovators and adaptors in both direct and remote groups. There was no statistical indication for an interaction effect between treatment and cognitive style. Based upon the results of this study, four implications for learning and instruction have been formulated for designing and developing technological arrangements for learning to solve ill-structured problems. These guidelines will support designers in developing instructional design solutions in educational technology applications. (Contains 2 tables and 1 footnote.)

Street, H. (2010). "Factors Influencing a Learner's Decision to Drop-Out or Persist in Higher Education Distance Learning." Online Journal of Distance Learning Administration **13**(4).

Previous studies conducted on dropouts within online courses have found inconsistent factors affecting attrition. A literature review was performed, focusing on eight main studies. These studies were performed at both national and international universities. The methodology, participants, research question, and results varied by study. Overall, internal factors of self-efficacy, self-determination, autonomy, and time management along with external factors of family, organizational, and technical support were found to be significant. An additional variable of course factors, which includes course relevance and course design, was found to significantly impact learners' decisions to persist or drop an online course. These variables were incorporated into a modified version of Bandura's reciprocal causation theory, which states that each of these variables influences and is influenced by the decision of a student to persist or drop an online course. The model needs statistical testing within the context of an individual study. Further studies are also needed on course factors impacting an online student's decision to persist or drop an online course. (Contains 1 figure.)

Vonderwell, S. and S. Zachariah (2005). "Factors that Influence Participation in Online Learning." Journal of Research on Technology in Education **38**(2): 213-230.

This study explored what factors influenced learner participation in two sections of a graduate online course at a Midwestern university. Findings indicated that online learner participation and patterns of participation are influenced by the following factors: technology and interface characteristics, content area experience, student roles and instructional tasks, and information overload. Effective online learning requires interdependence for a shared understanding of learning goals in a learning community. Monitoring student participation and patterns of participation closely can help instructors identify student needs and scaffold learning accordingly. (Contains 3 tables and 1 figure.)

Whipp, J. L. and S. Chiarelli (2004). "Self-Regulation in a Web-Based Course: A Case Study." Educational Technology Research and Development **52**(4): 5-22.

Little is known about how successful students in Web-based courses self-regulate their learning. This descriptive case study used a social cognitive model of self-regulated learning (SRL) to investigate how six graduate students used and adapted traditional SRL strategies to complete tasks and cope with challenges in a Web-based technology course; it also explored motivational and environmental influences on strategy use. Primary data sources were three transcribed interviews with each of the students over the course of the semester, a transcribed interview with the course instructor, and the students' reflective journals. Archived course documents, including transcripts of threaded discussions and student Web pages, were secondary data sources. Content analysis of the data indicated that these students used many traditional SRL strategies, but they also adapted planning, organization, environmental structuring, help seeking, monitoring, record keeping, and self-reflection strategies in ways that were unique to the Web-based learning environment. The data also suggested that important motivational influences on SRL strategy use--self-efficacy, goal orientation, interest, and attributions--were shaped largely by student successes in managing the technical and social environment of the course. Important environmental influences on SRL strategy use included instructor support, peer support, and course design. Implications for online course instructors and designers, and suggestions for future research are offered.

Wickersham, L. E. and P. McGee (2008). "Perceptions of Satisfaction and Deeper Learning in an Online Course." Quarterly Review of Distance Education **9**(1): 73-83.

This action research case study examines evidence of deeper learning principles as purposefully designed and evidenced in an online course and corroborated by the Distance Education Learning Environments Survey instrument. Findings indicate that even when deeper learning principles are used to design learning activities, other factors interact with learner perceptions of satisfaction. Recommendations for best practices are provided as a measure of reflexive instructional design that supports deeper learning. (Contains 2 tables.)

Winter, J., et al. (2010). "Effective E-Learning? Multi-Tasking, Distractions and Boundary Management by Graduate Students in an Online Environment." ALT-J: Research in Learning Technology **18**(1): 71-83.

This paper reports the findings of a small-scale study that documented the use of information technology for learning by a small group of postgraduate students. Our findings support current knowledge about characteristics displayed by effective e-learners, but also highlight a less researched but potentially important issue in developing e-learning expertise: the ability of students to manage the combination of learning and non-learning activities online. Although multi-tasking has been routinely observed amongst students and is often cited as a beneficial attribute of the e-learner, there is evidence that many students found switching between competing activities highly distracting. There is little empirical work that explores the ways in which students mitigate the impact of non-learning activities on learning, but the evidence from our study suggests that students employ a range of "boundary management" techniques, including separating activities by application and by technology. The paper suggests that this may have implications for students' and tutors' appropriation of Web 2.0 technologies for educational purposes and that further research into online boundary management may enhance understanding of the e-learning experience. (Contains 3 tables and 1 note.)

Yu-Fen, Y. (2010). "Cognitive Conflicts and Resolutions in Online Text Revisions: Three Profiles." Journal of Educational Technology & Society **13**(4): 202-214.

This study investigates how college students solve their cognitive conflicts when receiving peers' suggestions and corrections in online text revision. A sample of 45 undergraduate students were recruited to read their peer writers' texts, edit peer writers' errors, evaluate peer editors' corrections and suggestions, and finally rewrite their own texts. Stratified sampling was employed to identify three profiles from students I, II, and III in representing participants' resolution process of assimilation, accommodation, and equilibrium respectively. Results of this study showed that student I seemed to be unaware of cognitive conflicts between her first draft (prior knowledge) and peer editors' corrections and suggestions (new information). She then directly duplicated peer editors' corrections into her final draft. This resulted in few differences between her first and final drafts in spite of some revisions in grammatical forms. In contrast, student II and III were aware of cognitive conflicts between their first drafts and peer editors' suggestions and corrections. They were actively engaged in the process of evaluation in making choices and decisions on accepting or rejecting peer editors' suggestions and corrections. They then revised their texts in local revision (grammatical corrections), global revision (corrections on the style, organization, or development of a text), and perspective revision (e.g. to view their own texts from readers' perspectives). This study suggests the importance of arousing students' language awareness of cognitive conflicts in the process of text revision by evaluating each correction and suggestion from peers. [ABSTRACT FROM AUTHOR]