

The Internet as a Tool in the Development of Learner Autonomy at the College Level

Presentation Paper prepared by Ruth Reynard, for the Middle Tennessee Instructional
Technology Conference, April 2-4, 2006

Abstract:

This paper examines the various uses of Internet technology in graduate college courses currently being offered in a hybrid, on-site/online format. Course materials are available to students via a course delivery software platform, and students meet for three face-to-face meetings and four synchronous chat discussion sessions. The courses are instructionally designed as a dynamic learning environment (see Reynard, 2003) and are designed to maximize the levels of interactivity using Internet technology, and the individual learner's constructed path through the content. Course content consists of a combination of instructor-guided and student-guided material. The purpose of this approach is to examine the effectiveness of Internet technology in supporting the development of learner autonomy for each student.

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Purpose – how important is learner autonomy?

The importance of self-directed techniques emerged from the work of Knowles (1975) in the area of adult education and the identification of the need for ongoing learning to prepare adults for the social and technical changes in contemporary society. Knowles identifies the ability to “go on learning” as central to the adult learning experience and quantifies the success of the adult educator as one who has left students with the ability to pursue their own learning (1975). The ability to “go on” individually with the learning process necessarily implies a different role for the learner. In the chapter, “The learner as Manager” (pp. 145-156), Holec (1981) discusses the role of the learner in the learning process. He suggests that there should be a choice given to the learner as to that role. That is, the learner should be provided the opportunity of submitting to the direction of the teachers, or to be actively involved in the process. Holec emphasizes that this choice is possible only if, in fact, there is actually a valid choice presented. Once that choice is removed, the process becomes preset and not as effective for the learner (Holec, 1981). The term “manager” is used deliberately by Holec to illustrate the notion of process or system, and this process includes, for Holec, the entire scope from the choice of objectives to evaluating outcomes. In this context, he states, “. . . good learners are learners who are capable of assuming the role of manager of their learning. They know how to make all the decisions involved. In other words, “. . . they know how to learn” (Holec, 1981, p.147). More and more research has been done on learner autonomy and independence (Holec, 1981; Benson, 2000) and its importance to a successful learning process. Wenden (1991) has particularly promoted the notion of autonomy in relation to language learning. It should be emphasized that autonomy requires, rather than eliminates, teacher intervention. Studies (e.g., Thanasoulas, 2000) support the importance of both the role of the learner and the teacher to achieve a successful autonomous learning experience. That is, a successful autonomous learning experience is a dynamic and ongoing process of negotiation between the learner and the teacher. Learner autonomy is, perhaps, a more efficient way to describe the manager role

of the learner as described by Holec (1981) as it promotes the independence of the learner throughout the entire learning process within a course of study and beyond.

Borrowed from the field of language learning is the notion that learner autonomy is central to the learning process and promotes the idea of the effectiveness of a resource centre in which learners can actively learn (Esch, 1994; McCall, 1992; Sheerin, 1989, 1997; Sturtridge, 1997; Benson, 2000). This research emphasizes learner autonomy as crucial to an effective language learning experience, but autonomy itself requires intense support and the opportunity to take control of learning choices within an interactive environment. Autonomous language learning does not mean that the student is working with static content on his/her own. Rather, autonomy has been successfully achieved when the learner is actively responding to and interacting with content in order to acquire the language relevantly and efficiently and applying it in a meaningful way.

Additionally, in all of these studies, the role of the teacher is also presented as an intensely active guide, not a passive observer or an occasional source of feedback. Therefore, learning autonomy is a very dynamic, multidimensional process in which learner and instructor are equally active. This would suggest that the content itself becomes less important than the participants and should, therefore, be modifiable and customizable according to each individual learning context. Wenden (1991) and Dickinson (1992) suggest that learners should train to acquire the skills necessary to learn successfully and autonomously, while Voller (1997) emphasizes that both the ability to learn and the ability to teach are crucial to the success of the autonomous learning process. Autonomy, then, can be achieved only when teacher intervention is relevant to and based on the specific learning needs of the student.

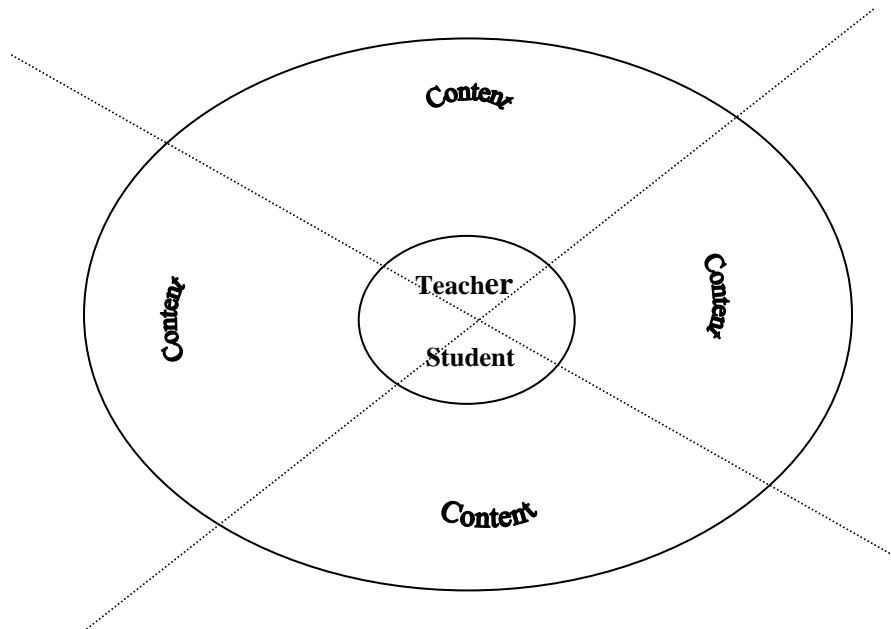
This high level of learner autonomy supports Perkin's (in Duffy & Jonassen 1992) notion of "beyond the information given" (BIG) and moves the learner from a position of passivity to activity in response and application. Perkins (in Duffy & Jonassen, 1992) suggests that there are two main constructivist approaches to consider: BIG (beyond the information given) and WIG (without the information given); the latter promotes the notion that ". . . concepts are not truly and meaningfully learned in ways that empower learners unless those concepts are in good part rediscovered by the learners," and the former urges that ". . . one can generally quite straightforwardly teach concepts,

providing the overall instructional experience includes ample occasion for students to function generatively in testing and extending their evolving conceptions” (Duffy & Jonassen, 1992, p. 50). Perkins continues by arguing that the organization, structure of content, and the use of information technology applications and components will, necessarily, depend on which aspect of constructivism the designer chooses—either having the learner work through various tasks to construct individual meaning (WIG) or using specific tasks to engage the learner with the information in a meaningful way (BIG) (Duffy & Jonassen, 1992).

Dynamic interaction within a course

Communication interaction is central to this notion of learner autonomy and student choice. Before the Internet, when students and teachers were in class or apart from each other, communication followed mainly a two-way model; communication from teacher to student and back (see Wedemeyer, 1971). With the instructional application of Internet technology, communication patterns move from two-way to multi-directional. Therefore, the levels move from static or didactic to multidimensional. As such, it could be argued that Wedemeyer’s linear communications mode should be altered to reflect the influence and capabilities of an Internet-based environment in the following way.

Figure 1 – The Dynamics of an Electronic Learning Environment



In this diagram, the communications lines are continuous and circular, as are the connection lines between teacher and student. The diagram illustrates the non-linear capabilities of the Internet, as well as the interdependence of learning participants. Both circles are intersected by straight, but broken lines which meet at the centre. This meeting point illustrates that, although participants meet and interact at some point, there is no clear end to these lines and, as such, no real end to interaction with participants and/or content. That is, the interaction is motivated by the individuals involved and the responses or choices of either are not determined by the other. The content here could be equally owned and accessed by all participants and exists in relevance to the choices of those participants. In such an environment, linear structures are obsolete, although they could exist if desired. What is apparent; however, are the continuous and flexible possibilities for teaching and learning. Therefore, content is secondary and functions only as a support to the learning process.

Although most courses of study require students to interact with the content of the course, and with the instructor, when the course design is linear and conventional, there are pre-set expectations about content, interaction, learning product (e.g. assignments, quizzes, essays), and evaluation. The learning outcomes of such a course, therefore, are also predictable and defined. Within a dynamic learning environment, while specific content may be presented by the instructor, students are free to explore, interact with, comment on, modify, and apply the set content and additional content they discover or create through the learning process, and all of this leads to the outcome for each individual student. In order to make this level of interactivity possible, dynamic learning environments should make good use of new technology. Technology itself does not produce dynamic learning environments, but it can effectively support the requirements of such a course. Dwight and Garrison (2003) suggest that hypertext¹ has the potential to completely change teaching and learning by providing students with the ability to explore and retrieve texts for courses and maximizes their customized choices in the process. The authors do acknowledge that there is also the potential for chaos and suggest that

¹ Hypertext here refers to Internet technology that embeds links to other sources and sites within existing text.

such freedom must be supported by what they call “scaffolding” (Dwight & Garrison, 2003).

By scaffolding, we mean something like Rosenshine & Stevens’ (1992) method for preparing learners for higher-level cognitive strategies in loosely structured learning environments. They stipulate that learners’ individual readiness levels for the intended learning needs to be assessed, that the instruction needs to be modeled, that students’ agency needs to be promoted by removing well-defined structures, and that “just-in-time” interventions should occur when learners become stuck or frustrated (p.723)

Scaffolding, in this sense, refers to various learning supports including relevant and immediate instructor intervention. Other supports could be additional links, synchronous chat sessions, self-reflection opportunities, asynchronous discussion, and knowledge building collaborative opportunities. In other words, a course of study progressing in an ongoing dynamic process of learning relies upon a variety of inputs, learning supports (scaffolds) and interaction. Each of these aspects of the dynamic process cannot exist without the other, however, together; they maximize the students’ potential for reaching a high level of learner autonomy through self-directed choices, and customized application or outcome.

Transformative outcomes for individual learner needs

The process of teaching and learning must be about building on what is known and forming what has yet to be formed, which is a dynamic process of integrating experience, information and knowledge building in a learning process of dynamic transformation for the learner. Friere (1970) talked about the importance of engaging the experiential reality of the individual learner in the process in order to achieve a transformative learning experience for the individual and society as a whole. If individuals are excluded from their own learning, such transformation cannot take place (see also Cummins, 1996). Cummins (2000) in his chapter called “Transformative Pedagogy: Who needs it?” discusses the implications of technology in the negotiation of cultural and linguistic difference in the teaching and learning process. Often in traditional classroom delivery, individual culture and language can be ignored, and the student can be left at a disadvantage. Mainstream cultures and languages tend to dominate learning communities unless intentionality informs the course design and delivery to

accommodate diversity and integrate all learners equally into the process. Among a long list of characteristics of transformative pedagogy, Cummins suggests that opportunities for self-directed learning and the use of instructional strategies to enhance understanding (Cummins, 2000) are important to effective language learning. I would argue, because language is central to all learning, the implications for any learning environment are obvious.

Understanding and misunderstanding are fundamental issues of the learning process. In fact, misunderstanding of concepts can leave large gaps in the learning process, and these gaps are often left undetected and unaddressed, particularly in a task-based evaluation system, or a lock-stepped, linear delivery model. Cummins cites the New London Group's (1999) theoretical framework for the designs of meaning, which they advance as including the following:

- Situated practice—immersion in meaningful practice and experience within a community of learners;
- Overt instruction—intentional instructional strategies to demystify skills and content and scaffold learner progress throughout; (Its goal is systematic, analytic and conscious understanding);
- Critical framing—a focus on the historical, cultural, sociopolitical, and ideological roots of systems of knowledge and social practice;
- Transformed practice—application of transformed meaning gained from previous practice, instruction, and critical reflection to work in other contexts or cultural sites.

In this framework, transformed practice is the final stage in the process; however, stages of establishing the community of learners and contexts of learning, instructional intervention, and knowledge building collaboration all help to produce the transformed application within a context that is meaningful and relevant for each learner. In other words, each student's learning path may actually differ through the process and the application should be different; however, the process must include the student's full engagement with the course for this to happen. My suggestion is that the high level of interactivity supported with Internet technology provides this kind of opportunity for learners.

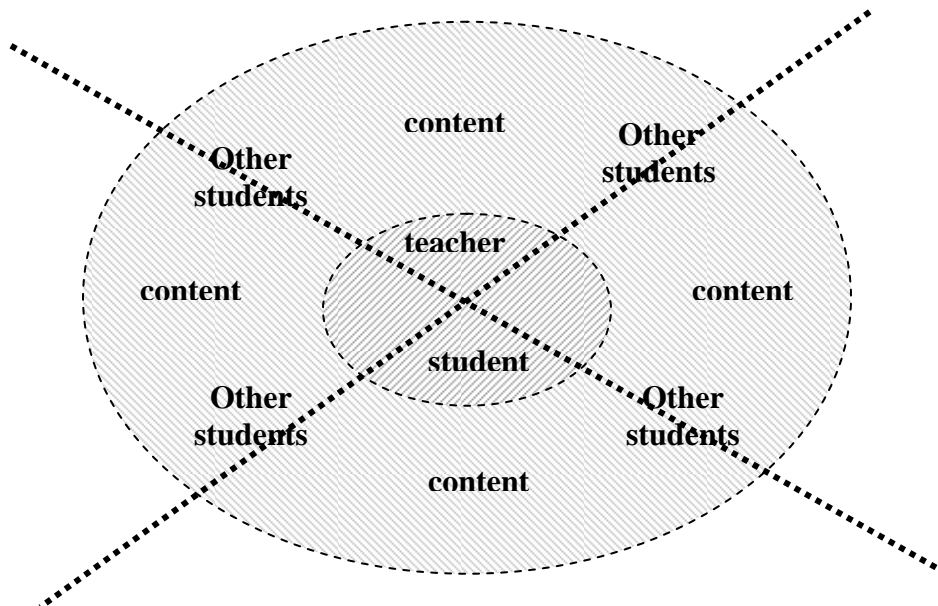
Therefore, building on this framework, and on the previously discussed notions of varying inputs, learning scaffolds, and highly developed interaction, I suggest the following as a framework for designing dynamic learning environments:

- Varied inputs for content construction
- Relevant learning scaffolds (including instructor intervention, collaborative knowledge building, and meaningful, self-directed research)
- Heightened interaction (with self, with instructor, with other students, and with content)
- Transformative learning outcomes (applied directly to relevant practice)

Methodology - Dynamic course design

In an effort to incorporate the theory, I designed several courses at the masters and doctoral level as dynamic learning environments. These courses covered second language teaching, cultural influences, and instructional design. After each course, students were asked to complete an institutional student feedback sheet. The comments received from the student feedback provide a general look at the effectiveness of this approach. Each course was designed within the following interactivity framework, based on the dynamic model in Figure 1 above.

Figure 2 – Interactivity levels towards learner autonomy



The diagram now reinforces the importance of interaction at every level in the course: student to teacher, student to self, student to student, and student to content. Again the lines are all broken, not solid and circular, to reinforce the notion of collaboration throughout, yet the two central lines remain unattached reinforcing the notion of on-going learning through learner autonomy.

Each course I designed included web logs (blogs)² as self-reflection spaces for each student, online discussion, knowledge building³ space using Learning in Motion's, WebKF© software to support group project work, synchronous chat discussions based on course readings, and in-class sessions. All course content is available freely through the course, and students are encouraged to develop individual bibliographies from their own research and include those in their blogs. Student exchange additional readings and external web site links through the online posts, and reach new knowledge through the WebKF environment. Group projects work through a collaborative knowledge building process, chat planning, and finally presentation to the class. These projects must demonstrate democratic methods of research, design, and production, using every member of the group. Wikis⁴ would also provide a high level of collaboration but may not support knowledge building to the same level. Final exams are in the form of individual research papers that include self-reflection from the blogs, and the self-researched bibliographies that support a direct application of the learned concepts in a real life professional context. These often help students to realize the relevancy of the course for their specific interests, and it is often not until their learning has been summarized and synthesized and applied through this paper that the students appreciate the learning that has taken place. In other words, to simply test students on course concepts would not have the same benefit as their individualized application through the paper.

² Web logs or blogs are online journal pages.

³ Knowledge building sits apart from information or ideas exchange and actually “works” the ideas through visual views in the software. The theoretical foundation for this approach some from Scardamelia (2002) and Bereiter (2002).

⁴ Wikis refers to collaborative, multi-authored Web environments used to maximize collaborative writing projects.

Results - Summary of student feedback

Since I began teaching courses using the dynamic framework, five years ago, I have found that in each case, technology orientation is key as is orientation to the constructive nature of the course. Students require time to realize and appreciate their central role in the course as well as the freedom they have. Additionally, it takes time for students to understand my role as the instructor in terms of one of the resources available to them rather than the leader of the environment. Therefore, according to how students make use of that resource they may or may not have a better sense of my help. In general, I have found that around 10% of each class struggle with what is perceived as the “overload” of inputs throughout the course. Usually, however, 10% already have an interest in technology that enhances their experience from the start. Consistently, 80% of the class is on a learning curve that they find difficult to begin with but then helpful as they reach the level of interactivity that works for them. It is important, then, not to assign grade scores based on numbers of times student post or use a tool, but on the progress their use brings to their learning. In order for instructors to appreciate that kind of progress, it is important for the instructor to stay in contact with each student regularly throughout the course and to read the blogs regularly and provide comments. That means student are not just names in the class, but they are recognizable by their thinking and the ideas they contribute. This is a wonderful perspective for the instructor to gain.

The following are samples of student comments:

Online posts (asynchronous discussion)

“The forum gave everyone a chance to interact where often only a few are able to share.”

“Very effective.”

“Gave me freedom to “speak”.”

“Allowed more in-depth discussion.”

Web logs (online journal- blogs)

“I liked the professor’s comments on my thoughts.”

“..helped process much of the information and ideas.”

“...allowed me the opportunity to synthesize/analyze my thoughts...”

“Good reflective opportunity after reading.”

WebKF© - knowledge building environment

“Excellent tool”

“Very interesting”

“Promoted individual learning.”

Synchronous chat (live online discussions)

“The equity this delivered to our group was awesome.”

“Effective way to get a variety of opinions heard.”

“Provides opportunity to discuss and grapple with specific issues.”

In general, the transformative outcomes for the course are noted in comments such as:

“Changed my whole professional paradigm.”

“Made personal and professional changes as a result of this course.”

“Application of concepts to professional setting.”

“This course has helped me to develop my “voice” as a non-traditional student.”

“Less instructor dependency.”

“This course helped broaden my thinking process.”

“This course pushed my ability to actually use knowledge with technology.”

Conclusions and recommendations

My sense is that I have received enough general feedback from students through the institutional feedback sheet over the past five years using this methodology to design a thorough survey tool to systematically examine the effectiveness of this approach in a variety of learning contexts. None of the feedback had led me to conclude that this would not be an effective method to examine more fully. I have not yet developed such a tool; however, I will be working on this development over the next few months. Based on the actual goal of reaching learner autonomy, the survey tool will focus on actual learning outcomes of the course rather than only the technology used. In this way, I hope to determine the concept of dynamic learning more fully using technology and as it relates specifically to autonomous learning and transformative application. If these are demonstrated to consistently emerge for most learners, then I think the method and design can be advanced and adapted to suit various learning contexts and academic disciplines.

Bibliography

- Benson, P. (2000). *Autonomy as a learner's and teacher's right*. In B. Sinclair, et al (Eds) Learner Autonomy, Teacher Autonomy; Future Directions. London: Longman, pp. 111-117. Also, <http://ec.hku.hk/autonomy/what.html>.
- Bereiter, Carl. (2002). *Education and mind in the knowledge age*. NJ: Lawrence Erlbaum Associates.
- Cummins, J. (2000). Language, power and pedagogy: bilingual children in the crossfire. Clevedon [England] ; Buffalo, NY : Multilingual Matters.
- Cummins, J. (1996). Negotiating Identities. Ontario, CA: California Association for Bilingual Education.
- Dickinson, Leslie (1992). *Learner autonomy 2: Learner training for language learning*. Dublin: Authentik.
- Duffy, T.M., Jonassen, D.H. (Eds.) (1992). *Constructivism and the technology of instruction: a conversation*. Hillsdale, N.J: Lawrence Erlbaum.
- Dwight, J. & Garrison, J. (2003). *A Manifesto for Instructional Technology: Hyperpedagogy*. Teachers College Record Vol. 103, No. 3, June 2003, pp. 699-728. Teachers College, Columbia University 0161-4681.
- Esch, Edith (1994). *Self-access, not self-service: Tesco versus Taylor's*. In Edith Esch (ed.) Self-Access and the Adult Language Learner. London: CILT, 63-67.
- Freire, P. (1970). *Pedagogy of the Oppressed*. Seabury Press, NY.
- Holec, Henri (1981). Autonomy in Foreign Language Learning. Oxford: Pergamon. (First published 1979, Strasbourg: Council of Europe.)
- Knowles, M. (1975). *Self-directed learning: a guide for learners and teachers*. New York: Cambridge, The Adult Education Company.
- McCall, Judy (1992). *Self-Access: setting up a Centre*. Manchester: British Council. UK.
- Reynard, R. (2003). *Internet-based ESL for Distance Adult Students – A Framework for Dynamic Language Learning*. Canadian Modern Language Review. University of Toronto Press. Toronto, Canada. Vol. 60, No.2, December 2003.
- Rosenshine, B. & Stevens, R. (1992). *The use of scaffolds for teaching less structured academic tasks*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Scardamelia, M. (2002). *Collective cognitive responsibility for the advancement of knowledge*. In B. Smith (Ed.) Liberal Education in a Knowledge Society (pp.67-98). Chicago, Open Court.
- Sheerin, Susan (1989). Self-access. Oxford University Press.
- Sheerin, Susan (1997). *An exploration of the relationship between self-access and independent learning*. In P. Benson & P. Voller (Eds.) Autonomy and Independence in Language Learning. London: Longman, pp. 54-65.
- Sturtridge, Gill (1997). *New roles for learners: developing learners as "learner-teachers"*. Autonomy 2000: The Development of Learning Independence in Language Learning. Conference Proceedings. Bangkok: King Mongkut's Institute of Technology Thonburi.
- Thanasoulas, D. (2000). *What is learner autonomy and how can it be fostered?* In I-TESL-J. Vol.VI, No.11, Nov. 2000. Copyright (C) 1995-2001 by The Internet TESL Journal iteslj@ge.aitech.ac.jp.
- Voller, P. (1997). *Does the teacher have a role in autonomous learning?* In Benson, P., & Voller, P. (Eds.) Autonomy and Independence in Language Learning. London: Longman, pp. 98-113.

- Wedemeyer, C. (1971). Trouble at Castle Perilous: applying media and technology to instruction. Englewood Cliffs, N.J.: Educational Technology Publications.
- Wenden, A. (1991). *Learner Strategies for Learner Autonomy*. New York: Prentice Hall.