

A model for self-regulated distance language learning

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The role of learner autonomy and self-regulated learning in distance education has received much attention. The application of these concepts impacts course design and, potentially, learner achievement. In the case of distance language learning, course designers must consider not only how to help learners gain communicative competence but also language learner strategies that support success. Although the concepts of autonomy and self-regulated learning share some similarities, they have been variously defined and applied to distance education. Current research and discussion has not synthesized the ways in which these factors can be more fully utilized to improve distance education. Based on a critical review and synthesis of the literature on autonomy and self-regulation, this article contributes a new model for distance language learning. The model provides guidance for course designers and assists instructors in supporting their students.

Keywords: distance language learning; self-regulated learning; autonomy; model of self-regulated distance learning; learning strategies

Language learning from a distance has unique challenges. It has always been more problematic than acquiring knowledge in other subjects due to the lack of opportunity for interaction (Hurd, 2006). Second language acquisition theory indicates that not only do learners need comprehensible input (Krashen, 1985) (i.e., sources of reading and listening appropriate to their proficiency level), but also opportunities for output (Swain, 1995). Output focuses on production of language, rule testing, and the development of discourse skills. Related to output, learners must have the opportunity to interact in the target language to negotiate meaning, make input more comprehensible, get feedback, and recognize the need to change their language to achieve successful communication (Long, 1996).

In distance language courses, input can be provided relatively easily through print and aural materials. Written forms of output are also feasible. Providing authentic oral interaction opportunities in which learners are communicating purposefully in a variety of contexts and learning to modify their language according to feedback, however, is more difficult. Restrictions on interactivity challenge the ability of learners to achieve communicative competence (Hymes, 1971), which involves the use of appropriate language across settings, topics, and interlocutor relationships.

Even in technologically advanced countries such as Hong Kong, course designers have grappled with the challenge of promoting interactivity through learner-accessible and affordable technology (Poon, 2003). Other programs have avoided the issue by

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focusing on reading, writing, and listening rather than speaking (Ros i Solé & Hopkins, 2007). Some models support interactivity by implementing a blended approach that entails media- or print-based materials with face-to-face instruction (Bown, 2006; Sanders, 2005; Vanijdee, 2003). Other options for interaction include computer-mediated communication or virtual learning environments. Internet-based software for conferencing, for example, allows learners and teachers to participate in video or audio conferences through networked computers (Hampel & Hauck, 2004; Stickler & Hampel, 2007).

Given the complexities of distance language learning, course designers must consider how to structure courses and create appropriate activities to help learners recognize success, and if communicative competence is desired, bridge the ‘transactional distance’ (Moore, 2007, pp. 90–91) to produce meaningful interaction. In addition, an understanding of learning strategies and learner characteristics is critical to closing the gap – the distance between the learner and the teacher, or the learner and other learners. These areas of research encompass sometimes overlapping concepts such as cognition, metacognition, motivation, autonomy, and self-regulated learning. The latter two concepts are particularly central to understanding how the relationships among teachers, learners, and institutions promote successful distance language learning.

Autonomy and self-regulated learning have both been defined as learners taking responsibility for their own learning (Benson, 2001; Dembo & Eaton, 2000; Holec, 1981; Holmberg, Shelley, & White, 2005; Muller-Verweyen, 1999; Vanijdee, 2003; White, 2003). Although sometimes viewed synonymously, the concepts have distinct characteristics. We posit that the notion of self-regulated learning has been underutilized in the field of distance language learning. This article contributes a new model for distance language learning that synthesizes research on autonomy and self-regulated learning. We next turn to an in-depth examination of these two concepts.

Autonomy and self-regulated learning in distance education

One of the foundational theories in distance education is Moore’s theory of transactional distance (1972, 2007), which includes three key variables: dialogue, structure, and learner autonomy. Dialogue refers to the interaction between the learners and teacher, and is built into the design of the course. Structure is the degree to which the course accommodates learners’ preferences and needs in terms of course objectives, goals, and evaluation. Learner autonomy involves the learner’s ability to create a learning plan, find resources that support study, and self-evaluate.

At one end of the spectrum, full autonomy allows the learner to determine study goals, how to accomplish these goals, and how much to learn. At the other, a lack of autonomy restricts the learner from all decision-making power related to the course. Oxford’s view of autonomy (2008) is similar to that represented by Moore’s theory (1972, 2007) in that in a fully autonomous context, learners make both planning and implementation decisions, whereas in situations involving a lesser degree of autonomy, learners make only some decisions which are related to implementation.

Autonomy does not imply complete independence or a lack of support but rather a state of interdependence between teachers and learners (Little, 1995). Dialogue is represented in a distance course through interaction with the course instructor and the materials, which reflect a teaching voice (Anderson, 2007; Moore & Kearsley, 1996;

White, 2005) or ‘the link between teacher and learner’ (Hurd, 2001, p. 136). The act of reading the course materials could be considered a type of internalized social interaction (Little, 1995) between the reader and the author. Depending on the opportunities for oral and written communication, however, this interaction does not necessarily remove factors of social isolation that may not be conducive for learning languages (Hurd, 1998a).

Other researchers refer to autonomy as involvement and choice in learning, self-direction, the capacity to learn in terms of self-awareness and willingness to be an active learner, acting independently, and making decisions about what and how to learn, setting goals, and measuring progress (Holec, 1981; Hurd, 1998b, 2005; Little, 1991; White, 2003). Autonomy is connected to learner choice and can be extended to various aspects of a distance course, such as selection of materials and activities, individual goal setting, self-pacing, and self-evaluation. A broader conceptualization of autonomy focuses on the learner’s capacity, or attitudes and abilities that allow learners to take responsibility for the learning process (Vanijdee, 2003).

A complete understanding of autonomy is problematic as its defining characteristics overlap and vary. No single definition is accepted; thus the concept remains ‘elusive’ (Hurd, 2005, p. 1). Autonomy involves metacognition, strategic competence, and reflection as well as choice and decision-making (Hurd, Beaven, & Ortega, 2001). It has been described as making decisions about what and how to learn, self-direction, involving the capacity to learn or what the learner brings to the task in terms of self-awareness and willingness to be an active learner, accepting responsibility, taking control, and acting independently with setting goals and time management as additional elements (Garrison, 2003; Holec, 1981; Hurd, 1998a; White, 2003).

Central to the idea of autonomy is freedom of choice – learners choose what, where, and how to learn. The concept of self-regulated learning places less emphasis on choices and more on leading learners toward being effective without reliance on teacher structure. It focuses on *how* learners can take control of the learning process. Garrison (2003) believes that the concept of autonomy does little to guide educators in improving distance courses as it fails to recognize the psychological and cognitive elements involved in learning. He advances the concept of self-directed learning and proposes three dimensions: self-management (the process of balancing teacher and student control), self-monitoring (cognitive responsibility), and motivation (commitment to learning goals).

These dimensions are all encompassed within the concept of self-regulated learning (i.e., *cognition, metacognition, motivation*) with the additional element of *behavior* (Zimmerman & Kitsantas, 1997). Self-regulated learning has been specifically defined as ‘the ability of learners to control the factors or conditions affecting their learning’ (Dembo, Junge, & Lynch, 2006, p. 188). The *cognitive* element of self-regulation refers to the use of learning strategies to understand and remember information; the *metacognitive* component is related to planning, setting goals, monitoring, and evaluating; *motivation* involves self-motivation, taking responsibility for one’s successes and failures, and developing self-efficacy, which results in increased effort and persistence; *behavior* consists of seeking help and creating a positive learning environment for study (Dembo et al., 2006).

For Oxford (2008), the use of learning strategies promotes learner autonomy. She categorizes strategies for language learning into metacognitive, affective, cognitive, and social-affective. These categories are similar to the four dimensions of self-regulated learning. In this sense, Oxford would consider autonomy and self-regulated learning

to be synonymous. Her conceptualization of autonomy also reflects the idea of choice, or decision-making, for the learner.

Although definitions vary and overlap is evident between the concepts of autonomy and self-regulated learning, we posit that applying the framework of self-regulation and its four primary components – cognitive, metacognitive, motivation, behavior – provides an organizational structure around which to conceptualize and discuss factors affecting learner success. Autonomy appears to be the preferred term in distance language learning while self-regulated learning is more commonly used in the field of education.

We recognize that Oxford's learning strategy categories (2008) are comparable to the self-regulated learning categories of Zimmerman and Kitsantas (1997) and have been specifically applied to language learning. However, we base our model on self-regulated learning, specifically the six dimensions introduced by Dembo et al. (2006), which further develop the components of cognition, metacognition, motivation, and behavior. These six dimensions – motive, methods, time, physical environment, social environment, and performance – can help course designers focus on materials and assignments that will directly help students. The elements of time, social environment, and physical environment are particularly useful to the distance education context. These dimensions will be discussed in depth later in the article when we introduce the model. Another advantage of using the self-regulated learning components and the related six dimensions is that our model can be applied to any educational context, not only language study.

To demonstrate the benefits of applying the framework of self-regulation (as defined by Dembo et al., 2006; Zimmerman & Kitsantas, 1997) to distance language learning, we next explore how the characteristics of autonomy identified in distance language learning studies can be conceptualized within the four components of self-regulated learning. The final goal for using this framework is to build the elements of self-regulated learning into course design.

Distance learning courses

Autonomous language learners have been identified by such behaviors as the use of cognitive, metacognitive, and socio-affective strategies, awareness of language learning strategies, the ability to self-diagnose, seeking exposure to English, willingness to be responsible for learning, following course materials, self-reliance, self-management, persistence in solving problems, preparation for tutor sessions, and self-monitoring (Vanijdee, 2003).

Student success in a Russian class using an independent study model depended on an internal locus of learning (i.e., the belief that learning occurs within the learner rather than on the transfer of knowledge from an expert) and the affective strategies of self-motivation and self-encouragement (Bown, 2006).

The written reflections of English language learners taking an online course that sought to increase metacognitive and self-regulatory skills demonstrated that learners increased their awareness of the language learning process and themselves as language learners (Ushioda, 2008). The course had a positive effect on affect, increasing learners' confidence to use the target language, which promotes communicative autonomy (Little, 1995) or the ability to use the language independently. Student responses demonstrated gains in metacognitive knowledge, including the ability to self-assess, set learning priorities, and express beliefs about desired or achievable

outcomes. Specific detail about what accounted for the gains in terms of elements of course design was not provided.

Distance learners of French claimed improved approaches to learning, the acquisition of new skills such as self-monitoring, reflection, planning, prioritizing, self-discipline, and responsibility (Hurd, 2000). Motivation was enhanced by positive self-talk, goal setting, interaction with French native speakers, and reading. Learners improved their metacognitive and self-management skills.

Distance learners of French, German, and Spanish were given supplementary materials to develop critical reflection, metacognition, and autonomy (Murphy, 2005). In general, these learners were active, involved, sought interaction opportunities, and took control. Using the language helped them see progress and was motivating. All of the learners demonstrated some critical reflection ability but those who used the supplementary materials demonstrated this to a greater extent.

It should be noted that none of these studies claimed to be measuring self-regulated learning, although they all focused on aspects of this concept – cognition, metacognition, motivation, and behavior. The studies either cited autonomy as their emphasis or characteristics related to ‘taking control of the language learning process’ (Vanijdee, 2003, p. 75). What is lacking in all of these details is an organizing structure around which to conceptualize the various aspects of autonomy. Without this, researchers, educators, and course designers must manage long lists of characteristics, many of which have multiple definitions. Before introducing this structure, which is based on self-regulated learning research, we briefly summarize characteristics of successful distance language learners and course design factors that support that success.

Successful distance language learners and course design

A considerable amount of research has been conducted with regard to distance language learning and specific elements within the areas of learning strategies, affective factors, and learner characteristics. These studies indicate that motivation is central to success (Bown, 2006; Harlow, 2007; Hurd, 2000, 2006; Poon, 2003; Thang, 2005; Vanijdee, 2003) as are characteristics such as goal setting, interaction, enthusiasm, persistence, confidence, and risk taking (Hurd, 2000; Vanijdee, 2003). Various skills and learning approaches related to metacognition – planning, monitoring, and reflecting – also give learners an advantage (Anderson, 2007; Garrison, 2003; Hurd, 2000; Murphy, 2005; Vanijdee, 2003).

Students who take responsibility for their learning and exhibit self-management characteristics, are active and involved, and practice self-encouragement or positive self-talk are likely to realize success in acquiring a language from a distance (Hurd, 2000).

[Learners] should be able to re-evaluate their role and responsibility as language learners. They should be able to assess their personal learning needs, have an idea of how to monitor progress, and be able to manage time effectively. They also need to use language-learning strategies in effective, flexible and creative ways. (Thang, 2005, p. 252)

Learners must be able to construct knowledge, reflect critically, be actively involved, and make choices for effective language learning (Murphy, 2005). Furthermore, beliefs about learning, teacher and learner roles, and the use of affective strategies to handle negative emotions impact distance language learning (Bown, 2006).

The question for course designers is how these various characteristics, skills, and strategies can be supported. Although knowledge of learning strategies is not a guarantee that learners will apply them or that they will become autonomous (Little, 1995), increasing awareness of strategies and providing guided opportunities for their use will help learners gain the confidence necessary 'to become autonomous users of their target language' (Little, 1995, p. 176). Training is needed to help students become aware of useful approaches and strategies, modify attitudes about learning (Bown, 2006; Thang, 2005; White, 2003), and manage emotional challenges (Bown, 2006).

Considering learner characteristics and needs in early design stages is important, so that pertinent learner support is developed within the course (White, 2003). Additionally, syllabus design must be clear with measurable goals and objectives and students should be guided to helpful resources (Bown, 2006). Study guides can be designed to focus on the development of strategies and allow more flexibility and choices to support a variety of learning styles. Students are not used to thinking about their feelings regarding the process of language learning and that makes languages difficult to study (Oxford, 1994). This suggests the need for reflection and self-awareness. Through course activities and materials, metacognitive training must lead students to identify effective and ineffective strategies.

Students do not necessarily learn well when they learn alone (Hurd, 1998a) nor does critical reflection on the learning process come easily (Little, 1995). Students need to know what it takes to be an effective language learner, and autonomy needs to be managed by teachers, who act as facilitators to help students develop strategies and skills.

The key to success must lie partly in the support systems available to students and the extent to which diverse individual learning needs are addressed, but even more importantly is the degree to which these support systems encourage language learners to develop strategies that work for them personally, and which lead to more effective learning methods and enhanced learning outcomes. (Hurd, 2000, p. 37)

Materials should be designed to train learners in these strategies to enable them 'to move beyond the prescribed subject matter to engage with language resources in their environment and, as part of this, to exercise choices as language learners' (White, 2003, pp. 153–154).

As reflected in Moore's theory of transactional distance (1972, 2007), course designers must consider the gap between the learner and the teacher created through distance and structure the instruction to provide learners with sufficient guidance. Opportunities for dialogue within a distance language class are particularly critical to help the learner develop communication skills. Transactional distance increases or decreases depending on the degree of dialogue and structure. Structure is provided through lessons, objectives, themes, illustrations, and projects, whereas dialogue consists of tutorials, telephone contact, questions and answers, videoconferencing, email, and other modes of communication.

Structure in distance courses is frequently provided with a study guide that sequences activities and assignments and leads learners through the course. A characteristic form of dialogue is assessment feedback, which helps learners review their progress and provides meaningful interaction. Such feedback can encourage and motivate students, give them a sense of their competence, create dialogue, and clarify the relationship between performance and strategy use (White, 2003).

When low degrees of structure and dialogue are present, transactional distance is high and learners have to be more autonomous. Even in cases of low transactional distance, learners require more support than they would need in a classroom due to barriers created by the learning context, which can be isolated. To realize a state of autonomous learning, consideration must be given to the development of ‘cognitive dispositions’ including motivation, strategic planning, and metacognitive awareness (Garrison, 2003, p. 167).

A new model

What is lacking from the research cited is an all-encompassing model that acts as a framework from which to examine elements related to autonomy and self-regulated learning. Such a model is needed to guide designers in building course components that support the development of self-regulated learners. Presently, studies related to these areas in distance language learning are diverse and use a multiplicity of related terms and explanations, making it difficult to determine what needs to be included in a course for language learning to be successful. Few models or theories of distance language learning exist, and all have limitations in terms of aiding course designers.

For example, White’s learner-based theory of distance language learning (2005) encompasses the concept of learner–context interface. According to this theory, learners construct an interface as they interact with the learning context. Learner factors, including characteristics of self-directed learning, affect how the interface is constructed, which, in turn, affect ‘individual learner attributes ... and the kind of identity s/he develops as a distance language learner’ (p. 64). White’s theory concerns learners and does not directly point to design parameters that promote successful language learning in distance education contexts.

Another model for consideration posits a relationship among autonomy, learning strategies (i.e., cognitive, metacognitive, and socio-affective), and interaction with self-instructional materials (Vanijdee, 2003). The explanation provided for the model is limited in that it simply indicates that a relationship exists among these elements and that the way learners interact with course components reflects their degree of autonomy. The model does not adequately account for the range of factors related to autonomy apparent in the literature on distance language learning nor does it investigate the interplay of the various components.

Garrison (2003) argued that within distance education, the concepts of autonomy and control are insufficient. Consideration must also be given to cognition, metacognition, and motivation, which are preconditions to self-directed learning. These elements should not merely be controlled through well-designed packages, but students must be taught how to learn. Garrison stated, ‘A good starting point might be the integration of the theory and practice of SDL [self-directed learning] and critical thinking (cognitive and metacognitive abilities) in a distance education context’ (p. 166). The model of self-regulated distance language learning (Figure 1) addresses this need.

Model of self-regulated distance language learning

Central to the model are six dimensions of self-regulated learning – motive, method, time, physical environment, social environment, and performance (Zimmerman, 1994,

1998). These dimensions are based on the four key psychological components of self-regulated learning: cognition, metacognition, motivation, and behavior. They address the questions of *why*, *how*, *when*, *where*, *with whom*, and *what*. Although these six dimensions have been advocated for use in web-based learning (Dembo et al., 2006), they have not been considered in distance language learning applications nor have they been related to Moore's theory of transactional distance (1972, 2007). Findings from the studies reviewed on distance language learning and autonomy, affective factors, and learning strategies/styles can all be conceptualized within the model's framework. The dimensions extend how distance language learning is conceived and support Moore's theory of transactional distance.

The model demonstrates how learners interact with the variables of structure and dialogue to become self-regulated distance language learners. (Structure and dialogue are represented by S and D in Figure 1; the + and – symbols represent greater or lesser degrees of structure and dialogue.) Learners begin a course with individual levels of self-regulated learning, commitment, and language proficiency. They interact with the course content, materials, and technology, instructors and other learners, and various entities of the host institution. The level of structure provided by the course within lessons and activities can provide scaffolding that supports self-regulated learning. Greater levels of structure initially result in less autonomy in the sense of choice, but the structure helps students to become more self-regulated, increases capacity for autonomy, and decreases transactional distance.

Similarly, the level of dialogue within the course, specifically tutorials, conferencing, feedback, and communication, must be high to give students the opportunity for the interaction needed to improve language proficiency and to provide the scaffolding necessary to improve self-regulated learning. This initially results in a decrease in autonomy in the form of independence but decreases transactional distance and ultimately serves to increase learners' self-regulation, capacity for autonomy, persistence in the course, and language proficiency.

As learners interact with the structure and dialogue of the course and develop self-regulated learning skills, they reflect on and monitor their performance, set new goals, and continue to improve and build on the strategies they encounter and practice. The last stage of the process is becoming a self-regulated language learner, with increased capacity for autonomous learning, persistence in the course, and improved language

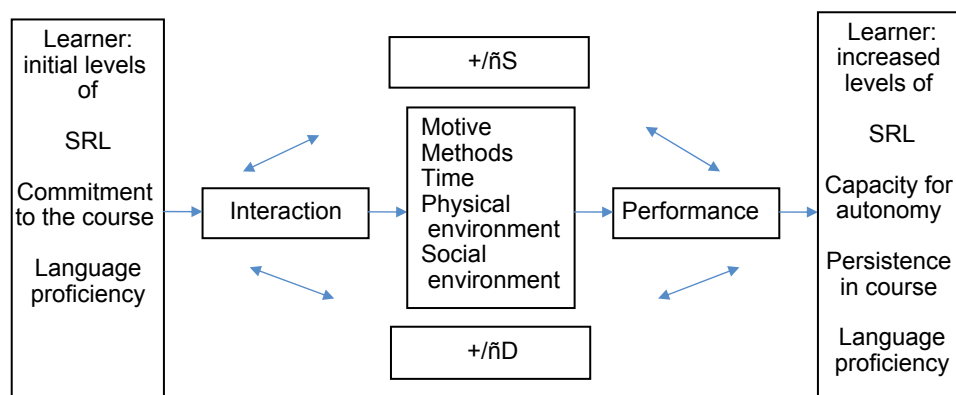


Figure 1. Model of self-regulated distance language learning: optimizing transactional distance through self-regulated learning strategies (S = structure, D = dialogue).

proficiency. As learners become more independent and self-regulated, they can be successful with less structure and dialogue. Although we focus on language learning in our application of the model, the model can be easily adapted to any learning context.

The six dimensions

As the six dimensions of self-regulated learning (Dembo et al., 2006) are central to the model, they merit further explanation, including specific applications to distance language learning. Motive is related to the reasons (*why*) for learning and involves setting goals, positive self-talk, and strategies for managing emotions such as controlling test anxiety. Two types of motivation are often discussed in language learning – integrative or instrumental (Gardner & Lambert, 1972). The former refers to a desire to integrate with speakers of the target language while the latter focuses on using the language to achieve a specific goal. When learners have meaningful reasons for acquiring a language such as a desire to associate and speak with native speakers, pursue further education in the language, or travel to or live in a country where the language is spoken, acquisition is more successful.

In distance language learning, motivation plays a central role (Bown, 2006; Harlow, 2007; Hurd, 2000, 2006; Poon, 2003). Motivation may be lacking in a distance course if learners are removed from the target language environment as they may not have an immediate need or opportunity to use the language. Courses that provide opportunities for goal setting, model how to develop positive self-talk, and help learners manage their emotions, which may improve motivation. Managing emotions is also related to lowering the affective filter (Krashen, 1981), or factors such as anxiety, inhibitions, and personality characteristics that may interfere with acquisition.

Method refers to *how* learners learn, including strategies such as summarizing, note-taking, asking questions, rehearsal, and visual representations. Tools built into a course to help learners improve and evaluate their strategies provide greater structure, which, according to Moore (1972, 2007), decreases autonomy as learners have fewer choices. However, structure can provide the necessary scaffolding for successful learning. Strategy training for language learning could include using inventories such as Oxford's Strategy Inventory for Language Learning (SILL) (1990) to create awareness, multiple intelligences surveys (e.g., see Silberstein, Dobson, & Clarke, 2002), and sharing strategies with other learners to expand students' repertoires (the latter also relates to the social environment dimension). Strategies might include think-aloud protocols (Anderson, 2004), rubrics to evaluate success on a task, reflective journals, or other types of self-evaluation. Techniques for learning vocabulary and grammar rules, improving reading and writing, and so forth may also be emphasized.

The third dimension, time, involves consideration of *when* to study and for how long. It addresses procrastination and time management. Time management awareness can be built into the course with features that indicate the approximate length of time it should take to do a particular activity. Time management is a critical skill for distance learners as distractions and other responsibilities (e.g., work, family) often interfere with working on a distance course. Similarly, procrastination is a reality in asynchronous courses since regular meeting times are not set. Learners must set a regular schedule for working on the course in the same way they would attend a class

and plan homework time. Information and suggested tips for structuring time in order to be successful can be integrated into the course.

Physical environment (*where*) focuses on ensuring the learner's surroundings support the act of studying (e.g., quiet, free of distractions, comfortable) and the ability to restructure surroundings as needed. This is particularly important to distance learning as classroom settings and study facilities may not be available; thus, learners have to restructure their environments to make them conducive to study. For language learners, this might mean having a place where they can listen to language materials and engage in oral drills and practice.

The social environment (*with whom*) considers the ability of the learner to seek help when needed, know where to find help, and know how to frame requests and evaluate assistance. An example of this was given earlier related to having learners share successful methods for learning with each other. In the context of language learning, the environment provides the opportunity for interaction and the development of communicative competence (Canale & Swain, 1980). Learners need to create opportunities for practice with the language either in the home country environment or through technologies built into the course. Learners' affective filters, that is, levels of anxiety, inhibitions (Krashen, 1981), must be low to encourage risk taking and experimentation with the language. Suggestions for how environmental factors can be used to learners' benefit, including ideas for interacting with target language users, and other such related assignments, can be provided in the course. Additionally, teachers or tutors can provide dialogue in a variety of forms to create interactivity.

Finally, performance, or *what* is learned, includes observing, reflecting, making judgments, and comparing current performance to short- and long-term goals in order to make needed adjustments. As learners engage in the process of acquiring knowledge, or skill in a language, they observe their behaviors, reflect on performance, evaluate, and refine or set new goals. Reflective journals are one means of accomplishing this. Feedback from tutors on reflective journals (van den Boom, Paas, & van Merriënboër, 2007) and reflection on performance (Murphy, 2005) have proven effective in distance learning. Similarly, technology-enhanced learning in the form of reflective weblogs has demonstrated that students were in control of their own learning (Baggetun & Wasson, 2006). Feedback through the process of interaction also helps learners notice the gap in their linguistic forms and communicative abilities (Swain, 1995). Receiving negative feedback leads learners to consider alternate ways to express their ideas and supports hypothesis testing. Providing opportunities for output allows learners to recognize the need to improve their language skills.

All of these dimensions have been related to success in web-based learning (Dembo et al., 2006), and all can be taught and developed, making them appealing in distance language learning. Many applications of these dimensions currently exist in distance language learning courses. French, German, and Spanish learners utilized materials designed to help them reflect on their performance throughout the course (Murphy, 2005). Students participated in a skills audit which listed skills that might be needed for the assignment (*method*). They identified skills they needed, reflected on their strengths and weaknesses, decided what to work on, and formed an action plan (*motive*). They also completed self-assessment sheets to reflect on their work, determine what to discuss with their tutors, and assess their goals (*performance*). Using a reflection sheet, they summarized feedback they received on assignments, self-assessed, reviewed their priorities, and set new goals (*performance*). A tip sheet explained what students should do when assignments were returned, and a skills sheet

provided advice on how to develop language skills and referred students to other sources of help (*method/social environment*).

Forms of support such as these that are built into a course can be used to help students develop effective language learning strategies and become self-regulated learners. Having a model to guide students and teachers will ensure a well-balanced approach to developing all six dimensions of self-regulated learning.

A preliminary case study

We next present a case study to demonstrate how course designers used the model of self-regulated learning in the course development process and how instructors have used it to guide students. Following an administrative decision to require the English as a second language (ESL) program at a university in the USA to develop and teach English language courses at a distance, faculty members, including the authors, began planning for this mandate. With knowledge of the literature about autonomy in both language learning and distance education and the literature on self-regulated learning for university-level students, the faculty began to consider how such characteristics might be included in course designs in the distance courses.

As a first step, concepts from self-regulated learning were used for writing prompts for learner journals in a campus-based course. The purpose of this test was to measure how the students would respond in their journals to questions about their study habits and attitudes and if reflection on various aspects of the six dimensions would be beneficial. Responses to the journal topics indicated that students who engaged in reflection and evaluation of their habits and strategies recognized value in this process in terms of strategy awareness and improved learning. These responses led the developers to continue exploring these concepts in their distance design work.

The first course designed for distance education delivery was an intermediate-level reading class where the elements of self-regulated learning were incorporated into the study guide in a manner similar to the learner journal prompts in the campus-based class. However, this initial in-house research and development experience pointed to the need for a clear guide for incorporating components of self-regulated learning into the distance language courses in a more structured and deliberate way. The model presented in this article emerged from the literature review and this initial research and development experience.

Subsequently, course development teams have used the elements of the model in the design of another intermediate-level ESL course. As part of the course, students do an initial self-assessment (survey) related to their perceptions of themselves as distance language learners. Following this preliminary assessment, activities using the dimensions of the model – motivation, methods of learning, use of time, physical environment, and social environment – are provided. Each week, students choose an activity they wish to do based on personal outcomes from the beginning self-assessment. At the conclusion of each activity, they submit a reflective journal to the teacher (via email) on their experience with the selected activity. Teachers then respond to each journal. The journal, along with the teacher response, helps students review their performance, adjust or adopt new strategies, and consider new or revised learning goals.

The sets of activities were designed to include more activities than needed as well as to have multiple activities from each dimension, allowing the students to exercise some choice (i.e., autonomy) in the self-regulated learning activities they complete. The students then do a mid-term and end-of-course performance measurement.

The course development team found the elements of the model conducive to the design process and productive in nature. Research on the usefulness of the self-regulated learning components in the design is being collected and analyzed. Initial impressions from instructors and students are positive. These results will be reported in detail at a later date. Future offerings of the course will lead to additional data over time.

Implications and conclusion

Teaching foreign languages by distance is of interest to a considerable number of educational institutions. This interest is largely motivated by the desire to decrease costs (Hurd, 1998a; Sanders, 2005) or to increase the student pool. Institutions facing financial challenges are moving toward course delivery models involving autonomous learning (Hurd, 1998a) such as distance courses, blended learning, and self-access centers (Ding, 2005). As English language skills are in much demand, the need for related courses is widespread. With pressures for language departments to restructure their courses and offer them through distance education or technology-based models, understanding the components for successful distance language learning is essential.

The model presented in this article allows educators and designers to account for features that will improve success not only in distance language learning, but potentially in all distance learning. It also provides a framework for future research in that elements of the model can be tested to determine which aspects of self-regulated learning are enhanced by particular elements of design and technological applications, and how these elements can be used to create structure and dialogue (Moore, 2007) appropriate to learners' needs, and overcome the gaps created by distance. Dembo et al. (2006) have commented that 'there is to date little literature concerning self-regulation in Web-based learning' (p. 198).

There is even less information related to the application of self-regulation to distance language learning. Applying the concept of self-regulated learning to distance language learning demonstrates the benefits of synthesizing research across disciplines. Indeed, more must be known about how all distance students employ strategies related to cognition and metacognition, how these strategies affect learning outcomes, and how courses can be written to develop these skills (Anderson, 2007). Future research must also consider how self-regulation affects actual gains in language proficiency and academic achievement.

The model of self-regulated distance language learning provides a framework by which designers, instructors, and institutions can conceptualize, implement, and measure the effects of self-regulation on learning. Through this model, learners can be led to greater levels of autonomy through the application of self-regulated learning strategies and to greater levels of success.

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