# *Paradigm Shift: Understanding and Implementing Change in Second Language Education*

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## Abstract

Change seems to be a constant in education. We can better understand and implement change in second language education if we look for connections between changes. The concept of paradigm shift offers one means of making such connections. This article describes eight changes that fit with the paradigm shift in second language education toward what is most often described as communicative language teaching. These eight changes are: learner autonomy, cooperative learning, curricular integration, focus on meaning, diversity, thinking skills, alternative assessment and teachers as co-learners.

The paradigm shift of which these changes are part is put into perspective as an element of larger shifts from positivism to post-positivism and from behaviorism to cognitivism. The authors argue that in second language education, although the paradigm shift was initiated many years ago, it still has been only partially implemented. Two reasons for this partial implementation are: (1) by trying to understand each change separately, second language educators have weakened their understanding by missing the larger picture; and (2) by trying to implement each change separately, second language educators have made the difficult task of change even more difficult.

## Introduction

Kuhn (1970) did pioneering work on the process of paradigm change or shift in the sciences. He argued that change in a scientific field does not occur as a step-by-step, cumulative process. Instead, new paradigms emerge as the result of tradition-shattering revolutions in the thinking of a particular professional community. These shifts involve the adoption of a new outlook on the part of researchers and others in that community. Well-known examples of paradigm shifts in the physical sciences include from Ptolemeian to Copernican astronomy and from Newtonian to

quantum physics. Paradigm shifts have also occurred in the social sciences, e.g., sociology and the humanities, e.g., art.

Since the early 1980s, the term "paradigm shift" has been used as a means of thinking about change in education. We begin this article by briefly explaining the concept of paradigm and paradigm shift and discussing paradigm shifts of the past century. Next, we examine eight aspects of the paradigm shift in second language education perhaps most popularly known as communicative language teaching. We describe each of these eight aspects, connect it to the overall shift in our field and highlight implications for second language education. Our objective in writing the article is to argue that this shift has not been implemented as widely or as successfully as it might have been because educators and other stakeholders have tried to understand and implement the shift in a piecemeal rather than a holistic manner.

## Paradigm Shift

The term "paradigm" is another word for pattern. Pattern forming is part of the way we attempt to make meaning from our experiences (Ausubel, 1968). We use these patterns to understand situations, raise questions, build links and generate predictions. The human brain is designed to generate, discern and recognize patterns in the world around us. We resist the notion that no pattern exists.

When a paradigm shift takes place, we see things from a different perspective as we focus on different aspects of the phenomena in our lives. Twentieth century paradigm shifts across a wide variety of fields can be seen as part of a larger shift from positivism to post-positivism (Berman, 1981; Capra, 1983; Merchant, 1992). Awareness of this broader shift helps make clearer the shifts that take place in any one particular field. Table 1 provides a brief look at some contrasts between positivism and post-positivism.

**Table 1 -- Contrasts between positivism and post-positivism**

| Positivism | Post-Positivism |
|---|---|
| Emphasis on parts and decontextualization | Emphasis on whole and contextualization |
| Emphasis on separation | Emphasis on integration |
| Emphasis on the general | Emphasis on the specific |
| Consideration only of objective and the quantifiable | Consideration also of subjective and the non-quantifiable |
| Reliance on experts and outsider knowledge--researcher as external | Consideration also of the "average" participant and insider knowledge--researcher as internal |
| Focus on control | Focus on understanding |
| Top-down | Bottom-up |
| Attempt to standardize | Appreciation of diversity |
| Focus on the product | Focus on the process as well |

# Paradigm Shift in Second Language Education

In second language education, the principal paradigm shift over the past 40 years flowed from the positivism to post-positivism shift and involved a move away from the tenets of behaviorist psychology and structural linguistics and toward cognitive, and later, socio-cognitive psychology and more contextualized, meaning-based views of language. Key components on this shift concerned:

1. Focusing greater attention on the role of learners rather than the external stimuli learners are receiving from their environment. Thus, the center of attention shifted from the teacher to the student. This shift is generally known as the move from teacher-centered instruction to learner-centered or learning-centered instruction.

2. Focusing greater attention on the learning process rather than on the products that learners produce. This shift is known as a move from product-oriented instruction to process-oriented instruction.

3. Focusing greater attention on the social nature of learning rather than on students as separate, decontextualized individuals.

4. Focusing greater attention on diversity among learners and viewing these differences not as impediments to learning but as resources to be recognized, catered to and appreciated. This shift is known as the study of individual differences.

5. Focusing greater attention on the views of those internal to the classroom rather than solely valuing the views of those who come from outside to study classrooms, evaluate what goes on there and engage in theorizing about it. This shift led to such innovations as qualitative research - with its valuing of the subjective and affective, of the participants' insider views and of the uniqueness of each context.

6. Along with this emphasis on context came the idea of connecting the school with the world beyond as a means of promoting holistic learning.

7. Helping students to understand the purpose of learning and develop their own purposes.

8. A whole-to-part orientation instead of a part-to-whole approach. This involves such approaches as beginning with meaningful whole texts and then helping students understand the various features that enable to texts to function, e.g., the choice of words and the text's organizational structure.

9. An emphasis on the importance of meaning rather than drills and other forms of rote learning.

10. A view of learning as a lifelong process rather than something done to prepare for an exam.

As mentioned earlier, the paradigm shift in second language education was part of a larger shift that affected many other fields. (See Voght, 2000 for a discussion of parallels between paradigm shifts in foreign language education at U.S. universities and paradigm shifts in education programs in business and other professions). Oprandy (1999) links trends in second language education with those in the field of city planning. He likens behaviorism's top-down, one-size-fits-all approach to education to a similar trend in city planning in which outside experts designed for uniformity and attempted to do away with diversity. In response, a new paradigm arose in city planning, a bottom-up one that sought to zone for diversity. Describing the current paradigm in second language education, Oprandy writes:

> The communicative approach requires a complexity in terms of planning and a tolerance for messiness and ambiguity as teachers analyze students' needs and design meaningful tasks to meet those needs. The pat solutions and deductive stances of audiolingual materials and pedagogy, like the grammar-translation texts and syllabi preceding them, are no longer seen as sensitive to students' needs and interests. Nor are they viewed as respectful of students' intelligence to figure things out inductively through engaging problem-solving and communicative tasks (p. 44).

Another parallel that Oprandy draws between new ideas in city planning and new ideas in second language education has to do with the role of the subjective. In city planning, attention began to focus on people's need for a sense of security and belonging in people-centered cities. These concerns, as Oprandy suggests, are matched in second language education by the desire to facilitate an atmosphere in which students are willing to take risks, to admit mistakes and to help one another.

## Eight Changes as Part of the Paradigm Shift in Second Language Education

The paradigm shift in second language education outlined above has led to many suggested changes in how second language teaching is conducted and conceived. In this section, we consider eight major changes associated with the shift in the second language education paradigm. We selected these eight because of the impact they already have had on our field and for the potential impact they could have if they were used in a more integrated fashion. Firstly, we briefly explain each change, explore links between the change and the larger paradigm shift and look at various second language classroom implications. These eight changes are:

1. Learner autonomy
2. Cooperative learning
3. Curricular integration
4. Focus on meaning
5. Diversity
6. Thinking skills
7. Alternative assessment
8. Teachers as co-learners

Figure 1 provides an illustration of the interdependence of these eight changes of the paradigm shift in second language education. The circular nature of the figure emphasizes that all the changes are parts of a whole and that the successful implementation of one is dependent on the successful implementation of others.
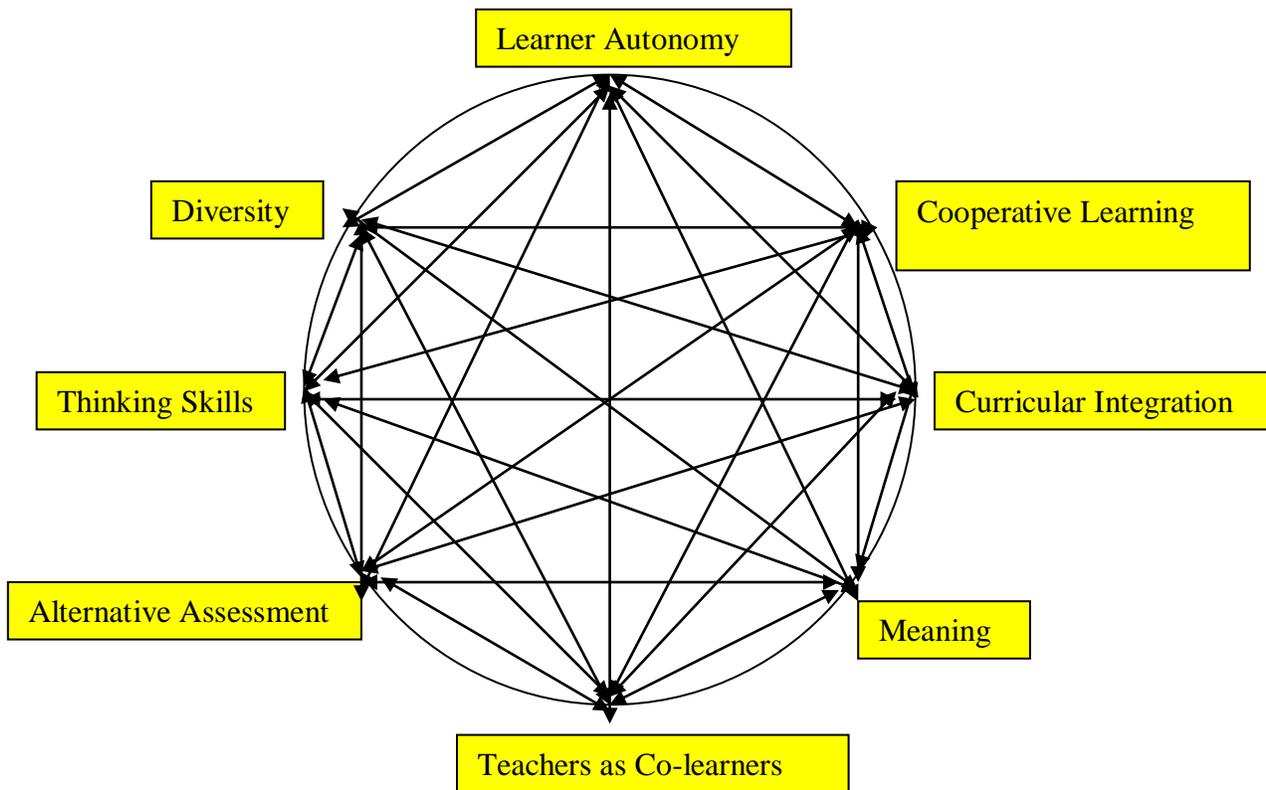


**Figure 1. Eight Changes in Second Language Teaching**

## Learner autonomy

**What it is.** Learner autonomy is linked to Vygotsky's (1978) concept of self-regulation and Csikszentmihalyi's (1990) work on flow. To be autonomous, learners need to be able to have some choice as to the what and how of the curriculum and, at the same time, they should feel responsible for their own learning and for the learning of those with whom they interact. Learner autonomy involves learners being aware of their own ways of learning, so as to utilize their strengths and work on their weaknesses (van Lier, 1996). Intrinsic motivation plays a central role in learner autonomy. The teacher no longer shoulders the entire burden of running the classroom. A form of democratization takes place with students taking on more rights and responsibilities for their own learning.

**Connections to the larger paradigm shift.** The concept of learner autonomy fits with the overall paradigm shift because it emphasizes the role of the learner rather than the role of the teacher. It focuses on the process rather than the product and encourages students to develop their own purposes for learning and to see learning as a lifelong process.

**Second language classroom implications.** Many implications for second language education flow from the concept of learner autonomy. For example, the use of small groups--including pairs--represents one means of enhancing learner autonomy (Harris & Noyau, 1990; Macaro, 1997). Learner autonomy is sometimes misunderstood as referring only to learners being able to work alone. By collaborating with their peers, learners move away from dependence on the teacher. Group activities help students harness that power and by doing so they build their pool of learning resources because they can receive assistance from peers, not just from the teacher.

Extensive reading (Day & Bamford, 1998; Krashen, 1993) offers another means of implementing learner autonomy in second language education . Here, students choose reading material that matches their own interests and proficiency level. If a student begins a book or a magazine and it does not seem the right one for him/her, he/she can switch to another. The hope is that extensive reading will aid students in developing an appreciation for the enjoyment and knowledge to be gained via reading in their second language (as well as their first), thus encouraging them to make reading a lifelong habit.

Self-assessment provides yet another way for second language students to develop their autonomy (Lee, 1998; Rothschild & Klingenberg, 1990). The idea is for learners to develop their own internal criteria for the quality of their work, rather than being dependent on external evaluation, often by the teacher, as the sole judge of their strengths and weakness. Developing these internal criteria enables learners to make informed decisions about how to move their learning forward. With self-assessment, no longer do students have to wait for the teacher to tell them how well they are doing and what they need to do next. Yes, the teacher remains generally the more knowledgeable and experienced person in the classroom, but the goal is for students to move toward and perhaps even beyond, the teacher's level of competence. Placing value on learners' knowledge helps them feel more capable of playing a larger role in their own learning.

# Cooperative Learning

**What it is.** Cooperative learning, also known as collaborative learning, consists of a range of concepts and techniques for enhancing the value of student-student interaction. In other words, rather than teachers just asking students to work together and hoping all goes well, cooperative learning offers teachers ideas for helping group activities succeed.

**Connections to the larger paradigm shift.** Cooperative learning relates to several aspects of the paradigm shift. As with learner autonomy, the use of group activities places students at the center of attention, offering them one means of taking on more rights and responsibilities in their own learning. Process is also emphasized, as students do not just show each other their answers; they explain to one another how they arrived at the answers (Slavin, 1995). Additionally, cooperative learning acknowledges the place of affect in education, highlighting the importance of positive

interdependence, the feeling among group members that the group sinks or swims together (Johnson & Johnson, 1994). Positive interdependence helps students feel support and belonging at the same time that they are motivated to try hard to assist the group in reaching its goals (Kagan, 1994).

**Second language classroom implications.** Group activities have become more common in second language education (Liang, Mohan, & Early, 1998; Oxford, 1997). For cooperative learning to be successful in second language education, a number of issues must be addressed. One of these issues is the teaching of collaborative skills, such as disagreeing politely, asking for help and giving examples and explanations (Bejarano, Levine, Olshtain, & Steiner, 1997). Many students may be unaccustomed to working with others of academic tasks. Thus, they may need to focus explicit attention on collaborative skills if they are to develop and deploy such skills. These skills are also vital language skills, skills that will serve students well in their future academic careers and in other aspects of their lives where they collaborate with others.

Another means of promoting collaboration is to foster an atmosphere in which cooperation acts not just as a methodology for second language learning but also a topic for learning and a value embraced in learning activities (Sapon-Shevin, 1999). Examples of cooperation as a topic for learning would be students writing compositions about the times that they or people whom they interview had collaborated with others, or focusing on some of the many examples in history or science that show collaboration in action.

To establish cooperation as a value, the class can look at what processes in the school, such as norm-referenced evaluation and in society, such as contests with only one winner, promote competition as a value. The class can also think about how to establish a better balance between competition and cooperation, e.g., by students working in groups to do service learning projects in their communities (Kinsley & McPherson, 1995).

Indeed, project work, to be discussed further as one implication of another of the changes flowing from the paradigm shift, is becoming increasing common in education (Ribe & Vidal, 1993). Projects, such as those involving service learning, offer students an opportunity to break down the artificial walls that often separate students from the wider world (Freire, 1970). These service learning projects also provide opportunities for students to learn together for a purpose other than to get a high score on an exam.

## Curricular Integration

**What it is.** Curricular integration serves to overcome the phenomenon in which students study one subject in one period, close their textbook and go to another class, open another textbook and study another subject. When various subject areas are taught jointly, learners have more opportunities to see the links between subject areas. By appreciating these links, students develop a stronger grasp of subject matter, a deeper purpose for learning and a greater ability to analyze situations in a holistic manner (Brinton, Snow, & Wesche, 1989).

**Connections to the larger paradigm shift.** A key link between curricular integration and the paradigm shift that is the focus of this article lies in the concept of going from whole to part rather than from part to whole. For instance, under the traditional education model, students study a given historical period, e.g., the 19th century, in an atomistic way. In history class, they study key events, people and movements. In science class, in another year or term they discuss notable scientific discoveries. In language class, in yet another year or term they read literature from the period. Or, even if the 19th century is simultaneously dealt with in multiple classes, little or no effort is made to build learning links. Thus, students miss valuable opportunities for understanding context.

**Second language classroom implications.** The concept of language across the curriculum is one route for implementing a curricular integration (Chamot & O'Malley, 1994). The idea is that language competence is necessary for learning in all subject areas. Students cannot understand their textbooks if they have weak reading skills. Further, asking students to write, even in mathematics class, about what they understand, what they are unclear about and how they can apply what they have learned offers a powerful means of deepening students' competence in a subject area. In second language education, the concept of content-based instruction represents a prime manner in which curricular integration is implemented (Crandall, 1987).

Project work, mentioned in the previous section, is yet another method of implementing curricular integration in that projects are often multidisciplinary (Ribe & Vidal, 1993). For example, an environmental project, e.g., on water pollution, could involve scientific knowledge about how to analyze water samples, mathematics knowledge to do calculations based on the sample, social studies knowledge about the role of governmental, private and civic sectors in cleaning up water pollution and language knowledge to write letters and prepare presentations based on the project's findings. This is in line with ideas from the area of critical pedagogy, which seeks to encourage a view of learning as a process in which students actively take part in transformation of themselves and their world, not as a process in which students passively take part in transmission of information from their teachers and textbooks to themselves (Crookes & Lehner 1998; Vandrick, 1999).

## Focus on Meaning

**What it is.** Research from cognitive psychology tells us that we learn best when we connect and store information in meaningful chunks. While rote drills and memorization might be of benefit for short-term learning, long-term learning and the extension of that learning require that students focus on the meaning of the language they are using. In second language, "meaning" should be understood in terms of the meaning of individual words and whole texts, as well as the meaning that particular topics and events have in students' lives (Halliday & Matthiessen, 1999).

**Connections to the larger paradigm shift.** Behaviorist psychology emphasizes that one size fits all for learning. Thus, if one-celled organisms can learn without access to meaning, why shouldn't that also be the best means for learning in humans? In contrast, socio-cognitive psychology stresses that people learn by chunking new information with existing knowledge and that meaning plays a key role in forming those chunks.

**Second language classroom implications.** We see many examples in second language education of this shift toward emphasizing meaning, the projects discussed earlier being just one. Projects are a means of implementing communicative language teaching. In communicative language teaching, the focus lies in using language, not in language usage (Breen & Candlin, 1980; Widdowson, 1978). Even though recent years have seen a greater role for explicit grammar instruction, this explicit instruction still takes place within the context of whole texts, i.e., beginning with an understanding of the text and its communicative intent, then looking at how the grammar aids the accomplishment of that intent within the specific context from which that intent derived (Long, 1991).

Journal writing is another example of how second language students can focus on meaning. It provides students opportunities to explore within themselves as well as with peers and teachers the particular meaning that a given classroom event or aspect of the curriculum had for them (Kreeft-Peyton & Reed, 1990; Shuy, 1987). Often students' journals are read and responded to by teachers and peers. Additionally, groups can keep journals to be shared with other groups and their teachers, and teachers can keep journals to share with students. In this way, students and teachers have the opportunity to consider what a particular lesson or unit means to different members of their class.

## Diversity

**What it is.** Diversity has different meanings. One meaning lies in the fact that different students attach different connotations to the same event or information (Brown, 1994). Another aspect of diversity in second language involves the mix of students we have in our classrooms in terms of backgrounds, e.g., ethnic, religious, social class and first language, sex, achievement levels, learning styles, intelligences and learning strategies. Taking advantage of this diversity can be challenging.

**Connections to the larger paradigm shift.** A key tenet of learner-centered instruction is that each learner is different and that effective teaching needs to take these differences into account. In contrast, the old paradigm attempted to fit all students into a one-size-fits-all learning environment, with diversity viewed as an obstacle to be removed. In the current paradigm, diversity among students is not seen as an obstacle, but as a strength.

**Second language classroom implications.** The concept of multiple intelligences as applied to second language education highlights one form of diversity among students (Christison, 1996). Intelligence is no longer viewed as a unidimensional construct. Instead, intelligence takes many forms and even within a particular intelligence, differing facets exist. The implication of this is not that students should be given new multiple intelligences IQ tests and placed in separate classes based on their intelligences profiles. The implication is that instruction must be differentiated so that in a particular unit at different times each student gets a match with the intelligences in which they are most developed. Each student gets a stretch by working with intelligences in which they are less developed and students come to appreciate the value of working with people of varied intelligence profiles.

Work in the area of second language learners' styles and strategies represents another way that the current paradigm is being applied (Oxford, 1990). For instance, students are helped to become aware of their current learning strategies, analyze them to determine which are most useful in various situations and then develop new strategies or refine present ones, so as to become better learners. This type of strategy awareness helps students to become effective lifelong learners.

## Thinking Skills

**What it is.** The previous section mentioned learner strategies as an example of diversity among students. Among the strategies that learners need to acquire and use are those that involve going beyond the information given and utilizing and building their higher-order thinking skills, also known as critical and creative thinking skills (Paul, 1995). Various typologies of these skills exist. One well-known list focuses on the skills of applying information to other contexts, analyzing the features of a given phenomenon, synthesizing information to create something new and evaluating information (Bloom, 1956). Today, thinking skills are seen as an essential part of education, because information is easily obtained, so the essential task is now to use that information wisely.

Connecting education to the wider world in order to improve that world means that students-- along with their teachers - need to analyze existing situations, synthesize new ideas and evaluate proposed alternatives (Freire, 1970). Certainly, a great deal of higher-order thinking is needed here. For example, if students are studying the water pollution problem mentioned above, they will encounter the kind of tangled thicket of variables that make it so difficult to implement solutions to the mess that humans have made of our planet's environment. Indeed, the use of global issues in education, such as environment, peace, human rights and development, represents a venue in which thinking skills very much need to be in attendance (Cates, 1990)

**Connections to the larger paradigm shift.** The concept of thinking skills flows from the current paradigm in a few senses. First, thinking is a process and the emphasis lies in the quality of that process rather than solely on the quality of the product resulting from that process. Additionally, many valid routes may exist toward thinking about a particular situation. Another connection between thinking skills and the current paradigm is the attempt to connect the school with the world beyond. This attempt promotes the idea that learning is not a collection of lower-order facts to be remembered and then regurgitated on exams, but that we learn in school in order to apply our knowledge toward making a better world.

**Second language classroom implications.** Many attempts are being made to integrate thinking across the curriculum and a large amount of materials exists for doing so (Halpern, 1997). Also, stand-alone materials for teaching higher-order thinking are being utilized. Group activities provide a useful venue for second language students to gain and utilize thinking skills, as they need to teach peers, to provide each other with constructive criticism, to challenge each other's views and to formulate plans for their group (Ayaduray & Jacobs, 1997).

One aspect of implementing thinking skills in second language education involves a move away from sole reliance on forms of assessment involving lower-order thinking alone. Now, more assessment instruments require the use of higher-order thinking, with questions that have more than one possible correct answer. Also, projects and other complex tasks are being used for assessment purposes. These alternative assessment instruments are the focus of next change to be discussed.


## Alternative Assessment

**What it is.** New assessment instruments are being developed to compliment or replace traditional instruments that use multiple choice, true-false and fill-in-the-blank items (Goodman, Goodman, & Hood, 1989). Further, attempts are being made to develop assessment instruments that mirror real-life conditions and involve thinking skills. These alternative assessment instruments are often more time-consuming and costly, as well as less reliable in terms of consistency of scoring. Nevertheless, they are gaining prominence due to dissatisfaction with traditional modes of assessment, which are faulted for not capturing vital information about students' competence in their second language.

**Connections to the larger paradigm shift.** The new paradigm informs this change in several ways. First, an emphasis on meaning rather than form underlies many of the new assessment instruments. Second, many alternative assessment methods, such as think aloud protocols, seek to investigate process. Third, the understanding of the social nature of learning has led to the inclusion of peer assessment and to the use of group tasks in assessment.

**Second language classroom implications.** Alternative assessment has developed on many different fronts in second language education. One of these involves the teaching of writing. In the process approach to writing, students go through multiple drafts as they develop a piece of writing (Raimes, 1992). Rather than only evaluating the final draft, teachers now look at earlier drafts as well to gain a better understanding of the process students went through as they worked toward their final draft.

Portfolios offer a complimentary means of looking at students' writing processes (Fusco, Quinn, & Hauck, 1994). With portfolio assessment, students keep the writing they have done over the course of a term or more, including early drafts. Then, they analyze their writing to understand the progress they have made. Next, they select from among their pieces of writing to compile a collection that demonstrates the path of their writing journey and prepare an introduction to the portfolio in which they present their findings.

As mentioned earlier, another alternative form of assessment in second language education involves peer assessment (Cheng & Warren, 1996). This form of assessment is intended to enhance, not replace, self- and teacher assessment. Peer feedback is now common in writing classes. By critiquing the writing of fellow students, learners better understand and internalize criteria for successful writing.

## Teachers as Co-Learners

**What it is.** The concept of teachers as co-learners involves teachers learning along with students. This relates to what was mentioned in a previous section about asking questions that have more than one good answer and doing complex real-world tasks. Because the world is complex and constantly changing, lifelong learning is necessary. Teachers must take part in this never-ending quest and, indeed, model this process for their students. Teachers learn more about their subject areas as they teach, as well as learning about how to teach (Bailey & Nunan, 1996; Freeman & Richards, 1996).

**Connections to the larger paradigm shift.** Under the "old" paradigm, teachers are workers who need to be supervised by "experts," usually from the university and relevant government agencies, in order to make sure that goals are being met and students are performing according to prescribed schemes. Teaching is seen as a skill that can be learned in discrete items from lesson planning to how to ask questions. When these skills have been learned, the teacher is qualified to teach. In second language teacher education this approach is seen as "training" (Freeman, 1989). However, the current paradigm sees teaching and learning as social processes where the students are active co-constructors of knowledge with their teachers. The teacher is more of a facilitator and fellow learner alongside the students.

In the previous paradigm, second language teachers' opinions and experiences were more often than not excluded. Instead, the "experts" in the universities did the research and administrators did the assessment. Their pronouncements were then handed down to practitioners. In the current paradigm, the notions of qualitative, ethnographic research by and with teachers and self and peer assessment of teachers has unfolded (Fanselow, 1988).

**Second language classroom implications.** Second language teachers as fellow participants in learning takes many forms. For instance, when students are doing extensive reading, teachers do not patrol the classroom or use the time to catch up on paperwork. Instead, they do their own reading and share with students what ideas and feeling this reading sparked. Similarly, when students are writing, teachers can write in the same genre and then give feedback to and receive feedback from students.

Along with empirical formats and objective findings, more field-based methods of teacher research and assessment have been put forward. Second language teachers as researchers employ methods such as conversations, interviews, case studies and these are written in narrative form (Gebhard & Oprandy, 1999). Assessment of second language teachers goes beyond what the teacher is doing and investigates what teachers are thinking from the teachers' perspective (Farrell, 1999).

## Paradigm Shift: Fusion

Figure 1 attempts to make the point that the eight changes discussed in this article are related to one another. Does the figure overstate the case by showing lines connecting each change to every other one? Perhaps, but please consider one change and its connections with the other seven. Cooperative learning (CL) connects with learner autonomy because group activities help second language students become less dependent on teachers. Curriculum integration is facilitated by CL because second language students can pool their energies and knowledge to take on cross-curricular projects. CL fits with an emphasis on meaning, as groups provide an excellent forum for students to engage in meaningful communication in their second language. Diversity is highlighted in CL when students form heterogeneous groups and use collaborative skills to bring out and value the ideas and experiences of all the group members.

Thinking skills are needed in groups as second language students attempt to explain concepts and procedures to their groupmates, as groupmates give each other feedback and as they debate the proper course of action. Alternative assessment is fostered in several ways by the use of CL. For instance, CL provides scope for peer assessment and an emphasis on the development of collaborative skills calls for different methods to assess these skills. CL encourages teachers to be co-learners for at least two reasons. First, teachers often work with colleagues to learn more about education, e.g., by conducting research and otherwise discussing their classes. By collaborating with fellow teachers, teachers model collaboration for their students and convince themselves of its benefits. Second, because CL means less teacher talk, it allows teachers to get off the stage some of the time and spend more time facilitating student learning. One of the techniques for facilitating is to take part along with students, thus encouraging teachers to learn more.

## Has the Shift Actually Taken Place?

Have the eight changes and the overall paradigm shift from which they flow become prominent in second language classrooms? We think that the effects of the paradigm shift are still only being felt partly. Indeed, there seems to be a great deal of variation between countries, institutions within the same country and even classrooms within the same institution. Thus, in second language education, contrary to what Kuhn put forth about rapid, revolutionary, far-reaching paradigm shifts in the physical sciences, the paradigm shift seems to be gradual, evolutionary and piecemeal.

Why is this the case? Several reasons suggest themselves. One reason may be that changing beliefs and behaviors takes time in education and elsewhere (Fullan, Bennett, & Rolheiser-Bennett, 1990). Lack of change may also be a result of the difficulty of translating theory into practical application. That is, new ideas need a great deal of work by practicing teachers to translate into their everyday teaching routines.

Another possible explanation for the lack of implementation of this paradigm shift stems from the fact that it has often been presented in a piecemeal fashion, rather than as a whole. The point of this article has been to argue that many of the changes we hear about in education in general and second language education in particular are all part of one overall paradigm shift. This holistic perspective has two implications. First, these are not unrelated changes to be grasped one

by one. Attempting to learn about these changes in such an isolating fashion impedes understanding because it flies in the face of the interconnections that exist and it violates a fundamental concept of human cognition--we learn best by perceiving patterns and forming chunks. Second, when we attempt to implement these changes, if we do so in a piecemeal fashion, selecting changes as if they were items on an a la carte menu, we lessen the chances of success. These innovations fit together, like the pieces in a pattern cut to make a jigsaw puzzle. Each piece supports the others.

## Conclusion

In this article, we have urged our fellow second language educators to take a big picture approach to the changes in our profession. We have argued that many of these changes stem from an underlying paradigm shift. By examining this shift and looking for connections between various changes in our field, these changes can be better understood.

Most importantly, by attempting to implement change in a holistic way, the chances of success greatly increase. This point has been made countless times in works on systems theory by Senge (2000) and others. However, it is much easier to state in theory than to implement in practice. Perhaps the best-known and most painful example of the failure to implement holistic change in second language education is that in many cases while teaching methodology has become more communicative, testing remains with the traditional paradigm, consisting of discrete items, lower-order thinking and a focus on form rather than meaning (Brown, 1994). This creates a backwash effect that tends to pull teaching back toward the traditional paradigm, even when teachers and others are striving to go toward the new paradigm.

Yes, implementing change is difficult. Perhaps this is where the eighth change we discussed, teachers as co-learners, plays the crucial role. Many people are drawn to work in second language education because they enjoy learning and want to share this joy with others. All the changes that have taken place in our field challenge us to continue learning about our profession and to share what we learn with others, including our colleagues, so that we can continue to help our field develop.

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