



Issues in Language Learning Strategy Research and Teaching

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Abstract

Learning strategies are the thoughts and actions that individuals use to accomplish a learning goal. Extensive research has identified the learning strategies used by students of a variety of second and foreign languages and a somewhat smaller body of research has documented the effectiveness of helping less successful language students improve their performance through learning strategy instruction. This article discusses current issues in language learning strategy research that affect teachers and learners of foreign languages. These issues include: identification procedures of learning strategies, terminology and classification of strategies, the effects of learner characteristics on strategy use, the effects of culture and context on strategy use, explicit and integrated strategy instruction, language of instruction, transfer of strategies to new tasks, and models for language learning strategy instruction. These eight issues are explored through a discussion of existing research that illumines the issues. Suggestions are presented for future research on issues that have not yet been thoroughly explored.

1 Introduction

Learning strategies are the conscious thoughts and actions that learners take in order to achieve a learning goal. Strategic learners have metacognitive knowledge about their own thinking and learning approaches, a good understanding of what a task entails, and the ability to orchestrate the strategies that best meet both the task demands and their own learning strengths.

An area of basic research in second language acquisition is the identification and description of learning strategies used by language learners and the correlation of these strategies with other learner variables such as proficiency level, age, gender, motivation, and the like (Chamot & El-Dinary, 1999; El-Dib, 2004; Green & Oxford, 1995; Oxford & Burry-Stock, 1995). Current research is also investigating the effect of the task itself on the selection and use of learning strategies, including the influence of the target language (Chamot & Keatley, 2004; Oxford, Cho, Leung & Kim, 2004).

Applied research on language learning strategies investigates the feasibility of helping students become more effective language learners by teaching them some of the learning strategies that descriptive studies have identified as characteristic of the “good language learner” (Rubin, 1975; 1981; Stern, 1975).

This paper first examines a number of current issues in language learning strategy research that have emerged from earlier descriptive and intervention research and discusses how these issues affect teachers and learners of second and foreign languages. Finally, suggestions are made for needed future research in discovering how language learning strategies can assist students in becoming more effective second language learners.

2 Issues in language learning strategy research

The preponderance of research on language learning strategies has been descriptive, as researchers have sought to discover what learning strategies are reported by learners of different languages. The issues that arise from this body of research are: identification procedures of learning strategies, terminology and classification of strategies, the effects of learner characteristics on strategy use, and the effects of culture and context on strategy use.

While less extensive, strategy intervention research has also suggested important issues related to instruction such as: explicit and integrated strategy instruction, language of instruction, transfer of strategies to new tasks, and models for language learning strategy instruction.

This paper explores these eight issues by examining existing research that illumines the issues and by suggesting research needed on issues that have not been thoroughly explored.

2.1 Identification of language learning strategies

Language learning strategies are identified through self-report. Although self-report may be inaccurate if the learner does not report truthfully, it is still the only way to identify learners' mental processing. As Grenfell and Harris (1999) have so aptly stated:

[...] it is not easy to get inside the 'black box' of the human brain and find out what is going on there. We work with what we can get, which, despite the limitations, provides food for thought [...]

(p. 54)

Learning strategies are for the most part unobservable, though some may be associated with an observable behavior. For example, a learner could use *selective attention* (unobservable) to focus on the main ideas while listening to a newscast and could then decide to *take notes* (observable) in order to remember the information. In almost all learning contexts, the only way to find out whether students are using learning strategies while engaged in a language task is to ask them. Verbal report data are used to identify language learning strategies because observation does not capture mental processes (Cohen, 1998; O'Malley & Chamot, 1990; Rubin, 1975; Wenden, 1991).

Researchers have asked language learners to describe their learning processes and strategies through retrospective interviews, stimulated recall interviews, questionnaires, written diaries and journals, and think-aloud protocols concurrent with a learning task. Each of these methods has limitations, but each provides important insights into unobservable mental learning strategies.

In retrospective interviews, learners are asked to describe what they were thinking or doing during a recently completed learning task (see O'Malley & Chamot, 1990). The limitation is that students may forget some of the details of their thought processes or may describe what they perceive as the "right" answer. A stimulated recall interview is more likely to accurately reveal students' actual learning strategies during a task because the student is videotaped while performing the task, and the interviewer then plays back the videotape, pausing as necessary, and asking the student to describe his or her thoughts at that specific moment during the learning task (see Robbins, 1996).

The most frequent and efficient method for identifying students' learning strategies is through questionnaires. The limitations are that students may not remember the strategies they have used in the past, may claim to use strategies that in fact they do not use, or may not understand the strategy descriptions in the questionnaire items. For these reasons, some studies have developed questionnaires based on tasks that students have just completed, reasoning that students will be more likely to remember and to report accurately if little time has elapsed (see Chamot & El-Dinary, 1999; Chamot & Küpper, 1989; Ellis & Sinclair, 1989; Fan, 2003; Kojic-Sabo & Lightbown, 1999; National Capital Language Resource Center [NCLRC], 2000a, 2000b; O'Malley & Chamot, 1990; Oxford et al., 2004; Ozeki, 2000; Rubin & Thompson, 1994; Weaver & Cohen, 1997). The limita-

tions of this approach are that, to date, there has been no standardization of either tasks or follow-up questionnaires, so that it is impossible to make comparisons across studies.

The greatest numbers of descriptive studies have utilized a questionnaire developed by Oxford (1990), the *Strategy Inventory for Language Learning (SILL)*. This instrument has been used extensively to collect data on large numbers of mostly foreign language learners (see Cohen, Weaver & Li, 1998; Nyikos & Oxford, 1993; Olivares-Cuhat, 2002; Oxford, 1990; 1996; Oxford & Burry-Stock, 1995; Wharton, 2000). The *SILL* is a standardized measure with versions for students of a variety of languages, and as such can be used to collect and analyze information about large numbers of language learners. It has also been used in studies that correlate strategy use with variables such as learning styles, gender, proficiency level, and culture (Bedell & Oxford, 1996; Bruen, 2001; Green & Oxford, 1995; Nyikos & Oxford, 1993; Oxford & Burry-Stock, 1995; Wharton, 2000). Oxford and her colleagues are currently working on a task-based questionnaire to complement the *SILL* (Oxford et al., 2004).

Diaries and journals have also been used to collect information about language learners' strategies. In these, learners write personal observations about their own learning experiences and the ways in which they have solved or attempted to solve language problems (see, for example, Carson & Longhini, 2002). Student learning strategy diaries have also been used to collect data about pronunciation strategies (Peterson, 2000). As with other verbal reports, learners may not necessarily provide accurate descriptions of their learning strategies. Rubin (2003) suggests using diaries for instructional purposes as a way to help students develop metacognitive awareness of their own learning processes and strategies.

Another research tool is the think-aloud individual interview in which the learner is given a learning task and asked to describe his or her thoughts while working on it. The interviewer may prompt with open-ended questions such as, "What are you thinking right now? Why did you stop and start over?" Recordings of think-aloud interviews are analyzed for evidence of learning strategies. Verbal protocols have been used extensively in reading research in first language contexts, where they have provided insights not only into reading comprehension processes but also into learners' affective and motivational states (Afflerbach, 2000). The rich insights into language-learning strategies provided through think-aloud protocols tend to reveal on-line processing, rather than metacognitive aspects of planning or evaluating (see Chamot & Keatley, 2003; Chamot, Keatley, Barnhardt, El-Dinary, Nagano, & Newman, 1996; Cohen et al., 1998; O'Malley, Chamot & Küpper, 1989).

The instructional applications of the tools that researchers have used to identify language learning strategies are especially valuable for teachers who wish to discover their students' current learning strategies before beginning to teach learning strategies. For example, teachers can ask students to complete a language task, and then lead a classroom discussion about how students completed the task and point out the learning strategies that students mention. Teachers could also develop a questionnaire appropriate for the age and proficiency level of their students and have students complete it immediately after completing a task. For a more global picture of their students' learning strategies in general, teachers might want to use the *SILL*. When strategy instruction is underway and students show evidence that they understand and are using some of the strategies independently, teachers could ask them to keep a diary or journal about their use of strategies in the language class and in other contexts, thus encouraging transfer. Teachers can make their own thinking public by "thinking aloud" as they work on a task familiar to students, commenting on their own learning strategies as they go. All of these approaches can help students develop their own metacognition about themselves as strategic learners.

2.2 Terminology and classification of language learning strategies

Comprehensive classification schemes of learner strategies have been developed to describe the information derived from descriptive studies that seek to chart the subtle permutations and often

imprecise definitions of learners' self-reported strategies. Earlier researchers used their own observations to describe language learning strategies (Rubin, 1975; Stern, 1975), relied on categories derived from research in first language contexts (O'Malley & Chamot, 1990), or developed a comprehensive list of learning strategies derived from many sources (Oxford, 1990). More recently, strategy identification and classification have been data-driven through think-aloud protocol analysis (Chamot & El-Dinary, 1999; Chamot et al., 1996).

Various classification systems have sought to group individual strategies within larger categories. Strategies were first separated into those that directly affect a specific learning task (such as memory strategies for vocabulary) and those that make a more indirect contribution (such as planning and self-management for any type of task), then further divisions were made by various researchers (Chamot, Barnhardt, El-Dinary & Robbins, 1999; Cohen, 1998; O'Malley & Chamot, 1990; Oxford, 1990; Rubin, 1981; Wenden, 1991). Recently Hsiao and Oxford (2002) conducted a comparative study of three classification systems used in the field (O'Malley & Chamot, 1990; Oxford, 1990; Rubin, 1981) and found that the Oxford (1990) system of six basic types of language learning strategies (Metacognitive, Cognitive, Memory, Compensation, Social, and Affective) was superior in accounting for the variety of strategies reported by language learners.

Language learning strategy classification schemes have generally been developed for research purposes. However, in the discussions surrounding the various ways of naming, describing, and classifying language learning strategies, little attention has been paid to students' learning goals or teachers' instructional goals. These goals can be expected to vary by general purpose in learning or teaching a new language, such as the need for survival communication skills, a foreign language requirement in school, academic study in a second language at different educational levels, passing examinations, traveling to a country where the target language is spoken, advanced translation/interpretation, and the like. The context of learning, shaped by the educational/cultural values of the society in which individuals are studying a new language, combined with language learners' goals together determine the types of learning tasks engaged in and thus the types of learning strategies that can be expected to best assist learning. Therefore, it seems that different sets of language learning strategies and hence different or modified classification systems can coexist for researchers. For example, in a language class where students are trying to develop basic interpersonal communication skills (Cummins, 2000) in order to interact with speakers of the target language, many social (or communication), compensatory, and affective learning strategies would be helpful. But if students are preparing for an examination that focuses on vocabulary and grammar, then memorization strategies can work very well and affective strategies for controlling anxiety can be beneficial. And if students are learning a second language in an academic context, a repertoire of cognitive learning strategies (perhaps combined with affective strategies to develop self-efficacy) will be helpful with academic reading, listening, writing, and speaking tasks.

Overseeing the choice and application of learning strategies is the learner's metacognition or understanding of his or her own thinking and learning processes. A metacognitive model has been developed for organizing learning strategy instruction that includes four recursive (rather than sequential) processes: planning, monitoring, problem-solving, and evaluating. In this model, teachers select learning strategies to teach depending on the point in a learning task in which students need the most help. For example, students who do not seem to realize that a learning task is not progressing well can be taught to *monitor* their comprehension, production, or recall so that they can identify difficulties and select *problem-solving* strategies to address the difficulties (Chamot, 1999; Chamot et al., 1999). A variant of this model has the learner's problem-solving goals at the center of a circular model (NCLRC, 2004a). Surrounding these learner goals are the metacognitive strategies of planning, monitoring, managing learning, and evaluating language learning and learning strategy effectiveness. Task-based learning strategies comprise the outer circle of the model and are grouped into four categories: use what you know, use your imagination, use your organizational skills, and use a variety of resources.

The purpose of both of these metacognitive models is to help teachers implement learning strategy instruction. Teacher resource guides developed for elementary immersion classrooms, high school foreign language classrooms, and higher education foreign language classrooms apply this model to classroom instruction (NCLRC, 2004a, 2004b, in press).

In the language classroom it is important that teachers strive to develop students' own meta-cognition, as that will help them select the most appropriate strategies for a given task. Students do not need to learn the names of every strategy that has been identified in the research literature! They need to learn how to use strategies that they find effective for the kinds of tasks they need to accomplish in the L2.

2.3 Learning strategies and learner characteristics

An important part of the descriptive research on language learner strategies has been the linking of self-reported strategy use with learner variables such as gender and level of language proficiency.

In examining differences in strategy use between males and females, some studies have found that females use more strategies than males (Kaylani, 1996; Oxford, Park-Oh, Ito & Sumrall, 1993). Others have found no differences in strategy use between females and males (Vandergrift, 1997). One study found that males used more strategies than females (Wharton, 2000) and another recent study found differences in strategy use between men and women related to the type of strategy rather than an overall difference (El-Dib, 2004). From an instructional perspective, then, we do not know with certainty whether female or male students are most in need of language learning strategies!

However, the relationship between language learning strategies and the student's proficiency level is far clearer. More proficient language learners use a greater variety and often a greater number of learning strategies (Anderson, 2005; Bruen, 2001; Chamot & El-Dinary, 1999; Green & Oxford, 1995; O'Malley & Chamot, 1990; Wharton, 2000). Differences between more and less proficient language learners have been found in the number and range of strategies used, in how the strategies are applied to the task, and in the appropriateness of the strategies for the task. In these studies, students' understanding of the task's requirements and whether they could match a strategy to meet those requirements seemed to be a major determinant of effective use of language learning strategies. Higher levels of language proficiency have also been associated with less anxiety and more confidence, indicating that affective factors in addition to learning strategies can influence performance on a task (Khaldieh, 2000).

The implications for teaching are that language learners need to explore different learning strategies, experimenting and evaluating, and eventually choosing their own set of effective strategies. In addition, all learners can profit from learning how to use metacognitive strategies to plan, monitor, and evaluate themselves throughout their learning efforts.

2.4 Influence of culture and context

As discussed above, the learner's goals, the context of the learning situation, and the cultural values of the learner's society can be expected to have a strong influence on choice and acceptability of language learning strategies. For example, in a culture that prizes individual competition and has organized its educational system around competitive tasks, successful language learners may prefer strategies that allow them to work alone rather than social strategies that call for collaboration with others.

Two *SILL* studies illustrate some of the learning strategy preferences reported by students in different cultural contexts. A study of ethnically Chinese, bilingual Singaporean university students studying a foreign language (French or Japanese) found that students reported a preference for social strategies as well as a disinclination to use affective strategies (Wharton, 2000). Another

study looked at the language learning strategies of students in a university advanced Spanish writing class and compared achievement on a writing sample between those students speaking Spanish as a first or heritage language and those learning Spanish as a foreign language (Olivares-Cuhat, 2002). As could be expected, students with a Spanish language background were graded higher on their writing samples than the other students, but they also showed a greater preference for affective and memory strategies and these latter were highly correlated with writing achievement.

Preliminary findings of a current study of learning strategies used by university students of less commonly taught languages indicate that both heritage speakers of Arabic and students of Arabic as a foreign language share many of the same challenges and consequent learning strategies for learning Modern Standard Arabic (MSA), but also demonstrate differences (Keatley, Chamot, Spokane & Greenstreet, 2004). For instance, heritage speakers reported using metacognitive strategies to overcome interference from their Arabic dialects when they attempted to speak MSA, but, unlike the foreign language students, had no difficulty in discriminating Arabic sounds and hence did not report any learning strategies for listening comprehension.

The implications for teaching are that language teachers need to find out what learning strategies students are already using for the different tasks they undertake in the language classroom. An open discussion of reasons why students use the strategies they identify can help teachers understand cultural and contextual factors that may be influencing their students. This can lead to clarification of the task's demands where there is a mismatch with students' current learning strategies. By understanding the task more clearly, students will likely be more motivated to try new strategies to complete it.

2.5 Explicit and integrated strategy instruction

Research on reading and writing instruction in first language contexts strongly argues for explicit strategy instruction (Graham & Harris, 2000; National Reading Panel, 2000; Pressley, 2000). Explicit learning strategy instruction essentially involves the development of students' awareness of the strategies they use, teacher modeling of strategic thinking, student practice with new strategies, student self-evaluation of the strategies used, and practice in transferring strategies to new tasks (Chamot et al., 1999; Grenfell & Harris, 1999; Harris, 2003; Oxford, 1990). Most researchers in second language contexts agree on the importance of explicitness in strategy instruction (Anderson, in press; Chamot et al., 1999; Cohen, 1998; Nunan, 1997; O'Malley & Chamot, 1990; Oxford & Leaver, 1996; Shen, 2003).

However, there is less agreement on the issue of whether strategies instruction should be integrated into the language curriculum or taught separately. While many argue that integrated instruction provides students with opportunities to practice learning strategies with authentic language learning tasks (Chamot & O'Malley, 1994; Chamot et al., 1999; Cohen, 1998; Grenfell & Harris, 1999; Nunan, 1997; Oxford & Leaver, 1996), others have voiced concerns. For example, strategies learned within a language class are less likely to transfer to other tasks (Gu, 1996), and, from a practical point of view, it is easier to plan for one separate strategy course than to prepare all teachers to teach strategies (Vance, 1999; Weinstein & Mayer, 1986).

Given the current state of knowledge about explicit and integrated learning strategy instruction, teachers should certainly opt for explicit instruction and should probably integrate the instruction into their regular course work, rather than providing a separate learning strategies course. An ideal situation would be one in which all teachers in all subject areas teach learning strategies, as students would then be more likely to transfer strategies learned in one class to another class. This approach is currently being carried out in two school districts in the United States through a process of continuing professional development for all teachers. Both school districts report that student achievement overall, as measured by standardized test scores, has improved significantly (M. Hodge, personal communication, 2004; J. Schreiber, personal communication, 2004).

2.6 *Language of instruction*

Few researchers have addressed the issue of language of instruction in teaching learning strategies to second language learners. This is not an issue in learning strategy research in first language contexts, as the strategies are taught in the students' native language. In second and foreign language contexts, however, this is not the case. Beginning level students do not yet have the L2 proficiency to understand explanations in the target language of why and how to use learning strategies. Learning strategy instruction should not be postponed until intermediate or advanced level courses because beginners also need strategies that can make their language learning more successful and increase their motivation for further study.

Some recent studies of beginning level proficiency second language learners have provided learning strategy instruction in the native language. Cunningham Florez (2000) investigated her adult ESL students' learning strategies in Spanish as a preparation phase for providing language learning strategy instruction. Rybicki (2002) provided learning strategy instruction in English to her beginning level high school Spanish class.

Other studies used a combination of the native and target languages. In a study of strategy instruction by secondary French and German teachers in London, some of the materials were in English (especially those used by students for planning and evaluating their own work), while checklists, descriptions of strategies, and strategy activities were written in the target language, simplified as needed (Grenfell and Harris, 1999). In a study of Japanese college students learning English as a foreign language, questionnaires, journal prompts, and self-evaluation check lists were written in "simple" English, but students could respond in Japanese; actual strategy instruction and review was conducted in English (Ozeki, 2000). A study in the United States of literacy development in secondary Hispanic English language learners with limited educational background and native language literacy also used both the L1 and the L2 for some of the classrooms studied (Chamot & Keatley, 2003). In the classrooms providing native language support in addition to ESL literacy instruction, teachers first taught and had students practice the learning strategies in their native language with Spanish reading and writing tasks, then had them use the same strategies in English for similar tasks during the English portion of the class. Teachers in classrooms in which all instruction was in English encountered difficulties in teaching learning strategies because of the low level of students' English proficiency, and most abandoned the attempt to teach strategies.

From these few studies, it seems clear that the issue of language of instruction in teaching language learning strategies is far from resolved. If all students in a language class speak the same L1 and the teacher also knows that language, initial learning strategy instruction can be in the native language. The drawback is that use of the native language takes time away from exposure to and practice in the target language. Alternatively, teachers have been urged to give the strategy a target language name, explain how to use it in simple language, and repeatedly model the strategy (Chamot et al., 1999). Harris and Grenfell (1999) recommend staying within the target language as much as possible, but acknowledge that for most beginning level classes, getting students started on reflecting on their own learning will probably have to be done through the L1.

2.7 *Transfer of strategies to new tasks*

Early research on learning strategies in first language contexts found that students often were unable to transfer strategies to new tasks and later studies showed that transfer increased significantly when teachers helped students understand their own learning processes and metacognition (Belmont, Butterfield, & Ferretti, 1982). Similarly, language learning strategy researchers have argued for the central role of metacognitive knowledge and metacognitive learning strategies in language learning (Anderson, 2002, in press; Chamot, 2001; Chamot et al., 1999; Grenfell & Har-

ris, 1999; Harris, 2004; O'Malley & Chamot, 1990; Rubin, 2001; Thompson & Rubin, 1996; Vandergrift, 2002; Wenden, 2002).

A call for research on "the transfer of learning strategies from the L1 to the L2 – and from the L2 to additional languages and even back to the L1" (Chamot, 2001, p. 42) has not engendered a flurry of investigations! However, a study is currently underway that is investigating transfer of strategies taught in the L1 to the L2 as well as factors that assist or hinder such transfer (V. Harris, personal communication, 2004). In a preliminary study, semi-structured interviews were conducted with a small group of twelve-year-old students in their second year of foreign language study in schools in London (Harris, 2004). These students had been exposed to learning strategy instruction in their English classes, so they were asked to make judgments on 16 different strategies as to whether each strategy was useful *only* for learning English, *only* for learning the foreign language, for learning any language, or not useful. Differences were found between high attaining and low attaining students in that the high attainers used more metacognitive strategies and were making some transfers of strategies from their English class to their foreign language class, whereas low attainers were less likely to use metacognitive strategies or make transfers from English. This work is continuing on a larger scale during 2004-2005.

2.8 Models for language learning strategy instruction

A number of models for teaching learning strategies in both first and second language contexts have been developed (see, for example, Chamot et al., 1999; Cohen, 1998; Graham & Harris, 2003; Grenfell & Harris, 1999; Harris, 2003; O' Malley & Chamot, 1990; Oxford, 1990; Pressley, El-Dinary, Gaskins, Schuder, Bergman, Almasi & Brown, 1992). These instructional models share many features. All agree on the importance of developing students' metacognitive understanding of the value of learning strategies and suggest that this is facilitated through teacher demonstration and modeling. All emphasize the importance of providing multiple practice opportunities with the strategies so that students can use them autonomously. All suggest that students should evaluate how well a strategy has worked, choose strategies for a task, and actively transfer strategies to new tasks. Table 1 compares three current models for language learning strategy instruction (Chamot, 2005; Chamot et al., 1999; Cohen, 1998; Grenfell & Harris, 1999).

All three models begin by identifying students' current learning strategies through activities such as completing questionnaires, engaging in discussions about familiar tasks, and reflecting on strategies used immediately after performing a task. These models all suggest that the teacher should model the new strategy, thus making the instruction explicit. The CALLA model is recursive rather than linear so that teachers and students always have the option of revisiting prior instructional phases as needed (Chamot, 2005). The Grenfell and Harris (1999) model, on the other hand, has students work through a cycle of six steps, then begin a new cycle. The Cohen (1998) model has the teacher take on a variety of roles in order to help students learn to use learning strategies appropriate to their own learning styles. The Grenfell and Harris model provides initial familiarization with the new strategies, then has students make personal action plans to improve their own learning, whereas the CALLA model builds in a self-evaluation phase for students to reflect on their use of strategies before going on to transfer the strategies to new tasks.

In summary, current models of language learning strategy instruction are solidly based on developing students' knowledge about their own thinking and strategic processes and encouraging them to adopt strategies that will improve their language learning and proficiency.

SSBI* Model (Cohen, 1998)	CALLA** Model (Chamot, 2005; Chamot et al., 1999)	Grenfell & Harris (1999)
Teacher as diagnostician: Helps students identify current strategies and learning styles.	Preparation: Teacher identifies students' current learning strategies for familiar tasks.	Awareness raising: Students complete a task, and then identify the strategies they used.
Teacher as language learner: Shares own learning experiences and thinking processes.	Presentation: Teacher models, names, explains new strategy; asks students if and how they have used it.	Modeling: Teacher models, discusses value of new strategy, makes checklist of strategies for later use.
Teacher as learner trainer: Trains students how to use learning strategies.	Practice: Students practice new strategy; in subsequent strategy practice, teacher fades reminders to encourage independent strategy use.	General practice: Students practice new strategies with different tasks.
Teacher as coordinator: Supervises students' study plans and monitors difficulties.	Self-evaluation: Students evaluate their own strategy use immediately after practice.	Action planning: Students set goals and choose strategies to attain those goals.
Teacher as coach: Provides ongoing guidance on students' progress.	Expansion: Students transfer strategies to new tasks, combine strategies into clusters, develop repertoire of preferred strategies.	Focused practice: Students carry out action plan using selected strategies; teacher fades prompts so that students use strategies automatically.
	Assessment: Teacher assesses students' use of strategies and impact on performance.	Evaluation: Teacher and students evaluate success of action plan; set new goals; cycle begins again.

* Styles and Strategies-Based Instruction

** Cognitive Academic Language Learning Approach

Table 1: Models for Language Learning Strategy Instruction

Adapted from Harris (2003)

3 Conclusion

This paper has examined eight issues related to language learning strategies research and instruction: identification of language learning strategies, terminology and classification of language learning strategies, learning strategies and learner characteristics, influence of culture and context, explicit and integrated strategy instruction, language of instruction, transfer of strategies to new tasks, and models for language learning strategy instruction.

The first issue involved research methodology for identifying the learning strategies language learners use on their own and also the strategies they use (or fail to use) after instruction. Various types of self-report approaches were described and critiqued. Since any type of self-report is subject to the limitations of the individual reporting, it would seem advisable to use two or three different types in any research study so that triangulation can help establish validity and reliability. For example, a combination of focus group interviews, questionnaires, and think-alouds could provide both general information about a specific group of students and in-depth analyses of individual learners' on-line processing.

The second issue addressed the naming and classification of language learning strategies. Most learning strategy classification systems have been developed for research purposes. Names and classification of learning strategies for instructional purposes should probably be organized so that they are easy to understand and teach. Indeed, teachers should have some latitude in renaming strategies so that they are more comprehensible to their students; many teachers assign target lan-

guage names to the learning strategies they teach (for lists of learning strategies in ten different languages, see www.nclrc.org). However, it is obviously desirable to have some consistency between the various language learning strategy classification systems, for otherwise both researchers and teachers can become confused by competing systems. One approach would be to simplify classification into metacognitive strategies (included in all classification systems) and strategies based on the learning task. These task-based strategies would vary depending on student and instructional goals.

The third issue discussed was the relationship between learning strategies and the learner characteristics of gender and level of language proficiency. The influence of gender on learning strategy use is inconclusive, whereas research on differential strategy use determined by proficiency level is far clearer. Refining our understanding of language learning strategies most helpful to students at different levels of proficiency seems a more useful line in applied research than focusing on gender, as most teachers have both female and male students in their classes and must therefore address language learning strategy instruction to both genders.

The influence of culture and context on language learning strategies was examined next. It was argued that the demands of the task, which are determined by the culture and context, essentially prescribe which learning strategies will be most effective. This assertion needs to be examined empirically, but, in the short term, language teachers should help their students use the learning strategies that will best accomplish their instructional goals.

The fifth issue focused on language learning strategy instruction and curriculum. Researchers agree that strategy instruction should be explicit, that is, that the teacher should inform students about the value and applications of the strategies. On the curricular side, some researchers believe that language learning strategies should be taught as a separate course (or part of a course), while most recommend that strategies instruction should be integrated into the regular language course. Comparative research on these two areas is lacking in second language acquisition.

The next issue addressed was language of instruction. Little research exists to support teaching language learning strategies in the native language, the target language, or a combination of the two. In general, studies of beginning level language learners have reported using the L1 to explain and discuss learning strategies, whereas teachers of intermediate proficiency level students have been more successful in teaching learning strategies in the target language.

The seventh issue discussed looked at transfer of strategies to new tasks. Research in first language contexts has shown that strategy transfer is often difficult, but that explicit instruction and the development of metacognitive awareness promote strategy transfer. There is limited research on transfer of strategies in second language acquisition, but new work in this area promises to provide insights that can help teachers teach for transfer (see Harris, 2004).

Finally, recent instructional models for teaching language learning strategies were compared and found to have many features in common. Research on language learning strategy instruction needs to build on the relatively few studies in this area and determine, if possible, the model and type of instruction that is most effective in helping language learners improve their proficiency and achievement.

In conclusion, this paper has examined a number of issues in language learning strategies research and practice that are important in helping students become more successful language learners. While we have learned much about the usefulness of including language learning strategy instruction in second and foreign language education, much still remains to be investigated.

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