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Strategies and Self-Regulation in Self-Access Learning

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Edited by Heath Rose

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Editorial

Heath Rose, Trinity College, The University of Dublin, Ireland

Learner Strategies, Self-Regulation, and Self-Access Learning

Welcome to the special issue of SiSAL Journal on strategies and self-regulation in self-access learning. Learner strategy and self-regulation theory have been in a state of flux in recent years, and I believe it is an exciting time to share new ideas, conceptualizations and models of research in order to move the field forward. Therefore, I was eager to pursue a special issue where emerging voices in these fields could be heard, and these new ideas could be shared. In addition, I was also impressed by the number of learner strategy-related papers presented at this year's Independent Learning Association conference in Wellington, New Zealand. The representation of strategic learning in the ILA conference is indicative of a growing trend in the field to move towards a self-access and learner autonomy perspective. I, for one, feel the potential to share knowledge between these fields is immense.

For this reason, I chose SiSAL Journal for the special issue, in order to bring these fields, which have already been gravitating together, closer in a more concrete and published format. SiSAL Journal was a natural choice for me, because I have always been impressed with the level of professionalism and speed at which the editorial board work. Rather than having to wait years to assemble this special edition, we were able to complete this project within the year, for which I am grateful to the editorial team, the reviewers and the authors. Moreover, the nature of SiSAL as an open access journal ensures that emerging new voices can be widely heard, as opposed to having their voices restricted by library catalogue subscriptions and the limited access afforded by print journals.

In total, nine articles have been selected for the special issue after a rigorous blind review process. The nine articles provide a cross-section of strategic learning and self-access practices around the globe. The special issue includes researchers (or research) based in eight countries on four continents, including Saudi Arabia, Malaysia, Japan, Mexico, the USA, New Zealand, Ireland, and Greece. The articles also examine a wide range of learning contexts, such as learners of Chinese and Arabic as an L2, to learners of English as an L2 in countries as diverse as Japan and

Saudi Arabia. Furthermore, a number of papers examine self-access learning and self-access learning center practices on a global scale, with contributions from the USA, Malaysia, Mexico, and Greece.

The focus of the papers is equally diverse, with a nice division of theory-driven, research-driven, and practice-driven papers. The theory driven papers, which I have featured in this special issue offer conceptualizations of learner strategies, self-regulation and self-access learning in each of their respective fields. The research-driven papers advance our knowledge of their respective fields, and also serve as models to future researchers hoping to conduct similar studies. The practice-driven papers should be of interest to self-access learning practitioners, managers and researchers—a large cohort of SiSAL journal readership.

Featured Articles

I have decided to feature three articles in this special issue, as I truly believe the theoretical implications they have for the field are immense. The first article is one on learner strategies by **Yongqi (Peter) Gu** of Victoria University of Wellington. This article strips learner strategies back to their core features, and explores the concept of learner strategies beyond the theoretical confines of language learning. Many of us in the field, including myself, have been guilty of looking at the notion of learner strategies through the narrow lens of language learning alone. We often neglect the wealth of research conducted into the learner strategies used by students when engaged in other types of study. I know that this article has been long-awaited by big names in the field of language learner strategies, so I am delighted that the author has chosen this special issue to publish his work, and I am equally delighted to showcase it as the leading featured article.

The second featured article is by **Jim Ranalli,** from Iowa State University on self-regulation. I have decided to feature the article because of its implications on theory building in the field. Like Gu's article, this article also positions self-regulation theory in a broader context for the reader. Since Dörnyei (2005), and Tseng, Dörnyei's and Schmitt's (2006) controversial critiques, the field of language learner strategies has been in a tailspin, and authors in our field (myself included) give the misleading impression in our publications, that Dörnyei's proposed model of self-regulation is the only one in existence. Jim Ranalli reminds us that self-regulation

theory has a long history of research in the field of psychology and that there are numerous established models of self-regulation that we can apply to the field of language learning. He uses a selection of data from his doctoral studies to highlight the applications of one such model to language learning research.

The third featured article is by **Carol J. Everhard,** formally of Aristotle University of Thessaloniki. I have decided to feature this article, because like Yongqi Gu's article, she takes a stripped back examination of the concept of self-access learning. One of the intentions of the special issue was to invite stronger connections between research into strategic learning and self-regulation, and research into learner autonomy and self-access language learning. Indeed, much research in these fields examines the same notion—that is, how a learner strategically learns a language and self-regulates this learning often in independent settings. For this reason, I was pleased that the author chose this special edition on strategies and self-regulation to publish her piece on self-access learning and thus create stronger ties within these fields. I hope its inclusion will allow cross-fertilization of ideas and concepts in self-access to the readership of this special issue, which will also include learner strategy and self-regulation researchers.

Therefore, due to the high level of theory-driven articles in this special issue, I am able to feature three strong theoretical articles on learner strategies (Gu), self-regulation (Ranalli), and self-access learning (Everhard), which I feel cover all of the key areas I hoped to be covered in the special edition.

Full Research Articles

In addition to the featured theory-driven papers, we have six full research papers that show how a range of theory in the fields of learner strategy, self-regulation and self-access learning can be applied to research projects. We have three full research papers in the area of strategic learning and self-regulation, followed by four others with more of a focus on self-access and learner autonomy practices.

Alex Poole from Western Kentucky University adds an insightful article on reading strategies of learners of Chinese as a second language to his already impressive list of publications in the field. This paper in particular resonates with me as I feel past research into second language acquisition is biased towards learning

English as a second language. The processes involved in learning to read in languages other than English are fundamentally different, and therefore warrant greater attention. Now that China has become the world's second largest economy, and its importance in the world seems to be only increasing, research into L2 learning of Chinese will only become increasingly more relevant in the future.

Mohammad Alnufaie and **Michael Grenfell** from Trinity College Dublin, present a research project that examines learner strategies in the writing practices of English learners in Saudi Arabia. Michael Grenfell has been influential in the field of learner strategies for over ten years, and this exciting contribution with researcher Mohammad Alnufaie adds to this history of publications in the field. Grenfell's work, particularly his co-authored chapter with Macaro (Grenfell & Macaro, 2007) on the claims and critiques of learner strategies in Macaro and Cohen's co-edited book influenced me considerably when writing on the topic. Alnufaie and Grenfell's paper in this issue acknowledges the contributions of previous conceptualizations of leaning strategies as well as catering to more recent critiques when constructing its research design. It, therefore, serves as an example of how to carry out a relevant and current study, without disregarding contributions to the field over the past 30 years.

Atushi Mizumoto from Kansai University presents a paper of vocabulary learning strategies by L2 learners of English in a Japanese university. I believe a great strength of Mizumoto's work is his ability to use both quantitative statistics and qualitative approaches when examining self-regulation and strategic learning. In this latest article he introduces text mining of students' qualitative responses as an analytical tool to produce quantifiable results. Thus, this research article not only broadens our understanding of strategies used in vocabulary acquisition, but also of research methods available to researchers conducting similar studies in the future.

Erin O'Reilly of the Defense Language Institute Foreign Language Center in the USA examines language-counseling reports of students learning Arabic in the USA. The author uses Oxford's S2R as the framework of her study, and it is one of the first published research articles I know of to apply this model, which was outlined in Oxford's 2011 book, *Teaching and Researching Language Learning Strategies*. I think this article serves as a bridge between learning strategy theory and studies in self-access learning, which was one of the rationales behind this special issue. This paper marks an ideological shift in this special issue from the previous papers where

the focus is on strategic learning of the learner, to the following papers, where the focus is on self-regulatory and self-access practices of the learner.

Normah Ismail and **Masdinah Alauyah Md Yusof** from the Universiti Teknologi MARA Johor Bahru, and the Universiti Teknologi Malaysia offer a paper on research into self-access learning practices in Malaysia. This paper focuses on the use of language learning contracts as a means to foster learner autonomy. The researchers use data from an impressive range of sources, which only scratches the surface of the amount of data they must have collected in this project. I look forward to reading more on the findings of this research project in the future.

Finally, **María del Rocío Domínguez-Gaona**, **Guadalupe López-Bonilla** and **Karen Englander** from Universidad Autónoma de Baja California examine the notion of self-access learning through the framework of New Literacy Studies. The concepts behind New Literacy Studies were new to me, so I found the paper an extremely interesting read, in their examination of self-access learning as a social practice. The study was very thought provoking for me as a reader unfamiliar with this analytical framework.

Acknowledgements

I would first like to thank the dedicated team of reviewers, editors and advisors at the SiSAL Journal for working with me to put together this special issue. I would particularly like to acknowledge Conttia Lai of The University of Toronto, Gene Thompson of Rikkyo University and Jim McKinley of Sophia University for reviewing articles in this special issue in addition to the regular team of reviewers at SiSAL Journal. Because the topic of the special issue fell outside the traditional parameters of the journal, I also requested that some of the contributors review similar submissions to the journal in order to share their expert opinions. Thus, I would also like to acknowledge Atsushi Mizumoto, Alex Poole, and Mohammad Alnufaie who not only submitted valuable contributions to the issue, but also made the time to blind review other submissions for me. Finally, I would like to thank SiSAL Journal editor Jo Mynard for her support of this special issue. Although some of the articles fall outside of the usual boundaries of self-access learning research. Jo Mynard has been supportive of my intentions to bring the fields of learner strategies/self-regulation and self-access learning closer together in this special issue.

Conclusion

Cohen (2007) notes that among researchers in the field of language learner strategies, the terms self-regulation and learner autonomy are often used synonymously. Despite this clear connection between the fields, there has been little sharing of knowledge between them—that is, authors of self-access learning and learner autonomy very rarely write on strategic learning or self-regulation. Likewise, researchers of self-regulation and learner strategies in second language learning, rarely incorporate self-access and learner autonomy into their theoretical frameworks. Researchers such as Stella Hurd and Tim Lewis have aimed to bridge this divide. In their 2008 edited book titled *Language Learning Strategies in Independent Settings*, I was delighted to see names like Phil Benson co-authoring chapters with Xuesong Gao, and alongside names such as Oxford and Cohen. However, very little cross fertilization of ideas, concepts, practices and research findings has happened since this book was published. The potential for further collaboration between these fields is immense, and research that builds on theory developed across disciplines can only deepen our understanding of how learners regulate their learning of language, both strategically, and in a self-directed, autonomous way.

I finished my article in the June, 2012 issue of SiSAL Journal stating that I believed it was an exciting time to conduct research into strategic learning, and based on the caliber of articles we received for this special issue, I stand by this conviction.

Notes on the contributor

Heath Rose is an Assistant Professor of Applied Linguistics at Trinity College, The University of Dublin. He holds a Ph.D. and M.Ed. from The University of Sydney. His doctoral and masters' research focused on language learner strategies and self-regulation. This year he has published on strategic learning in Applied Linguistics and SiSAL Journal, and has a forthcoming article on self-regulation in Foreign Language Annals (Rose & Harbon, 2013). More recently his research interests have expanded into the field of Global Englishes. He is currently in the process of co-authoring a book with Nicola Galloway of the University of Edinburgh titled *Introducing Global Englishes*, which will be published by Routledge in 2014.

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Learning Strategies: Prototypical Core and Dimensions of Variation

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Abstract

This paper explores the concept of learning strategies through a prototype perspective. It is argued that "learning strategy" is not a clearly definable concept, because strategies differ from each other in terms of "family resemblance" or "graded degrees of membership". The prototypical core of a strategy is a dynamic process with problem-solving as its central aim. It involves selective attention, analysis of task, choice of decisions, execution of plan, monitoring of progress and/or modification of plan, and evaluation of result. A strategy varies in terms of prototypicality along the following dimensions: 1) intentionality, 2) self-initiation, 3) metacognitive regulation, 4) sequentiality of activities, 5) chunking of activities, and 6) automaticity in strategy execution. In addition, a "learner-task-context-strategy" framework is presented to provide the "learning" dimensions of learning strategies. It is hoped that the perspectives presented in this article will alleviate the discomfort about conceptual fuzziness and open up a new agenda on language learning strategy research.

Keywords: learning strategies; prototype perspective

Note from the author

An earlier version of this paper was presented at the International Project on Language Learner Strategies (IPOLLS) Seminar held at Oxford University in June 2004. It was subsequently published as Working Paper No. 10 in April 2005 at the AIS St Helens Centre for Research in International Education, Auckland, New Zealand. The author would like to thank Charles Alderson, Andrew Cohen, Joan Rubin, Anna Chamot, Ernesto Macaro, Carol Griffiths, Rebecca Oxford, and Guangwei Hu for their helpful comments at various stages.

Despite recent efforts by leading experts in the field (e.g., Cohen, 2011; Oxford, 2011), research interest in language learning strategies is at an all-time low. Part of this decline in interest came from the repeated and yet unsuccessful attempts at clarifying the concept of "learning strategies", so much so that some scholars have called for the concept to be abandoned and replaced with "self-regulation" (e.g., Dörnyei, 2005). I contend that this is not a healthy sign, because the definition quibble is going beyond the advancement of knowledge in delineating conceptual boundaries, and because teachers and learners on the ground are not getting the practical guidance needed from the experts.

A few scholars have argued against the proposed solution (e.g., Gao, 2007; Rose, 2012), reasoning that conceptual fuzziness should not be a problem serious enough to overthrow forty years of research on language learning strategies. The argument is clear and straightforward: if not being able to agree on the definition of a Planet until 2006 does not in any way discredit the scientific nature of astronomy, or necessitate the removal of the concept of "planet" altogether, why should we throw away a whole line of research on language learning strategies? In fact, the proposed alternative term "self-regulation" or even a more general and key term "learning" fall into the same fuzziness trap (For more details, see *Educational Psychology Review* 2008 special issue on metacognition and self-regulation; and *Educational Psychologist* 2009 special issue on learning). This indicates to me that the find-another-term solution is not viable.

In this article, I will contend further that conceptual fuzziness is not a problem at all. I will try to anchor the concept of learning strategies through a prototype perspective. In so doing, I will deliberately draw on the long tradition of learning strategies research in general, although my intended audience is primarily researchers and teachers in the language learning field. It will be argued that learning strategy is a prototypical rather than categorical concept, and finding a prototypical core and mapping out dimensions of variation would be a practical solution. Seeing learning strategies from this perspective will hopefully open up a new agenda for learning strategy research.

Learning Strategy: A Fluid Concept

The family of learning strategies is a large one. When theorists and researchers from various disciplines talk about learning strategies, they do not usually refer to the same concept. Weinstein and Mayer's (1986) conception of learning strategies, for example, bears little resemblance to that of Entwistle (1977) and Pask (1976, 1988). Even within similar conceptions, there may be disputes about what constitutes a typical strategy (see, Rothkopf, 1988). On the other hand, people do not always use the same terminology to refer to the same concept, resulting in overlapping conceptions with hazy boundaries. For instance, "cognitive skills" (Colley & Beech, 1989), "cognitive strategies" (Gagne, 1985; Kirby, 1984; Pressley & Levin, 1983a, 1983b), "study skills" (T. H. Anderson, 1979; Rothkopf, 1988), "learning to learn" (Bransford, Stein, Shelton,

& Owings, 1981), "metacognitive strategies" (Garner, 1988), "executive control processes" (Gagne, 1985), "self-regulation" (Zimmerman, 1990), as well as "learning strategies" (O'Neil, 1978; O'Neil & Spielberger, 1979; Weinstein, Goetz, & Alexander, 1988), to name only a few, can hardly be separated as distinctive concepts.

In solving the definition problem, O'Neil (1978) adopted an all-inclusive stance and defined learning strategies as "intellectual and affective skills" (p. xi) that constitute "a necessary condition for more efficient learning". He preferred the term "learning strategies" "because the term implies a broad general approach that includes affective and motor techniques as well as cognitive strategies" (O'Neil & Spielberger, 1979, p. xi). Kail and Bisanz (1982) expressed their dissatisfaction in an eloquent way, saying "disagreement over the exact definition of strategy may be a healthy sign, for it indicates that psychologists have learned enough about human cognition to make distinctions that were formerly unnecessary" (p. 230).

In search of a definition pattern, a number of definitions from some prominent theorists and researchers in educational psychology are collected and presented in Table 1. The original wording in these definitions is kept as closely as possible, but broken down into two columns.

Table 1. Defining Learning Strategies

Authors	What are LS?	What are LS for?
Brown, Bransford, Ferrara, and Campione (1983)	systematic application of deliberate plans, routines, or activities	to enhance learning
Derry and Murphy (1986)	a collection of mental tactics employed by an individual in a particular learning situation	to facilitate acquisition of knowledge or skill
Kirby (1988)	the means of selecting, combining, redesigning cognitive routines	for performing specified tasks
Mayer (1988)	behaviors of a learner that are intended	to influence how the learner processes information

Nisbet and Shucksmith (1986)	integrated sequences of procedures, the appropriate selection and flexible adaptation of which is	to meet the needs of a specific learning situation
Rigney (1978)	general operations or procedures	to aid the acquisition retention & retrieval of knowledge and performance
Schmeck (1988a)	a sequence of procedures	for accomplishing learning
Wade, Trathen and Schraw (1990)	a configuration of different tactics, deliberately selected and carefully monitored	for a particular purpose for effectiveness
Weinstein and Mayer (1986)	behaviors and thoughts that a learner engages in during learning and that are intended	to influence the learner's encoding process

Table 1 reveals that most scholars define learning strategies as, roughly, something used by students to accomplish learning. This over-simplification, of course, provides no help whatsoever either for research or for practical training purposes. On the other side of the coin, however, we do see from Table 1 that most scholars agree that the term "learning strategies" or "cognitive strategies" does encompass a definition of "strategies" and that of "learning", i.e., what strategies are for.

In further describing the concept of strategies, different researchers have proposed different categories. Table 2 provides a summary of some of these schemes expressed in terms of dichotomies:

Table 2. Dichotomies of Strategies

Authors	Dichotomies of Strategies	
Kirby (1984)	macro	micro
Perkins (1985)	general	specific
Nisbet & Shucksmith (1986)	strategies	skills
Snowman (1986)	strategies	tactics
Bellezza (1983)	strategies	techniques
Sternberg (1985)	executive	non-executive
Naus & Ornstein (1983)	strategies	processes
Dansereau (1978)	support	primary
Weinstein & Mayer (1986)	domain-general	domain-specific
Gilhooly & Green (1989)	domain-independent	domain-dependent
Rigney (1978)	detached	embedded

It should be noted that Table 2 by no means lists exclusively strategy descriptions in the psychology literature; it simply tries to capture similar descriptive patterns of fuzzy categories. Concepts in each column overlap but are not identical to each other. Similarly, the relationship between each dichotomy may not be the same as that between another pair in the table.

A distinction most often made, as is seen in the first five pairs in Table 2, is along the lines of scope or generality. Some strategies appear to be more general than others; the less general ones are usually referred to as "skills", "tactics", or "techniques". In other words, only the general ones, according to these authors, can reach the strategy level (cf. Stern, 1975 in the SLA literature). The next three pairs of dichotomies focus on what strategies are for. The three terms on the left are for the management of learning. They refer more or less to the metacognitive strategies that we now know. The three terms on the right, on the other hand, refer either to strategies that aim to help with the execution of the primary cognitive processes such as encoding and retrieval ("non-executive", or "primary"), or to these cognitive processes as such ("processes). These distinctions are along functional lines and are very difficult to operationalize (Naus & Ornstein, 1983). "Distance from the task" (Biggs, 1984) is the criterion for the last three pairs in Table 2. These distinctions echo what some researchers in SLA have been positing, e.g., Vann and Abraham's (1990) differentiation of person-dependent vs. task-dependent strategies. It is believed that the domain-dependent or embedded strategies are nearer to tasks and thus the most teachable (Biggs, 1984). The detached strategies, on the other hand, are believed to be "more appropriate for bright students, who probably would be more able to direct themselves" (Rigney, 1978, p. 175).

Putting learning strategies in the light of these bipolar dichotomies has considerably enlightened our understanding of the general term "strategies", it has not, however, cleared up the mess, not to mention serving as the guiding hand for research and training (Chipman & Segal, 1985). The perennial argument about the generality of strategies, for example, does not seem at all productive, and some researchers even ended up pondering over the very existence of general strategies (Chipman & Segal, 1985) or at least questioning the significance of teaching general strategies, especially to experts, as

opposed to novices (Perkins, 1985). Though some researchers have gone beyond the dichotomy conceptualization and proposed elaborations, e.g., "macrostrategies-mesostrategies-microstrategies" (Biggs, 1984), or "strategies-tactics-skills" (Kirby, 1988), these new conceptions are not as readily and widely acceptable as the dichotomies and do not shed much more light upon the description of learning strategies. Practical questions from research and training continue to haunt theorists. e.g., Can knowledge be strategy? Are activities strategies? Are observable motor activities, as opposed to covert mental activities, strategies? Are strategies always under conscious control? What happens to the automated strategies? These questions, among others, have either been deliberately avoided or taken for granted in previous literature.

A Prototype Perspective of Learning Strategies

The questions above are difficult to answer, because there are no defining boundaries to the learning strategy concept. Operational definitions without due concern for the fuzziness of conceptual edges along different dimensions tend to present a false impression as though learning strategies were clearly definable, often obscuring empirical findings and reducing the external validity of research results (see Wellman, 1983; Yussen, 1985 for similar discussions on the concept of metacognition).

Pinker and Prince (1999) distinguish between two types of human concepts: classical categories that are defined by necessary and sufficient criteria, and prototype categories that are characterized by "graded degrees of membership" (pp. 8–9). The latter can be described in the following ways:

- They lack necessary and sufficient conditions for membership
- They have graded degrees of membership
- The category can be summarized by an ideal member or prototype, sometimes but not always an actual exemplar of the category
- There can be unclear cases
- They often display a family resemblance structure
- Good members tend to have characteristic nondefining features

Since the six points above can all describe the "learning strategy" concept that we know, I argue henceforth that a prototype perspective[1] would be a way out of the conceptual impasse, because it entails an open exposition of learning strategies. Instead of strategies vs. non-strategies, strategies display "family resemblances" to greater or lesser degrees (Pinker & Prince, 1999). In other words, learning strategies can be viewed as differing from each other in degree the same way as birds differ in terms of birdiness (Aitchison, 1987; Rosch, 1975), i.e., some strategies are more strategy-like than others just as some birds are birdier than other birds. Prototypes are the ideal forms, so to speak, of target concepts. Particular instances are evaluated by means of comparing them to the prototypical exemplars to see how much common variance they share. Finding strategy prototypes and matching various strategic properties against them offers a much more illuminating perspective in the definition and description of learning strategies than simple categorizations based upon the presence or absence of, for instance, generality, or of other strategic attributes. Hence, the definition of learning strategies, according to prototype theory, would mean the delimitation of attributes that anchor the central core of a strategy, while at the same time spelling out possible dimensions of variance in much the same way as, though far more complicated than, Labov's (1973) demonstration of the concept of a cup.[2]

Strategies: The prototypical core

Strategy is not a static concept. On the contrary, a prototypical strategy is a dynamic process with problem-solving as its central aim. The ideal strategy involves at least the following procedures:

- Attending selectively to learning problems and tasks
- Analysing the task at hand

[1] Kail and Bisanz (1982) mentioned in passing "prototypic features of strategic activity" (p. 230), but they did not elaborate on the idea.

[2] Labov (1973) conducted a series of experiments in which drawings of various household containers were provided. The container with a handle, whose width was similar to its depth, was invariably named a cup by his subjects. As the width increased, more and more subjects called it a bowl. When the depth was increased, however, chances also increased for the container to be called a vase. The revealing point is, there are no distinctive borderlines between a cup and a bowl or between a cup and a vase.

- Making decisions and choices
- Executing plans
- Monitoring progress and modifying plans
- Evaluating results
- Coordinating an orchestrating strategic behaviour

Figure 1 shows the whole process of a strategic move. From selectively attending to a problem or a novel task; to the analysis of self, problem, and situation; to the making, execution, and evaluation of a plan; all the way until the solution of the problem is reached. Every step is an integral link of the strategy chain; and every step involves the strategic choice on the part of the problem solver.

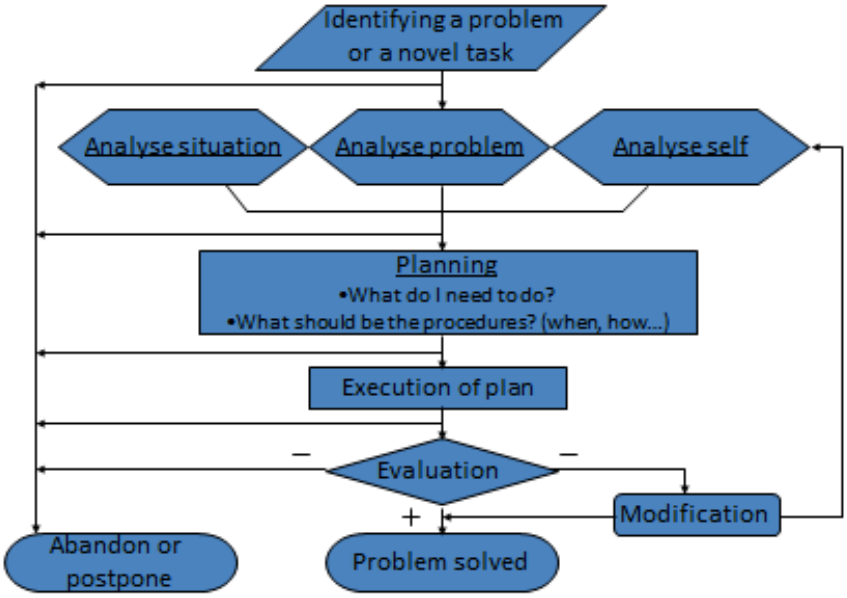

Figure 1. What's in a Strategy?

Strategies: Dimensions of variability and prototypical features

Due to its dynamic nature, an ideal strategy is made up of two components, a metacognitive component and a cognitive one. The former refers to the process whereby a learner selectively attends to a learning task; analyses the self, the task, and the situation;

plans for a course of action; monitors the execution of the plan; and evaluates the effectiveness of the whole process. The latter refers to the actual execution of the strategy. The metacognitive component is intentional and conscious, whereas the cognitive part is not necessarily so. The following six points delineate the dimensions along which a strategy can vary, and the prototypical features of each dimension.

In addition, the core concept of learning strategies can also be viewed as including both strategy competence and strategy performance (Rothkopf, 1988), the former serving as precursor to the latter without necessitating its activation. Similarly, Brown et al. (1983) visualized a distinction between a static and a dynamic perspective of knowledge and performance, arguing that "students vary not only in what they know but also in what they do with what they know. Knowledge is necessary but not sufficient for performance, for it is the efficiency with which a learner uses whatever is available that defines intelligence" (p. 100).

The significance of the competence/performance distinction has been repeatedly demonstrated in empirical work, especially in studies of metacognition, where a similar distinction, metacognitive knowledge vs. metacognitive regulation (Cavanaugh & Perlmutter, 1982; Lawson, 1984), has been shown pivotal in the interpretation of empirical results (see Yussen, 1985).

Intentionality and purposefulness. A prototypical strategy is intentionally selected, consciously engaged in, and consciously monitored and evaluated (Paris, Lipson, & Wixson, 1983; Underwood, 1978) for the fulfillment of an aim or a solution of a problem. A learning behaviour is not strategic if it is deployed without a purpose, no matter how many steps it involves, and how general it is. Some unsuccessful learners seem to employ learning behaviours similar to their peers and are confused as to why the same behaviours do not lead to the same learning outcomes. A careful analysis of these unsuccessful learners would reveal their aimlessness as compared to their successful counterparts (Gu, 1994). Intentionality and purposefulness are not a matter of yes or no, but a matter of weak or strong. In other words, it is a continuum along which prototypicality can be judged.

Self-initiation. Another "central feature" of strategies is learner-initiation (Palmer & Goetz, 1988), indicating a strong link between strategies and the underlying motivational force, which explains why learners often fail to put their strategic competence into practical use (Brown et al., 1983; Flavell, 1970; Flavell & Wellman, 1977; Paris & Lindauer, 1982). Rothkopf (1988) described this dimension of learning strategies vividly:

> Study skills[3] are like dietary information that diabetics can describe in fastidious detail, but that they neglect at the dinner table. They are like knowing how to protect the roses in your garden from aphids, but failing to do so. They are like knowing about calories and wishing to be thin and yet continuing to eat too much (p. 276).

Awareness, monitoring, and evaluation. Because of the deliberateness and goal-orientedness of learning strategies, learners are usually aware of the strategies they are using (Rabinowitz & Chi, 1987). Moreover, the strategies are monitored on-line and their effectiveness evaluated after completion of a task. This aspect of learning strategies is exactly what Flavell (1970, 1976) referred to as metacognition. Awareness of learning strategies enables a learner to know what s/he is doing, making it possible for the researcher to elicit the on-going mental activities. Monitoring and evaluation, on the other hand, empowers the learner to adapt to various socio-contextual changes by means of flexible application of strategies adjusted to his/her personal needs and styles of learning, and to the requirement of tasks. As has been repeatedly demonstrated in previous literature (e.g., Brown, 1978; Forrest-Pressley & Gillies, 1983; Pressley, Borkowski, & Schneider, 1987), it is exactly this flexibility and conditional nature of strategies that serves as the critical agent that distinguishes the mature from the young, the good from the poor, and the expert from the novice learners. To use Garner's (1988, p. 64) words, "knowing when to use a strategy is as important as knowing how to use it".

[3] In Rothkopf (1988), the term "study skills" was used interchangeably with learning strategies.

Strategy performance: Sequence of activities vs. single activities. "A strategy is a sequence of activities rather than a single event" (Garner, 1988, p. 64). This conception is shared by quite a number of researchers (Derry & Murphy, 1986; Kail & Bisanz, 1982; Nisbet & Shucksmith, 1986; Schmeck, 1988b; Wade et al., 1990). Many researchers (Bellezza, 1983; Goh, 2002; Snowman, 1986) label the single learning activities as "techniques" or "tactics" and refer to the activity groups as strategies. This is understandable from the dynamic conception we see in Figure 1, in that the sequence of activities is a deliberately designed problem-solving process, not a one-shot aimless activity.

Strategy performance: Activity chunk vs. activity pile. Defining a learning strategy as a "sequence" or "configuration" of activities does not mean an arbitrary piling of these activities, nor does it mean the piecemeal application of each activity one by one. When a group of single activities or tactics are applied in a particular sequence again and again, they form chunks that preserve the effect of the sequence, take up less working memory capacity by building in information that no longer requires domain-specific declarative knowledge to be retrieved from long term memory, hence requiring less time to perform. These are the composition and proceduralization processes of John Anderson's (1982, 2000) knowledge compilation which bridges the gap between declarative knowledge and procedural knowledge. In this way, from knowing how to perform to actual performance, from slow performance to fast performance, strategies become automatised activity chunks. Without the sequential nature of performance, piles of activities will not serve strategic purposes.

Strategy performance: Automatized vs controlled. Repeated effective use of these chunks results in automatization of the process, which entails less and less effortful attention, thereby reducing the required working memory capacity as well as processing time. As a learning strategy is automatized, the learner's control over the strategy is reduced, and it becomes less and less conscious and can be initiated at the prompt of a task demand without the learner's awareness. Rabinowitz and Chi (1987) insist that once strategic behaviors become automated and lose conscious awareness, they are not

strategic any more. However, I contend that the strategies under conscious control are only at the beginning stage, and that the highest form of strategic performance is automatic. An automatised strategy may appear to lose the learner's conscious awareness, but this is only the execution and performance aspect and is therefore not the entire manifestation of a strategy. What automatisation may lose is the awareness of the execution process. Many of the metacognitive components, e.g., selective attention, analysis of the situation, decision making, monitoring and evaluation of the strategic plan, are all intentionally done, no matter how quick the process is. In the meantime, awareness of metacognitive regulation will not be entirely lost either. For instance, an expert tennis player in a match is constantly observing and analyzing how the match is going, modifying and evaluating his/her choice and use of strategies. The actual execution of the strategies, however, must be done automatically. Hitting the backhand of the opponent is a conscious decision resulting from intentional analyses of the match, but the modification of posturing, positioning of body, aiming of angle, and hitting of ball are all done automatically. Theoretically, if the match is stopped immediately while the strategies are still in Short Term Memory, the player should be able to verbalize the process of choosing and deploying the strategies. This is essentially the same argument as the one made by Winne (1995), when he contended that self-regulated learning "can be automatic and non-deliberate once the learner has automated procedural knowledge that recognizes when to regulate and what to do" (p. 223).

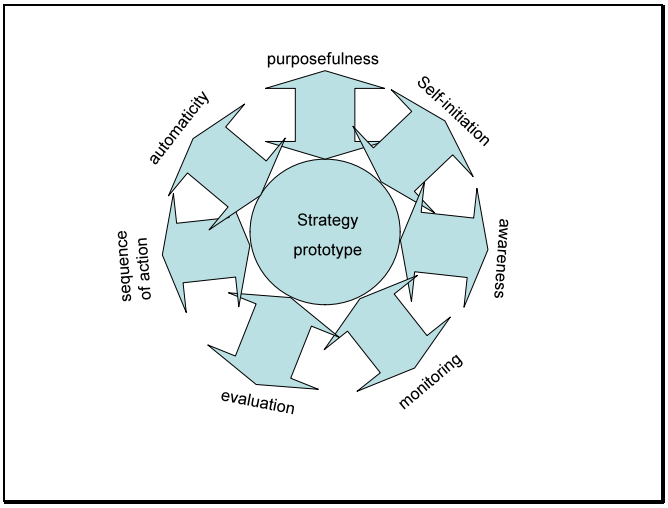

Figure 2. The Strategy Prototype and Dimensions of Variation

Ideal features vs. minimum features. I have just outlined what I believe to be core features of strategies. However, it may be necessary to make a distinction between ideal features and minimum features of a strategy. Just like the ability to fly is an ideal but not minimum feature of a bird (e.g., ostriches), some features of a strategy may be ideal but are not minimum, defining features. For instance, ideal strategies are aimed at and lead to success in performance (Macaro, 2006), but success in task completion should not be a defining feature of a strategy. Similarly, some of the strategy dimensions I described above, for example, the automatic execution of a strategy, must be an ideal but not minimum feature.

To sum it up, a prototypical or ideal strategy is a dynamic process of problem solving. It contains a metacognitive component and a cognitive component. A prototypical strategy is a purposeful, self-initiated, and intentionally selected, monitored, and evaluated sequential series of activities. A mature strategy is automatically executed. As is illustrated in Figure 2, the prototypicality of a strategy depends on 1) how many dimensions are present, and 2) how close to the prototypical core each dimension is.

To date, learning strategy research includes the following kinds: Quantitative perspectives typically focus on the repertoire (how many) and frequency (how often) of strategy use; and qualitative approaches tend to describe how particular strategies are used by certain learners in performing selected learning tasks. A prototype perspective of learning strategies entails a whole new range of new angles in examining learning strategies. For example, in addition to the repertoire and frequency of strategy use, we could measure the degree of prototypicality of a learner's strategy use and relate it to his/her learner results, e.g., how many central dimensions of a strategy are present, how prototypical is each dimension of a strategy being used. We can also examine different stages of strategy use (e.g., selective attention, analysis of self, task, and situation, decision making, monitoring and evaluating of plan, etc.) so as to diagnose where the exact problems are in a particular learner's strategic behaviours, and to help him/her modify strategy choice and use for desired learning outcomes.

Dimensions of Learning

Competence or performance, general or specific, controlled or automatic, learning strategies are what the learner utilizes when confronted with a learning task. The strategies a learner chooses to use, the ways they are deployed, monitored and evaluated, depend both on what the learner brings with him/her to the learning situation, i.e., individual differences, as well as on the situation *per se* where learning occurs. Most importantly, as Biggs (1984) rightly emphasizes, "'strategy' is a key concept in explicating relationships between person, situation, and performance" in that it, among other things, explains "what happens between personological and situational variables on the one hand and performance on the other" (p. 112). Thus the conceptualization of learning strategies will not be complete without examining the aspect of learning and the corresponding dimensions along which the acquisition and performance of strategies vary.

Both individual differences and situational variables play decisive roles in the formation, retention and use of learning strategies. Which side is more decisive, however, is essentially an issue virtually unresolvable (see Shipman, 1988 for an excellent discussion on the nature/nurture dispute). As Schmeck (1988a) put it,

> If we keep a situation constant and look across people, we see situational influences; and if we keep the person constant and look across situations, we see the influence of personal style. However, the two are normally (e.g., in our classrooms) operating simultaneously in a sort of "chemical reaction" that, in the end, may be unanalyzable (p. 10).

What we can do, it seems, is to, on the one hand, map out both the personological and the situational variables (Biggs, 1984) that determine the competence and performance of a learner's learning strategies, while on the other hand remind ourselves that "a person in context is not simply the sum of the person and the context" (Schmeck, 1988a, p. 12).

When a person approaches a relatively challenging task, s/he adopts certain strategies to solve the problem. This problem-solving process is boosted or constrained

by the learning context where the problem is being tackled. Language learning involves such problem-solving tasks at different levels of complexity. The strategies a learner uses and the effectiveness of these strategies very much depend on the learner him/herself (e.g., attitudes, motivation, prior knowledge), the learning task at hand (e.g., type, complexity, difficulty, and generality), and the learning environment (e.g., the learning culture, the richness of input and output opportunities).

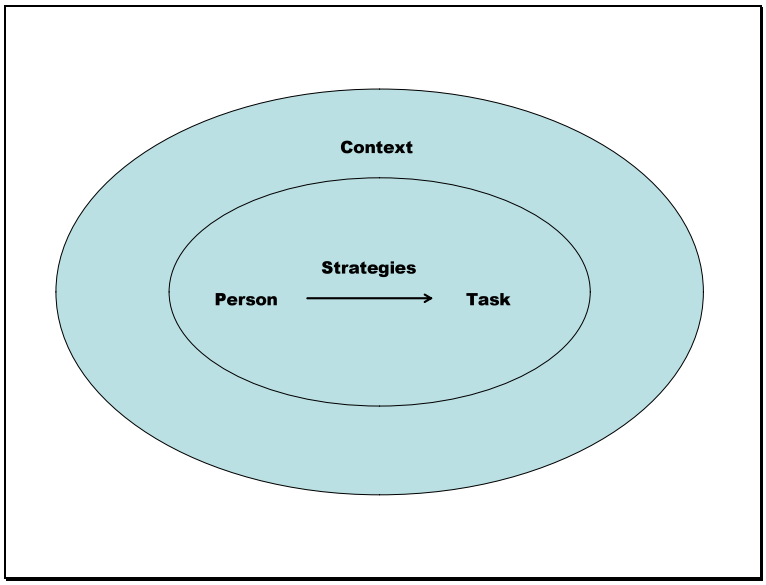

Figure 3. Person-Task-Context-Strategies: An Explanatory Model

Theorists and researchers have presented the same framework (see Figure 3) in slightly different ways. Brown et al. (1983) advocated the adoption of a tetrahedral learning model proposed by Jenkins (1979) which elaborates the person-by-context (Sarason, 1979) conception of learning into four interrelated factors: characteristics of the learner, learning activities, nature of the materials, and criterial tasks. The first two are roughly dimensions of individual differences, and the latter two dimensions of contextual variations. Williams and Burden's (1997) social constructivist model outlines four aspects of the teaching-learning process, i.e., teachers, learners, tasks, contexts. Cohen (2003) focuses on learners and discusses the intersection of learning style preferences, learner strategies, and language tasks. Flavell's (1979) conception of the three components of metacognitive knowledge, i.e., person, task, and strategy, also applies in

the language learning field (Wenden, 1987). Similarly, Fox and Riconscente's (2008) three components of self-regulatory action, i.e., the subject who does the regulating, the object that is regulated, and the means by which regulation is done, describe essentially the same strategic learning processes. The person-task-context-strategy model outlined here can be viewed as a synthesis of this body of knowledge, specifically for the purpose of analyzing research work on language learning strategies.

Learner characteristics and learning strategies

The learner brings to the language learning situation a wide spectrum of individual differences that will influence the learning rate and the ultimate learning result. The most widely reported learner factors include age, sex, language aptitude, intelligence, prior knowledge, motivation, self-concept/image, personality, and cognitive and learning style. These person-dependent factors are relatively stable, and determine to a large extent how a learner approaches a task. After all, strategies are but learner-initiated actions that result from, make use of, or make up for, the aforementioned individual differences. Among these IDs, the learner's sex, motivation, cognitive style, knowledge of various types, and his/her processing capacities are the most researched in relation to learning strategies. Compared to task-related strategies, person-related strategies have rarely been studied.

Learning task and learning strategies

When a learner approaches a task with a repertoire of strategies, s/he often chooses a strategy with the product demand in mind, and tailors his/her choices in tune with their effectiveness in performing the task (Bransford et al., 1981). Different types of tasks call for different strategies. The encoding, retention, or retrieval processes, for instance, require corresponding strategies for effective performance (Rigney, 1978). Likewise, tasks of various scopes also set limits to the corresponding strategies required, hence the differentiation between the generality/specificity of strategies (Dansereau, 1985).

A learning task can be as broad as mastering a second language or as specific as remembering one meaning of a word. Broadly speaking, this conception of the learning

task includes the materials being learned (such as the genre of a piece of reading) as well as the goal the learner is trying to achieve by using these materials (such as remembering, comprehending, or using language). It should be noted that this conception of "task" is in line with the traditional, broader understanding of task as in Flavell (1979), Wenden (1987), and Williams and Burden (1997), and is different from the more recent and narrower definition of "task" in "task-based" approaches to language teaching and learning (e.g., Nunan, 1989).

Different types and structures of task materials, task purposes, and tasks at various difficulty levels demand different learner strategies, even overriding individual differences from time to time. Take vocabulary learning, for example, learning words in a word list is different from learning the same words in a passage. Remembering a word meaning is different from learning to use the same word in real life situations. Guessing from context would mean different things for texts of different levels of new word density. Similarly, the most frequent 1000 words would need different learning strategies from some low frequency vocabulary. Likewise, knowledge acquisition strategies would not be expected to be identical to those for skill acquisition. Strategies used in learning a foreign language are certainly different from those in learning, say, history, art, or literature, hence the distinction between domain-specific and domain-general strategies. Strategies for learning oral/aural competencies would also be different from those for learning written discourse. In addition, the ways in which stimulus materials are organized and structured may also bring about different processing strategies (Brown et al., 1983).

Learning context and learning strategies

Learning context refers to the learning environment. It is the social, cultural, educational, and political environment where learning takes place. The learning context can include the teachers, the peers, the classroom climate or ethos, the family support, the social, cultural tradition of learning, the curriculum, and the availability of input and output opportunities. Learning context is different from language context which refers to the textual or discoursal place in which a particular word or structure can be found. Learning contexts foster or constrain the ways learners approach learning tasks. A

learning strategy that is valued in one learning context may well be deemed inappropriate in another context. In other words, an individual learner's strategies and activities are often determined not only by his/her own predispositions, but also by the social context where learning occurs. "Other regulation", to use a term of the sociocognitivists (Vygotsky, 1978), plays a vital role in learning *vis-à-vis* "self-regulation". As a result, learners often have to develop social learning strategies in addition to their cognitive and affective repertoire.

Person, task, context, and strategy are interrelated and work together to form the chemistry of learning. An analysis of learning strategies will never be complete without knowing the person-task-context configuration of the particular learning situation. Some strategies are more person-dependent, some are more task-dependent, and others are more context-dependent.

This interweaving relationship is best summed up by Brown et al. (1983):

> We would like to argue that just as psychologists need to understand how the four points interact (Jenkins, 1979) so, too, do learners. On her road to becoming an expert in the domain of intentional learning, the child will be greatly helped if she can develop the same insights into the demands of the tetrahedral model that the psychologist needs (p. 106).

Indeed, nor can research on intentional learning, i.e., learning strategies, afford to overlook any of the four interrelated functional dimensions when defining learning strategies and when examining either their acquisition, retention, and performance, or the relationship between the employment of these strategies and the outcomes of learning. In other words, learning strategies cannot simply be viewed as general or specific strategic competence, and controlled or automatic strategic performance independent of the learner and the context. The functional/learning aspect of learning strategy definition and research is as important as the prototypical core of strategies.

Summary

The concept of learning strategies is an extremely fluid one. At the first sight, O'Neil's (1978) seemingly all-inclusive definition which embraces both cognitive and affective learning skills, and Vygotsky's (1978) view of learning that places emphasis on other-regulation as well as self-regulation, seem to suffice in the definition of learning strategies (cf. O'Malley & Chamot's (1990) strategy scheme). However, when microstructures of learning strategies are analyzed, focusing on both the entailment of a strategy and that of learning, the picture is far from clear.

A prototype perspective of learning strategies is presented above, delimiting core features of strategies and mapping out dimensions of variation around the concept of strategy and that of learning. I argue that the core concept of strategy is a dynamic process involving noticing and selectively attending to a problem, analyzing the self, the task and the situation, making decisions and plans, executing plans, monitoring, and evaluating the effectiveness of the whole process. A strategy includes strategy competence and strategy performance. In addition to purposefulness and self-initiation, the prototypical strategy is intentionally selected and used, consciously monitored and evaluated. A strategy is manifested as a sequence of activities, chunked rather than piled up, and gradually automatised. The selection of a strategy is intentionally done, and the learner is consciously aware of the strategies s/he is using, monitoring the strategies as they are being performed, and evaluating their effectiveness after they are executed. Nevertheless, the skillful execution of a strategy is done automatically. Finally, I present a "learner-task-context-strategy" framework so that learning strategy research can be carried out or examined from these dimensions.

The approach taken in this article corresponds to essentially the same strategy taken by Alexander, Schallert, and Reynolds (2009) in conceptualizing "learning" and by Kaplan (2008) in the theorizing of self-regulation. In other words, instead of lamenting the fuzziness of scientific concepts or research constructs, it is more productive to "seek the core meaning … as well as where these constructs converge and diverge along select dimensions" (Dinsmore, Alexander, & Loughlin, 2008, p. 329).

The prototype perspective and the functional framework help clarify the learning strategy concept not just in defining the conceptual core along possible dimensions of variation, but also in potential guidance of future research. First of all, it serves as a standard against which incongruent research results can be evaluated. We can, for example, see whether these differences result from the data obtained, or from disparate operationalizations of the same concept. Secondly, it provides a theoretical framework that helps see the trees as well as the forest of learning strategy research. Thirdly, the realization that strategies are not efficient in themselves and that efficiency and expertise come only after strategies turn into automatic behavioral routines challenges us both in our interpretation of research results and in our search for the best available ways to elicit strategy expertise. Lastly, this article underscores the crucial importance of an idiographic approach to learning strategies that we need at this juncture. In other words, perhaps we have found enough overall patterns; perhaps it is time that we started looking deeper into how the choice, use, and effectiveness of learning strategies differ in terms of person, task, and learning context.

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Alternative Models of Self-regulation and Implications for L2 Strategy Research

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Abstract

In this paper I discuss the proposal of Dörnyei and colleagues (Dörnyei, 2005; Tseng, Dörnyei, & Schmitt, 2006) to replace the construct of learning strategy with that of self-regulation and thus shift the research focus from specific strategic behaviors to a trait that is seen to underlie them. I argue that before doing so, we need a fuller understanding of what self-regulation entails and how it might intersect with traditional concerns of second language strategy research. To contribute to this understanding, I highlight alternative conceptualizations of self-regulation and then use data from my doctoral research to illustrate one in particular, the COPES model of self-regulated learning (Winne & Hadwin, 1998). This model's explanatory power is contrasted with that of Dörnyei and colleagues' conceptualization to show that, depending on the model one adopts, self-regulation is not only compatible with the study of specific strategies but useful for shedding new light on strategy research and integrating it with research in other related areas, such as L2 motivation.

Keywords: learning strategies, self-regulation, self-regulated learning, vocabulary learning, volition

These are challenging times for second language (L2) strategy researchers. Nowadays, when asked to categorize our conference paper proposals or manuscript submissions, we may very well find that "learning strategies" is no longer an option, and we must instead choose among "learner characteristics," "language and cognition" or "culture and socialization."

The current state of affairs may be considered progress by Dörnyei and colleagues (Dörnyei, 2005; Tseng, Dörnyei, & Schmitt, 2006), who have proposed replacing the concept of learning strategy with that of self-regulation and, in doing so, shifting the focus of research from specific learning behaviors to a trait seen to underlie them. But what exactly does self-regulation have to offer second language acquisition, and does it really necessitate this important change in research focus? In this paper I briefly highlight alternative conceptualizations of self-regulation and then illustrate one in particular to make the point that, depending on the model one adopts,

self-regulation also has the potential to reinvigorate L2 strategy research and cast new light on its findings.

Replacing Learning Strategies with Self-regulation

Other views of self-regulation have been presented in recent L2 research (e.g., Bown, 2009; Goh, 2010; Lai & Gu, 2011; Lewis & Vialleton, 2011; Rose, 2010; Tsuda & Nakata, 2012) but because Dörnyei and colleagues have made the most explicit and formal argument for importing self-regulation as a construct from the field of educational psychology, and because this was accompanied by a controversial proposal regarding learning strategy research, theirs will be my focus.

Dörnyei and colleagues are motivated by two main problems they have identified in the L2 learning strategy literature. First, the concept itself suffers from "definitional fuzziness" (Tseng et al., 2006, p. 95) insofar as it conceptualizes strategies as phenomena that can be behavioral, cognitive or affective in nature. Second, they level criticism at research instruments that have frequently been used to categorize and quantify strategy use, especially the *SILL*, or Strategy Inventory for Language Learning (Oxford, 1990, 2011). Because the rating scales used in the SILL are based on frequency of use, they "are not cumulative and computing mean scale scores is psychometrically not justifiable" (Dörnyei, 2005, p. 182).

These authors also note that, as L2 strategy research has shown, there is no direct relationship between use of a particular strategy and success in learning. The same behavior may lead to achievement if applied by one learner to a certain task in a particular context, but not in other circumstances. From this they conclude that "the most important aspect of strategic learning is not the exact nature of the specific techniques that students employ but rather the fact that they choose to exert creative effort in trying to improve their own learning" (Tseng et al., 2006, p. 95).

Citing Wolters (2003), Dörnyei notes that learning is fraught with potential obstacles that may interfere with learners' performance, goals or motivation, and so those who can "maintain their motivation and keep themselves on-task in the face of competing demands and attractions should learn better than students who are less skilled at regulating their motivation" (Dörnyei, 2005, p. 91). Self-regulation is thus seen as the underlying capacity driving learners efforts "to search for and then apply personalized strategic learning mechanisms" (Tseng et al., 2006, p.

79). Its trait-based nature is said to be attested by the fact that certain learners are more effective at strategy use than others, hence the need for researchers to shift the focus from specific behaviors to this underlying capacity.

To facilitate this new mode of inquiry, Tseng et al. (2006) developed an instrument addressing self-regulation through the use of *action control strategies*, which originate in volitional research from experimental psychology (Kuhl, 1987) and educational psychology (Corno & Kanfer, 1993). To increase construct validity, these strategies were situated in one particular domain, L2 vocabulary learning, because this aspect of second language acquisition requires sustained individual effort over time. The resulting construct, called Self-Regulating Capacity in Vocabulary Learning, or *SRCvoc*, consists of five facets: *commitment control, metacognitive control, satiation control, emotion control,* and *environmental control*, as shown in Figure 1. These facets, it should be noted, operate over the intention to learn rather than learning behaviors directly.

The authors used confirmatory and exploratory factor analysis and data from secondary and tertiary EFL learners in Taiwan to show that the 20-item instrument had valid psychometric properties. They also proposed that their theoretical framework and approach to questionnaire development could be used to extend the concept of self-regulating capacity to other aspects of L2 learning.

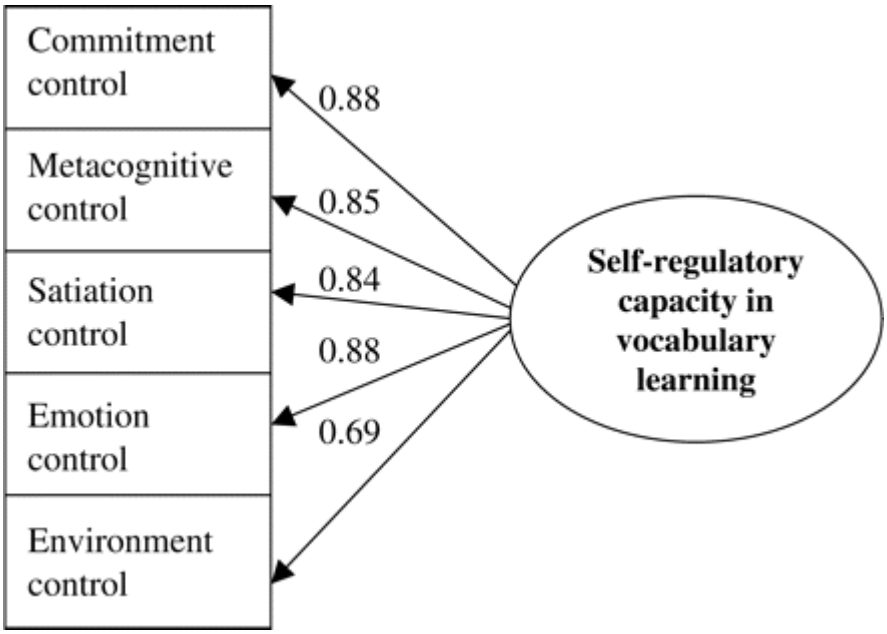


Figure 1. Hypothesized Model of Self-regulating Capacity in Vocabulary Learning, with Factor Loadings from Confirmatory Factor Analysis. From "A new approach to assessing strategic learning: The case of self-regulation in vocabulary acquisition," by W. T. Tseng, Z. Dörnyei, and N. Schmitt, 2006, *Applied Linguistics*, 33(1), p. 93. Copyright by Oxford University Press. Reprinted with permission.

Controversy over these developments seems to have arisen not so much from the construct of SRCvoc itself – which, insofar as it represents a new variable potentially mediating strategic behavior, is of obvious import – but because Dörnyei and colleagues proposed that self-regulating capacity might replace the concept of learning strategy in second language acquisition, as apparently happened in educational psychology, where the latter term "has virtually been abandoned for research purposes and has been maintained primarily for pedagogical discourse only" (Tseng et al., 2006, p. 80).[1]

How broad an impact this proposal is having is still unclear. SRCvoc has so far appeared in a modest number of published studies conducted in East Asian contexts. Rose (2010) adapted Tseng et al.'s instrument to investigate self-directed learning of Kanji among tertiary level L2 learners of Japanese. Mizumoto and Takeuchi (2012) also adapted the instrument for use in

[1] This is not to say, however, that educational researchers have abandoned interest in strategic behavior and its relationship to achievement, as Dornyei and colleagues would certainly agree.

Japan, but with undergraduate learners of English, and found the scale to be valid, albeit with a different factor structure they attributed to cultural differences. In an application that might exemplify the controversy, Huang (2010) contrasted the effects of divergent and convergent assessment on motivation and strategy use among Taiwanese university learners of English, with strategy use measured via the SRCvoc instrument.

In published critiques of Tseng et al. (2006), some researchers have argued that self-regulation and learning strategies may simply represent different approaches to studying the same phenomena, and may suffer from similar weaknesses. Gao (2007) suggests there is considerable overlap between self-regulating capacity and metacognition as discussed in the work of Wenden (1998, 2002). Rose (2012) makes a similar point and notes that, in his doctoral research, action control strategies themselves exhibited definitional fuzziness. Such critiques have merit, but to the extent they assume Dörnyei and colleagues' version of self-regulation to be the only valid formulation, they miss opportunities to widen the theoretical lens and explore what else this construct may have to offer our field.

Different Conceptualizations of Self-regulation

In the last three decades, self-regulation has emerged as a central concept in psychology, as researchers tried to integrate cognitive, affective, motivational and behavioral components into theories that explain how individuals adjust their actions and goals to achieve desired ends under variable conditions (Zeidner, Boekaerts, & Pintrich, 2000). The field is now represented by a large literature comprising many models. Table 1 shows the major theories of self-regulated learning (SRL), along with strengths and controversies associated with each, as discussed by Zimmerman and Schunk (2001).

Table 1. Major Theories of Self-regulated Learning with Associated Strengths and Controversies, According to Zimmerman and Schunk (2001)

Theories of SRL	**Strengths**	**Controversies**
Operant	Delay of gratification	Nature of self-reinforcement
Phenomenological	Role of self-identities	Defining, measuring and validating self-identities
Information Processing	Self-monitoring feedback loops	Negative versus positive feedback loops
Social Cognitive	Cognitive goals & expectancies Social modeling	Self-efficacy: redundant or limited in scope
Volitional	Persistence and attention	Separation of volition from motivation
Vygotskian	Self-verbalization and social dialogue	Self-verbalization versus co-constructivism
Constructivist	Personal theories and strategies	Role of cognitive conflict versus situational context

Note. *SRL* = self-regulated learning. From "Reflections on theories of self-regulated learning and academic achievement," by B. J. Zimmerman and D. H. Schunk, 2001, p. 290. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement* (pp. 289-308). Mahwah, NJ: Lawrence Erlbaum Associates.

According to Zimmerman and Schunk, all theories of self-regulation can be used to explain success in learning, but each focuses on different aspects of how it is achieved. Operant theories highlight the importance of delayed gratification and how this can be enhanced by "reinforcers" such as praise. Phenomenological theories deal with self-perceived identities that can be academic (e.g., scholar or athlete) or non-academic (e.g., slacker or jock) in nature, and how these identities influence perceptions of tasks, goals, and methods of learning. Information processing theories describe self-regulation in terms of feedback loops, in which learners are engaged in self-monitoring, evaluation vis-à-vis standards, and adaptations made on the basis of that monitoring and evaluation. Social cognitive theories emphasize the role of situational task contexts on different types of goals (e.g., task-specific versus general, or proximal versus distal in time), as well as self-efficacy beliefs, i.e., the expectancies learners have regarding their

abilities to perform specific tasks. Volitional theories focus on learners' struggles to initiate or maintain good learning habits in the face of distractions or setbacks. Vygotskian theories construe self-regulation in terms of the verbalization or self-directed speech learners use when working under challenging conditions, such as a first grader spelling a new word aloud. Finally, constructivist theories address learners' cognitive processes as they construct strategies and theories needed to master academic tasks, or their engagement in co-construction of effective modes of academic performance as part of learning communities.

Zimmerman and Schunk say each theory's impact has been attenuated by controversies arising from issues of definition, measurement, validation, or implementation in practice. For example, some researchers question whether rewards initiated and controlled by learners themselves truly represent reinforcement as defined in operant theory. Critics of social cognitive theory have suggested self-efficacy does not actually reflect motivational beliefs but simply learners' reporting of subsequent behavior. Information processing theory has yet to adequately explain "positive feedback loops," i.e., the way reductions in discrepancies between performance and standards can push learners to set new, more challenging goals. With Vygotskian and constructivist conceptualizations, controversies have arisen from diverging views about how to conduct interventions based on the theory or variants of the theory. Phenomenological theory is hampered by problems in defining self-identities, while volitional theory is said to lack empirical support from research validating volition as a phenomenon distinct from more established motivational constructs.

Despite such controversies, a model of self-regulation based in any one of these theories might provide insights into the process of second language acquisition in general and L2 vocabulary learning in particular. It makes sense that Dörnyei and colleagues chose a volitional perspective given Dörnyei's invaluable contributions to L2 motivation theory. A problem arises, however, when we consider their characterization of SRCvoc as a trait underlying strategy use in light of Zimmerman and Schunk's discussion of another controversy in self-regulation theory, that of psychophysical dualism.

Citing Misiak and Sexton (1966), Zimmerman and Schunk describe psychophysical dualism as referring to "theories that assume human nature is composed of two different and mutually irreducible elements: a mind and body" (2001, p. 301). Dualistic models of self-

regulation are said to be based on Platonic- or Cartesian-style conflicts between this inner, rational mind and an outer, physical body that must operate in environments where it is susceptible to boredom, discomfort, distractions, etc. Writing more than a decade ago, Zimmerman and Schunk said the field had largely moved on from such models, which depict self-regulation as an "autonomous inner state," to now defining it in terms of "skillfully orchestrating processes that are at once covert, behavioral, and environmental" (Zimmerman & Schunk, 2001, p. 304).

The difference in assumptions is clear when we contrast the following passage from Dörnyei, in which he critiques a well-known definition of learning strategy,

> How can something be either a thought or a behavior or an emotion? These issues have been seen as distinct aspects of human functioning in psychology and it is difficult to accept the existence of an entity that simply cuts across them. (Dörnyei, 2005, pp. 189-190)

with this statement from Zimmerman and Schunk:

> … self-regulatory activities, such as strategy use, self-monitoring, and self-evaluation, are not reducible to either a physical or mental level. Instead, these processes fuse human covert functioning, behavior, and environments in self-enhancing control loops [...] For example, students who seek to optimize their study environments must use their knowledge of those environments to develop a cognitive-behavioral strategy for restructuring them and must adapt that strategy to performance feedback that is at once mental, behavioral, and environmental. (Zimmerman & Schunk, 2001, p. 301)

Thus, while these theorists would all agree that self-regulation is concerned with personal initiative, perseverance, and creative effort in improving one's learning, they are seen to diverge with respect to two key attributes: the level at which self-regulation operates, i.e., a trait versus an event, and the related issue of adaptiveness. This will be obvious in the following sections, in which I contrast SRCvoc with a model derived from information processing theory that exemplifies the concept of a feedback loop.

My point is not to argue the superiority of information processing models but to say that theories stand or fall according to how well they allow us to explain and predict phenomena of interest and inform our practice. If Dörnyei and colleagues are proposing that we deemphasize learners' specific behaviors in favor of a volitional, trait-based view of self-regulation, we must ask how much overlap exists between this new paradigm and longstanding concerns of L2 strategy researchers, such as the relationship between strategic behavior and achievement. I will show how a process model of self-regulation, when applied in my doctoral research, not only provided an explanation for variation in strategic performance but also unique insights into differential achievement that would not have been possible using a trait-based model.

Winne & Hadwin's COPES Model of SRL

In my study, I used the COPES model of self-regulated learning proposed by Winne and Hadwin (1998). As illustrated in Figure 2, this is a process model that conceptualizes self-regulation as an event and can thus facilitate dynamic descriptions of the interplay of cognitive, motivational and behavioral phenomena. Furthermore, being based in information processing theory, it also takes account of the effects of processing limitations and limited working memory capacity on this interplay.

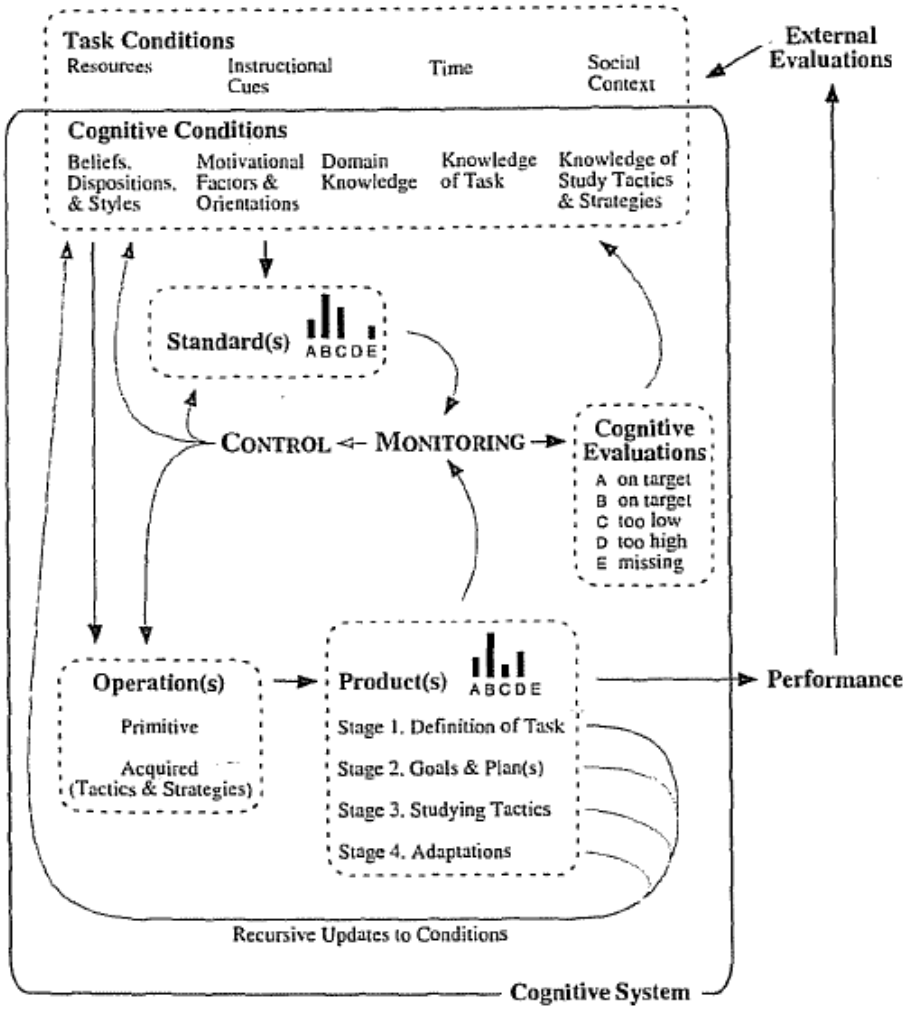


Figure 2. The COPES Model of Self-regulated Learning. From "Studying as self-regulated learning," P. H. Winne and A. F. Hadwin, 1998, p. 282. In D. J. Hacker, J. Dunlosky & A. C. Graesser (Eds.), *Metacognition in educational theory and practice.* (pp. 277-304): Mahwah, NJ, US: Lawrence Erlbaum Associates. Copyright by Taylor & Francis Group LLC. Reprinted with permission.

A feature which distinguishes it from many other SRL models is a stage at the beginning called *task definition*, in which learners form internal and potentially idiosyncratic mental representations of tasks. This stage is in addition to the subsequent and more commonly recognized stages of *goal setting and planning*, *enacting strategies and tactics*, and *adaptation*.

COPES stands for *conditions, operations, products, evaluations,* and *standards*. With the exception of operations, each of these components represents a type of information generated or used by the learner during a learning event (Greene & Azevedo, 2007).

Conditions are the resources available for, and any constraints that might operate over, completion of a task, and consist of two types. *Task conditions* are external to the learner and might include resources, cues embedded in tasks by a teacher or designer, and time, as well as features of the social context, such as a requirement to work in small groups. *Cognitive conditions* are internal to the learner and include beliefs about learning, motivational influences (e.g., goal orientation and self-efficacy judgments), domain knowledge, task knowledge, and knowledge of tactics or strategies. Conditions influence both operations and the standards learners adopt in goal setting and planning.

Standards consist of a "multivariate profile of attributes" (Winne & Hadwin, 1998, p. 281) generated as a product of task definition and refined during goal setting and planning. Standards define the optimal end state of the current phase in operation and can include both beliefs and metrics. In Figure 2, standards are represented as a bar graph with five different scales, which might incorporate a mental representation of the completed task product, as well as beliefs about how long completion of the task should take, the level of understanding to be achieved, etc.

Operations are cognitive processes enacted in working memory that transform information. They include innate processes that are "primitive" in the sense of not allowing further decomposition into subprocesses (such as searching, monitoring, and rehearsing), as well as acquired processes that are more complex, i.e., strategies. Operations occur in each phase of the model and lead to products, which are then compared to standards through monitoring.

This monitoring, which occurs in each phase of the cycle, is "the pivot on which SRL turns" (Winne, 2001, p. 164). Comparing phase products to standards in turn generates further products in the form of evaluations. If an evaluation indicates discrepancies between products and standards, metacognitive control might be enacted over operations to redefine the task, manipulate conditions, revise goals and standards, refine the products, or possibly abandon the task altogether. In this way, products in any stage can lead to updates in any other, and so the model is a "recursive, weakly sequenced system" (Winne & Hadwin, 1998, p. 281).

Adaptation is the final and only optional stage of the model and is characterized by an overall metacognitive evaluation of the products of learning, in which learners may decide whether or not to update motivation, beliefs, standards, or strategies. It is thus where major self-regulatory developments occur.

In a review of contemporary educational research, Greene and Azevedo (2007) showed how the COPES model could provide new perspectives on recent findings, particularly due to its more complex cognitive architecture as compared with other SRL models. I will now illustrate how it can also be applied in the domain of L2 vocabulary learning, contrasting its explanatory power with the conceptualization of self-regulation proposed by Dörnyei and colleagues.

An Illustration

The main purpose of my study was evaluation of an automated, online resource for strategy instruction (Ranalli, forthcoming) designed to teach tertiary-level ESL learners an integrated form of dictionary skills and language awareness of features of "word combinability," i.e., transitivity, complementation and grammatical collocation (see discussion in Lew, 2011). Specifically, the goal was to teach students how to use learner's dictionaries to identify and correct errors such as *Traffic jams result ~~of~~ (from) having too many cars*, which appear to be common in ESL and EFL college student writing (Chan, 2010; Hemchua & Schmitt, 2006).

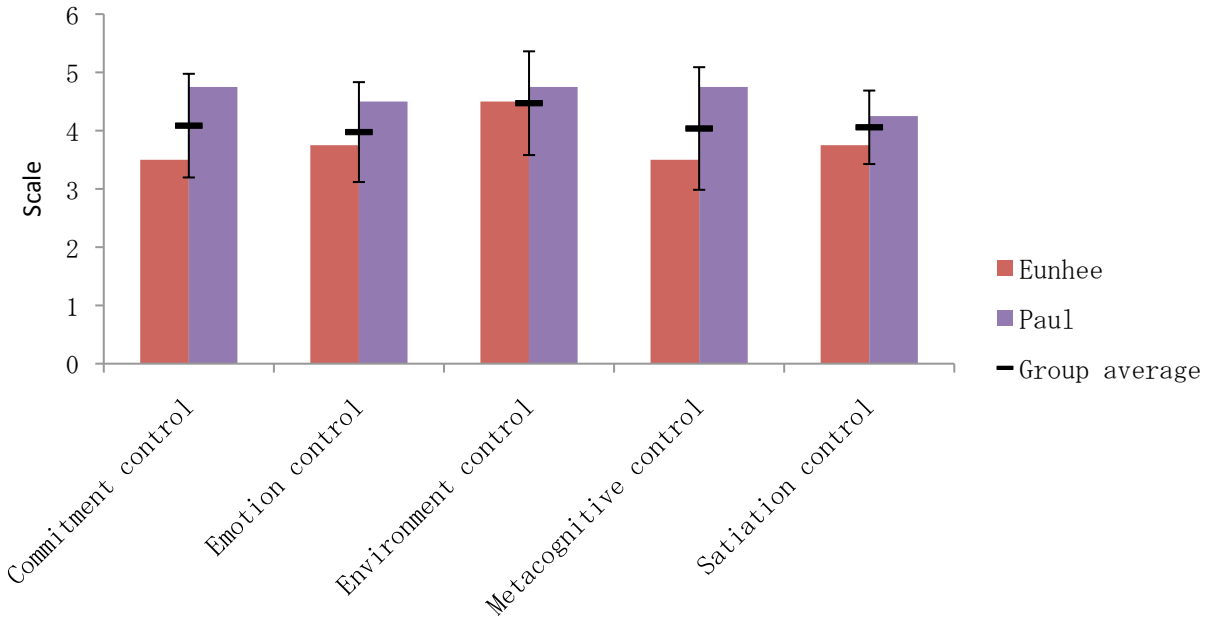
The evaluation was based on an experiment contrasting an explicit strategy instruction condition with a comparison condition that involved learners in repeated dictionary consultations for usage information but no instruction. Both conditions were administered online through a learning management system, in which 64 participants were assigned randomly to the treatment and comparison groups after being matched for vocabulary size. I developed a task-based measure of strategic ability to resemble the type of editing a learner might do on a piece of academic writing, and this was administered as a pre- and post-test.

In addition to evaluation of the strategy instruction, the study also addressed the issue of monitoring accuracy, i.e., the extent to which metacognitive evaluation of performance (referred to as *confidence*) corresponds to actual performance. In the COPES model, it will be recalled, monitoring potentially influences the outcome of each stage, so the products of monitoring will need to be reasonably accurate to facilitate self-regulation. Confidence was measured by having

the participants estimate their scores immediately after completing the pre- and post-tests, and then the confidence and performance scores were compared.

Following the experiment, a multiple case study was conducted of discrepant cases, i.e., participants whose performance had diverged significantly from group norms and which thus merited further investigation. Two cases were of particular interest: Paul, an African man in the strategy instruction group, who had only a few years of formal study of English but considerable language learning experience in naturalistic settings, and who had immigrated to the US three years earlier; and Eunhee, a Korean woman in the comparison group who had studied English for many years in school but had had few opportunities to use it for authentic spoken communication, and who was a new exchange student.[2]

As part of the instrument battery, all participants were given a version of the SRCvoc questionnaire presented in Tseng et al. (2006), which had been adapted for use in a tertiary-level ESL environment. The results for Eunhee and Paul, along with means and standard errors for the entire sample, are illustrated in Figure 3.



[2] Names are pseudonyms.

Figure 3. SRCvoc Subscales for Individual Cases, with Means and Standard Errors for the Whole Sample ($N = 63$)

We see that on each scale, Paul reported higher levels of volitional control compared to Eunhee and to the means for the sample. These self-reports aligned with interview data and responses on a separate motivation questionnaire showing Paul to be an eager and confident language learner, buoyed by his experience acquiring a number of African languages informally and learning French at school. By comparison, Eunhee's self-ratings were generally low in relation to the group averages, which corresponded to interview and questionnaire data showing her to be critical of her own language learning efforts and lacking confidence in her use of English with native speakers, despite overall high motivation to learn and a strong mastery goal orientation.[3] Thus, in Dörnyei and colleagues' terms, we might expect Paul to be the more "strategic" – and thus successful – of the two.

Confidence and performance measures painted a different picture, however. The post-test data in Figure 4 show Eunhee to have outperformed the rest of the sample, with both a perfect score and perfect monitoring accuracy, despite not receiving the strategy instruction. Paul, while a member of the treatment group, had a mean score closer in line with the comparison group average, and while most of his groupmates showed considerable improvement in monitoring at post-test, Paul's confidence scores remained wide of the mark, as indicated by the vertical distance from the identity line (representing perfect monitoring accuracy). To be specific, he thought he had done more than twice as well on the measure than he actually had. Such extreme overconfidence is associated with a lack of general or domain-specific knowledge (Nietfeld, Cao, & Jason, 2005).

[3] A mastery goal orientation, according to Ames (1992), focuses on the intrinsic value of learning, in contrast to a performance goal orientation, which defines success normatively, e.g., in terms of surpassing others.

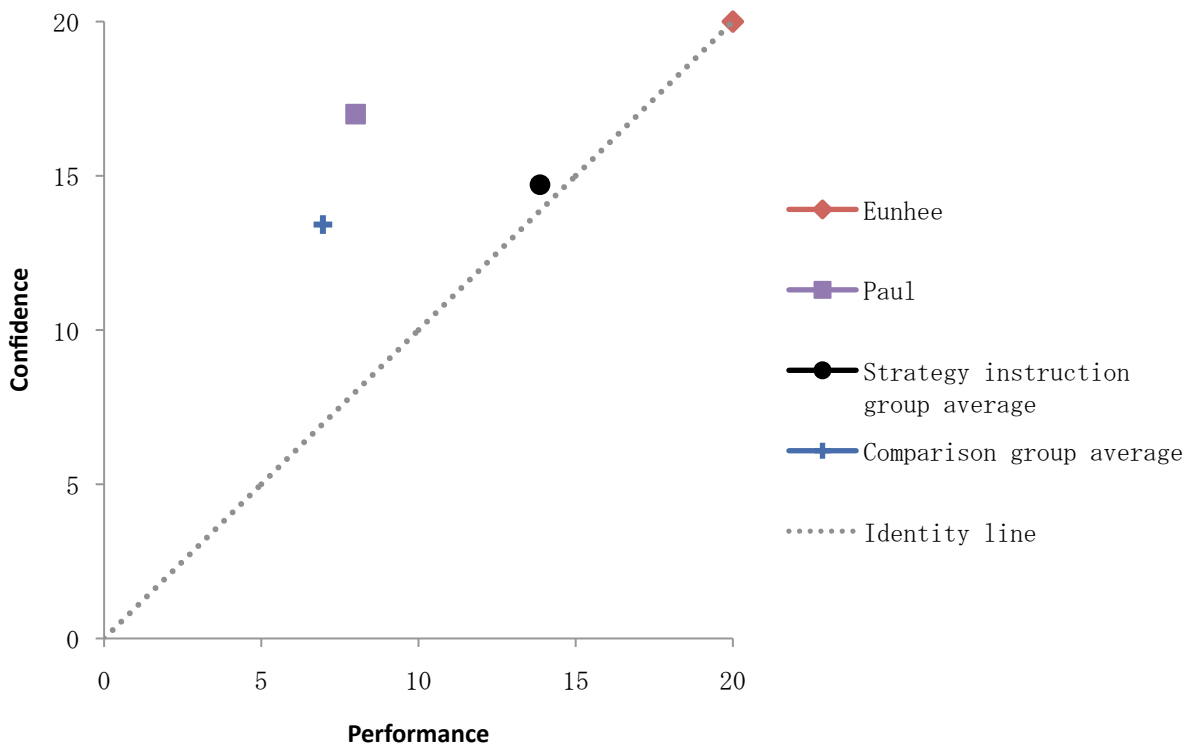


Figure 4. Confidence Scores Plotted against Performance Scores at Post-test, with Identity Line Indicating Perfect Monitoring Accuracy (n = 32 for both groups)

My COPES-based analysis, which also incorporated thinkaloud data, showed that Paul's problems arose from shortfalls in cognitive conditions. His domain knowledge in terms of receptive vocabulary and syntactic processing skills were low compared to most of his classmates, such that much of his attention was devoted to decoding words and phrases in the task prompts. He also demonstrated an idiosyncratic, meaning-oriented approach to judging grammaticality and a high tolerance of ambiguity, probably as a result of his primarily naturalistic experiences of language learning and his status as a multilingual (see Dewaele & Wei, 2013), which rendered him unable to recognize all but the most obvious lexical usage errors. Despite his undiminished confidence and eagerness to learn, he seemed poorly positioned to self-regulate his way into actual improvement with the skills in question without considerable individualized remediation.

By contrast, Eunhee was able to excel in the absence of strategy instruction because she had so many cognitive conditions working in her favor: a much larger vocabulary size compared to the sample average, highly developed syntactic parsing skills as a result of years of exam-

oriented English instruction, familiarity with learner's dictionaries, more advanced reading skills and, importantly, a recently adopted goal to learn to "use words correctly" in her interactions with native speakers. She was thus able to bootstrap her way into mastery of the new skills in question, beyond the level reached by any member of the strategy instruction group.

The major insights here derive from the COPES model's inclusion of a stage for task definition. Paul's inadequate cognitive conditions impaired his ability to form a reasonably accurate internal model of the task, which in turn undermined his selection of appropriate strategies to address it, and left him with insufficient processing capacity and evaluative criteria for monitoring. Eunhee's abundance of facilitative cognitive conditions allowed her to define the task with a high degree of accuracy, adopt goals consistent with it, identify appropriate strategies to address it, and accurately monitor their implementation. Indeed, the as yet poorly understood process of task definition on the part of the learner may be a key to understanding why the same strategic behavior leads to success in one situation and failure in another, which is why some L2 strategy theorists have identified it as a research priority (Rubin, 2005; Wenden, 2002).

This is not to say Eunhee was therefore the more strategic vocabulary learner in general. Her comparatively rigid, highly form-focused approach may well have hindered development of strategies requiring fluent and creative use of the lexicon, as opposed to Paul's much more flexible and meaning-oriented one. With respect to this particular task and context, however, her abilities and choices led to success, despite her lower self-reported volitional control. Thus, in this illustration at least, an integrative, process-oriented view of self-regulation surpasses a volitional, trait-based view in explaining strategic behavior and variation in achievement, which, I assert, are among the chief concerns of L2 strategy researchers.

Conclusion

To return to the main question of this paper: what does self-regulation have to offer second language acquisition? Dörnyei and colleagues have proposed a volitional, trait-based model, which they position as a necessary antecedent to the creative search for and use of individualized learning mechanisms, and which they suggest could allow us to circumvent the problematic study of such mechanisms themselves. My counter argument is that such a model will be insufficient for explaining phenomena of primary interest to L2 strategy researchers, in contrast to models that view self-regulation as an adaptive process and allow learners' specific

strategic choices, as well as other important individual-difference factors, to be contextualized and related to each other.[4]

A full account of my study was beyond the scope of this paper, but the L2 strategy literature already contains evidence to support the argument presented here. For example, Vann and Abraham (1990) showed in their case studies that unsuccessful learners were far from unmotivated, putting what could be called creative effort into selection and coordination of strategies for addressing a variety of L2 tasks. Their problems arose from mismatches between their selected strategies and task demands. The researchers speculated about the roles of processing limitations, lack of domain knowledge, and counterproductive language learning beliefs. It is informative to review such studies from the perspective of adaptive, process-oriented models of self-regulated learning and consider the extent to which they may help us to better understand and integrate previous strategy and motivation research.

While writing this paper, I was reminded of the old joke in which a man walking down the street at night comes upon a stranger searching the ground for a lost valuable. The first man joins in the search and after several fruitless minutes asks the second, "Are you sure this is where you lost it?" Pointing to a darkened area a short distance away, the second man says, "Actually, I lost it over there." "Then why on earth are we looking here?" demands the first. The second responds: "Because the light's better."

Despite legitimate concerns about definition and measurement, L2 researchers are unlikely to abandon interest in specific learning behaviors any time soon, because they are the raw material of learner agency and a key to understanding achievement, or the lack thereof. Some may consider strategy research at present to be a dark corner of L2 studies, if not a dead end, but rather than switching our focus elsewhere because the light is better, we should find new

[4] The adoption of such models obviously poses measurement challenges. Tseng et al. (2006) note that stimulated recall methodology could prove a useful, online complement to questionnaire instruments and thus provide a more complete picture of strategic behavior. Another possibility, as my own work suggests, lies in technology-based materials that serve dual purposes of instruction and research, allowing traces of learner behavior to be captured via log files, for example. Interested readers are directed to a special issue of *Educational Psychologist* (Volume 45, Issue 4, 2010) titled "The measurement of learners' self-regulated cognitive and metacognitive processes while using computer-based learning environments."

ways to illuminate the problems that actually drive the field. In this paper, I have tried to show the potential of alternative views of self-regulation for this purpose.

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Re-placing the Jewel in the Crown of Autonomy: A Revisiting of the 'Self' or 'Selves' in Self-Access

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Abstract

While self-access resources enjoyed a wave of popularity in the 1980s and early 1990s and like the language labs of previous decades saw considerable financial investment in terms of space, materials, equipment and teacher commitment, with the coming of the Internet and other technologies, there seems to have been less rather than more concern for Self-access Language Learning (SALL).

This seeming decline of interest in SALL has, somewhat paradoxically, been accompanied by what seems to be a surge of interest in autonomy and examination of the many ways that autonomy can be promoted in language learning. Rather than clarifying the relationship between self-access and autonomy, it may have become more blurred and indistinct.

The author outlines four elements, involving strategic learning, which she believes to be essential in the promotion of autonomy and then briefly discusses the 'self' or 'selves', or internal resources which learners must 'access' if they are to succeed in an autonomous or self-access mode and improve their learning.

Viewed in these wider terms of strategically accessing both internal and external resources, self-access takes on a whole new significance and, indeed, can be returned to its rightful place as the 'jewel' in the 'crown' that is autonomy.

Keywords: autonomy, self-access, strategic learning, SALL, ownership of learning

During the 1980s and the early 1990s, with the decline of the language labs, which had been costly in terms of installation, materials, time and personnel, came the rise of the so-called self-access centres, which had the advantage that they could be tailor-made and developed with a degree of sophistication to suit the particular needs and budget of the institution and language-learning setting. In the U.K., the concept was promoted by what could be called British Council 'pioneers', like Jim Kerr, Marion Geddes, Gill Sturtridge and Diana Basterfield (British Council, 1977). In turn, larger language education enterprises with many branches in the South of England developed state-of-the-art facilities which became showcases for what could be

achieved with a variety of both ready-made and in-house materials. Unlike the labs, there was emphasis on the fact that self-access was not restricted by geography or lack of affluence, and that with truly 'resourceful' managers it was possible to create resources anywhere, including in a kitchen complete with sink (Hay, 1992)!

Beyond the shores of the U.K., the British Council extended its pioneering of self-access to its Direct Teaching Operations worldwide, with Barcelona, Quito, Hong Kong, Cairo, Mexico, and, on a smaller scale, Thessaloniki, enjoying particular success. These depended, of course, on locally-deployed managers taking the initiative and making rather daring decisions, but more particularly was due to the enthusiasm and commitment of both teachers and administrative staff and their oft-times heroic efforts (Reinders, 2012). Thus, the significance of autonomy in language learning and the philosophy behind self-access as a concept became important and were frequently rationalised, with Littlewood (1997, p. 80) somewhat prophetically asserting that "self-access needs to be guided by a theoretical framework which justifies its existence".

The delay in finding a satisfactory framework may be due, in part, to delays in other relevant fields of study, with Rose (2012a, p. 97), in his examination of strategy and self-regulation theory, calling for a "new model of strategic learning to emerge". Rose (2012b) sees clear connections between strategic learning and SALL and sees great potential for examination of these connections. The connections that will be examined in the present article will be based on Chamot's (2012) simple definition of learning strategies as "efforts made by students to learn" and on Tseng, Dornyei and Schmitt's (2006, p. 81) conclusion that "it is not what learners do that make them strategic learners", but rather the "creative effort" that is involved in order to "improve their own learning".

With reference to a Self-access Language Learning research project called Mentoring for Self-access Language Learning (MENSALL), conducted between 2008-2010 in the School of English, Aristotle University of Thessaloniki, which involved peer mentoring for Self-access Language Learning, the author will seek to re-examine the 'self' in self-access, previously examined by Murray (2011) and Reinders and Lewis (2005), and see, if held up for examination and viewed in a slightly different light, it may be possible to return the concept of self-access to its rightful place as the jewel in the crown of autonomy.

Defining and Refining SALL

The origins of the term 'self-access' remain something of a mystery and proffered definitions of self-access have tended to place emphasis on access to materials and resources rather than on 'access' to the 'self'. Indeed, many of those actually involved in managing SALL resources (this author included) have actively promoted the same emphasis (Gardner, 2011; Murray, 2011; Reinders & Lewis, 2005); consequently, such approaches resulted in the term 'self-access' appearing to be something of a misnomer. It was perhaps also due to the fact that at this point in time there was much discussion of 'self-instruction' that there was the not unreasonable assumption that students using such resources would work alone. The other natural assumption which may have contributed to the 'tarnishing' of the reputation of self-access was the idea that materials and resources should be housed within a room, part of a room, or even a whole suite of rooms, like a "walled garden" (Reinders, 2012). It could well be that this predominant focussing on the 'access', as Murray (2011) puts it, or the organisation and management of self-access or resource centre collections, has landed SALL in what Reinders (2012) sees as a rather 'dangerous' yet not altogether warranted predicament.

Kelly (1996) recognised long ago, like many other researchers, that "a self-access centre does not in itself enable learners to become self-directed" (pp. 93-94) and that learning in self-access mode requires "considerable transformation of their beliefs about language and their role as learners" which can only be achieved through a "process of reorientation and personal discovery". Hounsell (1979) also believes that "a shift from other- to self-directed learning involves the learner in changes not only in methods but, more fundamentally in his perception of himself and his relationship to the world around him" (p. 465). Indeed, Breen and Mann (1997, p. 134) dispute the idea of language learning as a process, following particular rules or strategies, but rather see autonomy as "a *way of being* in the world; a *position from which to engage* with the world" (authors' emphasis) and that to be able to do that requires that learners have "a robust sense of self". They also dispute the commonly-held perception of autonomy as an 'ability', and, rather, regard it as "a way of being that has to be discovered or rediscovered".

In this article, like Murray (2011), I state the case for the importance of placing emphasis on the 'self' and the accessing of that 'self' and all of that self's

potential for learning, so that self-access language learning can benefit "[a]ll learners" (Gardner and Miller, 1999, p. 64) and, as Kelly (1996) points out, this will require much more than just "technology and the right configuration of resources" (p. 93), if learners are to be able to "make use of the environment they find themselves in in a strategic way" (Breen & Mann, 1997, p. 135).

To come to a better understanding of what self-access in its 'purest' sense might mean, we need look no further than the educational psychologist Gibbs (1979), who believes that "an autonomous individual must have both independence from external authority and mastery of himself and his powers" (p. 119). In the same vein, Allwright (1990, p. 1) regards autonomy as "a state of optimal equilibrium between dependence and self-sufficiency" where "the individual has developed his or her own inner resources to the full" but at the same time has recourse to "external resources" which he or she knows how to select and use to maximum advantage, without disadvantaging others or "compromising his or her autonomy", the latter also being recognised as a real danger by Breen & Mann (1997), Deci and Ryan (1995) and Schmenk (2008). The "equilibrium" to which Allwright (1990, p. 10) refers involves finding the balance between "both inner and external resources, both human and material resources, both cognitive and affective domains, and both the individual and the social aspects of both domains". This would seem to be the idea of self-access that Murray (2011) is trying to encapsulate when he pleads the case for metacognition and imagination and it also seems to offer parameters within which Tseng et al.'s (2006) idea of strategic learning could be applied effectively.

Faking Autonomy in Language Learning

Previously, the idea of learners possibly compromising their autonomy was touched upon. While it might seem hard to believe that students, rather than working towards autonomy, might choose to feign the behaviours of an autonomous learner, Breen & Mann (1997, p. 141) suggest that in order to please the teacher, having discovered what behaviours the teacher might like to see in her learners as evidence of autonomy, it is altogether likely that "learners will give up their autonomy to put on the mask of autonomous behaviour", a practice which Schmenk (2006, p. 82) also recognises and refers to as "façading". Schmenk (ibid) feels that the danger of identifying particular behaviours as evidence of autonomy is particularly likely to

occur in a self-access setting, where students are interacting with computers and other devices, so that on the surface they appear to be acting autonomously. Schmenk (2008, p. 101) also warns us of the dangers of trivialising autonomy and of reductionist approaches to promoting autonomy which result in what she calls "*autonomy lite*" (author's emphasis), but, equally well, she warns of its over-idealisation and of the very real dangers of its "globalization" and "McDonaldization" (Schmenk, 2005, p. 111). It could be argued that such dangers are all the more prevalent in the case of self-access.

Like Breen & Mann (ibid), Deci & Ryan (1995, p. 33) believe that someone might feel obliged to give up their autonomy and their "true sense of self" in order to take on a "socially implanted self". This is because they do not enjoy "true self-esteem", but rather a form of "contingent self-esteem" in which their feelings of self-worth depend on the evaluation and praise of others, whose standards they have adopted. Deci & Ryan (1995, p. 36) also stipulate that "only autonomous actions emanate from one's true sense of self".

Not only is there the danger of our learners faking autonomy, but even if their autonomy is genuine, according to McNair (1997), cited in Hughes (2003), there is a real danger that if learners in Higher Education continue to learn in the same way as previously, that they may actually become less autonomous. This is partly attributable to the fact that approaches to teaching and testing in Higher Education can often promote 'surface' approaches to learning, involving memorisation, rather than 'deep' approaches, where learning is retained.

The Essential Elements of Autonomy

Just as self-access has been hindered to some extent by the focus on physical rather than cognitive resources, in the same way, it could be claimed that autonomy has suffered from eager attempts to implement and promote it, without too much rationalising about the strategic elements which constitute autonomous behaviour, particularly in a language-learning setting. Here I will briefly discuss what seem to be four essential constituents of autonomy, as revealed by a review of the autonomy literature (Everhard-Theophilidou, 2012):

1) Identity

Little (1999) reminds us that language learning "has profound implications for our behavioural potential" (p. 31) and that there is necessarily a link with "our sense of self, our sense of identity". Doughty and Thornton (1973) emphasise how closely and intimately our sense of being and identity are linked to our ability to use language, positing that "our view of the world is inseparable from the way we use language to shape it" (p. 41). Imhoof (1991) seems to take this idea a step further when he states that "it is a step towards reshaping our lives" (p. 40). We are creating a new person with a new language. …language learning requires the student to take on a new identity." The link between language and identity is also reiterated by Williams and Burden (1997), with language being used to "convey this identity to other people" (p. 115). Brown (1973) highlights the fact that "communication implies a process of revealing oneself to another" (pp. 233-234) which is not easy, particularly when these revelations are in a foreign language.

Many researchers emphasise the link between identity and agency and the importance in autonomy of developing an agentic self and becoming a 'producer' of society, rather than just a 'product' of it (Macaro, 1997, p. 168), or, as Pennycook (1997) puts it, "an author of one's world" (p. 45). For an interestingly detailed and socio-anthropological analysis of 'self', 'identity' and 'personhood', see Riley (2003).

2) Reflection

Little (1999) states the interesting proposition that schooling should provide learners with knowledge, but at the same time equip them with the critical ability to question that same schooling. He strongly believes that learners should be able to use the foreign language as a tool for reflection and should be provided with opportunities both for reflection and self-assessment. Little (1999) considers that reflection entails "learner initiative" (p. 6) and when there is "learner initiative", there is the beginning of learner control. For him, reflection "necessarily entails self-assessment".

Dam and Little (1998) view learning as a cyclical process of planning, implementation and evaluation, with reflection at the centre, not just of language learning, but of learning in general. By developing this capacity, we are enabling learners to acquire a skill which can be applied in "other domains of life", but it is a skill which can only be developed "gradually, on the basis of practice" (Dam & Little, 1998, p. 130).

Interestingly, Huttunen (2003) sees reflection working on the different levels of 1) Mechanical; 2) Pragmatic and 3) Emancipatory. She has based these three levels on Habermas's three "knowledge-constitutive interests" and he, in turn, based his "interests" on Aristotle's three dispositions of human behaviour. At the Mechanical level, learners simply take facts on board without attending to their relevance or linking them to past knowledge and experience. At the Pragmatic level, the learner has an increased understanding of facts, due to an action or as a result of it, but is unable to analyse them further or relate them to experience. At the Emancipatory level, however, the learner gets a new perspective on things and gains fresh insights, while "engaging in reflection". Connections are made with previous knowledge and experience and reasons are sought for actions and outcomes of actions (Huttunen, 2003).

Jimènez Raya (2006) also believes that reflection is critical to the development of autonomy since ideas are "brought to consciousness" (p. 127). This enables the learner to consider an idea or problem from the perspective of an "outsider", so that the learner becomes "his own critic" and can identify "weak spots". Cotterall (2000) views autonomy as growing in direct relation to an individual's "learning awareness" (p. 112). Without reflection, she believes that learners cannot look back and assess the progress of their learning and neither can they modify their actions nor look forward and make plans for future learning activities.

3) Ownership

Questions of ownership both of learning and of the foreign language would seem to be fundamental to the promotion of autonomy and yet they are rarely discussed in depth. Ownership is perhaps a complex area to deal with because it brings in questions of learners' acceptance of the foreign language, the processes of acculturation, as well as a number of affective factors.

Kohonen (2001, p. 34) believes that very useful discussions can be formulated, both from a political standpoint, in terms of the "power relationships between teachers and learners" and from the way that learners view their language learning experiences, as well as "the world around them". Learning can only be meaningful if placed in a context where learners are able to "construct and interpret" it. For Kohonen, ownership also poses questions on an "emotional" level of who, in the learning situation, has the right or the responsibility to plan and take decisions. This

would all depend on how much learners feel that they have responsibility to make choices, take control or take the initiative. Kohonen sees ownership as being on a spectrum or continuum with teacher ownership progressing to shared ownership, with the possibility of moving on to learner ownership. Kohonen takes pains to stress that because greater ownership might be assumed by learners, this does not necessarily mean that teachers then take a back seat in the learning process. Rather, in order for learners to be able to take greater responsibility for their learning, there necessarily has to be a "careful balance between learner control and teacher support and feedback".

Crabbe (1999) asserts that the key to improvement of individual performance, whether of teaching or learning, is a greater sense of power and ownership, which will be "driven by an exploratory attitude and working within a curricular framework that is flexible and dynamic enough for individual explorations" (p. 141). Likewise, Reinders (2010) sees the promotion of learner autonomy as being not just the developing of particular skills, but, rather, requires "developing a certain mind-set that sees learning as an active process of discovery" (p. 52). If learners realise that they are valued and supported, they will be more likely to adopt this mind-set and teachers will regard learners' ownership of the learning process as being important.

Regarding ownership of the language itself, Dufeu (1994) asserts that "language cannot be separated from its use" (p. 7). Language users or "participants" can adopt the foreign language and "integrate it so well that it becomes their own". Because of this "direct contact" and ownership of the language, it no longer seems "foreign".

Thus, moves towards autonomy help promote ownership of learning, which becomes more meaningful and, at the same time, promotes ownership of the language, which takes on personal significance. In the case of self-access, it could be said that ownership will also extend to resources, both internal and external.

4) Self-determination

Closely linked to the concept of identity is that of self-determination. Identity has more to do with a way of being and acting in the world. Self-determination is more concerned with a learner's self-image or self-concept which is based on feedback received within the learning environment and the world at large and how (s)he decides to act based on that. Williams & Burden (1997) stipulate that the views of the world that individuals hold, have an influence on their self-concept, while,

equally well, their self-concepts affect their way of viewing the world. It is the combination of these views which will determine the learner's success in learning.

Ryan and Deci (2000) see self-determination as being on a continuum, with autonomy fluctuating depending on the degree of self-determination of the learner. At the one end of the continuum is non-self-determined behaviour signified by amotivation and non-regulation, where learners act non-intentionally, are non-valuing, incompetent, and lack control, and the locus of causality is impersonal, while at the other extreme where individuals are self-determining, there is intrinsic motivation and intrinsic regulation with behaviour which displays interest, enjoyment and inherent satisfaction and the locus of causality is perceived as internal.

Clearly, a person who constantly requires reassurance as to their abilities has "contingent" self-esteem, while someone with "true" self-esteem is not so affected by the ups and downs of successes and failures, "acting agentically" from their "integrated self", while someone with "contingent" self-esteem will be more affected by comparison with external and "socially imposed standards" (Deci & Ryan, 1995, p. 35). In their self-determination theory, Deci & Ryan (1995) assert that "being autonomous is both an input to and a manifestation of the development of an integrated self and true self-esteem", so that "to the degree that individuals have attained a sense of self, they can act in accord with or be 'true' to that self" (Ryan & Deci, 2002, p. 3).

It becomes clear that there is not just one self involved as the individual strives towards autonomy through SALL, but rather a whole range of competences or aspects of the self, which must become part of the learner's repertoire and identity if they are to succeed in language learning. Amongst those 'selves' are our previously-mentioned self-esteem and self-determination, as well as self-direction, self-regulation, self-efficacy, self-assessment, self-monitoring, and the list goes on.

The MENSALL Research Project and what it Uncovered

Some of our most interesting research discoveries can be made by chance and thus it was in my own case with the Mentoring for Self-access Language Learning (MENSALL) project, 2008-2010, in the School of English, Aristotle University of Thessaloniki. In this project, 3rd Year EFL students on an Applied Linguistics course concerned with Self-access and Foreign Language Learning were teamed up with 1st

Year students attending a 2nd semester Language Mastery course whom they would mentor with a view to overcoming particular language or learning difficulties by working in self-access mode. Although I have always worked hard to convince students that working in self-access mode does not require that we have a Self-access Centre (SAC), it became very clear to them and to me, due to limited access to self-access facilities, constrictions due to timetabling clashes between Mentors and Mentees, and sometimes even geographical distance, that this was very much the case. Mentors and Mentees could communicate by e-mail, by telephone or by mobile texting. They could meet in their respective homes, in the Departmental Library, the Faculty Cafeteria, the Resource Centre, Computer Lab, or anywhere else of their choosing as long as the mentoring and meeting of the challenges involved in the mentoring process were accomplished.

This demanded the bringing to the fore and exercising of many of the constituents of autonomy and many of the 'selves' listed above, with learners gaining mastery not only over the learning and language problems they had identified, but, even more importantly, greater mastery of themselves (Gibbs, 1979) through the development of a more "robust sense of self" (Breen & Mann, 1997, p. 139). There was clear evidence, not only of "efforts" (Chamot, 2012) being made to learn, but "creative effort" (Tseng et al., 2006, p. 81) which was not confined within the limits of the very small "walled garden" available to them (Reinders, 2012) or by any of the other constraints they encountered. There was the realisation by all parties that SALL is not something which need be restricted by time or place.

Without them even being aware of it, students were putting Vygotsky's neo-constructivist principles into practice, with the older students providing the necessary scaffolding for the younger students to reach the next stage in the learning process. It is true that there could have been some 'faking' of autonomy going on, but the overall impression from questionnaire feedback was of a mutually enriching experience, where internal resources on both sides had raised their awareness of how external resources could help them strengthen and build on their knowledge and trust within their small community of practice. It should be mentioned that Mentor-Mentee relationships were not only one-to-one. Many and any combination(s) of Mentors and Mentees was/were possible (though not usually more than 4 in either case), depending on how the Mentees and Mentors themselves had chosen to cluster together to suit their needs and learning styles and depending on overall demand for Mentors.

Conclusion

Although there is much still to be explored and examined concerning autonomy in language learning and how it can be promoted through SALL, it seems clear that SALL would be encouraged and exploited to a much greater degree than it is at present if old prejudices concerning its supposed drawbacks and limitations could be discarded and if the connections between strategic learning and SALL could become the subject of greater scrutiny. What needs to be given emphasis from hereon is the importance of the Self, or, more likely, the multiple Selves, which can be developed and helped to flourish through working in a strategic way in Self-access mode. Looked at in this way, the much wider possibilities and implications of SALL will become apparent. Self-access will take the place it so rightly deserves as the jewel in the crown of autonomy, but not a crown to be worn only by the rich and privileged, but one that, with a little bit of wisdom, is available to all people in all places.

Notes on the contributor

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The Metacognitive Strategic Knowledge of Seven Successful Chinese L1 Readers at a North American University: A Qualitative Study

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Abstract

This study examined the metacognitive strategic knowledge possessed by Chinese and Taiwanese ESL learners (N=7) studying at a North American university. Specifically, it sought to discover the factors that influence their decisions about whether or not to use reading strategies. However, instead of analyzing participants' use of individual strategies, it looked at the common themes which influenced their overall strategy use. In order to do so, participants first filled out a 30-item quantitative survey called the Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002). They then wrote justifications for their responses to each item. The results showed that time, memory, and text comprehension influenced participants' strategy selection. In addition, the content of the text and its length and difficulty also influenced strategy use. Finally, learners avoided certain strategies because they simply did not like them. Pedagogical implications for Chinese L1 students planning to study at the university level in the United States or other majority English-speaking countries are discussed, as are areas for future research.

Keywords: Metacognitive, reading, strategies

The Importance of Metacognitive Strategic Knowledge

One of the issues which has received a lot of attention during the last three decades is how second language (L2) learners use reading strategies, which Afflerbach, Pearson, and Paris (2008) identify as the "deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand words, and construct meaning out of text" (p. 15). According to Mokhtari and Sheorey (2002), successful readers are aware of a variety of strategies and can use them in flexible ways; in contrast, struggling readers are generally aware of few strategies, which they frequently apply incorrectly. In short, successful readers have *metacognitive strategic knowledge*, which is "general knowledge about what strategies are, why they are useful, and specific knowledge about when and how to use them" (Wenden, 1998, p. 519). A plethora of studies have demonstrated that successful readers tend to use comprehension strategies more effectively than struggling readers (e.g., Baker & Boonkit, 2004; Ikeda & Takeuchi, 2006; Jiménez, García, & Pearson, 1996; Kamhi-Stein, 1998; Schoonen, Hulstijn, & Bossers, 1998;

Sheorey & Baboczky, 2008; Sheorey, Kamimura, & Freiermuth, 2008; Sheorey & Mokhtari, 2001).

Reading strategies and Chinese L1 EFL learners

Strategy research using Chinese L1 EFL learners also supports such results. Specifically, these studies have demonstrated that struggling readers frequently use bottom-up strategies that are not particularly useful for understanding the text as a whole (e.g., using the dictionary when unfamiliar words are encountered, translating from English into Chinese, and examining sentence-level morphosyntactical structures) (Gan, Humphreys, & Hamp-Lyons, 2004; Zhang, 2000, 2001, 2002, 2010). In contrast, successful readers tend to utilize strategies that aid text comprehension such as guessing the meaning of lexical items, skimming, comprehension monitoring, and guessing what the text will be about (Yang, 2002; Zhang, 2000, 2001, 2010). In addition, they frequently use a greater quantity of strategies than their struggling peers (Lee & Liao, 2007; Zhang & Wu, 2009).

While these studies shed light on the reading strategy use of Chinese L1 EFL learners, they are problematic, for they all took place in Chinese-speaking environments (i.e., Mainland China, Taiwan, and Singapore) in which English is a *foreign language*, rather than a *second language*. Language learning strategies, in general, and reading strategies, in particular, have been shown to differ in English as a second language (ESL) and English as a foreign language (EFL) settings (Poole, 2005). Moreover, while it is unlikely that English will be the medium of instruction in most universities in EFL countries, it will always be so in universities in ESL countries. Typically, in English-medium universities, reading loads are quite heavy. In fact, according to a recent study, undergraduate students at one North American university spend an average of almost 15 hours a week on academic reading (Mokhtari, Reichard, & Gardner, 2009).

Problematically, we know little about how successful Chinese L1 university students use reading strategies in ESL environments. Such information would give Chinese L1 EFL teachers the tools to help prepare their students to study in ESL settings such as the United States, Great Britain, and Australia. In the United States, in particular, huge numbers of Chinese-speaking students are enrolled in undergraduate and graduate programs. In fact, during the 2009-2010 academic year, 128,000 Mainland Chinese were studying in the United States alone, making

them the largest group of international students in that country. During the same time period, Taiwan sent 27,000 students to the United States (Douglass & Paulson, 2010).

Thus, the following study aimed to fill a gap in the research by examining the reading strategy use of successful Chinese L1 ESL students. However, unlike the previously discussed studies of Chinese L1 EFL learners' reading strategy use, which investigated their awareness of or use of specific strategies, the present study sought to discover whether or not there were common themes which guided successful learners' decisions about whether or not to use *multiple strategies.* Such knowledge would help future Chinese ESL students (i.e., current EFL learners who plan to study in an ESL setting) by allowing their instructors to give them criteria by which to judge the appropriateness of numerous strategies, and thus go beyond simply teaching individual strategies. In the words of Carrell, "effective second language pedagogy must include not only training and practice in the use of task-specific strategies (i.e., strategy training), instruction in orchestrating, overseeing, and monitoring these strategies (i.e., self-regulation training), but more importantly, *information about the significance and outcome of these strategies and the range of their utility* [emphasis added] (i.e., awareness training)" (as cited in Li & Munby, 1996, p. 210). By studying successful L2 learners' reasons for using or not using strategies, instructors will have more knowledge about the end results of effective strategy use, which they can, in turn, pass on to their students.

Method

Participants

The present study aimed to fill this void by investigating Chinese L1 ESL learners' metacognitive strategic knowledge; specifically, the factors which influence their choice to utilize or avoid strategies. The participants consisted of five (*N*=5) Mainland Chinese graduate students and two (*N*=2) undergraduate students (1=Mainland Chinese; 1=Taiwanese) studying at a large North American University. The participants—two of whom were female, five of whom were male—were deemed successful because they had fulfilled the English-language proficiency entry requirements (i.e., a minimum paper TOEFL score of 550 or the completion of a university-affiliated academic English program) required by the university. In addition, all were in good academic standing at the time of this study. This does not mean that participants did not struggle with English inside and outside the classroom, but rather that they were able to carry out

coursework in an English-medium university. Their selection was based on convenience: they were the Chinese L1 students enrolled in a composition course taught by the author.

Participants were enrolled in undergraduate and graduate programs in marketing, business administration, electrical engineering, and education. In the results and discussion sections, they will be referred to under the pseudonyms of Robert, Larry, Leah, Paul, Richard, Zack, and Yolanda.

Data collection

Data were collected from participants in an advanced ESL writing course. First, the students completed a strategy inventory called the Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002). This instrument is a self-report measure which describes ESL and EFL learners' use of three types of strategies: global (*N*=13), problem-solving (*N*=8), and support strategies (*N*=9). Global strategies involve planning and managing one's reading (e.g., using tables and charts to increase text comprehension, previewing texts, and determining whether or not texts fit one's reading purposes). Problem-solving strategies are actions learners carry-out when they encounter comprehension problems (e.g., reading slowly and cautiously in order to understand text, being extra attentive when reading challenging texts, and occasionally pausing to reflect on the text's content). Finally, support strategies are mechanisms learners utilize to boost their understanding of text (e.g., translating into one's native language, asking oneself questions about the text, and underlining and circling important information). The SORS is scored using a five-point Likert scale (i.e., 1=I never use this strategy; 5=I always use this strategy), with scores of 3.5 and above reflecting high strategy use; 2.5-3.4 signifying moderate strategy use; and 2.4 and below representing low strategy use. Using Cronbach's Alpha, Mokhtari and Sheorey determined that the survey was reliable overall, as were all of its subscales. After completing the survey, the participants were instructed to justify their responses (in writing) to each of the thirty items in order to tap into their metacognitive strategic knowledge about reading.

Data analysis

Even though the SORS is a quantitative instrument, descriptive statistics were not taken because the small number of participants would prohibit making generalizations about this

population. More importantly, emphasis was put on obtaining a thick description of the rationale behind their reading strategy use. Thus, a qualitative method—analytic induction—was used in order to attain such a description. According to Goetz and LeCompte (1984), analytic induction involves "scanning the data for categories of phenomena and for relationships among such categories, developing working typologies and hypotheses upon an examination of initial cases, then modifying and refining them on the basis of subsequent cases" (p. 180). In this case, themes were established based on participants' responses on the SORS. As in Mu's (2009) study of EFL learners' language awareness and Leki's (1995) investigation of ESL writers' coping strategies, participants' explanations were constantly analyzed in order to discover significant themes. As data were analyzed, themes were established; if subsequent data did not fit into existing themes, such themes were modified or new themes were established. A second reviewer, who possesses a graduate degree in applied linguistics, teaches Spanish as a foreign language, and frequently uses the SORS in her classes, examined the researcher's themes to ensure that they were not built on erroneous interpretations of participants' explanations of their strategy use.

Results

The results indicated that participants' decisions about whether or not to use strategies revolved around four themes: time, text characteristics, memory, and comprehension. However, as discussed below, less than rational reasons also influenced their strategy use.

Time

Some strategies are selected due to their ability to save time, as in the following example in which Yolanda explains that she adjusts her reading speed depending on what she reads because "that can help me save time and also get my purpose. The more important, the slower." She also explains that she always has a purpose in mind when she reads because it saves time by helping her to "know where I need to put emphasis and where not."

Other strategies are frequently used because participants do not want to "waste" their time and using them helps them avoid doing so. Robert reports that he regularly considers whether or not texts fit his reading purpose because "I do not want to waste lots of time in reading articles that is not any help for me." However, participants shunned other strategies

because they perceived them to be too time-consuming. Larry claims that reading carefully and slowly not only wastes his time, but also "shortens" his reading speed so he rarely does it.

Text characteristics

Participants' use of strategies also depends on textual characteristics, such as content. More specifically, science and technology articles are invoked as the rationale behind using several strategies. Robert, for example, claims that he guesses the content of science and technology articles and pictures/visualizes it, too; however, while working with the same types of texts, he infrequently thinks about what he knows to help him comprehend them because "this method do not work," although it is useful when he reads articles about "our daily life." He also states that he only occasionally takes an overall view of the text before reading it because "when I read GMAT article, I usually find that if I take an overall view of text to see what it is about before reading it, I occasionally make an incorrect choice. I must respond to the author's thought."[1]

In addition to content, participants select strategies based on the text's difficulty and length. Zack claims that he reads slowly and carefully "sometimes if the text is really hard to read." Likewise, the choice of whether or not to adjust his reading speed "depends on the difficulty of the text book." Yolanda, on the other hand, reports that stopping from time to time is a difficult strategy to utilize when she reads a "huge amount of information," as she often forgets "the main point of the article." Finally, Richard reports determining what to read closely and what to ignore if the essay is long.

Finally, certain strategies are used depending on whether or not the participant finds the text enjoyable. Zack, for example, writes that he only loses concentration and subsequently has to get back on track "if the text is not interesting." Larry comments that he has a purpose in mind "if the topic is interesting for me."

[1] The Graduate Management Admission Test (GMAT) is a standardized test consisting of verbal, mathematical, and analytical questions. It is required for admission to most North American MBA programs.

Memory

The third major theme that emerged involved memory. Simply put, the participants state that they use certain strategies because they help them remember what they read. Leah, for example, visualizes information because it aids her in retaining it. Paul paraphrases texts because doing so helps him recall them. Zack critically analyzes and evaluates a text's content in order to remember it. Larry claims that he can recollect more of the text if he makes guesses about its meaning and checks to see if they are correct.

Comprehension

Finally, participants' use of strategies is related to their utility in helping them comprehend a text's main ideas. Robert commented on strategies he uses to help him understand the main idea of a text, including: having a purpose in mind when he reads; underlining or circling words; and going back and forth in a text to find relationships between its parts. Likewise, Yolanda asserts that she stops from time to time to reflect on what she is reading because, "When I read a huge amount of information, I always forget the main point of the article." She also previews the text before reading about it because doing so "helps me understand main ideas."

Less than rational reasons

While participants generally have thoughtful explanations regarding their strategy use, they report an unsubstantiated dislike of reading aloud. Comments range from straightforward statements of aversion, such as "I don't like to read aloud" (Yolanda), to more judgmental comments about its intrinsic value, like "I think that's a stupid behavior and when at the library, especially" (Richard), and "Reading aloud is no help for me to understand better, but sounds stupid" (Leah).

Discussion

Most of the results of this study were similar to those which focused on Chinese L1 EFL learners. First of all, participants reported utilizing strategies that save time and avoiding those they perceived to be time-wasting, which was also seen in Zhang's (2001, 2010) studies of

university students in Mainland China. Moreover, he found that struggling readers did not know how to effectively utilize their time while reading.

Another finding that was similar to other studies involved the connection between text characteristics and participants' strategy choices. Specifically, they knew that certain types of strategies were used with certain types of texts (e.g., science, engineering), which was also found by Li and Munby (1996) and Zhang (2010) in their studies of graduate and undergraduate Chinese L2 learners. Successful Chinese L2 learners have also been shown to use different strategies depending on text difficulty (Feng & Mokhtari, 1998; Li & Munby, 1996; Zhang, 2001), as was seen in the current study.

The third theme that emerged in this study—memory—revealed that participants were concerned with remembering what they read. Interestingly, Gan et al. (2004), Gu (2003), and Rao (2006) have shown that rote memorization of English grammar and vocabulary using tools such as vocabulary lists and flash cards is common in Mainland Chinese EFL instruction. Ding (2007) and Rao (2006) suggested that such a concern with memory could be related to the influence of L1 instruction, which involves students memorizing thousands of Chinese characters. However, it should be noted that the participants in the current study were not memorizing decontextualized morphosyntactical or lexical items, but rather using strategies such as visualizing, paraphrasing, critically analyzing and evaluating, and checking to see if their guesses were correct or incorrect in order to remember what they read. In other words, in Chinese EFL instructional settings, learners are directly engaging in memorizing language, while in the current ESL-based study, they were engaging in non-memorization strategies that will help them remember the content of the text. Nevertheless, it seems probable that their previous EFL instructional experiences contributed to their preoccupation with memory. However, the connection between the two has not been firmly established.

Finally, participants used strategies depending on whether or not they perceived them to help comprehend texts. Such findings were not surprising since numerous studies have shown that successful Chinese L1 EFL readers focus on comprehension (Zhang, 2001, 2002, 2010). Obtaining overall text comprehension, or what Rao (2003) calls *global comprehension*, is important because it "enables us to dismiss various misinterpretations because they do not fit in with the overall message" (p. 41). Interestingly, the connection between reading proficiency and

concern for overall comprehension has been found in research on university students who are native speakers of English (Saumell, Hughes, & Lopate, 1999).

In short, while the present study showed that participants' strategy use was similar to that of successful Chinese-speaking L2 learners in other studies and reflected the goal-oriented reading strategy use seen in successful L1 learners (Pressley, 2002), it was not entirely rational. Specifically, some claimed to dislike reading aloud, and a few even called it "stupid." One reason for this strong dislike of reading aloud could be that it is a common practice in Mainland Chinese EFL classes (Rao, 2003), which some students find to be stressful and humiliating (Ding, 2007). The participants here could have had similar negative experiences. Future studies should investigate whether or not Chinese L1 ESL students' dislike of reading aloud is, indeed, related to negative experiences as EFL learners or other factors such as not understanding its purpose. Future studies should also investigate whether or not memorization, another commonly-used strategy in Chinese L1 EFL settings, is related to learners' concern with memory in ESL settings or if the two arise independently.

Future studies should likewise use larger numbers of participants. The small number of participants in the current study is hardly sufficient to make generalizations about successful Chinese ESL readers. In addition, the current study focused on participants' *reported* strategy use rather than their *actual* strategy use. Direct observation through techniques such as think-alouds could be used in future inquiries in order to observe these strategic habits to see if they correlate with certain goals (i.e., comprehension) (Jiménez, García, & Pearson, 1995; Merriam, 2001; Mokhtari & Sheorey, 2002). Finally, the process by which students develop metacognitive strategic knowledge should be investigated. While reading strategy instruction has been shown to be effective in fostering L2 growth (Song, 1998), little is known about the non-classroom mechanisms (e.g., pleasure reading, peer modeling) which contribute to learners' reading strategy development.

Instructional Implications

In spite of its limitations, this study's findings have several implications for those preparing Chinese L1 students to study at the university level in the United States or in other ESL countries. First, students need to be encouraged to use strategies that lead to overall comprehension, but do not impede them from completing the reading task in a reasonable

amount of time. However, knowing whether or not they are achieving this balance will probably require them to try out a variety of strategies with a variety of texts. Thus, instructors should remind them that there is no easy one-to-one correspondence between specific strategies and reading comprehension, so they need to be patient. Nevertheless, instructors can foster comprehension-oriented strategy use by implementing what Rao (2003) terms a *top-down* approach to strategy instruction which avoids focusing on sentence-level items (i.e., grammar, vocabulary), but instead promotes the use of comprehension-oriented strategies such as utilizing one's background knowledge and making predictions about the text. Moreover, instructors can encourage their students to become more comprehension-oriented by teaching them to monitor their own understanding of what they are reading. This skill, which is known as *comprehension monitoring*, enables learners "to know what has been done right or wrong and to integrate new information with prior existing knowledge" (Yang, 2002, p. 19), which is "crucial because readers need to possess the ability to be aware of what kind of reading problem they are encountering, and what kind of strategies should be used to solve them" (Yang, 2002, p. 36). Finally, instructors can implicitly show their students that text content and difficulty affect what strategies are necessary to achieve comprehension by modeling think-alouds with various text types (e.g., biology textbooks, poetry) of dissimilar levels of complexity (Kamhi-Stein, 1998).

Instructors need to bear in mind, however, that effective strategy use is heavily influenced by prior knowledge (Dole, Duffy, Roehler, & Pearson, 1991; Recht & Leslie, 1988) and lexical knowledge (Pang, 2008). In fact, various researchers have suggested that, regardless of the strategies learners employ, if a certain "threshold" of L2 proficiency is not present, text comprehension will be very difficult to achieve (Clarke, 1980; Schoonen et al., 1998). Thus, one recommendation to help learners more effectively use comprehension strategies is to help them build their overall L2 proficiency, especially their lexical knowledge. One way of doing this is through *free voluntary reading*, which is when students read challenging, yet comprehensible, foreign language materials at their own pace (Krashen, 2007). According to Krashen (2011), significant gains in academic language proficiency have been made by L2 learners who have engaged in such reading.

Conclusion

This study evaluated the metacognitive strategic knowledge possessed by seven successful Chinese L1 ESL students at a North American university. Specifically, it investigated whether or not there were common themes that influenced their decisions about strategy use. The results showed that time, text characteristics, memory, and comprehension guided their strategy use. Methodological limitations notwithstanding, such findings have important pedagogical implications for Chinese L1 EFL learners who want to study in the United States—or any other ESL country—for they demonstrate that successful strategy use is guided by specific themes. In light of the breadth, depth, and sheer volume of reading required at English-medium universities, these students will need to be skillful strategy users in order to achieve academic success.

Notes on contributor

Alex Poole (PhD, Oklahoma State University, 2003) is an applied linguist whose interests include focus on form instruction, Spanish-English bilingualism, and reading strategies. He regularly publishes articles on these topics and presents at national and international conferences. Dr. Poole directs the ESL Endorsement/TESOL Graduate Certificate programs at WKU. He also teaches courses in composition, TESOL methodology, and pedagogical grammar, among others. When not teaching, advising students, or researching, Dr. Poole lectures on issues related to English language learners and reviews scholarly submissions to peer-reviewed journals.

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EFL Students' Writing Strategies in Saudi Arabian ESP Writing Classes: Perspectives on Learning Strategies in Self-access Language Learning.

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Abstract

This study was part of a PhD research to explore the writing strategies of 121 second-year undergraduate Saudi student writers who are studying English as a foreign language and for specific purposes in one of the Saudi industrial colleges: Jubail Industrial College (JIC). The writing strategies under investigation had been classified into two categories (process-oriented writing strategies and product-oriented writing strategies) based on their instructional philosophies. A strategy questionnaire was designed to collect data. Although JIC writing classes were assumed to be product-oriented as reported by the majority of the participants' description of their teachers' writing approach, the results showed that almost all of the participants (95.9%) were mixing the two kinds of strategies. More surprisingly, the top five writing strategies used by the participants were process-oriented.

Keywords: EFL writing strategies, process writing approaches, product writing approaches, ESP writing in Saudi Arabia.

One might argue that writing should be always instructed simply because the ability to write a text that is error free is not a naturally acquired skill but is formally learned in formal instructional settings (Banda, 2003). However, this argument seems to limit the dimensions of writing skill, in particular, and language in general because it only values the linguistic side of the skill and overlooks the strategic side. In fact, learning to write seems to be a typical example where the components of communicative competence (Canale & Swain, 1980) can meet, interact, and develop.

In this introduction, we will consider two of the dominant camps of writing instruction: the process group and product group, and their associated writing strategies. Next, we will investigate through a strategy questionnaire the type of writing strategies used in an EFL writing context, where the assumed writing approach is product-based.

The first camp of writing instruction adopts product approaches, which share the idea of accuracy, linearity, and prescriptivism in the way they deal with teaching writing. They deal with writing as a straightforward action, as marks on a page, as related words, as clauses, and as structured sentences (Hyland, 2003). According to this perspective, "writing development is considered to be the result of [structurally or rhetorically] imitating and manipulating models provided by the teacher" (Hyland, 2003, p.3). Teaching product-based writing involves such aspects as guidance, control and

assistance with questions to answer, a model to follow, an outline to expand, an incomplete piece of writing to complete, or an incorrect text to correct (see Brown, 2001, p. 335; Pincas, 1982; Pincas, 2001, p. 2). The aim here is to introduce students to structures accepted by the native speakers. L2 students need to be guided systematically to avoid any L1 interference (ibid.). In the light of this teaching, writing might include such strategies as following teachers' rules and feedback, writing without collecting information, writing without planning, following outlines, focusing on organization, neatness and layout, constant editing of grammar, vocabulary use and punctuation, avoiding writing sentence fragments, etc.

The second camp of writing instruction is process orientated. The basic idea of writing here is explained briefly by Zamel (1983, p. 165) as a creative process by which writers "discover and reformulate their ideas as they attempt to approximate meaning". Writing, she argues, is "a nonlinear, exploratory, and generative process" (ibid). In the so-called process school, there are two groups: the expressivists and the cognitivists (Faigley, 1986). The expressivist movement (e.g. Donald Murray, Peter Elbow, and others (see Johns, 1990), encourages students to take power over their writing. The expressivists focus on the writer's voice, self-discovery and expression. They emphasize the importance of fluency over accuracy and argue that ideas emerge from learners rather than textbooks. Free-writing technique, for example, is a distinctive writing strategy that "leads quite naturally to a process classroom" (Reid, 1993, p. 260). The cognitivists, on the other hand, see learning (and learning to write) as a mental process and learners as active recipients of that process (see O'Malley and Chamot, 1990). They emphasize the role of internal mental processes rather than external behaviors (Ellis, 1990). For them, writing instruction should explicitly teach students to understand their own writing processes and to build up their own strategies for the over-lapping writing stages. From the cognitive perspective, writing is viewed as a complex cognitive skill, as a decision-making and a problem-solving activity (Flower & Hayes, 1981). In contrast to the product school, the two major process approaches share their dislike of emphasis on grammar correction. They do not look at writing as a simple activity with a model to follow or a product to shape. They encourage meaning over form and fluency over accuracy (Tribble, 1996). In the light of these perspectives, writing strategies might include strategies of free writing, planning, creating ideas, discovering meaning, group or pair work, considering audience, purpose, and context of writing (Connor, 1987), revising, drafting, and proofreading.

According to Piper (1989, p. 212), "there is no doubt that instruction does have an effect on how the learners write both in terms of written output, writing behaviours and attitudes to writing". This study, therefore, attempted to investigate the instructional type of writing strategies used by EFL college students in Saudi Arabia.

Research Questions

There is little research investigating writing strategies according to instructional philosophies. Thus, the research questions of this study are:

1- Based on the process-product types of writing instruction, what is the instructional type of *writing strategies* used by EFL college students in a Saudi Arabian context?
2- What are the five most used writing strategies?
3- What are the five least used writing strategies?

Subjects and Research Setting

The population for the research were second-year undergraduate Saudi student writers who are studying English as a foreign language in one of the Saudi industrial colleges: Jubail Industrial College (JIC). The total number of the research population was approximately 400 students, and the total number of the participants who took part in the survey was 121 participants. The population can be described as intermediate[1] non-native speakers and writers of English who speak and write English for specific purposes: technical and business. The selection was on a voluntary basis from 4 writing classes taught by 4 different teachers: two natives and two non-native speakers. In JIC writing classes, teaching materials are designed according to the principles of the product approaches.

Developing a Strategy Questionnaire

In investigating writing strategies and processes, previous ESL/EFL studies used either introspective data, i.e. think-aloud protocols (Arndt, 1987; Jones, 1982; Jones & Tetroe, 1987; Raimes, 1985) or retrospective data, i.e. interviews (Silva, 1992; Zamil, 1983) and questionnaires (Angelova, 1999; Sasaki & Hirose, 1996). Other studies (Abdel Latif, 2009; Alhaysony, 2008; Chaaban, 2010; El-Aswad, 2002; Raimes, 1987; Wang and Wen, 2002) combined the two kinds of data sources. The current study investigated the participants' writing strategies through a questionnaire. Surveying a large number of subjects, a benefit of adopting quantitative questionnaire as a research approach, would allow us to establish a process-product catalogue of writing strategies. Furthermore, "such an instrument would enable researchers to compare findings in different contexts. At the same time, it could also have pedagogical applications in two ways: as a needs analysis or diagnostic tool for teachers and an

[1] In the intermediate level, students can generally meet the specifications of B1+ level in the Common European Framework.

awareness-raising tool for learners" (Petric & Czarl, 2003, p. 188). This research, therefore, does not deal with individual writers' profiles of writing strategies. Instead, the current research considers writing strategies defined as 'the [conscious] behaviors and techniques that can be taught and instructed [in writing]" (Grenfell and Harris, 1999, p. 39). The word '*conscious'* excludes the controversial debates around the consciousness and unconsciousness of strategy use. '*That can be taught and instructed in writing*' refers to the focus of the research on the process-type and product-type writing strategies, i.e. strategies that reflect the principles of process and product approaches to writing teaching. Therefore, the strategy questionnaire items are divided into two categories or 'clusters': process-oriented items and product-oriented items.

The product-process philosophical dichotomy of those strategy items is based on two things. First, if a strategy is related to the 'form' feature of writing, then we consider it a product-oriented strategy. If a strategy is related to the 'content' feature of writing, then we call it a process-oriented strategy. The process-oriented writing strategies, therefore, focused on the strategies of flexibility, recursiveness, creating ideas, discovering meaning, considering audience, purpose, and context of writing, revising, and collaborating. The product-oriented writing strategies, on the other hand, would generally focus on the strategies of accuracy, linearity, prescriptivism, imitation and dependence on teacher's assistance. Second, if a strategy is not evidently related to one of those features, its classification as a product-or-process strategy is taken from our own understanding of literature on writing approaches. The product-typed writing strategies are the items written in bold in part B of the questionnaire; the others are the process-typed strategies (see Appendix A).

The items of both types of writing strategies were randomly sequenced to avoid the bias of choice and being evident to the participants. The total number of strategy items before amendment was 50 items: 25 process strategies and 25 product strategies. After reliability amendment, 5 items were deleted from both groups of strategies. Having equal items in both groups would help in classifying the participants into process-oriented strategy users or product-oriented strategy users. The scoring formula (adapted from Daly and Miller's formula for Writing Apprehension Test (1975), thus, is: (120 + the scores of the process strategies – the scores of the product strategies). Scores may range from a low of 40 to a high of 200, with a range of 160 scores total. Scores were, therefore, divided equally: 53 scores were given for each main category (process and product) and 54 scores for the category of the equally mixed kinds of writing strategies. Classifying strategies rigidly with a cutting edge is impossible, so having a zone where mixed strategies can be classified is sensible. Scores from 40 to 93 reflect a more process-oriented strategy user; scores from 148 to 200 reflect a more product-oriented strategy user. Scores from 94 to 147 reflect users of more equally mixed kinds of writing strategies.

The rating scale of the self-report writing strategy questionnaire followed the Likert-scale of five

responses: always=1, often=2, sometimes=3, rarely=4 and never=5. The scores were not written for the participants to avoid confusion. Instead, it had been decided to use the percentage so that the participants can clearly understand the differences between the five responses. Percentages were added in light of criticism (see Dörnyei, 2005; Tseng, Dörnyei, & Schmitt, 2006) and so that computing means scores would be more justifiable.

Validity and Reliability

The first version of the questionnaire contained 50 strategy items. Those items were either written by the researcher or borrowed and modified from two other writing-strategy questionnaires: (1) Petric's & Czarl's (2003); and (2) Alhaysony's (2008). After piloting the first version of the questionnaire, the Cronbach's alpha of the 50 items was .85. This means reliability is high. However, the split-half method (to measure consistency of responses across two randomly divided sets of items) and the test-retest method (to measure consistency of the over-all scores of the participants from time to time) showed a very low reliability. The Spearman-Brown Coefficient was .41, and the test-retest reliability was .350. These statistical results forced us to reconsider the 50 items and to think about the validity checkers' comments on the contrasting strategies. 10 items (equally divided into process and product strategies), therefore, were deleted including those items suggested to be deleted by the validity checkers in the pilot study and other items that can be combined in one item instead of two. Consequently, both split-half and test-retest reliabilities of the remaining 40 items increased significantly. After this amendment, the split-half reliability became .80 and the test-retest reliability became .64. The Cronbach's alpha also increased to .857. As noted by many SPSS analysts (DeVellis, 1991; George & Mallery, 2003; Pallant, 2005) the Cronbach's alpha of .80 to .89 is very good and .70 is the cut-off value for being acceptable. The 40-item strategy questionnaire (see the Appendix), therefore, was used instead of the 50-item one.

Data analysis

Due to the quantitative nature of the research questions, data was analyzed using the SPSS program for descriptive statistics. Two methods of descriptive analysis, therefore, were used (frequency tables and measures of central tendency and dispersion) to be able to summarize the frequency and mean of data for writing strategies used by the participants and understand the variability of their scores through the standard deviation.

Results and Discussion

As far as question one is concerned (**What is the instructional type of *writing strategies* used

by EFL college students in Saudi Arabia?), the participants were classified (based on their scores) into three groups: (1) more process-strategy users, (2) users of more equally mixed process-and-product strategies, and (3) more product-strategy users. Table 1 below shows that almost all of the participants (95.9%) were mixing the two types of strategies. This seems to be different from other studies that indicated the dominance of product-oriented writing strategies in Arab students' ESL/EFL writing (Al-Semari, 1993; El-Aswad, 2002; El-Mortaji, 2001; Fageeh, 2003; Krapels, 1990). In addition, measures of central tendency and dispersion were computed to summarize the data and understand the variability of scores for both *the instructional type* of writing strategies used by the participants and *the over-all writing strategies used.* The following are the results of the analysis for the instructional types: (N = 121, M=1.99, SD=.20). When you look at the mean, it shows that the participants' writing strategies tended to be in the middle and not to be oriented by a particular type of instructional principles. This was supported by a low variation in the scores as the standard deviation indicates.

Table 1. The Instructional Type of EFL Writing Strategies

		Frequency	Valid Per cent	Mean	Std. Deviation
Valid	1) More process-oriented strategy users	3	2.5		
	2) Users of more equally mixed strategies	116	95.9	1.991	.2039
	3) More product-oriented strategy users	2	1.7		
	Total	121	100.0		

Similarly, as shown in table 2 below, the results of the analysis for the five Likert-scale responses of the over-all writing strategies across the questionnaire show the following: (N= 121, M= 2.98, SD= .43). When we look at the mean, it also points to the general tendency for a middle position. The participants were tending to use all kinds of strategies sometimes (50% to 79%). This tendency does not seem to vary a lot across responses.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
All strategies	121	1.80	4.08	2.9826	.43843

On the other hand, the results of the second question (**What are the five most used writing strategies by EFL Saudi students?**) seem to contradict the previous interpretation of the participants being more users of more equally mixed kinds of writing strategies. As shown in table 3, the majority of the participants tended to use five process-oriented writing strategies more than the rest of the strategies.

This was unexpected. The JIC writing classes are assumed to be product-oriented for two reasons. First, the teaching materials are designed to be taught according to the principles of the product approaches. Second, after coding and analyzing the participants' answers to an open-ended question asking them to explain *how they are taught English writing in the college*, the majority of the valid[2] answers (71%) reported receiving product-oriented writing instruction. The top five used writing strategies, therefore, were expected to be product-typed. One of the numerous explanations for this might be writing experience and previous writing instructions. As confirmed by other studies (Aljamhoor, 1996; Chaaban, 2010; El-Mortaji, 2001; Fageeh, 2003), writing strategies are controlled and directed by writing experience and/or previous writing instruction. The current results, however, cannot accurately relate those 5 process-oriented writing strategies to a previous writing instruction simply because 70.2 % of the respondents reported that they did not attend a course in English writing before coming to college, 66.4% of them said that they had not received any sort of training on writing strategies, and, as said above, 70.5% of the valid answers explained that they had received product-oriented writing instruction. On the other hand, the majority of the participants (66.9%) were studying English for 7 years or more. Still, this could not confirm the above studies' findings regarding writing experience or previous instruction, but there might be an indication to learners' writing schemata. This might take us to another explanation that could be related to the participants' writing competence. They might have received and developed their own process-typed writing strategies as a result of being more competent. They could also inherit those kinds of strategies as part of their normal way of learning to write or they might have transferred them from their Arabic writing strategic competence. This taxonomy of writing strategies according to their instructional philosophies has left the door widely open for more inquiries and more explanations.

Table 3. The Five Most Used Writing Strategies

	Process Strategy (If I do not know the exact word in English, I use a similar English word that I know.)	Process Strategy (When I write, I think about the purpose of my writing.)	Process Strategy (When I do not know how to express my thoughts in English, I simplify what I want to write.)	Process Strategy (When I write, I think about the reader of my writing.)	Process Strategy (I stop after each sentence or paragraph to relate ideas together and get more new ideas.)
Mean	1.5620	1.9917	1.9669	2.3471	2.1736
Std. Deviation	.82556	1.00412	.99108	1.26300	1.10059
Frequency	72	47	46	41	40
%	59.5%	38.8%	38%	33.9%	33.1%

[2] There were 38 valid responses; 33 were irrelevant, and 50 did not respond.

Regarding the last question (**What are the five least used writing strategies by EFL Saudi students?**), table 4 below reveals that the least used writing strategies were a mixture of product-oriented and process-oriented strategies. Similar to the results of the previous question, the majority of the participants who almost never used those five strategies reported that they had received product-oriented writing instruction. However, they had not received any sort of instruction on writing strategies. This would indicate that students might develop their own sense of proper strategies to use or not to use in writing English. When we look at the first and the fifth least used writing strategies below, we can get a good example of this. Although the two strategies are of two kinds (one process-oriented and one product-oriented), they both refer to the use of the mother tongue in EFL writing. The results for the two show that the vast majority of the participants tended not to use Arabic, their native language, neither as a process nor as a product strategy of writing. 57.9% of them informed that they almost never use the product strategy of translating literally into English. In addition, 41.3% reported that they also never use the process strategy of writing bits of the text in Arabic and then translate into English. In fact, "the idea of abandoning the native tongue is too stressful to many learners, who need a sense of security in the experience of learning a foreign language" (Galina, 2009, p.1). Learners, therefore, are supposed to develop their own learning strategies to establish that sense of security, but sometimes they do not. Perhaps students are not fully aware of the usefulness of using their native language as a strategy of learning to write, which has been supported by a number of studies (Alam, 1993; El-Aswad, 2002; Fageeh, 2003). Or perhaps, students might be influenced by the social, cultural and occupational preferences for native-like language norms; therefore, constant use of the target writing language might be a benchmark of good writing for Saudi EFL learners. In addition, it could be that students have responded to the instruction of their teachers who did not allow using Arabic in class as directed by the strategy of the school[3]. Using the mother tongue is highly prohibited in JIC writing classes. Students, therefore, are discouraged about using or expressing their actual use of their native language in writing. Whatever the explanation is, it seems quite indicative that students would develop their own sense of strategies to use or not to use in writing English. This might be based on personal, cultural, social, or instructional purposes.

Table 4. The 5 Least Used Writing Strategies

	Product Strategy (I write sentences in Arabic and then literally translate into English.)	Product Strategy (When I finish writing my paper, I hand it in without rereading it.)	Process Strategy (When revising, I change my initial ideas and write new ideas.)	Process Strategy (I write more than one draft before handing in the final draft of the essay.)	Process Strategy (I write bits of the text in Arabic and then translate them

[3] Mr. Alnufaie is a teacher there for more than 8 years and knows this fact very well.

					into English.)
Mean	4.0248	3.9917	4.1157	3.9669	3.6942
Std. Deviation	1.35070	1.13648	1.00158	1.11006	1.39549
Frequency	70	55	53	51	50
%	57.9%	45.5%	43.8%	42.1%	41.3%

Conclusion

In conclusion, this quantitative study set out to answer questions concerning Saudi students' EFL writing strategies in Juabil Industrail College. The above findings of the participants' writing strategies confirm the belief (Reid, 2001, p. 29) that writing cannot and should not be isolated as either process or product activity. Writing "fundamentally depends on writers' purposeful interactions with print, with fellow readers and writers, and with literate communities of practice" (Ferris & Hedgcock, 2005, p. 31). Reid (2001) said that the dichotomy between 'process' and 'product' in terms of instruction is false. Similarly, this article confirms that this dichotomy is false in terms of learners' writing strategies. However, by establishing a 'process-product' catalogue of writing strategies and understanding general tendencies, researchers can compare findings in different contexts, teachers can diagnose learners' needs for a particular type of strategy instruction and establish priorities among them, and students can raise their strategy-use awareness (Petric & Czarl, 2003). When EFL college writers tend to diversify the type of writing strategies they use, we could argue that the nature of EFL writing might be more dynamic, complex and probably more sophisticated. As a result, the perspective taken from this study is that teachers should try and adopt a diverse view of EFL writing instruction and allow for constant access to different types of writing strategies. A number of studies had previously reported both reciprocal and diverse relations between teacher teaching approaches and student learning approaches (Martin & Ramsden, 1998; Marton & Booth, 1997; Patrick, 1992; Trigwell, Prosser & Waterhouse, 1999). However, the question that is yet untouched in this study is: What is the nature of correlation between the instructional type of students' writing strategies and the type of writing instruction adopted by their teachers? In other words, can students' writing strategies reflect the knowledge accessed and learned during writing classrooms? For future research, therefore, researchers are recommended to investigate whether EFL writing strategies can or cannot be self-instructed.

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Appendix A

WRITING STRATEGIES QUESTIONNAIRE

Dear Student, thank you very much for participating in this study. All information you will provide will be treated as strictly confidential and no names will be mentioned in the study. This study consists of two parts: A) General background, and B) writing strategies questionnaire.

A) General Information

1) How many years have you been studying English? Years……..…....Months……..…

2) Did you attend a course in English writing before coming to this college? ❒ Yes. ❒ No.

3) Do you practice English writing at home?

❒ Always ❒ Usually ❒ Sometimes ❒ Seldom ❒ Never

4) Do you practice Arabic writing?

❒ Always ❒ Usually ❒ Sometimes ❒ Seldom ❒ Never

5) Do you like writing in English?

❒ I like it a lot. ❒ I like it. ❒ I have no feelings about it. ❒ I do not like it. ❒ I do not like it at all.

6) Do you like writing in Arabic?

❒ I like it a lot. ❒ I like it. ❒ I have no feelings about it. ❒ I do not like it. ❒ I do not like it at all.

7) Have you received any sort of training on writing strategies? ❒ Yes ❒ No

If YES, please explain how you are trained.

……..……

……

……

8) Could you please explain how you are taught English writing here in the college?

……

……

……

B) Writing Strategies in English

	Please read each statement carefully and tick the box indicating how true of you the statement is. There are no right or wrong answers. Sometimes it might be difficult to answer because you have to analyze what you actually do by habit, not what you wish you could do. It would probably be best to recall exactly what you did when you wrote a recent paper. If you do not know the meaning of the underlined words, you can refer to the glossary at the end of the questionnaire.	Always	Often	Sometimes	Rarely	Almost Never
1	Before I start writing, I read about the topic and collect information from different sources.					
22	I delete or change a word, a phrase or a sentence when the meaning is not clear. أحذف أوأغيّر الكلمة أو الفقرة أو الجملة عندما يكون المعنى غير واضح					
23	**I try to use a lot of vocabulary.** قبل الكتابة أعمل مسودة بالخطوط العريضة لكامل م					
3	Before I start writing about a topic, I do freewriting to get as many ideas as possible.					
24	**I try to make use of complex grammatical structures.** حاول أن أستخدم تراكيب قواعدية صعبة					
25	**I try to connect short sentences into longer sentences to become longer.** قبل					
5	**If the topic is not known to me, I stop writing.** أحاول أن أربط الجمل القصي					
26	**I delete or change a word, a phrase or a sentence when I am not sure about spelling or grammar.** أحذف أو أغيّر كلمة أو فقرة أو جملة عندما لا أكون متأكد من الإملاء أو القواعد					
27	**I memorize proverbs and beautiful expressions to embrace and improve my writing.**					
7	Before writing, I discuss the topic with others (e.g. my teacher, classmate, etc.).					
28	**Each sentence I write has to be accurate and perfect before I'll write another sentence.** كل جملة أكتبها يجب أن تكون صحيحة وتامة قبل أن أكتب الجملة التي تليها					
29	**When revising, I focus on grammar rather than ideas.** الكتابة أستخدم طريقة الخارطة					
9	**I write sentences in Arabic and then literally translate into English.**					
30	When I revise, I rearrange sentences and paragraphs to make ideas clear. عند المراجعة؛ أعيد ترتيب الجمل والفقرات النصية لجعل الأفكار واضحة					
31	When I revise, I add new words, sentences or paragraphs to the meaning needs that.					
11	When I write, I think about the reader of my writing. المراجعة؛ أضيف كلمات وجمل وفقرات					
32	When revising, I change my initial ideas and write new ideas. عند المراجعة؛ أغير أفكاري الأولى وأكتب أفكار جديدة					
33	**When I revise, I focus on the layout of the content.** إذا كان الموضوع غ					
34	**I add more words, phrases or sentences when the paragraph or the essay seems short.** أضيف كلمات أو فقرات أو جمل أكثر عندما أرى أن المقال قصير					
35	**When writing or revising, I take account for my teacher's expectations.**					
14	When I do not know how to express my thoughts in English, I simply write what I want to write.					
36	I keep editing until I finish writing the whole passage. أواخر التدقيق الإملائي والقواعدي حتى أنتهي من كتابة كامل القطعة					
37	When I finish, I leave my text aside for a while and then reread it. إذا لم أعرف الكلمة الإن					
16	**If I do not know a word in English, I stop writing and look up the word in a dictionary.**					
38	I write more than one draft before handing in the final draft of the essay. أكتب أكثر من مسودة قبل أن أسلم المسودة النهائية للمقال					
39	**When I finish writing my paper, I hand it in without rereading it.** إذا لم أعرف					
18	**I try to not to change what I have written whether a sentence or a paragraph.**					
40	When I finish writing my essay, I show it to somebody and ask for his/her opinion. ما وأسأله عن رأيه عندما أنتهي من كتابة المقال؛ أعرضه على شخص					
	لأربط الأفكار بعضها ببعض وأستنتج أفكار جديدة أتوقف بعد كل جملة أو فقرة نصية					
20	**While writing, I constantly check grammar.** عندما أكتب أتأكد من القواعد بشكل مستمر					
21	**If new ideas emerge, I try to ignore them and focus on the ones I have at the beginning.** جديدة أثناء الكتابة؛ أحاول أن أتجاهلها وأركز في الأفكار التي وضعتها في إذا طرأت لي أفكار البداية					

GLOSSARY

EXPRESSIONS	ARABIC MEANING
Outline	يتخللها قد عريضة؛ وعناوين عامة جمل شكل على وفقراته للمقال مسودة بالكتابه البدء قبل المقال فقرات من فقرة لكل فرعية وعناويين أمثلة
Freewriting	الأفكار من عدد أكبر لجمع توقف بدون الموضوع عن الحرة الكتابة طريقة وقواعدياً لغوياً الكتابة صحة عن النظر بغض
Brainstorming	عام بشكل بالموضوع المتعلقة للأفكار الذهني العصف طريقة
Mind mapping	شبكة وعمل الصفحة وسط في العنوان كتابة وهي الذهنية الخارطة أخرى. بأفكار مرتبطة عامة أفكار العنكبوت كشبكة المترابطة للأفكار
purpose of my writing	من الغرض الاعتبار في آخذ أكتب وأنا بمعنى المقال؛ من والمقصد الغرض الغرض. هذا تخدم والجمل الأفكار جميع تكون بحيث المقال هذا
reader of my writing	في أفرائي مقالي سيقرأ بمن أفكر أكتب وأنا بمعنى المقال؛ قارئ القارئ. مستوى وكتابتي أفكاري
Punctuations	وغيرها. والصغيرة الكبيرة والأحرف والفاصلة كالنقطة الترقيم علامات
Revise	والمعنى الأفكار وتنقيح لمراجعة ماكتبته قراءة إعادة
Editing	وتحريرها والقواعد والإملاء الكلمات وتصحيح تنقيح
layout	وأناقته وترتيبه للمقال العام والإخراج التنسيق
teacher's expectations	وتعليماته المعلم توقعات

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Exploring the effects of self-efficacy on vocabulary learning strategies

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Abstract

This study examined the effects of self-efficacy on language learning strategies by focusing on vocabulary learning strategies (VLSs). A group of 281 EFL learners from two universities participated in the study. They completed the Vocabulary Size Test (Nation & Beglar, 2007), questionnaires on self-efficacy, and an open-ended question about their use of VLSs. The learners were divided into three groups based on their responses to the self-efficacy questionnaire. The effect of self-efficacy was then examined by utilizing text mining. The results show that the effects of self-efficacy were observed in the participants' open-ended responses. It also became clear that those with high self-efficacy were active users of VLSs, they employed deep strategies, and they were metacognitively superior to participants with medium and low efficiency. Those with medium self-efficacy were also active users of VLSs, but they used shallow strategies compared with the high self-efficiency group. Those with low self-efficacy tended to be passive users of VLSs. The pedagogical implications of the current study are discussed mainly in terms of incorporating self-efficacy and self-regulation enhancing instructions into vocabulary teaching.

Keywords: vocabulary learning strategies, self-efficacy, self-regulated learning, text mining

Exploring the Effects of Self-efficacy on Vocabulary Learning Strategies

Research on language learning strategies (or language learner strategies) has a history of almost forty years. The field has accumulated a wealth of knowledge about how learners deal with language learning strategically. Accordingly, it has firmly established itself as a research field in applied linguistics (Cohen & Macaro, 2007; Oxford, 2011).

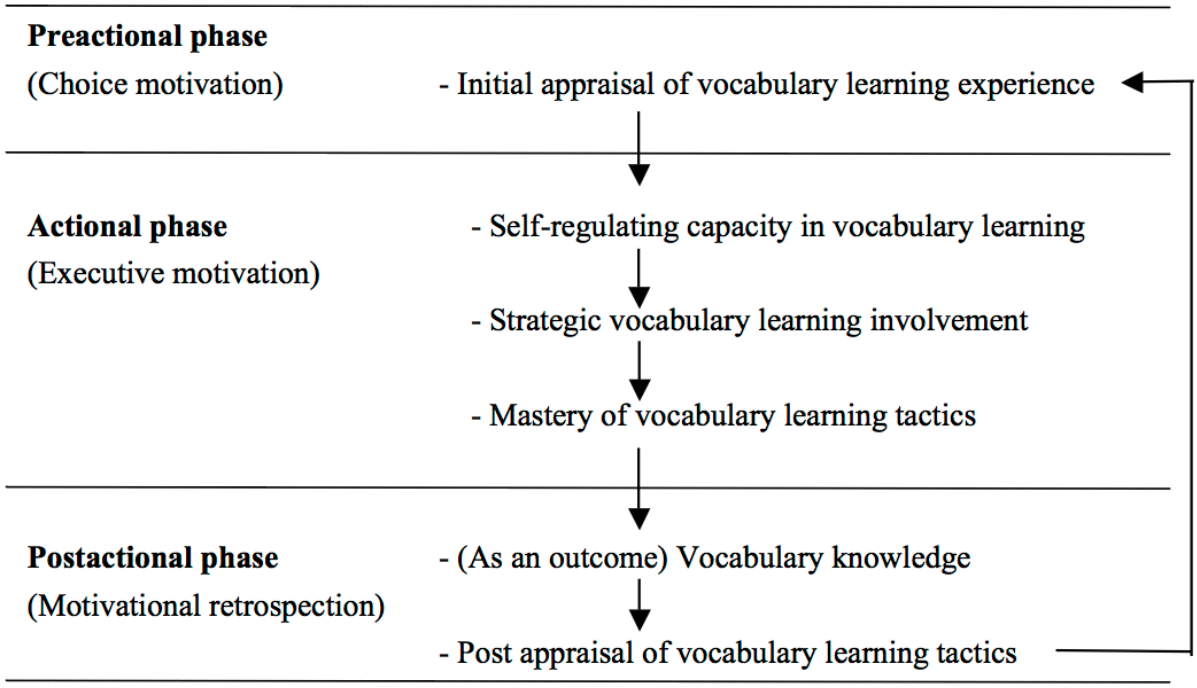
In recent years, the field of language learning strategies has come under severe criticism mainly because of its definitional fuzziness and lack of rigorous measurement (Dörnyei, 2005; Tseng, Dörnyei, & Schmitt, 2006).[2] In response to this criticism, researchers in the field have attempted to provide a more detailed framework (Macaro, 2006; Weinstein, Acee, & Jung, 2011).

Another direction is the inclusion of self-regulated learning, in which learners have control over cognitive, metacognitive, and emotional processes in learning. Because learning strategies are an integral component of self-regulated learning, we can look at the bigger picture of learning processes and thus give extensive definitions of language learning strategies in terms of "strategic learning" (e.g., Oxford, 2011; Rose, 2012a).

Whatever framework a researcher uses to investigate language learning strategies, the "goal" is of utmost importance for strategic learning (see Takeuchi, Ikeda, & Mizumoto, 2012, for a review of theoretical framework). Macaro (2006) argues that "a strategy must conform to the algorithm: *if* in a learning situation/task X, *and* when the learning goal is Y, *then* try mental action Z" (p. 329). He also notes that "the presence of a goal is a necessary condition for the construct of a strategy. Goals are, of course, also recognised components of motivation" (p. 330). Learning strategies thus can be defined as conscious mental actions that are driven by goals. Self-regulated learning is likewise fueled by goals.

Considering the importance of goals and motivation in strategic learning and self-regulated learning, it is natural for researchers to propose a new model that incorporates goals and motivation. "A model of motivated vocabulary learning" (Tseng & Schmitt, 2008) is such an attempt. Based on the process model of L2 motivation (Dörnyei & Ottó, 1998), Tseng and Schmitt tested their model with structural equation modeling (SEM) and found it to be tenable. They divided the vocabulary learning process into three phases: the preactional, actional, and postactional phases. The model assumes vocabulary learning as a cyclic process (Table 1) with the postactional phase exercising further influence on the preactional phase to continue the learning process.

Table 1. A Model of Motivated Vocabulary Learning (Tseng & Schmitt, 2008)



Tseng and Schmitt's model of motivated vocabulary learning is similar to Zimmerman's (1989) model of self-regulated learning, which considers self-regulated learning as a process. Zimmerman's model also has three phases: forethought, performance or volitional control, and self-reflection. In this model, three components are prerequisites for self-regulated learning: (a) the use of self-regulated learning strategies, (b) self-efficacy, and (c) goal orientations. With (a) learning strategies and (c) goal orientations present as discussed above, the remaining element is (b) self-efficacy.

Self-efficacy, a concept originally developed by Bandura (1977), refers to "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p. 2). In the field of applied linguistics, it has been demonstrated that self-efficacy does the following: (a) influences motivation (Kormos, Kiddle, & Csizér, 2011), (b)

promotes learner strategy use (Magogwe & Oliver, 2007), and (c) is high if the learner is autonomous (Ching, 2002). From these findings, it is evident that self-efficacy plays a vital role in language learning. Yet no study to date has investigated the effects of self-efficacy on one specific domain of learning strategies.

For assessing strategic learning, it has been suggested that we should "situate the construct in one particular only" (Tseng, Dörnyei, & Schmitt, 2006, p. 86) and use qualitative data collection instruments (Rose, 2012a) because successful learning depends on the orchestration of strategies, not the frequency of strategy use conventionally measured with questionnaires (Macaro, 2006; Rose, 2012a).

In the current study, therefore, I will examine the effects of self-efficacy on language learning strategies by focusing on vocabulary learning strategies (VLSs), and the VLSs will be measured in an open-ended format. The research question of the current study is as follows: Can the effects of self-efficacy be found in the participants' responses to the open-ended question of VLSs?

Method

Participants

The study was conducted in 2010 and 2011. The participants were 281 Japanese university EFL learners at two private universities in western Japan (humanities or engineering majors; 92 females, 189 males; aged 18–20; lower intermediate level).

Measures

The participants were first asked to indicate their level of agreement with the following statement: "I can learn and master vocabulary in my own way." They indicated either "Yes," "Not sure," or "No" as an indicator of their level of self-efficacy.

In addition, to confirm that the participants' responses reflected their self-efficacy, a six-point Likert scale questionnaire was administered. The questionnaire comprised 10 items to measure self-efficacy. The items were selected from previous studies such as Tseng and Schmitt (2008).

For VLSs, the participants answered the following open-ended question in Japanese: How do (did) you intentionally learn vocabulary? As described in the previous section, I

purposefully phrased the question about participants' use of VLSs as open-ended because successful learning is not fully manifested in the frequency of strategy use.

In order to measure the participants' vocabulary knowledge, the first 60 items (First 1,000 to Sixth 1,000) of the Vocabulary Size Test (Nation & Beglar, 2007) were given to the participants in addition to the three aforementioned measures. Only the first 60 items from the test were used because previous studies indicate that the average vocabulary size for Japanese EFL university students was much lower than 6,000 words (e.g., Mochizuki & Aizawa, 2000). Table 2 is a summary of the measures used in the current study.

Table 2. Summary of the Measures

Measure	Range
Self-efficacy (1)	3 categories
Self-efficacy (2)	1–6
Use of VLS	open-ended
Vocabulary size	0–60

Data analyses

All the analyses in this study were conducted using R version 2.13.0. For Self-efficacy (1), the number of "Yes," "Not sure," and "No" responses was counted. Descriptive statistics and Cronbach's α coefficients were obtained for the two continuous measures, Self-efficacy (2) and vocabulary size.

In order to confirm that the selected categories for Self-efficacy (1) were reliable, a one-way ANOVA was carried out with the selected categories of Self-efficacy (1) as an independent variable and Self-efficacy (2) as a dependent variable. Likewise, a one-way ANOVA was conducted using vocabulary size as the dependent variable to check the effects of self-efficacy on vocabulary knowledge. Because two ANOVAs were run, the alpha level for the ANOVA was set at .025 with the Bonferroni adjustment (0.05/2). Following one-way ANOVAs, post hoc multiple comparison tests were performed using the Tukey procedure.

The open-ended question of the use of VLSs was analyzed using RMeCab (rmecab.jp), the Japanese text mining package for R. Characteristic words, which are more frequently used in

the text, can be extracted with this text mining package. As a result, 939 words were extracted, and 196 words common to all three categories of Self-efficacy (1) were used for analysis. To address the research question of the current study, "Can the effects of self-efficacy be found in the participants' responses to the open-ended question of VLSs?," a correspondence analysis was employed (see Hair, Black, Babin, Anderson, & Tatham, 2006 for a detailed explanation). With the use of a correspondence analysis, we can obtain a graphical representation of the relationships among the categories of a contingency table with a smaller number of latent dimensions. In this study, correspondence between the selected categories of Self-efficacy (1) and 196 words from text mining (3 × 196 matrix) was thus examined using a correspondence analysis.

Results and Discussion

Table 3 shows the frequency counts of the self-efficacy (1) responses. It seems that the participants in the current study have rather high self-efficacy, as 80 percent answered "Yes" or "Not sure."

The descriptive statistics and Cronbach's α coefficients of Self-efficacy (2) and the Vocabulary Size Test are displayed in Table 4. Reliability coefficients for the two measures were relatively high.

Table 5 presents a summary of the results of one-way ANOVAs and post hoc multiple comparison tests with the Tukey procedure. One-way ANOVAs confirmed that statistically significant differences were found in the means of the three groups in terms of Self-efficacy (2) and the vocabulary test. Furthermore, the results of post hoc multiple comparison tests showed that statistically significant differences existed in all pairwise comparisons in Self-efficacy (2) and the vocabulary test.

Table 3. Frequency Counts of Self-Efficacy (1)

Measure	No	Not sure	Yes
Self-efficacy (1)	58	115	108

$N = 281$

Table 4. Descriptive Statistics of Two Measures

Measure	No. of Items	Mean	*SD*	*Min*	*Max*	Skewness	Kurtosis	α
Self-efficacy (2)	10	3.02	0.77	1.10	4.80	-0.37	-0.26	.89
Vocabulary size	60	33.66	7.45	12.00	60.00	0.32	0.75	.81

These results suggest that those who answered "Yes" in Self-efficacy (1) have higher self-efficacy and a larger vocabulary size than those who answered "Not sure" or "No." In the same way, those who answered "Not sure" have higher self-efficacy and a larger vocabulary size than those who answered "No." The fact that there were differences in Self-efficacy (2) confirms that the responses of the participants in regard to Self-efficacy (1) were appropriate. In regard to vocabulary size, it has been demonstrated that the higher the self-efficacy, the larger the participant's vocabulary size tends to be. In other words, learners with a larger vocabulary size have confidence in their method of learning and mastering vocabulary.

Table 5. *Results* of ANOVAs and Multiple Comparisons

Measure	Self-efficacy (1)			*F*	*P*	η^2	Multiple Comparisons
	No (n = 58)	Not sure (n = 115)	Yes (n = 108)				
Self-efficacy (2)	2.24 (0.77)	2.92 (0.67)	3.50 (0.60)	24.78	< .001	.27	1 < 2, 1 < 3, 2 < 3
Vocabulary size	30.28 (7.38)	33.30 (7.72)	35.86 (6.45)	11.64	< .001	.07	1 < 2, 1 < 3, 2 < 3

The results of correspondence analysis are visually displayed in two dimensions (Figure 1). In this figure, three categories of Self-efficacy (1) and 196 words are placed according to the results of correspondence analysis. The selected categories are marked as "Yes," "Not sure," and "No" in the figure.

In correspondence analysis, the dimensions are interpreted based on the association among the row and column categories of a contingency table (in the current study, three categories and words). The words close to each category in Figure 1 are the characteristics of the participants' use of VLSs belonging to each category of Self-efficacy (1). In the first dimension,

the category "Yes" is situated in the left, and the category "Not sure" in the right. In the second dimension, the category "No" is at the top, and "Yes" and "Not sure" are at the bottom.

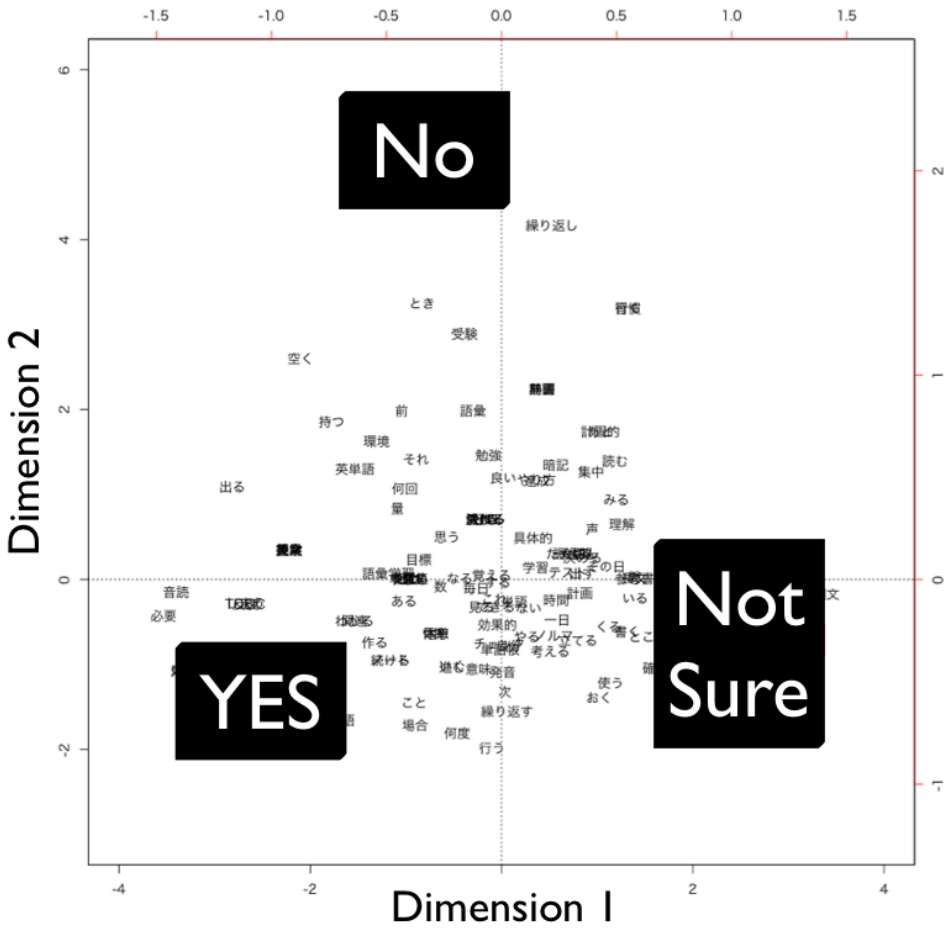


Figure 1. Results of Correspondence Analysis. (The x-axis represents the first dimension, and the y-axis, the second dimension.)

In the first diminution, the words close to the category "Not sure" are the following: "example sentences," "a piece of paper," and "(number of) words" (all in Japanese). Some examples of the original open-ended responses containing these words are as follows (originally written in Japanese; translated by the researcher):

> If I cannot memorize the target words, I read the example sentences repeatedly and try to understand the meanings of the words. (ID: NS10052)

I try to listen to, vocalize, and write the target words on a piece of paper. (ID: NS11090)

I tried to memorize 100 words every day. (ID: NS10118)

On the other hand, the words close to "Yes" are the following: "necessary," "reading aloud," and "effective" (all in Japanese). Some excerpts from the participants' responses containing these words are shown below:

> I first think about the reason vocabulary learning is necessary. By doing so, vocabulary learning will not be just memorizing words monotonously. (ID: Y10115)

> Studying a lot of vocabulary by writing down all the words for the entrance exams was just too much for me. Reading aloud the target words was an efficient way for me. (ID: Y11057)

> I heard that memorizing the words before going to bed and reviewing them in the following morning are effective in terms of the mechanisms of memory, so I followed this suggestion and put it into practice. (ID: Y10088)

From these excerpts, it can be interpreted that those who answered "Not sure" or "Yes" were more active and focused in their vocabulary learning. However, those who answered "Not sure" seem to consider that vocabulary learning requires effort, and as a result, they use "shallow" rote learning.

In contrast, those who answered "Yes" seem to seek efficiency and use "deep" vocabulary learning strategies, as can be construed from their excerpts, in their vocabulary learning. Thus, the difference between those who answered "Not sure" and "Yes" to Self-efficacy (1) could be the use of "shallow" or "deep" strategies. In order to look for better, efficient, and deeper ways of vocabulary learning, a higher level of metacognition is necessary. In other words, learners with high self-efficacy excel in metacognition and flexibility of strategy deployment. By the same token, participants who answered "Not sure" can be encouraged to

move to the level of "Yes" by employing metacognitive strategies and seeking deep strategies in vocabulary learning.

In the second dimension (y-axis in Figure 1), the words close to the category "No" are "interest" and "repetition." Some excerpts of the participants' open-ended responses are shown below:

> First of all, I need to take interest in vocabulary learning itself, but I cannot quite seem to do so. (ID: NO11048)

> Looking at the vocabulary book again and again. Repetition is the only thing I can do for learning vocabulary. (ID: NO10215)

The other side of the second dimension consists of the two categories "Yes" and "Not sure" at the bottom. The words characteristic of these two categories include "set (a goal)" and "carry out." These excerpts illustrate how these words are used in the open-ended responses:

> I set a goal for my vocabulary learning first. Then, I make a plan to achieve the goal. (ID: Y10055)

> I carry out the daily routine of my vocabulary learning. That is my priority. (ID: Y11128)

These excerpts suggest that the second dimension may represent the contrast between "passive" learners (i.e., those who answered "No") and "positive" learners of vocabulary (i.e., those who answered "Yes" or "Not sure"). If we draw on the definition of self-regulated learning, this contrast can be explained. According to Zimmerman (1989), self-regulated learners are "metacognitively, motivationally, and behaviorally active participants in their own learning process" (p. 329). From this perspective, it can be assumed that those who answered "No" to Self-efficacy (1) are passive learners, while those who answered "Yes" or "Not sure" are more active learners. All these interpretations are illustrated in Figure 2.

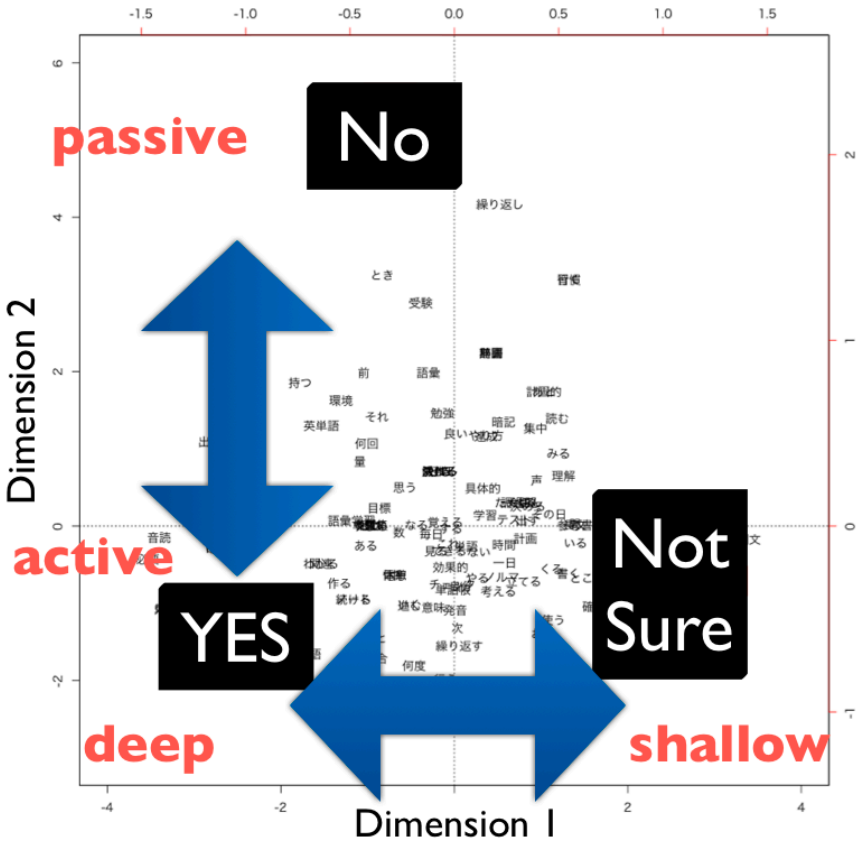


Figure 2. Results of Correspondence Analysis with the Double-headed Arrows and Interpretations for Each Dimension.

Based on these results, the response to the research question "Can the effects of self-efficacy be found in the participants' responses to the open-ended question of VLSs?" is that, as the results of text mining and correspondence analysis show, the effects of self-efficacy can indeed be found in the responses to open-ended questions of VLSs.

Conclusion

The current study aimed at exploring the effects of self-efficacy on the use of VLSs. The results show that the different degrees of self-efficacy can explain the difference of learners' vocabulary size. In VLSs, too, the effects of self-efficacy were observed in the participants' open-ended responses. The results of text mining and correspondence analysis demonstrated that those with high self-efficacy (participants in the "Yes" response category) are active users of

VLSs, they employ deep strategies, and they are metacognitively superior to participants with medium and low efficiency. Those with medium self-efficacy (participants in the "Not sure" category) are also active users of VLSs, but they use shallow strategies compared with the high self-efficiency group. Those with low self-efficacy (participants in the "No" category) tend to be passive users of VLSs.

The findings of the current study have two pedagogical implications. First, self-efficacy enhancement is an important component in vocabulary learning and teaching. This may be possible with teaching VLSs. Mizumoto and Takeuchi's (2009) study, which explored the effectiveness of explicit instruction of VLSs, suggested that teaching VLSs could lead to an increase in motivation. Although Mizumoto and Takeuchi's study did not measure the change in self-efficacy, it implied that teaching learning strategies may increase self-efficacy (Graham & Macaro, 2008). It is thus likely that VLS instruction can enhance self-efficacy in the same way.

Second, as self-efficacy is an influential factor in self-regulated learning, incorporating the instruction of self-regulated learning, especially focusing on metacognition training, may be useful for learners. Research has shown that instruction on self-regulated learning can enhance self-efficacy (Zimmerman, Bonner, & Kovach, 1996). I suggest instruction on self-regulated learning in addition to VLSs instruction here because the research framework of self-regulated learning can provide a bigger picture of the learning process, including learning strategies, metacognition, and motivation.

We are now at a crossroad in language learning strategy research. After a wave of criticism, the field has redefined itself by including, for example, more detailed and extensive definitions of strategies (Oxford, 2011; Rose, 2012b; Macaro, 2006) and the analysis of self-regulated learning (Tseng, Dörnyei, & Schmitt, 2006). As Rose (2012a) argues, "This is an exciting time to conduct research into strategic learning" (p. 146). I also believe that strategic learning is a fruitful area of research because we have accumulated findings from previous research stretching almost 40 years. Now is the best time to apply all these findings (and a new research framework) to help our students become more autonomous learners.

Acknowledgements

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Notes

1. Part of this article is based on my previous report written in Japanese (http://www.kansai-u.ac.jp/fl/publication/department.html#a05). I thank the Faculty of Foreign Language Studies, Kansai University for letting me publish this article in English.

2. See Gao (2007) and Rose (2012b) for a critique and discussion of these claims.

Notes on the contributor

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Language Counseling Trends: Implications for Beginning Language Learner Strategy Instruction

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Abstract

This paper summarizes a qualitative, exploratory research project using archival data from language counseling reports written for adult, Arabic foreign language learners ($N = 19$) enrolled in weeks 1 – 10 of an intensive, academic Arabic language program at a West Coast school in the United States who attended a language counseling session at a self-access center. The goal was to analyze reports for possible trends in students' needs using Oxford's (2011) Strategic Self-Regulation (S^2R) model as a framework to better inform targeted strategy instruction for this population. The study used a two-cycle coding method. Descriptive codes were developed using a constant-comparison approach for first cycle coding. An axial coding approach was used for the second cycle, where the descriptive codes were collapsed into four major themes analyzed using frequency counts. Results indicated that students struggled with vocabulary, aural input discrimination, study management, and stress. Discussion includes practical applications for language counselors. Limitations and suggestions for future research related to trend analysis and the S^2R model in language counseling are discussed.

Keywords: language advising, language counseling, metacognition, self-management, strategic self-regulation

Framing Learning Strategies

Traditionally, research on language learning strategies has focused on students' strategy use, awareness of strategy use, and strategy instruction as each element relates to language proficiency development (Cohen, 2007). The recent dialogue on language learning strategies has moved to the more encompassing concept of self-regulation (Dörnyei, 2005). The assumptions here are that proficiency development is in part minimally linked to the individual learner's successful self-regulation which can be taught. One goal of language counseling in self-access centers is to identify learners' challenges in order to direct them in effective self-regulation. Matching learning problems with appropriate strategies requires that counselors have a clear framework for strategies and strategy instruction.

One such framework is Oxford's (2011) Strategic Self-Regulation model (S^2R). In brief, the S^2R model is divided into two parts: metastrategies and strategies. Metastrategies refer to the learner's executive functions, his or her ability to adjust behaviors depending on the task or context and choose appropriate strategies; strategies refer to the learner's direct behaviors. The model further defines metastrategies and strategies in a tripartite classification system: metacognitive and cognitive strategies, meta-affective and affective strategies, and meta-sociocultural-interactive (SI) and SI strategies.

Learners have six distinct types of metaknowledge available to them which are similar to, and expand on, Winne and Perry's (2000) metacognitive knowledge dimension. The difference between the two is that in the S^2R model, metaknowledge is not limited to metacognition, but can be applied to the categories of meta-affect and meta-SI (Oxford, 2011). These are: person knowledge (e.g., individual goals), group/culture knowledge (e.g., cultural expectations), task knowledge, whole-process knowledge (e.g., long-term learning goals), strategy knowledge, and conditional knowledge (i.e., knowledge of when to use a strategy and why).

The S^2R model gives strategy researchers the ability to label and discuss learning strategies as they fall into the possible categories of metastrategies and strategies. For example, learners' use of flashcards or mobile devices for vocabulary review falls under cognitive strategies, while time management and study planning would be considered metacognitive strategies. A meta-affective strategy includes positive learner self-talk about learning progress; an affective strategy is the use of positive imagery of learner or task outcomes. A learner who seeks out opportunities to speak the second language (L2) is using a meta-SI strategy. By using gestures to overcome gaps in understanding, the learner employs an SI strategy. Together, meta-strategies and strategies offer two broad classification systems to describe learner behaviors, a necessary first step to be able to systematically analyze areas of learner difficulty and then identify strategies and an approach to strategy instruction which can help learners self-regulate.

Counseling for Language Learning

Strategy instruction can be integrated into language programs in a variety of ways. Instruction can encompass a general skills course geared towards generic metacognitive strategies (e.g., awareness raising and study habits), or focus on specific language learning strategies (Cohen, 2003). Strategy workshops can be delivered outside of the normal language

class, offering targeted, attention-raising training for particular language learning strategies (e.g., non-participatory listening) (Cohen, 2003; Oxford, 1990). Another approach is strategy-based instruction (SBI), an integrated method to strategy instruction; the teacher describes and models a strategy; the learner practices the strategy; and the class reflects on use (Cohen, 2003; Rubin, 2005; Rubin, Chamot, Harris & Anderson, 2007).

The final method, language counseling, uses a more tailored approach than those outlined above by basing strategy instruction on the individual learner's needs. A language counselor works with a language learner to raise awareness of strengths and needs along with appropriate strategies which will better work to meet the learner's goals (Karlsson, Kjisik, & Norlund, 2007; Mozzon-McPherson, 2007; Reinders, 2007). Self-access centers use counselors as facilitators in the learning process, coaching language learners facing challenges (Mozzon-McPherson, 2000). The counselor and student can collaboratively outline a plan with metastrategies and strategies to help the student develop strategic self-regulation and become more self-aware of learning processes (Mozzon-McPherson, 2007; Reinders, 2007).

One of the complexities of effective language counseling is that it requires counselors to familiarize themselves with challenges learners commonly experience, with the language learning process, and with both metastrategies and strategies. Faced with a variety of learners at different levels, the range of ongoing language and learning problems can make relevant advising difficult (Reinders, 2007). For example, a beginning Mandarin learner working with pinyin and characters has different learning needs than an advanced Spanish student working with pragmatics.

The purpose of the present study was to systematically analyze the historical data contained in counseling reports written for beginning Arabic language learners ($N = 19$) enrolled in an intensive, academic language program to discover what challenges this student population experienced. Trends were analyzed using the S^2R model as a framework for understanding. The study focused on the research question: what types of challenges are documented by counselors and beginning Arabic learners in counseling reports? The answer should provide meaningful insight to language counselors concerned with targeted strategy instruction.

Methodology

Context and materials

The current research project focused on a language counseling program in a self-access center developed to support adult foreign language learners in an intensive, academic foreign language program in a West Coast school in the United States. Students were enrolled in a foreign language program consisting of six hours of academic language instruction daily followed by two hours of evening homework. Students either voluntarily enrolled to receive language counseling services or were sent by their language teachers for help. The counseling program was developed to support students at various developmental stages of language learning by offering tailored strategy instruction in individual sessions with a language counselor. Each session was conducted face-to-face over one hour.

Counselors received a general training guide and strategy elicitation resources, such as the Strategy Inventory for Language Learning (SILL) (Oxford, 1990), but were not normed in the guidance provided to learners. Language counselors did not necessarily speak the target language the student was studying. Following are the guidelines counselors used for completing counseling reports:

> In one or two paragraphs describe how you understand the academic struggles of the student. Your view of the root cause(s) of the student's difficulties may or may not be the same as the student's view. Briefly describe your student's vocational and/or academic background prior to starting the course and his/her learning goals.

And:

> List strategies that address the student's language learning struggles. Include a brief rationale for your recommendations.

At the end of the session, counselors summarized the students' learning issues as well as suggested learning strategies in report format. Counselors concentrated on strategy use and independent learning resources, developing students' self-regulation abilities through an interactive dialogue. At the session's conclusion, the counselor produced a detailed language counseling report divided into three sections. The first section included a qualitative self-

assessment from the learner consisting of perceived strengths, weaknesses, current strategies, and study habits. The second section consisted of the counselor's qualitative assessment of the learner's progress and challenges. The final section outlined tailored strategies, learning resources, and recommendations which the counselor and student had discussed during the session. For example, after reviewing class materials, and discussing current study habits, one counseling report included the following strategies for a student struggling with vocabulary memorization:

> Write translations in the margins of the textbook, not above the word. This forces you to try and remember the vocabulary word instead of automatically having it there in front of you when you review for homework.

And:

> Do spaced review of the vocabulary and presentations in the units over a period of two to three weeks. We discussed how the mind moves short term memory vocabulary into long term memory. Review during breaks, at lunch and in the evening before bed. Say the vocabulary out loud and focus on the illustrations, page layouts, titles, and notes written in the margin. Remember the funny stories, jokes, or comments your fellow classmates made during the hour. This way your memory uses not only the words, but the visual cues on the page and the auditory cues from class to help recall classroom discussions that were meaningful.

The counselor sent one copy of the tailored report to the student and archived another copy.

This study used a nonexperimental, historical research design analyzing qualitative data contained in archived language counseling reports. Counseling reports included in the study (N =19) were limited to archival data from 2010 and 2011. Eight different language counselors authored the reports. Report selection was non-random. All reports which contained completed student and counselor observations for beginning Arabic students seen between weeks 1 and 10 of the language program were included in the study. Any information which could be used to identify the learner was deleted and each report received a numerical code.

Coding methodology

Using a systematic, two-cycle coding approach, descriptive coding was used during the first cycle of open coding to extract a categorized inventory of the data using lean codes (labels rephrased in the researcher's own words). Codes were developed using a constant-comparison approach, allowing the coded data from one report to be compared to that of another for either similarity or difference (Glaser & Strauss, 1967; Strauss & Corbin, 1988). The descriptive codes were developed using investigator triangulation, with two readers coding the reports separately and then triangulating the results for validity. Disagreement was resolved through reanalysis until 100% agreement was achieved.

The second cycle of coding consisted of axial coding to analyze the data for invariant structures in the descriptive codes and collapsed into four major themes which were analyzed using frequency counts (Creswell, 2009; Saldaña, 2009). All of the open codes were charted which allowed codes to be rearranged into related categories.

Results

Open coding

The initial coding process resulted in 13 separate open codes. Table 1 illustrates codes developed during the first cycle of open coding, and shows a high incidence of issues related to vocabulary memorization. Indeed, the primary reason for every learners' language counseling session was trouble related to vocabulary, with one counseling report including the statement, "the pace is hard to maintain, with vocabulary retention the biggest challenge." This led to the lean code *pace of vocabulary*. The lean code *vocabulary* was used for students struggling with vocabulary memorization.

Table 1. Open coding codes and frequencies

Open Codes	***N***
Pace of vocabulary	6
Decrease time studying	7
Learning Styles Mismatch	4
Can't distinguish words	7
Balance work/school	1
Improve study efficacy	3
Organized study time	1
Organization	2

Study planning	1
Stress	6
Relaxation	3
Vocabulary	18
Trouble listening	3

Issues related to study and time management also occurred with high levels of frequency. For example, during the first cycle of coding, the lean code for *improve study efficacy* came from the report data "[student] was looking for how to improve his time spent studying". The lean code *decrease time studying* was used in reference to learners' reporting long hours spent on homework. *Organized study time* referred to a report focused on helping a learner to prioritize learning tasks. *Study planning* referred to a student who needed to develop a detailed learning plan. The lean code *organization* was used for references to learners' who needed help with general organization skills (e.g., using a day planner). The code *balancing work/school* came from a report where the learner expressed anxiety over competing job and school demands. The code *learning styles mismatch* referred to materials design or teaching styles which were mismatched with the student's preferred learning style.

The third problem area for students was listening. As a discrete skill, listening was divided into two separate categories: the inability to hear words (coded as *can't distinguish words*), and general, non-descript problems with listening (coded as *trouble listening*).

The final problem area for students was stress. The initial descriptive lean codes for stress were *stress* and *relaxation*. For example, the lean code *stress* was used for '[the course] has produced a tremendous amount of stress in [the student's] daily life.' Another report included, '[the student] is experiencing real difficulties in dealing with stress.' Conversely, '…eat well and get enough sleep. If [the student] is not taking care of himself physically and emotionally, he will not finish' was coded as *relaxation*.

Axial coding

Four major themes emerged from the axial coding: *vocabulary*, *aural discrimination*, *stress*, and *study management*. *Vocabulary* encompassed any references to challenges relating to learning vocabulary (e.g., 'The learner is seeking effective was to study Arabic vocabulary.'). *Aural discrimination* referenced any challenges relating to listening in the language (e.g., 'The

learner has trouble hearing words and individual sounds.'). Descriptive data directing the student to relax (e.g., 'Relax! If you are stressed out and tired, it makes remembering information much more difficult.'), as well as the lean codes for *stress* were combined into the *stress* theme during axial coding. Here, one of the initial lean codes generated in the first cycle became a main category in the final axial coding. The final category, *study management*, included any reference to study habits, balancing learning styles, or time management (e.g., 'The learner is spending long hours on fruitless self-study.'). Table 2 shows the final axial codes, corresponding open codes, and frequencies.

Table 2. Axial Codes and Corresponding Open Codes

Vocabulary	*N*	Study Management	*N*	Aural Discrimination	*N*	Stress	*N*
Vocabulary	18	Decrease time studying	7	Can't distinguish words	7	Stress	6
Pace of vocabulary	6	Learning style mismatch	4	Trouble listening	3	Relaxation	3
		Balance work/school	1				
		Improve study efficacy	3				
		Organized study time	1				
		Organization	1				
		Study planning	1				
Total	24		18		10		9

Discussion

This study was designed as exploratory research using a qualitative lens examining the challenges beginning Arabic learners commonly experience. The data analysis produced four main themes for this population: *vocabulary*, *study management*, *aural discrimination*, and *stress*. These themes highlight the multidimensional reality of language learning and the need for distinctive forms of self-regulation.

The findings can be better understood using Oxford's S^2R model (2011), specifically with the cognitive and affective dimensions to improve learners' self-regulation. Learners faced challenges with language learning, general learning, and affect mediation. Language learning challenges included vocabulary and aural discrimination problems. Study management falls under the general executive and cognitive functions which students employ for effective

learning. Study management skills apply to any student, regardless of discipline. Under affect, stress emerged as a major theme, underscoring the need for further investigation on its role in this context. At a minimum, counselors interacting with similar student populations should be aware of these trends and their implications for targeted strategy instruction discussed below.

Implications for language learning self-regulation

Vocabulary memorization and aural discrimination both emerged as challenging areas for learners. There is evidence of a connection between the two themes in the literature. Bundgaard-Nielsen, Best and Tyler (2011) examined the trajectory of phonetic and phonological perception in adult L2 learners in an intensive environment and found that significant changes in the student's ability to accurately discriminate between phonemes can occur in an intensive program within the first 12 weeks. The current study's findings seem to support their research. The researchers also found that the larger a second language learner's vocabulary, the more consistently the learner could accurately discriminate vowel contrasts in the L2. Interestingly, length of target language exposure did not result in an automatic, increased ability to discriminate between phonemes. The inference here is that directing the learner to strategies which broaden vocabulary rather than to additional listening resources should improve the individual's listening skills.

When it comes to learning vocabulary, however, the ability to retain quality phonological sequences of L2 input for short periods of time is a necessary pre-requisite to transferring vocabulary into long-term memory (Kempe & Brooks, 2011). Students who are better at the short-term phonological retention (e.g., ability to remember how the language sounds) are better at learning vocabulary (Kempe & Brooks, 2011). Phoneme discrimination is an essential requisite to successful vocabulary acquisition which in turn augments listening skills.

From a language educator's standpoint, the traditional emphasis in listening is on higher-level comprehension tasks which tend to focus on the product of listening, rather than the process (Field, 2003). Learners may be able to arrive at a correct answer, yet still be unable to fully comprehend a passage, complaining to counselors about the inability to hear words. This is learner-identified breakdown. The ability to determine where word boundaries fall is a greater problem with language learners than practitioners generally recognize (Field, 2003). Lexical segmentation depends entirely on the learner's capacity to correctly discriminate between phonemes.

Segmentation is a low-level skill which develops during the initial stages of the language acquisition process, which may be why it appears as a major theme in the current study. Field (2003) described the early stages of the listening process as learners develop the strategy of scanning aural input for familiar sounds and matching them to known words in their lexicons, creating elaborate stories so that the sounds they hear will make sense. Once a student has come up with an incorrectly segmented word, the student ignores what follows to logically support the previous lexical item (Field, 2003). Awareness-raising activities, for example dictation exercises, alert learners' to the dangers of faulty segmentation.

While simple dictation alone is not an effective strategy to improve listening comprehension (Jafarpur & Yamani, 1993), targeted dictation can help students develop phonemic awareness. Field (2003) suggested students practice phrase dictation using ambiguous word boundaries to raise learners' awareness of segmentation. Counselors must keep in mind that language learners have set expectations and preconceived ideas of how language should sound influenced by the written language (Field, 2003). Guiding learners to authentic, self-study listening resources where they must use syntax to distinguish the weak forms, reductions, and contractions can be useful in helping to develop segmentation skills. Learners can be told explicitly the rationale behind dictation is to practice segmentation, and encouraged to play difficult audio passages repeatedly to puzzle out word boundaries. The goal of dictation is not to arrive at the correct answer for a content question, but rather to develop phonemic awareness.

Implications for metacognitive self-regulation

Self-regulation in language learning refers to the processes a learner uses to exercise control over learning, and the term is often used synonymously with autonomy, self-directed behavior, self-control, and self-management (Cohen, 2007; Dörnyei, 2005). Many issues related to metacognitive self-regulation, coded as *self-management*, emerged from the data analysis. The ability to self-manage is a metacognitive strategy all students employ. During the counseling sessions, learners received guidance on study planning, time management, balancing learning styles, organization, and balancing work/school demands, all of which fall under metacognitive strategies. Intensive foreign language programs require students to cope with strenuous workloads and established, fast-paced curricula. Resources and support services for general study skills are typical of academic orientation programs offered to first year undergraduate

learners. The findings suggest value in future research investigating the need for this area of skill development for these language learners. At a minimum, counselors should be aware that learners may be struggling to cope with course demands and require general metacognitive strategy support not specifically related to language learning.

Implications for affective self-regulation

Stress management reoccurred frequently as a major theme, either explicitly or implicitly, in the counseling reports, highlighting the role of affect and the need for meta-affective and affective strategies. For language learners, affective variables are at least as important as aptitude when predicting language learning achievement (Gardner, 1985; Scovel, 2000). There are many possible factors which could be contributors to student stress. For example, students may have felt pressured and distressed with their inability to meet program demands early on in an intensive course. While this study did not look at the correlation between the need for affective and metacognitive self-regulation strategies, the findings suggest the value of examining this correlation in future research. Counselors should be mindful of stress as an area for targeted affective strategy instruction with a potential cross-over in the need for metacognitive strategy coaching.

Conclusions

The current research project served as an initial look at problems facing beginning language learners in an intensive foreign language program. The study was intentionally limited in scope because of its exploratory nature. As such, findings are limited to the current population, which consisted of beginning Arabic learners in an intensive language program experiencing learning difficulties. While trends suggested that learners experienced similar obstacles, future research should be expanded to include different languages and proficiency levels.

Future researchers should explore if and how the four major themes of vocabulary, aural discrimination, stress, and self-management are interconnected. To advance practical applications of theory, future research should include how researchers can employ the S^2R model effectively to develop a more encompassing approach to guiding students towards strategic learning by addressing metastrategies and strategies in relation to learners' needs.

This study used the basic elements of the S^2R model as a framework to understand learner difficulties. While the goal of language counseling remains to offer individual students tailored strategy instruction, initial findings suggest that trends exist. Awareness of trends could inform the pre- and in-service training which language counselors receive. At a minimum, counselors should be cognizant of the common problem areas learners experience in a particular program and be prepared with appropriate metastrategies, strategies, and resources.

Notes on the contributor

Erin O'Reilly is an Associate Professor at the Defense Language Institute Foreign Language Center. Her research interests include language learning counseling, affective variables and strategy use, and learner autonomy. Contents of this paper are not necessarily the official views of, or endorsed by, the U.S. Government, DoD, Department of the Army, or DLIFLC.

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Leading the Proverbial Thirsty Horse to Water: ESL Learners' Experience with Language Learning Contracts

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Abstract

There is agreement among language educators that the process of language teaching and learning should aim to develop autonomous language learners. While the advantages of autonomy seem to be quite obvious, fostering autonomy in practice can prove to be difficult for some language learners. This paper describes the use of learning contracts as a strategy for enhancing learner autonomy among a group of ESL learners in a Malaysian university. Through learners' account of their experiences with the contracts, the study concludes that the learning contract has potential use for language learning and that learners' positive learning experience remains the key to the success of any endeavour seeking to promote learner autonomy. The paper ends with some implications for teachers and learners who wish to use the contracts as a strategy for language teaching and learning.

Keywords: language learning contracts, learner autonomy

Background

Over the years, there has been growing recognition of the importance of learner autonomy and the role of the individual language learners in directing their own language learning process. In fact, there is agreement among language educators that the process of language teaching and learning should aim to develop autonomous language learners. In practice, however, it is not always clear how to support learners in this role and whether they are prepared to assume it. This is just like the proverbial thirsty horse being led to water and not drinking, learners who are led to self-access learning opportunities do not necessarily become autonomous learners. This analogy serves as a background for the purpose of this study which is to explore the use of learning contracts as an English Language teaching and learning strategy to promote learner autonomy. The study focuses on learners' experience in using the learning contracts for language learning and looks at the extent to which the contracts could be viably used to develop learners' ability to become more autonomous language learners.

Review of Related Literature

Learner autonomy is described by Holec (1981) as the capacity to take control over one's own learning. Most experts agree that autonomy is not taught or learned. Instead, Benson (2011) says, it is fostered or developed through initiatives designed to stimulate autonomy among learners. In the Malaysian context, many of our language learners do not naturally have this capacity yet and need explicit instruction to develop it. This creates the need to find practical ways to develop their potential as autonomous language learners so they can learn and appreciate the language, and at the same time, sustain their interest in the language learning process. Developing learner autonomy through learner training does not entail radical departure from common practice and can in fact take place in the existing classrooms. According to Thang (2009), the most important concern in the training for such autonomous skills is that learners display desires and initiatives to think for themselves. One method of training that has shown potential in developing learner autonomy is with the learning contract.

The use of learning contracts is an option for promoting autonomy in language learning. The learning contract is a formal, written agreement negotiated between the learner and lecturer about what the learner will learn and how that learning will be measured. It has been described in various ways: a diary, a log, a journal, and a reflective tool. However, according to Sliogeriene (2006), what distinguishes the contract from other documents is that it focuses on ongoing learning issues over a period of time and that there would be some intention of learning from the process of writing the contract or from the results of preparing it. This suggests that the learning contract can be used to personalize learner training and learning experience. Other researchers seem to agree. Codde (2006) adds that the learning contract allows learners to structure their own learning and become active learners in the process of education. Knowles (1981) also suggests that the contracts enhance learners' sense of perspective and ability to make judgments about themselves as well as their learning. Learners accomplish this based on their accumulated experience, combined with their inherent autonomy and need for establishing clear goals. This, Knowles believes, can be implemented in teaching and learning situations. Nunan (2004) further says that learners' potential, experience and prior knowledge in learning can be structured in a learning contract that offers a way to replace the content plan with a process plan. A process plan is a series of actions to be carried out with the aims of supporting teaching and learning initiatives while a content plan is sequence of topics to be covered (Council of Europe, 2001).

In view of what is discussed so far, the rationale for using the learning contract is to make the language learner an active participant in the actual language learning process, even at the lesson planning stage. How this can be done is further elaborated by Brewer, Williams and Sher (2007). They contend that learners put their experience, knowledge and capability to use when creating and implementing their own learning contracts. As learners' capability and confidence grow, so will their ability to be resourceful, and their repertoire of language activities. The expectation is that through the learning contract, language activities are designed to assist learners in progressing to the next level of independent learning activities. With the above discussion serving as a point of contention, the following research questions were formulated to guide the study:

1. What are the significant experiences of the learners when using the learning contracts?
2. How viable are the learning contacts for enhancing learner autonomy among ESL learners?

Methodology

Data Collection

To generate data relating to learners' significant experiences and the viability of the contracts, this study employed a mixed-method approach. The qualitative approaches included the use of the learning contract, learner conference and focus-group interview while in the quantitative approach, a survey questionnaire was used.

First, the learning contract was developed as a way for learners to document their plans and language learning activities. The contract was chosen as an instrument to collect data because throughout this study, learners used the contracts to give a first-person account of their language learning plans and process. Therefore, the learning contracts provide an insight into the processes of learning which would otherwise be impossible to obtain in any other way. The learning contract developed for this study was adapted from Masdinah (2005). There were four components in the contract that learners needed to specify: learning objectives, resources and strategies used, materials used and comments. To guide learners in planning their own learning contracts, the following questions were posed to them: What do you want to learn? How are you

going to learn it? What strategies and resources would you use? The components of the contracts are shown in Table 1:

Table 1. Components of the Learning Contracts

Specific language learning objectives	***Resources and strategies***	***Materials used***	***Comments***
What am I going to learn?	How am I going to learn it? What am I going to use?		

In the first week of the project, learners attended a briefing where samples of previously completed learning contracts were shown to them. As the learners developed their learning contracts, they set about to carry out the language activities that they had planned. At the end of the tenth week, they submitted their contracts and five completed activities to the researcher.

Secondly, learner conferences are held between the learner and the lecturer to get language learning advice or consultation. The goal of such meetings is to offer opportunities for contact between lecturer and learners, thus creating more opportunities for extensive and regular meetings to extend the influence of the language learning environment beyond the class. Throughout this study, learners attended learner conferences where they discussed and refined their learning contracts with the lecturer (one of the researchers). During the conferences, they specified their learning objectives, learning materials, strategies, and then worked with their lecturer to agree on what was going to be produced, how much and the duration. The product was evidence that each specific learning objective had been achieved. The evidence could be a piece of written work, a presentation or other demonstrations that were achievable and accessible.

Thirdly, the focus group interviews were done towards the end of the semester. Two sessions of interviews were carried out to ensure the issues related to the learning contracts were adequately discussed and explored. The first session of the focus group was carried out to find out more about the participants past English Language learning experiences, perceptions of learning English independently and motivation levels after using the contract. Data from the first session of the focus group interview were used as a basis to draw up questions for the second interview that focused on how the learning contract help learners with their language learning or where the contract failed them. To minimize problems in discriminating voices when transcribing data, the number of participants in the focus groups of this study was limited to six.

Finally, a three-part questionnaire was developed to collect learners' perceptions regarding the use of the learning contracts for learning language independently. The

questionnaire was adapted from Cotterall (2008), Masdinah (2005) and Lai (2008), and was piloted before being administered to the learners in the last week of class. The results were expected to reveal broad tendencies of learners' perceptions which could be used to complement the qualitative data.

Quantitative data from the questionnaires were tabulated and presented in descriptive statistics. Qualitative data from the contracts, transcripts of the learner conferences and focus group interviews were thoroughly read and carefully coded into significant themes through the content analysis method. Both types of data were analyzed separately but were triangulated to give a richer and more comprehensive account of the study.

Participants

The participants in this study were an intact group of 141 first-year ESL undergraduates. From that total number, 22 of them participated in the learner conferences and interviews as fully-informed consenting volunteers and gave full permission to the researcher to use their learning contracts.

Limitations

Bearing in mind the size and the voluntary, rather than random, nature of the sample, the results of the study may not be generalized to the other groups of learners. In addition, the results of the study are based on self-reports, thus, the findings and interpretations should be treated as suggestive rather than conclusive. The researchers were also aware of the problems that could occur in situations where the researcher provided an insider view as a one sided-view would cause bias in interpreting findings. Therefore, to overcome this problem, the steps were taken to combine the major methods of data gathering. Learner conferences, focus group interviews and learning contracts, together with the survey questionnaire, were combined to provide a multiple data-collection procedure to increase the depth of understanding of this investigation.

Findings and discussion

Data gleaned from the interviews, conferences and learning contracts offered meaningful insights into the learners' experience and knowledge in formulating and carrying out the contracts. Several significant learners' experiences emerged from the data and are presented in

four categories: perceived gains, sources of motivation, challenges and utilization of the learning contracts. Findings related to the viability of the contracts are categorized into three themes: cognitive, affective and social. All these emergent categories are discussed below in conjunction with findings from the questionnaire.

Perceived Gains

Perceived gains are opportunities for learning afforded by the learning contracts. Based on the data collected from the questionnaires, from the different learning opportunities they experienced, the learners perceived the following as the three most significant learning experiences they gained using the contract for learning English: 1) the contract made them feel motivated to learn; 2) the contract made them feel successful in their learning and; 3) the contract helped them monitor and measure their progress in learning. In the questionnaire, the learners were asked if they considered they were successful in their language learning after working with the contracts. Out of 141 learners, 107 learners or about 75% disclosed that they strongly agreed and agreed to this perception. In all, thirteen out of the twenty five volunteers also mentioned feeling happy, satisfied or proud with their language learning. This implies that the feeling of being successful in learning is a powerful motivating factor for developing autonomy in learners because then they would persist until a goal is accomplished. It seems the implicit and explicit training introduced with the learning contract helped to raise the learners' awareness about self-directed work but it was, without a doubt, their positive experience with the contracts that led them to take more responsibility and put them on the path to becoming more autonomous learners.

Sources of Motivation

Sources of motivation relates to the drive or interest of the participants, which leads them to be more willing to take responsibility of the outcome of their learning. According to Scharle and Szabo (2000), motivation and responsibility can mutually reinforce each other. This reinforcement appeared to be evident in the learners' experience with the learning contract. The findings of this study showed that the learning contract motivated learners to be involved in their learning process through increased responsibility for the learning choices they made. The following excerpts from an interview (S-F7) and a learner conference (S2-C3) demonstrated this:

Yes...the contracts made me work harder..it becomes a reason for studying. It's a goal to achieve…it helps me study.

(*Interview* S-F7)

I'm happy and relaxed when I work on the contract activities. ..I can continue with it… I don't mind if you give the work or I do something of my own, I can focus in my contract. Next, I want to concentrate on grammar and writing… I want to try website and book.

(*Learner conference* S2-C3)

As the data analysis showed, perceived gains and sources of motivation in the learners' experience with the contracts were characterized by a metacognitive awakening involving both knowledge and skill. Rivers (2001) and Cotterall (2008) argue that such experience created a learning environment that is conducive to metacognitive awareness. Thus, these features of their experience with the learning contracts seem to be potentially instrumental in fostering the development of their potential as autonomous learners.

Challenges

The list of challenges and hindrances presented here highlights what learners deemed as the most difficult experiences they had with the learning contracts. For example, in the questionnaire, the learners were asked if the learning contracts helped them with consistent feedback. Close to 43% of the learners disagreed or were neutral with the statement. This indicated the learners' mixed perception towards the effectiveness of the contract for self-evaluation. The following excerpts (S9-L1 and S9-L2) were extracted from two contracts and revealed the challenges the learners faced (Table 1). It can be seen that the resources, strategies and materials that this learner had selected were lopsided against the objectives he planned.

Table 2. Excerpts S9-L1 and S9-L2

Source	**Objective**	**Resource & strategies**	**Materials**	**Comments**
Contracts S9-L1	Grammar Spelling Speaking	Lyrics of music Find the grammar, spell it back, rewrite it back and find it on the Internet	Lyrics of music for the Beatles & Madonna	None
Contracts S9-L2	Speaking and vocabulary	Hear music everyday Sing together & understand it Speak with friends Memorize five words everyday Find in dictionary, memorize, find meaning	Music lyrics on my phone Music on the Internet Dictionary, Friends	This has improved my speaking.

For his first contract (S9-L1), the learner had attempted to focus on a broad range of objectives that included grammar, spelling and speaking. Then, his choice of resources and strategies for achieving those objectives such as using lyrics to "find the grammar, rewrite or spell it back" appeared to be unplanned, but focused narrowly on grammar and writing only. His learning objective for speaking was not accomplished.

These reports of challenges learners faced bring to mind a situation that was observed by Siddhu (2009). She noticed that it was her learners with limited proficiency who felt that the plans were partially successful in helping them correct and check their own work. In this study, it also appeared that some learners had problems conceiving the connection that was established between the aims, the learning materials and evidence which they were asked to submit. Thus, when the learners were required to articulate information regarding their learning objectives in the contracts, they did so mechanically, resulting in statements and reflections that were, at best, mediocre and at worst, vague.

Usefulness

How useful are the learning contacts? Learners were reported to give more emphasis in using the learning contracts for organizing and monitoring their language learning activities in comparison to planning and evaluating. The following excerpts from the interview illustrate this:

For BEL we do form many other sources….newspapers, books…. I think with BEL the contract helped because it goes with the book BEL we can't learn from books we must learn from other sources. It's everywhere.

(*Interview*S-F8a)

We do an activity but we don't record. I do a test and I get results which is not good. I feel I have worked so hard so I can check…the contract can help me trace to see what I did wrong. Objectively.

(*Interview* S-F8b)

Thus, it can be said that they seemed to express more confidence in using the contract to keep track of the language activities, different language skills and strategies they have tried than in utilizing it to evaluate the work they had done and to plan the next one.

Viability of the learning contracts

Before going further into the discussion on the viability of the learning contracts, the table below merits a quick look. Table 2 shows the number of submitted learning contract activities. It

is encouraging to note that about two-thirds of the total number of learners submitted more than the minimum five activities required by the lecturer. The rest of the learners submitted five activities as part of their contract work. This implied that the learners had the ability to create more learning opportunities for themselves and seem willing to do so if they were given the freedom to choose what to learn.

Table 3. Number of activities submitted by the learners

Number of activities submitted	5	6	7	8	9	10	>10
Percentage of learners who submitted (%)	31.82	9.09	13.64	0	18.18	9.09	18.18

There were a number of pragmatic, affective and social factors that could perceptively explain the extent to which the learning contracts are viable for enhancing learner autonomy among the learners. It appeared that the learners used the learning contract as a pragmatic tool for managing their learning. For example, in the excerpt S13-C3 below, the learner related the use of the contracts as a way to organize learning resources and to learn why he has some problems in learning.

> *When I compare this to the last contract, I finished the comments. I looked at which ones I think I should carry out and the ones that helped me, I did it again. Then the ones I think don't help me a lot, I stopped doing the activity already. The activity with the verbs don't help. It only concentrated in certain things only.*
>
> *(Learner conference S13-C3*)

Other pragmatic reasons also shaped the way learners select a learning contract activity. This is an important function of the learning contract as it established certain expectations of the learners like keeping to a set deadline for completing an activity or ensuring the contents of the contract were followed as discussed and agreed upon.

Apart from that, a number of affective factors also emerged in the way learners develop and used their contracts, for example, focusing on the activities which they would enjoy the most or selecting learning materials that were the easiest to accomplish or formulating learning goals based on the interesting activities that can be carried out. The following excerpts exemplify this. Excerpts S25-C2 and S20-C3 were extracted from a learner conference transcript:

Speaking…to improve speaking is the easiest. My speaking is not the best but I like to learn more speaking… I want to learn speaking through lyrics… I enjoy learning through songs.

(Learner conference S25-C2)

I like to read and find the meaning of the words. Vocabulary… I like to do simple exercises on grammar…I don't like write essays but I know I must do this… I like to write about facts… I don't like to create stories... I don't like story books… I like magazines and short articles… I get these articles from the library and the Internet.

(Learner conference S20-C3)

Finally, the data also revealed that the learning contract was developed based on social reasons. According to Gao (2010), the development of learning strategies does not happen in isolation and is highly affected by the social context in which they occur. The learning contract is no exception. The emergence of this socio-cultural factor can be due to the contract being used as a ticket to gain acceptance to join the group. In this study, it appeared that the contract acted like an invisible twine that bound these learners together as a group, working towards a common goal. It seemed personal relations with friends through the learning contracts turned out to be so rewarding that social goals became the main concern and took precedence over academic goals. There were many examples throughout the interview that showed the level of cooperation among the learners as they relied on themselves and on each other, not only for resources, but also for feedback. One of the excerpts (S5-C2) is reported below:

I see that my friends can sing songs in English so easily but I can't do that. I can only sing in Malay…my friends can memorize the English songs…it is difficult for me…my friends said that if I wish to improve, then I should try and memorize English songs, look at the sentences and many more…so I will try…may be Scorpions songs...their lyrics have meaning.

(Learner conference S5-C2)

In all, the discussion of the findings has shown that the learning contract is viable as a strategy for developing autonomy among ESL learners. This has been exemplified through learners' account of their experiences which were shaped by their perceptions on perceived gains, sources of motivation, challenges and usefulness of the contracts. The discussion has also shown that several pragmatic, social and affective factors underlie the way they plan and carry out language activities with the learning contracts.

Implications

There are a few implications for developing learner autonomy with the use of learning contracts. Firstly, a learning atmosphere that provides social support would produce a multiplier effect especially on fledgling autonomous learners. This is especially crucial when they are faced with a novel or unfamiliar method of managing learning like the learning contracts. This study brought to light an important concern with regards to self-directedness and continual learning. In order to sustain learners' interest in doing self-directed learning, there must be adequate support for their effort. With the learning contracts, it is equally important to encourage a supportive language learning atmosphere that can extend beyond the language classroom. Secondly, providing learners with training in language learning strategies is a way to equip them with an array of learning strategies that they can draw upon in different situations to help them learn more efficiently. In this study, it can be said that most of the learners who made use of different learning strategies, did not actually plan for them. Instead learners seemed to have stumbled upon the strategies they used. Indeed, when the data are reviewed, there appeared to be no conscious reporting of the scheme of language strategies. However, there were instances where learners wanted to know more about strategies to help them manage their self-directed language learning. Thus, to optimize the use of the learning contracts, it would helpful to include strategy training at the start of the course and review strategies used with the learners from time to time. Learners could also be asked to report on the usefulness of certain strategies.

Conclusion

At the start of this paper, an example of the horse taken to the river to drink is quoted. The horse must lower its head to take in some water or he will remain thirsty. The analogy shows that language learners must be guided as they seek to develop their ability to become autonomous. The analogy also serves a word of caution that learner autonomy will also fail if the horse is not thirsty at all. In other words, a learner who does not find learner autonomy an appealing goal, would unlikely be motivated to participate in the efforts towards assuming greater responsibility for learning. The study has perceptively shown that the learning contract has potential in language learning as a way to develop autonomous language learners. However, it is still learners' positive learning experience that remains the key to the success of any endeavour

seeking to promote learner autonomy.

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Self-access Materials: Their Features and their Selection in Students' Literacy Practices

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Abstract

Autonomous, self-directed language learning is the literacy practice that self-access centers aim to promote. Much of this activity occurs when students interact with the equipment and the materials available in the center. These resources, in many ways, become the core of the learning environment, and, therefore, it is critical to understand what learning is provided or afforded through them. In this study, we examine the literacy practices of students in a self-access center in Mexico, focusing on the materials. We combine description and analysis of materials, student observations, and interviews to identify the learning students perceive those resources afford and the criteria they employ to make decisions concerning their use of the materials. This investigation is accomplished through the theoretical perspective of New Literacy Studies, because it provides a unique and rich socio-cultural approach to language learning. As a result, we determined that affordances of the materials are constrained. We also identified five different criteria students use to choose materials, but despite their personal criterion, we found they often do not have a clear direction and purpose for their choices.

Key words: literacy practices, self-access materials, SAC, autonomous learning, decision-making, self-regulation

In many language learning environments, self-access centers provide students with the opportunity to develop language skills and self-study strategies (Holec, 1981; Benson, 2001; Gardner, 2011). Each center plans, organizes and implements a learning supporting structure to achieve its academic goals; accordingly, they all offer a wide variety of human and material resources to assist users. When centers are at their planning stage, resources are obtained to ensure suitable support for the users. The resources may include any combination of the following: a space, self-access materials, technology, activities, training, tutors, a tutoring system, a system for feedback and self-assessment, and a system for evaluation (Gardner & Miller, 1999). However, the presence of these elements does not guarantee effective learning by students.

In this article, we describe and analyze part of the supporting structure of a self-access center (SAC), the materials, and the way they are used by university students in a Mexican university. We provide an analysis of the materials and a description of the actual use of these resources, including the students' criteria in choosing a particular type of material. This analysis leads to a discussion of the language learning afforded at the site.

Conceptual Framework

A framework for literacy practices

With the advent of the 'social turn' in applied linguistics (Gee, 1996), literacy is considered a social practice, not merely an individual cognitive and silent act. According to New Literacy Studies, the name given to a line of research that emerges under this new socio-cultural perspective of literacy, literacy practices are social practices mediated by texts of different kinds immersed in a context that shapes them. New Literacy Studies, exemplified by Hamilton (2000), offers an analytical framework for investigating the interaction among texts, people and context. Hamilton identifies two types of elements that constitute any literacy practice: those that are visible and those that must be inferred. The visible elements are the participants of the practice, setting, artifacts, and the activities performed; the elements that must be inferred are the hidden participants, the domain of the practice, other resources such as values, understandings, ways of knowing and thinking, and the routines that structure the activities observed (Hamilton, 2000, p. 17). In Table 1 we summarize this framework.

We based our theoretical framework for this research on Hamilton's approach for understanding the self-access center as a social context. By examining the social context in this manner, we can determine the affordances or possibilities for autonomous language learning that are provided to students learning a foreign language: English.

Table 1. Basic Elements of Literacy Events and Practices

Elements visible within literacy events	**Non-visible constituents of literacy practices**
Participants: The people who can be seen interacting with the written text.	The hidden participants - other people, or groups of people, involved in the social relationships of producing, interpreting, circulating and otherwise regulating written texts.
Settings: The immediate physical circumstances in which the interaction takes place.	The domain of the practice within which the event takes place and takes its sense and social purpose.
Artifacts: The material tools and accessories that are involved in the interaction (including the texts)	All other resources brought to the literacy practice including non-material values, understandings, ways of thinking, feelings, skills and knowledge.
Activities: The actions performed by participants in the literacy event.	Structured routines and pathways that facilitate or regulate actions; rules of appropriacy and eligibility – who does/doesn't, can/ can't engage in particular activities

(Hamilton, 2000, p. 17)

The self-access center as a social context

Self-access centers are places designed for self-directed language learning in which students engage in literacy practices that permit their learning a foreign language. As such, the center is a social context where literacy practices take place. The visible elements in a self-access center are identified as follows:

- Participants are students, tutors, and administrative staff.
- Setting is the physical arrangement of the space.
- Artifacts are the physical resources that support students in their learning. These are the materials and the equipment available at the center such as books, magazines, in-house produced (adapted) materials, multimedia, and computers.

The inferred elements of the literacy practices at a self-access center are the following:

- The hidden participants include the designers of the center and the administrators.
- The domain includes the university and the center's institutional agendas, which are, one way or another, encouraging autonomous language learning.
- Other non-visible elements include the knowledge, values and understanding participants bring to the practice. Thus, the knowledge and understanding of autonomous language learning that the designers and students bring are core elements so that "learners are given the possibility consciously to be involved in their own learning" (Dam, 2000, p. 49).

Self-access center materials

In this study we focused on one salient element of the learning support structure, the materials as artifacts of the literacy practice in the self-access center. Most of the materials in self-access centers can be classified in different ways. They may be authentic, didactic, published language learning materials, and/or adapted and designed materials that fit the students' needs in each setting (Gardner & Miller, 1999).

Materials, which are one type of artifact in Hamilton's (2000) framework, are, to some extent, the core of some self-access centers. They are the principal sources of language learning input for students. The students use materials in order to engage in language learning activities such as reading books, playing board games, answering exercises, and listening to recordings.

Sturtridge (1997), states that students' acceptance or rejection of these centers might be heavily influenced by the quality of the materials. When acquiring, designing and adapting materials, it is necessary that these materials enable students to use them independently, without the direct control of the teacher (Tomlinson, 1998).

Several authors (Dickinson, 1987; Sheering, 1989; Tomlinson, 1998) have suggested the features materials should have. Importantly, Reinders and Lewis (2006) identified a set of specific features to evaluate self-access materials to allow more effective practices at self-access centers. To determine those features, first they reviewed the work cited above among others. Then they applied a questionnaire as proposed by Gardner and

Miller (1999) to gather data about what the students at the SAC thought was good material for self-access. Ultimately, they created a checklist to evaluate materials that focused on the selection, the access, the learning process and learning to learn features. These are the characteristics of the materials they identified: materials mention they are suitable for self-access study; explain the level they are recommended for; explain if there is a need to be used in a sequence; and include an index, a table of contents, a detailed map, a glossary and previews of chapters or summaries. Materials should provide examples of how to carry out activities, objectives of tasks, answer keys and criteria students could follow to develop the activities Materials should also comprise learning to learn features such as notes about the learning process and ways to establish goals.

Method

Research site

The research was carried out at a self-access facility of a language center of a large public university in Mexico. The university offers courses in several languages, English being the most popular. The weekly English course consists of six levels comprising of eight hours of classroom work and two hours of self-access work. This self-access facility is a place where students are expected to practice what they have studied in class and to develop their language skills independently. The center has room for 200 users and is open from Monday to Saturday. It is managed by a coordinator and there are tutors who support students through different activities (training, advising, solving simple doubts, activity-organizing, etc.).

Research questions and design

The research questions that guided our project were: What kinds of materials are provided at the center to support students' learning? Do these materials possess desirable features of self-access materials? Based on the activities observed and students' comments, what are the decision-making strategies students employ to select and use materials? We followed a qualitative approach (Holliday, 2007) with the purpose of providing a rich account of a range of factors that could help us first identify and then describe, analyze and interpret the elements that constitute the supporting structure of a self-access center studied as a social context. The findings we present in this article are part of a larger study about

the learning affordances of the supporting structure provided by the self-access center. Here we present the findings regarding the materials of the center. This visible element of the self-access center merits focused attention because of its central role in affording students autonomous language-learning opportunities.

Participants

We observed 12 university students who were enrolled in a weekly English course, two students working in each of the self-access center areas: video, conversation, computer, audio, and four in the reading and writing area. Most were enrolled in the first or second level of the English course offered in this institution, and were in the first two years of their university program. Their age ranged between 19 and 24 years old.

Data collection and analysis procedures

To understand the structure of this self-access center, founding documents and regulatory procedures were consulted. To identify the materials available for student use, we reviewed catalogues and interviewed the coordinator of the center. To understand the students' experiences and strategies regarding their use of materials, the 12 students were observed and video-recorded for the length of the session and an observation form was filled out. In this form we registered the length of the activities, the number of participants, a description of the setting, a description of the materials and other artefacts employed, and a description of the activities. All the visible elements of the events were observed and noted. When possible, materials that the students used during the observation were collected or recorded visually. On average, each session lasted 45 minutes. The students were interviewed immediately after each observation with questions concerning their decision making process and their knowledge about the center.

The interviews were analyzed using a qualitative content analysis methodology (Mayring, 2000). First we wrote descriptive codes for open-ended questions. After several independent readings and coding of the data by the first and second authors, codes were later refined and grouped into categories. The resulting categories helped us identified the predominant topics in students answers about the self-access center, the materials, and their own activities at the center.

Results

The support system of the self-access center

The social context of the SAC is supported by a system comprised of physical and human resources which should allow students to engage in unguided activities assisted by guided tasks. The physical resources are the artifacts (materials and equipment) and the human resources are the participants (students, tutors and teachers) of the literacy practices that occur in the center. Figure 1 presents an overview of the implicit design of the support system at the center based on the founding documents and regulatory procedures (Plan de Trabajo del Centro, 2003; Reglamento del Centro, n.d.) The regulations state that users have to attend a two-hour orientation in which a tutor introduces students to self-access learning work. Then, students start working independently and are supported by guided activities such as tutoring, academic workshops (once a semester) and conversation sessions. We would like to emphasize that the aim of this support structure is to assist learners in their engagement of successful unguided language learning activities.

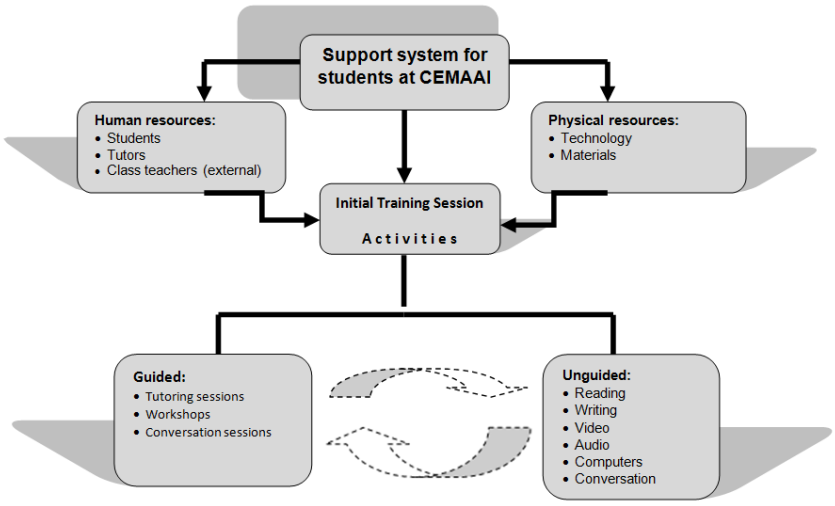

Figure 1. Implicit Design of the Center

Materials provided in the center

Physical resources are at the core of the system and students interact mainly with technology and materials, and if needed or available, with tutors. These resources determine the work areas of the center. Three areas are devoted to the use of multimedia

equipment and technological resources: audio, video, and computer rooms. Another area is devoted to reading and writing; it includes printed materials. There are two rooms for conversation sessions and a tutoring office.

Students have direct access to most materials; only access to computers and software, movies, board games and some books is controlled by staff. Occasionally, there are time restrictions in the video and computer rooms according to the demand of these spaces.

According to the coordinator of this center (A. Quintana, personal communication, June 10, 2010), materials have been acquired through different means and have different formats. Table 2 summarizes the way the materials were acquired for the centre. Few materials were adapted by the staff or bought specifically for use in the center; the majority were donated either by students or publishers. Most of these materials are printed; there are few with electronic format. The majority are didactic either in their original format or adapted; only 30 percent are authentic.

Table 2. Description of Materials at the Center

Acquisition of Materials		Formats		Types	
In-house materials adapted by staff (worksheets)	10%	Printed	90 %	Didactic: commercial publisher course books and accompanying materials and in-house adapted materials (worksheets); vocabulary building, pronunciation and grammar books, adapted reading books, educational software and Internet web pages.	70%
Especially bought for the center	20%	Electronic: software, CDs, DVDs, audio tapes, video tapes.	10%	Authentic: magazines, encyclopedias reading books movies, music and documentaries	30%
Donated by students or publishers (text books)	70%				

Suitability of the materials of the center

We contrasted the features we found in the materials at the center with the desirable features of self-access materials provided by Reinders and Lewis (2006). We consider these features are crucial for self-directed learning (Table 3). We found the majority of the materials did not meet the features suggested by these authors.

Table 3. Suitability of Materials

Desirable Features of Materials		Findings of the Materials in the Center
1.	Materials specify that they are suitable for self-access	A few grammar and vocabulary books Two educational software programs only
2.	Materials are catalogued	All materials include a identification code; however, coding system is not consistent
3.	Materials include: a) list of contents	All books have a list of contents
	b) summary of the contents	Didactic books and all in-house worksheets
	c) examples of activities	In-house worksheets (adapted by staff)
	d) objectives	Some didactic books and all worksheets
	e) answer key	Self study didactic books and all in-house worksheets
	f) explanations of their use	Some didactic books
	g) learning to learn activities	Only those materials designed to promote learning to learn strategies

(The features are based on the checklist to evaluate materials by Reinders & Lewis, 2006)

The inventory of materials revealed that only a few were specifically designed for the SAC. The coordinator could not specify the exact number of self-study books available, but she commented there are not many. This may be a consequence of few materials being purchased specifically for use in the center, as indicated in Table 2. Many of the materials were either didactic for classroom use or were authentic, inherently not designed with a language learning purpose.

The cataloguing system should aid student decision-making in the selection of materials (Reinders & Lewis, 2006). Analysis of the materials in the center presented many inconsistencies. Materials were catalogued in different ways. For example, the index code might begin with the language (E=English), the type of material (GB= grammar book), the skill (R-reading) or a number (001). The code might include a combination of all these elements or just some of them. The catalogues were named by the type of materials (worksheets, movies, video, etc.) or the name of the area (reading, listening, or computer). There was one printed catalogue in each area located in a tray, on a shelf or in a bookcase, next to the listed materials. Consequently, students did not access to a comprehensive, general catalogue, but had to go to each area to consult what was available. Catalogues were only printed; there was no digital database of material. Of the 12 students observed, none consulted the catalogues; they went straight to the areas they wanted to work in.

In interviews with the students, most indicated a good attitude towards the center and the materials. Ten students commented that the center facilitates their development of language skills such as listening and speaking, especially pronunciation. Nine students said they attended the center because it was a requirement of their English course, although that did not necessarily preclude them saying that they thought it would facilitate their language learning.

Students noted the quantity and the quality of the materials in terms of their perceived usefulness for language learning and their physical appearance: *"I like that **there are many** materials for audio, video, movies"*. "*I come to the center because there are books, dictionaries. We have videos, we have movies, staff that helps us and there are many things to learn"*. Of the students interviewed, four thought the amount of materials was adequate, four said they were useful, and 12 mentioned the center was functional and nothing was lacking. One mentioned he enjoyed having all the materials at hand. Physical appearance of the materials, especially their being in poor condition, was mentioned by four students. They said there was a need to buy new materials because some of them were worn out. Organization was noted by two students who mentioned that the order of materials had to be improved because sometimes they could not find them. This last comment refers to the fact that students do not return the materials to the shelves and there is not enough staff to put them away. The lack of a comprehensive catalogue of materials

and lack of consistency in coding the materials was not mentioned by the students. Access to the materials was not perceived as a problem.

The use of materials

During the observations, we identified literacy events in which students engaged in guided and unguided activities. This included noting what kind of textual material was involved. The analysis of those literacy events, the interviews, and the materials themselves, allowed us to document what students do with materials, how they make their decisions about those materials, and what could be improved to promote self-directed language learning.

In the reading and writing area we observed four students. Two worked by themselves and two others with their classmates. One of them completed exercises in her notebook to study for her English exam that day. Another reviewed his notes in his English subject notebook and completed exercises contained in five grammar worksheets with the help of a translation program on his personal cell phone, while studying for his English exam with other classmates. The third student read an adapted novel with the help of a dictionary to understand unknown words. The fourth student played a board game, *Scrabble,* with his peers who had decided what to do in the center that day. While playing they used their native language to communicate and bilingual dictionaries to find words for the game board. They built 15 monosyllable words in English.

Observations were made in two multi-media rooms. In the video room, the two students watched movies in English. One of them used the subtitles feature of the movie in Spanish. Two girls were observed in the audio room, and they both used didactic materials. One used a pronunciation book with its recordings in CD format. She listened and repeated all exercises in the book. The other girl chose an auditory ESL magazine to listen to and intended to read along as the articles were read aloud. She had problems locating the recordings and the texts.

In the computer room, one of the students completed exercises of pronunciation using educational software, listened and repeated songs. She jumped from one to another program exploring their contents and completing exercises when she understood what to do. She looked for help to manage the computer programs but she did not receive any. The

other student completed listening reading comprehension, grammar and vocabulary exercises using educational software with ease.

In the conversation room, the two students attended traditional conversation group sessions where tutors organized the activities that included the selection of materials. One conversation tutor used a worksheet with problem solving activities and the other one used the reading sections of an English course book. In this session, the students read and answered the tutor's questions.

After these observations, students were asked about their reasons for choosing those materials. Students reported that they used materials for two main reasons: to satisfy their immediate needs, such as studying for a test, and because they perceived certain features of the materials (or the technology) as beneficial for their own learning. For instance, two of the students needed to study for a test and chose their notes from class, which provided them with a review of the grammatical topics seen in class. One of them thought he could also use grammar worksheets to complement his study about the topics of the exam: *"They help me in my learning to see my mistakes, as they provide the answers."*

In a different setting within the center, two students in the computer room thought the software they used helped them practice grammatical structures. Five students said they needed to improve their pronunciation so two chose to work with movies, one with a didactic pronunciation book, and one with a short story. Eight of the students said they could learn vocabulary through the materials they used, which were an adapted short story, educational software, a song, a board game, a movie, and exercises to learn vocabulary. The student reported:

> I think they [movies] help me understand the language, to understand the words because sometimes when a person speaks English we do not understand very well or we misunderstand the words. I think they [materials] help me identify the words.

It seems students made decisions mainly based on the affordances they perceived in the materials. They identified that they can learn different aspects of the language and this gave them a sense of purpose when using materials. In total, we identified five criteria that students used for choosing to work with specific materials during their visit to the center (Table 4). It is important to clarify that respondents gave long answers which sometimes fell into more than one category, so the frequency of responses in Table 4 refers to the

number of students who mentioned that reason. The most common reason, reported by nine out of the twelve students, was they chose the materials because they would help develop language skills. Having a pleasurable experience, which ranked second, was mentioned by a third of the students.

Table 4. Criteria for Choosing Materials at the Center

Reason for Choosing Materials	Sample Interview Excerpt	Frequency of Responses
To develop language skills	"I learn new words and the ones I do not know, I look them up."	9
To have a pleasurable experience	"The books… I like reading about… about stories very much because those are the books that I like, well…literature [short stories]"	4
To fulfill required hours	"[Why are you working with video?] Because I have to make many hours in the center to be able to pass my English course and I do not have much time."	3
To participate in a social learning activity	"Well, my classmates said Scrabble and I played with them, that's all."	2
To explore new materials	"[Computer] because I had never entered this room and I wanted to see how to do it […] how it works".	1

These findings give the impression that students value the affordances these materials provide for learning the language. However, the observation and the interview data suggest that not all decision-making was consistent with an understanding of how best to use those materials, including their criteria for the selection of materials. For example, some students played *Scrabble* to reinforce vocabulary in a fun way and to interact with classmates. The words they created on the game-board were in L2, but their communication was in L1 and not English, suggesting they did not fully understand the role of the game to support their language learning. Then students said they chose materials to have a good time and to comply with the requirement to use the self-access center. It is not clear to what extent they were also learning. Without an expressed language learning purpose, it seems they were simply passing time or engaging in an everyday practice, such as watching a movie. It was not clear whether they chose materials because they were familiar with them and felt more comfortable or because they valued their learning potential. The students did not consult

with center staff regarding material choices, nor did the staff seem to provide any such guidance. We infer that because of the lack of training and guidance students receive in the center, they could hardly have made informed decisions regarding material choice.

Discussion

According to Sturtridge (1997), materials have to be adapted for self-access use, and special attention has to be paid to their range and arrangement to facilitate their use, access and selection. Some authors (Tomlinson, 1998; Gardner and Miller, 1999; Reinders and Lewis, 2006) have suggested criteria to develop or adapt materials to facilitate autonomous language learning because there are affordances expected of materials in a self-access centre that are different from the teacher-guided classroom setting. The ideal features of self-access materials developed by Reinders and Lewis (2006) (user-friendly cataloguing system, instructions of use, answer keys, etc.) were used as a point of comparison with the materials of this center, as shown in Table 3 above. Most of the materials do not meet the ideal features. It was the in-house adapted materials that were the most suitable and most congruent with the intended literacy practices of this social context. Unfortunately, the in-house adapted materials represented only 10% of all the materials in the center. We found that while there was an abundance of materials in the center setting, and students made use of them, there was no evidence of a structured learning plan. Neither the materials were consistently organized to afford such learning, nor did the students conceptualize their learning with a plan. Rather, the center provided materials for learning activities, but the opportunities for greater affordance were not evident in the observations made.

Holec (1981) explains that to *take charge of one's learning* implies the responsibility to make decisions about all aspects of learning such as the pace, the when and where, the materials, monitoring, and assessment. If students are to be autonomous, they are then responsible for making decisions for the selection of materials. However, the selection may be made by their own choices, selected through consultation with an expert (advisor/mentor), or negotiated with teachers or tutors. In this study, we found that the students decided to make their own choices and chose materials all by themselves and, as we noticed in the interviews, because they thought those materials would help them develop their language skills. This decision-making behavior indicates that students shared

the inferred knowledge and understanding of the center, that they are supposed to work autonomously without the direct help of the teachers as most of them did.

In summary, we see a social context of autonomous learning where students are not fully supported. The materials are not wholly sufficient due to the lack of full adaptation to this context. Most students have a specific language learning focus for the visit to the self-access center, and they rely on their own judgments and the inconsistent organization of materials to access useful ones. They take advantage of the materials' affordances despite the lack of systematic organization or adaptation. We can also identify a phenomenon where some students come to the center and put in time to fulfill their course requirements, but it seems they do not move beyond what is familiar or entertaining in their language learning experience.

Conclusion

With this New Literacy Studies approach, we obtained rich data about this self-access center supporting structure that allowed us to identify its visible and inferred elements. We were able to analyze the literacy events that the students performed because we could identify the relationships among the visible elements (participants and artifacts) and inferred elements (the opinions and understandings of the students about their work at the center). As part of that interaction, we found that the materials, an important element of self-access centers, require special attention because they represent the main artifacts students interact with when learning independently. We noticed that not all of the materials fit into this social context because they lack the features to support self-regulated learning. The inferred elements that students contribute to the literacy events performed became overt in the interviews. Sometimes students do not have a clear purpose and direction when choosing materials because they need more information. Their motivation to attend the center might not be to learn the language in an autonomous manner, but to fulfill a requirement. Nonetheless, all the students have certain criteria to make their choices; they focus on their language needs and their perception of the affordances of the materials to the degree they understand them.

Finally, we would like to emphasize that this study does not aspire to generalize to all self-access centers; instead, it highlights how a New Literacy Studies framework can illuminate the learning afforded in self-access centers. Guided by that framework, our

analysis shows that the structure of this particular center is not supporting students in key areas such the access, choice and use of materials. These aspects deserve improvement for students to be provided with a full supporting structure that assists them in achieving their language learning goals at the center.

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