

# CHAPTER TWENTY FOUR

## Researching Language Learner Strategies

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A large area of interest within the field of applied linguistics is the investigation of why certain individuals are able to learn languages more effectively than others. This area of research, called *individual differences in second language acquisition* (see Dörnyei 2005), has become an important field in applied linguistics, incorporating diverse notions such as age, motivation (see also Woodrow this volume) and the exploration of the strategies that language learners use to support their language's own development. While early research into learner strategies in the 1970s (e.g. Rubin 1975) had the intent of highlighting strategies of 'good' language learners, the area of language learner strategies has blossomed into a research field in its own right. Because strategies are learner-driven, the field has naturally strong ties to the fields of self-regulation (see Tseng et al. 2006), learner autonomy (see Benson 2013) and agency (see Gao 2010). This chapter aims to provide an overview of language learner strategy research and to outline the typical stages in conducting research in this field. It, then, discusses issues involved with choosing the right data collection instruments and theoretical framework for research. Finally, it discusses problems in the field.

### **A synthesis of current thinking and research on language learner strategies**

*Language Learner Strategies* are processes and actions that are consciously deployed by language learners to help them to learn or use a language

more effectively. A more specific definition is the '[t]houghts and actions, consciously chosen and operationalized by language learners, to assist them in carrying out a multiplicity of tasks from the very outset of learning to the most advanced levels of target language performance' (Cohen 2011, p. 7). There is considerable debate over what these 'thoughts and actions' include, and also over the relationship strategies have with language learning success. One central problem in the study of any individual difference in second language acquisition (SLA) is how to measure success, which is an issue that remains severely underdeveloped (see Macaro 2010 for further discussion).

In general, learner strategies can be divided into those applied for language learning, those applied for language use and those applied to language testing (Cohen 2011). Language *learning* strategies encompass the cognitive strategies (e.g. memorization and recollection techniques) and metacognitive strategies (e.g. the preplanning, monitoring and evaluation of one's learning) used by a learner when learning a language. Under many conceptualizations, the definition also encompasses the affective and sociocultural strategies used to regulate external factors in the learning process. For example, a sociocultural strategy might involve how the learner engages and learns with others in the environment around them; an affective strategy refers to how a learner regulates their emotions and attitude towards learning. A language *use* strategy encompasses the strategies deployed when a learner is using the language and includes different foci such as coping strategies (e.g. compensating for lacks in language knowledge) and more general communication strategies (e.g. accommodating and adjusting language to different speakers and contexts). While the distinction between language learning and language use is useful to compartmentalize and focus a research topic, some researchers prefer not to emphasize the difference because 'it does not acknowledge the fact that every instance of language use offers the potential for language learning' (Oxford et al. 2014, p. 32). Test-taking strategies offer a further dimension to strategic behaviour due to the fact that learners often apply a very different set of strategies in the high-stakes context of language examinations. Often, test-taking strategies have a clear purpose to navigate and manage a test; a learner, for example, will read a passage in a test very differently to how they would engage with the same text for the purposes of extracting meaning (language use), or study (in the sense of language learning). In the application of test-taking strategies, a learner may read the questions first and engage with the text for the sole purposes of finding the answers to the questions. Studies such as Phakiti (2003) have found the use of cognitive and metacognitive strategies to have a positive relationship to reading test performance; that is, more successful test-takers report using significantly more strategies than less successful test-takers.

In addition to focussing strategy research on certain functions of language learning (such as cognitive strategies, metacognitive strategies, affective strategies and sociocultural strategies), it is also possible to examine learner

strategies used in the development of a particular language skill (such as reading, listening, speaking and writing), or in a refined segment of acquisition (e.g. vocabulary or grammar). In the 1970s, 1980s and early 1990s, researchers aimed to research strategies across the multiple functions and skills involved when learning and using a second language (O'Malley & Chamot 1990; Oxford 1990; Rubin 1975, 1987). Vast inventories such as Oxford's (1990) Strategy Inventory of Language Learning (SILL) were widely used by researchers and teachers to measure general strategy use. These inventories were influential in the establishment of language learner strategies as a legitimate field of study in applied linguistics. However, conflicting research findings and difficulties in categorizing strategies within such inventories opened the field up to much criticism. Since the late 1990s and early 2000s, current thinking in the field is moving away from broad definitions and 'catch-all' terms that simplify the complexity of language learning. Researchers generally agree that the days of casting a wide net over defining 'good' and 'bad' language learners is a research practice of the past. Researchers nowadays are more concerned with the intricacies of how learners make use of strategies in more finely focused areas of the learning process, rather than making broad assumptions of strategy use across a range of functions, skills and contexts.

## **Typical stages in language learner strategy research**

Typical steps taken by researchers in the area of learner strategies involve, first, choosing a focus of strategy research in order to avoid the pitfalls of the catch-all studies of the past. Second, choosing the correct instruments to measure strategy use is especially important in order to collect valid data, which may not be immediately apparent to the researcher. Finally, in the data analysis stage, it is essential that researchers evaluate the validity of learner-reported strategy use against actual strategic behaviour. Each of these three stages will be discussed in turn.

### ***Choosing a focus of strategy research***

Researchers of learner strategies in recent years highlight the importance of focussing on situated contexts. Takeuchi et al. (2007, p. 92), for example, state that the 'individual and situational context in which a learner operates is complex'. For example, a participant could well deploy a completely different cluster of strategies to the task of vocabulary learning compared with those applied to the study of speaking and communication. Likewise, those deployed by high-school learners of language might differ greatly to

those deployed by the same learners when learning the same language during a language exchange, or at university. Thus, a researcher must embrace this complexity when setting up a study to ensure findings are situated in the context being studied.

A researcher will need to decide what dimension of learner strategies to focus on, whether it be a particular language learning skill, such as the investigation of reading strategies, listening strategies and vocabulary-acquisition strategies, or a functional dimension of language learning strategies, such as looking at the cognitive strategies and metacognitive strategies in a broader scope of second language learning. The focus of strategy research could be refined even further by looking at a function within a skill, such as the cognitive strategies deployed when listening to lectures in a second language. Without such a focus, the researcher is in danger of drawing sweeping conclusions of language learning that may extend beyond the sample used for the study.

### ***Instrumentation and data collection***

The selection of appropriate instruments to measure a learner's strategic thoughts and actions is one of the most important challenges faced by researchers in the field. Historically, researchers have used questionnaires based on inventories of reported strategy use, but due to the problems outlined later in this chapter, there have been calls for researchers to use more qualitative data collection techniques (e.g. Rose 2012a; Woodrow 2005). A researcher will have to weigh up the importance of thin data obtained from a larger number of participants in quantitative approaches against the benefits of thick data obtained from a smaller number of participants using qualitative approaches. Generally speaking, a quantitative approach might be a good fit to investigate *what* strategies are deployed, and a qualitative approach might be a better fit to answer *how* strategies are deployed. Furthermore, quantitative approaches may be more appropriate in a field where a lot of research has been done (e.g. ESL reading strategies), but a qualitative approach will provide more valuable data for lesser-researched areas (e.g. Chinese as a foreign language reading strategies), because a questionnaire could potentially miss unexpected intricacies in the learning process.

### ***Data analysis***

Data analysis will largely depend on the instruments chosen by the researcher: see Phakiti (this volume) for an overview of quantitative data analysis and Holliday (this volume) for an overview of qualitative data analysis. However, there are a few issues particular to learner strategy research that

researchers should consider when analysing data. First, strategy research has come under criticism for studies that compute mean scores of strategy inventories (Dörnyei 2005; Tseng et al. 2006). Dörnyei (2005, p. 182) has been particularly vocal in his criticism of the SILL, arguing that ‘the scales in the SILL are not cumulative and computing mean scores is psychometrically not justifiable’. This argument is based on the fact that the SILL frequency scales are not linear in relationship, and that the SILL items connect to specific (and separate) behaviours rather than general trends and shared inclinations that can be pooled together as part of the same scale. Other inventories such as those listed later in this chapter are less susceptible to criticism, but a researcher will have to consider the most appropriate statistical tests to run based on the nature of the questionnaire used.

Inventories can be extremely useful when coding qualitative data as they identify known learner strategies based on decades of research. Once again, in a well-established field like ESL reading strategies, the researcher can begin coding with a ‘start list’ of codes based on such inventories, but in a lesser researched area, these codes might emerge from the data as researchers become more familiar with the processes at hand. This decision of whether coding is a bottom-up or top-down, inductive or deductive, or emic or etic process is an important one to be made by the researcher in the data-analysis stage – and is a topic discussed at length by Gu (2014).

## Research strategies and techniques

As strategies are learner-internal and not immediately observable, research techniques employed by researchers tend towards those that rely on self-report of the learners themselves. This section will explore the issues involved in the application of commonly used techniques of questionnaires, interviews, introspective and retrospective learning tasks and diaries.

### Questionnaires

Questionnaires were one of the most widely used instruments of learner strategy research in the 1990s, which was a decade of booming research in the field. Thus, novice researchers are often tempted to replicate research from this time, which can be dangerous, considering that some of these questionnaires are no longer compatible with current thinking in the field. To help researchers decide on an appropriate instrument, an outline of commonly used measures is provided:

- *Strategy Inventory of Language Learning* (SILL). Oxford’s (1990) SILL is ‘the most widely used instrument in language learner strategy research’ (White et al. 2007, p. 95). However, in modern

times, the questionnaire is seen as quite problematic. Because each item is directly connected with a specific strategy, students who use many strategies in an ineffective way can be measured as more strategic than students who apply a smaller number of strategies in a more effective fashion – a problem not unnoticed by Oxford herself (Yamamori et al. 2003). This, coupled with issues of validity outlined by Dörnyei (2005), means novice researchers in the area of learner strategies should avoid using the SILL as their main instrument.

- *Motivated Strategies for Learning Questionnaire* (MSLQ). The MSLQ was developed by a team of researchers (Pintrich et al. 1991) about the same time as the SILL. Although the scale was the result of three years of development and testing, it was not as widely used as the SILL, perhaps due to the creators' later cautiousness in claiming it to only have relatively good reliability (Pintrich et al. 1993). In his critique of the SILL, Dörnyei (2005) has a more favourable position towards the MSLQ, arguing it to be the most widely known data collection instrument in the field of educational psychology.
- *Language Strategy Use Inventory* (Cohen et al. 2006), sometimes referred to as the Language Strategy Use Survey, was developed to have a more practical focus. The authors acknowledge that its validity is fair, but not strong (Cohen 2011).
- *Survey of Reading Strategies* (SORS) (Mokharti & Sheorey 2002) was developed from the *Metacognitive Awareness Of Reading Strategies Inventory* (Mokhtari & Reichard 2002). The SORS is considered to have good overall reliability and is still used widely today. This survey is an example of an attempt to move away from a one-size-fits-all questionnaire, and tailor strategy research to specific skills.
- *Metacognitive Awareness Listening Questionnaire* (MALQ). This questionnaire, developed by Vandergrift et al. (2006), specifically measures strategies deployed in listening tasks. While the instrument does not include all possible listening strategies, it is considered to have good internal validity (White et al. 2007, p. 96).

While the above is an outline of popular questionnaires in strategy research, it is not an exhaustive list. In fact, many other questionnaires have been developed for niche areas of strategy research, so it is important for researchers to familiarize themselves with the instruments used in their chosen field. For example, Zhang et al. (2014) constructed their own forty-item writing strategy survey for use in primary classrooms in Singapore, which showed robust reliability and would serve as a useful base for similar studies into writing strategies.

The use of such inventories calls into question issues of validity surrounding self-report measures, which are particularly problematic seeing as much learner strategy research centres on cognitive and metacognitive processes of which the learner might not be accurately able to describe. Moreover, in any longitudinal study, the use of questionnaires can influence the very strategies being measured. Rubin et al. (2007, p. 151), for example, state that the act of reading a questionnaire that lists known strategies can raise awareness for older learners. For these reasons, researchers must be cautious of the impact of using such measures on the validity of the study.

### ***Introspective tasks***

For those studies where cognitive and metacognitive strategies are a key focus, a range of introspective methods such as think-aloud techniques, where participants voice their thoughts while completing a task, can be useful for collecting data. Gu (2014, p. 74) claims that it is ‘widely agreed that various versions of thinking aloud are the most direct and therefore best tools available in examining the on-going processes and intentions as and when learning happens’. Hyland (2010, p. 197) supports this notion in his assertion that think-aloud techniques have been extremely productive in the investigation of the writing strategies that students deploy when composing, planning and revising texts. Hyland’s claim is also supported in recent research (e.g. Alnufaie & Grenfell 2012) that examines, via a think-aloud task, the writing strategies used in examination writing tasks by ESL students in Saudi Arabia.

### ***Retrospective interviews***

While think-aloud tasks can be useful in the study of silent learning activities, they have obvious interference in language learning tasks where the act of voicing thoughts aloud would interfere with the learning process and language use. For this reason, researchers often have to turn to retrospective methods, such as interviewing participants after the event being studied. Takeuchi et al. (2007, p. 94) make the following observation:

As the field moves towards a deeper understanding of strategy use influenced by particular cultural, contextual, and individual factors, retrospective interviews re-emerge as an important tool providing opportunities for exploration and elaboration of aspects of strategy use.

Nevertheless, retrospective interviews are sometimes seen as problematic due to the time between completion of a task (in this case a learning event) and the reporting of it in a retrospective interview.

## ***Stimulated recall***

Stimulated recall is a data collection technique that aims to strengthen reliability of retrospection through the use of stimuli to prompt memory of the processes and behaviours associated with completing a task. In language studies research, stimuli are often in the form of audio or video recordings of the task being studied but can include a number of other artefacts such as a test when examining test-taking strategies, a textbook when examining learning strategies and a recording of a lecture with a student's handwritten notes when examining language use strategies. In discussing the usefulness of stimulated recall in researching learner processes, Tseng et al. (2006), observe that the method is a highly promising but yet underutilized data collection technique. Stimulated recall, however, has potential problems related to issues of mistaken memory and retrieval, ill-timing and poor instructions (Mackey & Gass 2005), and thus the researcher must design the task carefully to ensure the use of strong stimuli to activate memory structures. According to Vandergrift (2010), the reliability of stimulated recall protocols is clearly connected to the amount of time between the stimulated recall session and the event being discussed. Thus, stimulated recall tasks work best when applied immediately after the event being researched (Mackey & Gass 2005). Rose (2012b; 2013) has found that, when used effectively, stimulated recall data are more revealing and more reliable than other self-report instruments, such as questionnaires and interviews.

## ***Diary studies***

One underutilized data collection technique in the field of language learner strategies is the use of learner journals or diaries. Journals can be a powerful research method to gain insight into learner practices and thoughts that may be impossible to elicit using other data collection methods, because the participants help the researcher keep records of a learner's own thoughts, emotions and actions (Dörnyei 2007). In some learner strategy studies (e.g. Ma & Oxford 2014), diaries have been used to provide a less structured narrative-like account of strategy use. Bolger et al. (2003) outline a number of structured diary formats, of which an 'event-based design' is probably of most relevance to learner strategy research. Here, participants are asked to answer questions in the diary directly after the learning event being studied. This format helps to minimize the time between the event and the report, thus avoiding the problems of other retrospective data collection methods, but adds structure to a research project more so than a narrative account.



## Problems associated with researching language learner strategies

Problems faced by researchers of language learner strategies tend to fall into two categories: those of a methodological nature and those of a definitional nature. As such, both of these will be discussed in turn.

### *Methodological problems*

The largest challenge faced by researchers of language learner strategies is the issue of how to measure them. The bulk of research into language learner strategies centres on the use of questionnaires and learner introspection. Putting aside the issues of validity of questionnaires already discussed, researchers must also contend with the reliability of self-report measures. Triangulation of data through use of multiple methods is paramount to researching language learner strategies in order to highlight potential inconsistencies in reported strategy use. In general, there is a trend in current research to move towards more context-specific research approaches using in-depth qualitative methods which provide a richer and more reliable picture of strategy use. Therefore, if a quantitative approach is pursued, it should generally be supplemented with some degree of qualitative data in order to substantiate findings.

### *Definitional problems*

A second problem associated with researching language learner strategies is the definitional fuzziness of major concepts in the field. Macaro (2006, p. 325) summarizes these problems as a lack of consensus of:

- 1 Whether strategies occur inside or outside of the brain.
- 2 Whether learner strategies consist of knowledge, intention, action or all three.
- 3 Whether to classify strategies in frameworks, hierarchies [or clusters].
- 4 Whether strategies survive across all learning situations, tasks and contexts.
- 5 Whether they are integral or additive to language processing.

Macaro (2006) also points to a lack of consensus in the field of what strategies consist of, how they should be defined, their relationship to skills and processes and their effect on language development in the long term.

Owing to definitional problems, there has been mounting criticism over learning strategy research since its very inception, including the following observations:

- 1 There are conflicting results and methodologies (Skehan 1989).
- 2 Definitions of learning strategies are ‘ad hoc and atheoretical’ (Ellis 1994, p. 533).
- 3 Past studies have attempted to describe and quantify strategies rather than to incorporate them into a model of psycholinguistic processing (Ellis 1997).
- 4 The conceptualization of learning strategies is ‘rather inconsistent and elusive’ (Dörnyei & Skehan 2003, p. 608).
- 5 The ‘term has been used in far too broad a sense, including a number of different things that do not necessarily belong together’ (Dörnyei & Skehan 2003, p. 610).
- 6 The construct of learning strategies, while useful for researchers, is less helpful when conducting in-depth analyses of what it consists of (Dörnyei 2005).
- 7 There has been no coherent agreement on the defining criteria for a language learning strategy (Tseng et al. 2006).

Dörnyei and his collaborators have been particularly vocal on several occasions that the problematic concept of strategies be abandoned in place of self-regulation, which they argue is a more stable field (Dörnyei 2005; Dörnyei & Skehan 2003; Tseng et al. 2006). Self-regulation is argued to examine underlying intentions that manifest in strategy use, rather than examining the actual strategies themselves. In response to this argument, Grenfell and Macaro (2007, p. 27) have argued that Dörnyei has made ‘a straw man in order to knock him down’ indicating that Dörnyei’s criticisms were based on weaker aspects of strategy research which were not representative of current trends in the field. I have argued previously that replacing strategy research with self-regulation would be a case of throwing the baby out with the bathwater, in that it throws out decades of research because of definitional issues. Indeed, self-regulation and learner strategies are not incompatible but examine different parts of the learning process – a sentiment shared by Gao (2006). More recently, Gu (2012, p. 331) has argued that ‘conceptual fuzziness should not be a problem serious enough to overthrow forty years of research on language learning strategies’ and ‘the proposed alternative term “self-regulation” or even a more general and key term “learning” fall into the same fuzziness trap’, indicating ‘that the find-another-term solution is not viable’.

Definitional fuzziness is often a concern for fields of study in SLA, where the process of learning is not easily definable, nor easily categorized into

neat boxes. Larsen-Freeman and Cameron (2008) prefer to view language acquisition as a complex adaptive system, in order to move away from an ideology that clearly defined lines can be drawn around something as complex as language learning. They argue that while linguists treat language as a stable system, applied linguists need a very different theory of language: 'complex systems are at one and the same time both stable and variable' (Freeman & Cameron 2008, p. 79). By taking a more complex view of language, issues such as definitional fuzziness in learner strategies are seen as a natural occurrence, rather than a reason to dismiss them outright.

Nevertheless, the early to mid-2000s mark a watershed in language learner strategy research, when in light of criticism of definitional fuzziness, the field shifted focus (see Macaro 2010 for a list of published research over time). Some researchers repositioned language learner strategy research within a theoretical framework of self-regulation (e.g. Tseng et al. 2006). Oxford (2011) later integrated self-regulation into her positioning of strategic learning in the 'strategic self-regulation (S2R) model', although this model has not gained the same traction in the field as her more widely known 1990 taxonomy. In general, the field has moved closer to others around it, including self-regulation, cognitive science, learner autonomy, and more recently, agency.

## A sample study

To illustrate research into language learner strategies, I will draw on a multifaceted study into the learning strategies deployed by students learning Japanese as a foreign language, which has been disseminated in a number of research articles (Rose 2012a, b, 2013; Rose & Harbon 2013). The study involved the examination of learning strategies and self-regulatory mechanisms deployed by learners of Japanese as a foreign language when studying written Japanese characters called *kanji*. The study focused on kanji learning because the learning of this script is a major obstacle for foreign language learners to attain literacy in Japanese. Additionally, a focus on kanji learning allowed the researcher to examine multiple functions of strategic behaviour in a specific learning context.

The study took a qualitative approach in line with recommendations at the time for this kind of research (Tseng et al. 2006; Woodrow 2005). Data collection tools included stimulated recall tasks, semi-structured retrospective interviews, and a strategy inventory for kanji learning, which was developed from previous work in the field (Bourke 1996; Rose 2003). The study took a multiple case study approach in order to obtain a richer picture of strategy use over a longer period of time. Participants for the study were selected based on criteria that aimed to sample typical, extreme and deviant cases of strategy use. This decision was based on limitations of

previous research, which tended to focus on the good language learner and neglected other cases.

Participants were interviewed bi-weekly in conjunction with regular kanji tests to investigate the types of learning activities they were engaged in. Stimulated recall tasks were built into the interviews, where the students would retake their classroom-based kanji tests in front of the researcher while talking-aloud their cognitive processes when recalling each kanji. Thus, when provided with the stimuli of the test, the participants could more accurately voice in detail how they recalled (and had learned) each item on the test, bringing the retrospection closer to introspection and improving the validity of the data yielded.

Data from the stimulated recall were analysed qualitatively by coding responses according to known strategy inventories – in this case an inventory of kanji learning strategies compiled by Bourke (1996) and later adapted by Rose (2003). Qualitative data provided a rich window into the cognitive strategies students deployed when learning kanji such as:

The verb *taberu* [*eat*]. Yeah. It looks like a house. So, for me, I eat in a house, or I eat in a restaurant, which is like a building. So I would always think of it as the building. (Participant E, Interview 4)

In this instance, the data show that the learner used a pictorial association strategy when linking the kanji 食 [*eat*] with her existing understanding of the shape of a building. The participant then related this picture with the meaning of the kanji through a mnemonic strategy of ‘eating in a restaurant, which is like a building’ (Rose 2013, p. 985). While qualitative data show how second language learners learn individual, and often isolated, kanji, they can form a bank of examples which further provide a broader picture of the learner strategies employed.

As part of this study, twelve participants were given twenty different kanji, each in ten separate stimulated recall tasks, resulting in 200 items per participant and 2400 in total. With this volume of data, there was some scope to quantify the qualitative data yielded, in order to illustrate the patterns and differences in strategy choice across cases. By analysing data in this way, the study was able to draw conclusions of not only how learning strategies were deployed, but also patterns of learning strategies over time, and across cases. Examining patterns within and across cases, conclusions could be drawn within this cohort of learners, such as the necessity for advanced learners to break a kanji into its smaller components rather than memorize them in a more holistic fashion.

A methodological finding of the study highlighted the inaccuracies of questionnaires in this type of research (Rose 2012b). For example, questionnaire data indicated that students self-reported that they applied pictorial association strategies when learning kanji (such as in the example

of kanji 食 [eat], above). However, stimulated recall sessions showed that application of pictorial strategies was quite rare, and, in fact, almost non-existent in the advanced learners. Such disconnect between reported strategy usage and observed strategy usage highlights the inherent dangers of self-report measures. While the stimulated recall task aimed to validate self-report, the researcher was still reliant on participants to be consciously aware of their cognitive processes and behaviours to an extent that they could articulate them accurately. In a subsequent four-year funded project that was based on this study, eye-tracking methodologies were utilized as an additional data collection technique to further enhance understanding of how learners study kanji. Such decisions were in light of recent studies that showed very encouraging evidence supporting the usefulness of eye-tracking methodologies to support introspective, self-report data collection techniques (Gu 2014).

## Resources for further reading

Cohen, AD & Macaro, E (eds), 2007, *Language Learner Strategies: Thirty Years of Research and Practice*, Oxford University Press, Oxford.

This edited volume provides a wide overview of strategy research from key authors in the field. The first half of the book addresses many important issues faced by researchers. The second half summarizes research in numerous sub-fields, such as writing strategies, reading strategies and vocabulary learning strategies.

Cohen, AD 2011, *Strategies in Learning and Using a Second Language*, Pearson Education, Harlow.

This is one of the more thorough and balanced introductions to language learner strategies of the recent publications. Rather than being driven by a personal agenda, its purpose is to provide a comprehensive resource of current trends in the field. It explores the nature of strategies on a number of key dimensions, provides an outline of methods suitable for strategy research and delves into issues surrounding strategy instruction.

Dörnyei, Z 2005, *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*, Lawrence Erlbaum, Mahwah, NJ.

In Chapter 6 of his book (pp. 162–195), Dörnyei critically evaluates language learning strategy research. It is essential reading for novice researchers, as it questions many problematic facets of the field, including commonly used conceptualizations and data collection tools. Much of this content also appears in an earlier co-authored work (Dörnyei & Skehan, 2003).

Oxford, RL 2011, *Teaching and Researching Language Learning Strategies*, Pearson Education, Harlow.

In this book, Oxford introduces her Strategic Self-Regulation (S2R) Model. The impact of criticisms of the mid-2000s is clear, with links to self-regulation theory

throughout the book. While this model has not gained as much traction as her 1990s taxonomy of learning strategies, the book remains an important read.

Rose, H 2012a, 'Reconceptualizing strategic learning in the face of self-regulation: Throwing language learning strategies out with the bathwater', *Applied Linguistics*, vol. 33, no. 1, pp. 92–98.

This article weighs up the arguments to discard language learning strategies in place of self-regulation and acts as a good counterpoint to the claims made by Dörnyei (2005). The article acknowledges that self-regulation is an important emerging field but is an inadequate replacement for strategy research. A similar perspective can be found in Grenfell and Macaro (2007), Gao (2006) and Gu (2012).

Macaro, E 2010, 'The relationship between strategic behaviour and language learning success', in E Macaro (ed.), *Continuum Companion to Second Language Acquisition*, Continuum, London.

In this chapter, Ernesto Macaro takes a critical look at language learner strategy research over the previous thirty-five years. The chapter includes a useful table of published strategy research over time that aimed to correlate strategies with language learning success. Of further interest is a previous journal article by Macaro (2006) that explores the issues surrounding the theoretical challenges of learner strategy research at a critical juncture in its history.

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