Imagine a second language (L2) learner, visiting a foreign country where they need to use the L2, thinking “Yes, I am confident that I can listen to and understand the main ideas of a tour guide’s sightseeing tour” (Mills et al., 2006, p. 292). This self-appraisal would suggest a positive task-, domain-, and context-specific L2 self-efficacy belief. Such a belief would have the potential to shape action in a positive way, according to Bandura’s (1986) social cognitive theory, which takes an agentic perspective towards human functioning. This theory regards self-efficacy beliefs as being centrally important because people draw on their thoughts, feelings, and beliefs to plan, learn, and reflect; regulate their own behavior; negotiate the social environments around them; and attempt to take control of their lives. Continuing with the above example, a positive L2 self-efficacy belief in being able to understand the main ideas of a tour guide’s speech might influence the choice of activity (in this case, going on a tour and listening to the guide), as well as effort, persistence, and resilience (in case the task then appeared to be harder than first anticipated).

While much depends on how information is cognitively processed, Bandura (1997) suggests that self-efficacy beliefs, which he defines as individuals’ beliefs in their “capabilities to organize and execute the courses of action required to produce given attainments” (p. 3), are shaped by various kinds of experiences. These include enactive mastery experiences, which relate to recalling past successes on related tasks. In the example above, if the L2 learner had experienced success in picking out the main ideas from such tour guide discourse before, and had paid attention to this experience (or similar experiences), it is likely that their self-efficacy belief for the task at hand would be higher than otherwise. Bandura (1986) considers enactive mastery experiences as generally the most powerful source of information impacting self-efficacy beliefs, but highlights the role of other sources too, including vicarious experiences provided by observing others’ successes; social persuasion in the form of encouragement; and physiological and emotional arousal in the form of information provided through the senses, often experienced as anxiety, joy, or fear. So, for example, the L2 learner afraid of not being able to understand the tour guide might form a low self-efficacy belief for this particular task, which might then contribute to them avoiding the tour entirely or, if they went on the tour, making little effort to understand the guide and then perhaps giving up quite quickly.

L2 self-efficacy beliefs can be confused with other constructs, including self-esteem, self-concept (Mercer, 2008), and L2 self-confidence (Yough, 2011). L2 self-efficacy beliefs also interact
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with other kinds of beliefs, including beliefs about second language acquisition (SLA) (Barcelos & Kalaja, 2011), and other ways of knowing. These relationships can be highly intricate. While self-efficacy beliefs include a cognitive element (Mercer, 2008), they also have an affective component; a weaker sense of efficacy, for example, interacts with anxiety, as Mills et al. (2006) explain. Considering how knowledge and beliefs in general interact, Pajares (1992, p. 325) highlights that “the potent affective, evaluative and episodic nature of beliefs makes them a filter through which new phenomena are interpreted”.

Regarding the various constructs with which self-efficacy beliefs can be confused, self-esteem is global rather than task-specific, relating much more to self-worth (Mercer, 2008); it can be measured with self-report items such as “I am happy with myself as a person” (Rhodes et al., 2004, p. 247). The construct of L2 self-concept also differs from self-efficacy beliefs in being more global and less domain- and context-dependent (Mercer, 2008), relating closely to how learners “generally feel about themselves” as language learners (Mills et al., 2007, p. 423). Mills et al. (2007) measured L2 self-concept through self-report items such as “Compared to others in my class I am good at French” (p. 428).

Regarding L2 self-confidence, this has been conceptualized as a trait made up of cognitive (self-perceived competence) and affective (lack of anxiety) elements that contribute (with other motivational propensities) to an intention: a willingness to communicate (MacIntyre et al., 1998). Additionally, however, MacIntyre and colleagues (1998, p. 549) distinguish between trait-like L2 self-confidence, generally considered to be derived from pleasant interactive life experiences associated with the use of the L2, “and a momentary feeling of confidence, which may be transient within a given situation and is called state self-confidence”. While the latter construct, state self-confidence, may overlap, to some extent, with L2 self-efficacy beliefs, in being domain- and context-specific, it is worth emphasizing that it is not conceptualized as being task-specific. The interest of researchers such as MacIntyre et al. (1998) in L2 self-confidence and state self-confidence is in exploring why some L2 learners seize opportunities to interact in the L2, indicating a willingness to communicate in general, while others avoid such opportunities. In contrast, at the heart of research into L2 self-efficacy beliefs is an interest in the role of these beliefs in mediating engagement in specific tasks.

In terms of the interaction between L2 self-efficacy beliefs and learner beliefs about SLA (Barcelos & Kalaja, 2011), this relationship can be put in context using Bandura’s (1986) distinction between self-efficacy beliefs and outcome expectations. Self-efficacy beliefs are centered on highly specific “agent-means” beliefs, i.e., beliefs about performing very particular actions; they operate alongside outcome expectations, which are “means-ends” beliefs, i.e., beliefs about the impact the specific actions taken will have (Skinner, 1996). Outcome expectations are rarely investigated in L2 self-efficacy beliefs studies. Rather, assumptions tend to be made that actions will lead to beneficial outcomes, based on the researchers’ cognitions regarding SLA. So, for example, Wang et al. (2013a) include the self-efficacy belief item “Can you discuss subjects of general interest with your fellow students (in English)?” The researchers’ assumption is that such an activity will contribute to the development of communicative competence, but if the learner’s SLA belief is that practicing with grammar worksheets is the only real way to improve their English, then the same L2 learner might assume that holding discussions on general topics with their peers is unlikely to result in any beneficial L2 learning outcome. So, in a sense, whether or not their self-efficacy belief is positive may be rather immaterial if taken in isolation; students who see little purpose in an activity may simply avoid it. Consequently, learner beliefs about SLA (Barcelos & Kalaja, 2011) need to be considered by researchers of L2 self-efficacy beliefs, since beliefs about SLA may have a role in influencing how learners value the task.

Research into L2 self-efficacy beliefs only developed in the early 21st century (e.g., Mills, 2004; Wang, 2004) and was influenced by research applying the construct of self-efficacy beliefs in first language academic settings (Pajares, 1996). Leaving aside studies that have clearly misconceptual-
ized L2 self-efficacy beliefs, for example confusing the construct with self-confidence in general, lack of anxiety, or self-concept (see Mills, 2014 for a critical review), three main types of survey-based instruments have been employed by researchers investigating L2 self-efficacy beliefs using primarily quantitative research methods. Mills et al. (2006, 2007) employed all three item types, examples of which are presented in Table 13.1.

The first two of these items, relating respectively to using a language skill in a realistic situation and self-regulating learning behavior, are both agent-means self-efficacy beliefs, assuming means-ends outcome expectations it would be hard to contest; for instance, understanding railway announcements helps you get on the right train, or finishing assignments on time avoids the possible deduction of marks. The third item, though, is an agent-ends belief that lacks any reference to means. How will this better grade be achieved? It should be remembered that unfortunately there are instructional contexts around the world where getting a grade better than a B has much to do with undue influence or illicit activity and very little to do with actual ability in the subject.

Pajares (1996) argues that self-efficacy beliefs are most effectively assessed in relation to criterial tasks, while more global assessments weaken effects. Empirical support for this view is provided by Mills et al. (2007), who compared the impact of different variables, including self-efficacy for self-regulation (e.g., Table 13.1, Item 2), grade self-efficacy (e.g., Table 13.1, Item 3), anxiety, self-concept, and the perceived value of French language and culture on the final grades achieved by students of French at three universities in the US. While the variables interacted in a positive way, “only self-efficacy for self-regulation predicted students’ final grade in French” (Mills et al., 2007, p. 443). That L2 self-efficacy beliefs, when assessed at micro-analytical levels (Pajares, 1996), can produce powerful results is supported by other studies. For example, in a Taiwanese context, Chen (2007, p. 92) found that, when other independent variables (English listening anxiety and the perceived value of English language and culture) were controlled, “English listening self-efficacy was the only predictor that could make an independent contribution to the prediction of L2 listening performance”. Findings such as these were reason to focus the present review of selected studies on those (46 of 148 studies examined) that were found to elicit L2 self-efficacy beliefs using instruments and items that contained an agent-means component related to language learning or self-regulation (e.g., Table 13.1, Items 1–2). A further consideration to support this decision was that when L2 self-efficacy beliefs are assessed through instruments that include an agent-means component, it may be easier for researchers in educational settings to relate the results more closely to language learning and teaching, and then adjust the teaching or curriculum accordingly.

The remainder of the chapter is organized in the following way. I first review research evidence, considering L2 self-efficacy beliefs in relation to variables including gender and the personality traits that may shape cognitive processing of efficacy-building experiences. This is followed by a consideration of anxiety and sources of L2 self-efficacy beliefs, before attention shifts to learning strategies and language skills in relation to these beliefs. Next, data elicitation methods used are considered, followed by applications and future directions.

<table>
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<tr>
<th>Table 13.1 Questions Eliciting L2 Self-Efficacy Beliefs</th>
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<td>Bearing in mind that self-efficacy beliefs relate to organizing and executing courses of action (Bandura, 1997), Mills et al. (2006, 2007) included items such as:</td>
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<tr>
<td>1. “How sure are you that you can listen to and understand the main ideas of an announcement at a French train station?” (2006, p. 292)</td>
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<tr>
<td>2. “How well can you finish your French assignments on time?” (2007, p. 428)</td>
</tr>
<tr>
<td>3. “How confident are you that you will get a grade better than a B?” (2007, p. 427)</td>
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In providing an overview of research into self-efficacy beliefs in academic settings in general, Pajares (1996) highlights that one main thrust of the research has explored relationships between self-efficacy beliefs and choice of career or major, while the other main avenue, to which he devotes much more attention, has “investigated the relationships among efficacy beliefs, related psychological constructs, and academic motivation and achievement” (pp. 551–552). This second stream is where the selected studies into L2 self-efficacy beliefs reviewed in this section appear to lie, with studies exploring the sources of self-efficacy beliefs and changes in these beliefs over time also evident in this stream. L2 self-efficacy beliefs are very rarely explored for themselves. While Rahimi and Abedi (2014), for example, reported that Iranian high school students had moderate levels of listening self-efficacy in English, and Wang et al. (2013b) highlighted that German college students appeared to be more efficacious than Chinese students across a range of English language skills, these findings were not the main areas of focus of these studies. I consider now some of the variables that have been examined in relation to L2 self-efficacy beliefs.

Gender

L2 self-efficacy beliefs have been explored in relation to gender, with studies reporting mixed results, partly reflecting different learning environments. Leeming (2017) highlighted, for example, that, in the male-dominated science faculty in Japan he investigated, female students reported feeling less efficacious than males in speaking the L2; they may have found the group discussions less welcoming. In studies set outside science and engineering universities, though (e.g., Mills et al., 2006; Kim et al., 2015; Rivers & Ross, 2020), females have been found to be more efficacious in areas such as L2 communication (Rivers & Ross, 2020), which may reflect a foreign language culture oriented towards females (Mills et al., 2006).

Personality

Psychological constructs that have been examined in relation to L2 self-efficacy beliefs include the “big five” set of personality traits: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. In their study, Rivers and Ross (2020) found the last of these to be the strongest predictor of positive L2 communication self-efficacy beliefs of university students in Japan. Researchers have also found correlations between extraversion and L2 speaking self-efficacy beliefs in Japan (Leeming, 2017) and between tolerance of ambiguity and L2 writing self-efficacy beliefs in Saudi Arabia (Almutlaq, 2018). Though more research is needed, these findings would appear to suggest that certain personality traits might be particularly supportive of seeking and cognitively processing efficacy-building information in L2 learning.

Anxiety

Studies that have explored the relationship between anxiety and L2 self-efficacy beliefs have reported mixed results. Set in contexts including China (Woodrow, 2011), Japan (LeBlanc, 2015), and the US (Mills & Péron, 2008), various studies have found an inverse relationship between L2 self-efficacy beliefs and levels of anxiety, i.e., more anxious students were less efficacious in different aspects of their language learning.

However, other studies have produced rather different results. In a study in the US, conducted with college students studying Spanish at five different levels, from beginner to intermediate, Torres and Turner (2016) found a good degree of fit between higher levels of anxiety and lower L2 self-efficacy beliefs. However, the fit did not hold across levels; that is, students in the higher levels were
more efficacious, but not necessarily less anxious. In a study of Korean middle school students, Han and Hiver (2018) similarly found that high levels of anxiety could co-exist with positive self-efficacy beliefs.

A possible explanation is as follows: in cognitively processing their anxiety, the L2 learners in the studies of Torres and Turner (2016) and Han and Hiver (2018) may have been giving less weight to physiological and emotional arousal than to other sources of efficacy-building information—enactive mastery experiences, vicarious experiences, and social persuasion (Bandura, 1986). As Bandura explains, information from the various sources only becomes salient through cognitive appraisal. Indeed, Han and Hiver (2018) elaborated on why the first two of these sources (mastery and vicarious experiences) may have been particularly significant in their study documenting growth in L2 writing self-efficacy beliefs.

Other studies have found different configurations of influential sources. Mastery experiences and social persuasion were considered most influential by Chen (2007), focusing on the development of L2 listening skills in a Taiwanese context. In Zhang and Ardasheva’s (2019) research with students from six Chinese universities who had elected to study public speaking, enactive mastery experiences, vicarious experiences, and social persuasion were all considered important sources of information. The authors speculated that physiological and emotional arousal may have been less significant since the students had chosen to study public speaking and may accordingly have been psychologically prepared for nerves before a performance, consequently not letting such affective reactions negatively impact their self-efficacy judgments.

Learning Strategies

Working on a key premise of social cognitive theory (Bandura, 1986) that efficacious individuals are able to regulate their own behavior and take control of their own lives, various researchers investigating L2 self-efficacy beliefs have focused on the learning strategies employed by highly efficacious and less efficacious language learners. Extending research in academic settings in general education, one focus of attention has been on self-regulated learning (SRL) strategies (Zimmerman, 2000), such as evaluating one’s own work, organizing and transforming this work, setting goals and planning, seeking information, keeping records and self-monitoring, rehearsing and memorizing, and seeking assistance and reviewing (Wang & Pape, 2005). Positive relationships between the use of these strategies and L2 self-efficacy beliefs have been found in diverse contexts with learners of all ages: elementary-level Chinese children in English-medium instruction in the US (Wang, 2004; Wang & Pape, 2005); sixth-grade children in Indonesia (Anam & Stracke, 2016); Chinese secondary-school students (Wang & Bai, 2017); and Chinese, German (Wang et al., 2013b), and Korean undergraduates (Kim et al., 2015).

More highly efficacious L2 learners have been found to use a greater range of SRL strategies (Wang & Pape, 2005) and also use them more often (Anam & Stracke, 2016; Kim et al., 2015). The particular SRL strategies adopted might vary by cultural context and classroom environment; Wang et al. (2013b) noted that Chinese and German students appear to favor different SRL strategies. These researchers nevertheless found that, regardless of preferences for different SRL strategies, in both contexts the use of SRL strategies correlated positively with L2 self-efficacy beliefs (Wang et al., 2013b).

Besides Zimmerman’s (2000) SRL strategies, learning strategies described in other frameworks, such as Oxford’s (1990) categorization of metacognitive, cognitive, and socio-affective learning strategies, have also been examined for their relationships with L2 self-efficacy beliefs. Statistically significant and positive correlations have been identified (Li & Wang, 2010; Rahimi & Abedi, 2014; Zare & Mobarakeh, 2011). In relation to L2 reading self-efficacy beliefs, for example, Li and Wang (2010) report that more efficacious readers appear more likely to engage in learning strategies, such as making feasible plans that consider goals, time, and materials; engaging cognitively through inferring, note-taking, and deducing; thinking positively; and interacting.
In summary, research exploring the relationships between L2 self-efficacy beliefs and learning strategies has identified powerful links. As to the growth process of these beliefs, it has been suggested that with the help of modeling attuned to learners’ needs, students may develop SRL strategies through observing and emulating others, internalizing, and then adapting skills, all the while gaining opportunities to become more efficacious (Schunk & Zimmerman, 2007).

Besides learning strategies, L2 self-efficacy beliefs researchers have also been interested in language (sub-)skills, with the expectation that the development of these skills will interact positively with stronger self-efficacy beliefs and greater language learning achievement, though not all studies have explored the latter connection. All four language skills have been focused on in the L2 self-efficacy beliefs literature, and these areas are now considered in turn.

**Listening**

Graham (2011) highlights that “low self-efficacy may be particularly acute in second language listening” (p. 114) and suggests this may be due to listening being less controllable than other skills; if the speech the L2 listener is focusing on is too fast, an important message being shared may be irrevocably lost. Due to the transitory nature of real-world listening, L2 learners may feel less able to “influence the task outcome by altering the amount of effort or the strategies applied” (Graham, 2011, p. 114). Support for the view that self-efficacy beliefs for L2 listening require particularly close attention is provided by Wang et al.’s (2013a) research with Korean undergraduates. The researchers found that relative to their L2 self-efficacy beliefs for reading, writing, and speaking, respondents scored particularly low on items that concerned listening comprehension, such as understanding American TV programs in English. Being unable to follow spoken input can cause anxiety as well as low L2 self-efficacy beliefs (Mills et al., 2006), and thus research exploring ways to boost these beliefs is welcome.

Such research has been carried out in contexts including the UK, with Year 12 students of French (Graham, 2007; Graham & Macaro, 2008), and in China, with non–English-major university students (Yan, 2012). Both investigations reported that the following combination of pedagogical interventions enhanced L2 self-efficacy beliefs for listening:

- Detailed instruction in listening strategies designed to help learners to listen more effectively for gist, understand details and opinions, and decipher the meaning of unknown words.
- Scaffolding activities designed to help learners draw links between the strategies employed and success in listening.

Students who were part of the different interventions (Graham, 2007; Graham & Macaro, 2008; Yan, 2012) made significantly greater gains in aspects of L2 listening self-efficacy (e.g., for details and opinions) and on listening proficiency tests than comparison group students. These findings suggest, therefore, that scaffolding may have supported reflection and the cognitive processing of efficacy-building information, including the enactive mastery experiences that instruction might have provided. L2 self-efficacy beliefs for listening also seemed to predict listening performance.

**Reading**

Several studies have examined L2 self-efficacy beliefs for reading skills. As indicated above, Li and Wang (2010) and Zare and Mobarakheh (2011) found statistically significant and positive correlations between L2 self-efficacy beliefs for reading and the use of metacognitive, cognitive, and socioaffective learning strategies. It may be highly important to develop such learning strategies, given that more efficacious readers may also read more effectively, as research conducted by Mills et al. (2006) with learners of French in the US has suggested. In their study, Mills et al. (2006) found
that those students with a stronger sense of reading self-efficacy attained higher reading proficiency scores.

As to how to support the development of L2 self-efficacy beliefs for reading, several longitudinal studies have been conducted in Japan. Both Burrows (2012) and McLean and Poulshock (2018), working in university settings, found that encouraging extensive reading on its own did not achieve the most optimal results. Instruction in the use of reading strategies led to significant gains in Burrows (2012), not only in L2 reading self-efficacy beliefs but also in reading comprehension. In McLean and Poulshock (2018), an intervention that raised L2 reading self-efficacy beliefs (at a level of statistical significance) was setting word targets (2,500 words per week outside of class). The researchers speculated that this may have been because the word targets encouraged the students to read longer books that they found more interesting. Participants who read more also “reported being able to concentrate for longer periods of time [which] led in turn to greater confidence and more positive feelings towards reading” (McLean & Poulshock, 2018, p. 86). In another study set in Japan, LeBlanc (2015) found reading circles, i.e., small peer-led groups given tasks related to discussing literature, to be beneficial to high school students’ L2 reading self-efficacy beliefs. She attributed the success of the intervention to “task repetition”, which likely provided enactive mastery experiences, and “cooperative performance in the circles” (p. 19), which would have provided vicarious experiences and social persuasion (Bandura, 1986).

Writing

L2 self-efficacy beliefs for writing skills have also drawn the attention of researchers, who have explored these beliefs at different levels, for example in relation to paragraph writing among Thai undergraduates (Hetthong & Teo, 2013) and with regard to research writing among Taiwanese postgraduates (Ho, 2016). In the latter study, mastery experiences were influential, with doctoral students more efficacious than those studying for master’s degrees (Ho, 2016). In both Hetthong and Teo’s (2013) and Woodrow’s (2011) studies, the latter of Chinese undergraduates, significant positive relationships were found between L2 self-efficacy beliefs for writing and writing performance. In Woodrow (2011), the more efficacious students viewed parental pressure more positively than those who were anxious, and also tried harder, invested more time in studying English, and then performed better; so their beliefs appeared to mediate their behavior. Similarly, Almutlaq (2018), who followed the development of L2 writing self-efficacy beliefs in Saudi Arabia, found that more efficacious L2 writers were “more likely to engage in writing, persist when they face[d] difficulties [and] take an active role in regulating their learning” (p. 279).

Such results underscore the need to build positive L2 self-efficacy beliefs for writing. Several studies report attempts to achieve this, for example through providing genre-based L2 writing instruction (Han & Hiver, 2018) or a global simulation framework, which involves “the creation of a fictive yet culturally grounded world”, in which students create their own characters and identities, and communicate, including through writing, with others in the community (Mills & Péron, 2008, p. 2). The impact of peer and teacher feedback on L2 writing self-efficacy beliefs has also been investigated (Ruegg, 2018). Underlying these investigations are assumptions that L2 learners benefit from awareness-raising “of how language is structured to achieve social purposes in particular contexts of use” (Han & Hiver, 2018, p. 45); from becoming proactive, responsible, and engaged; from developing problem-solving skills; and from scaffolding and being scaffolded by peers (Han & Hiver, 2018; Mills & Péron, 2008; Ruegg, 2018).

Pedagogical innovations developed on the basis of these assumptions have achieved some positive results. Mills and Péron (2008, p. 267) reported, for example, that “intermediate French students’ beliefs in their ability to effectively use grammar, communicate content, write with appropriate choice and variety of vocabulary and sentence structures, and write in an organized and creative fashion increased after participation” in the global simulation; their writing also improved
in organization, creativity, and content. According to the authors, these changes may have been influenced by the establishment of a collective identity through the global simulation, writing tasks that encouraged creativity, and an approach to supporting writing that included providing consistent practice and feedback on early drafts (Mills & Péron, 2008). Meanwhile, Korean learners in Han and Hiver’s (2018) study received genre-based L2 writing instruction that included explicit modeling of sample texts, as well as opportunities for collaborative writing and scaffolding. This instruction “appeared to empower the learners” (Han & Hiver, 2018, p. 54), helping them “to adjust their task appraisals, establish positive task-specific self-beliefs, develop increased expectancy for success, and engage in increased creative risk-taking” (p. 56).

Of crucial importance in the development of L2 self-efficacy beliefs for writing is the question of which feedback is attended to in the cognitive processing of potential efficacy-building information. Ruegg (2018), for example, found that Japanese university students who received teacher feedback throughout an academic year made greater gains in L2 self-efficacy beliefs for writing than students who instead received peer feedback. The teacher feedback contained minimal praise, but was more extensive and may have been perceived as more credible, coming from a more reliable source.

Speaking

In contrast to other language skills, speaking has received relatively less attention from L2 self-efficacy beliefs researchers. This may be partly because some researchers interested in self-beliefs regarding speaking have preferred to center their research on other constructs, including, for example, L2 self-confidence (Yu & Shen, 2012). Nevertheless, the studies available do provide some insights. In a business English university context in Japan, for example, Thompson (2018) found that students were less efficacious for certain types of speaking tasks (e.g., asking and answering questions after presentations) than others (e.g., making presentations and participating in group discussions). The spontaneity required during question time and the need to answer in public would have raised anxiety levels and the fear of being negatively evaluated by peers, as Thompson (2018) explains. In contrast, the opportunity to rehearse presentations and work in small groups with peers would have allowed the students to gain enactive mastery and vicarious experiences and to benefit from social persuasion (Bandura, 1986). Similarly, Leeming (2017), who explored how L2 speaking self-efficacy beliefs fluctuated over the course of a calendar year in a Japanese university setting, highlighted the benefits, in terms of raised L2 self-efficacy beliefs, of an oral communication course incorporating task-based learning in supportive groups. For students with “little experience of oral interaction in English” (Leeming, 2017, p. 14), the learner-centered pedagogy would have provided them opportunities to gain positive efficacy-building experiences.

Innovative pedagogy has also been found to support the development of L2 speaking self-efficacy beliefs in other contexts, in studies in which other language skills have also typically been investigated. For example, exploring interpersonal, interpretive, and presentational aspects of communication, Mills (2009) found that “false beginner French students’ judgments of their competence to communicate in French increase[d] after participating in [a project-based learning] curriculum” (p. 616); classroom activities encouraged “meaningful language use and purposeful communication” (p. 607), thus providing enactive mastery experiences. Providing similar support, Henderson et al. (2012) reported that bringing the virtual world platform Second Life into the classroom helped Australian learners of Mandarin feel more efficacious in tasks such as ordering a meal in Mandarin in a Chinese restaurant; the students were gaining confidence for the real world. Taking students into the real world where they can gain enactive mastery experiences, study-abroad programs have been found to boost self-efficacy beliefs (Cubillos & Ilvento, 2013; Kim & Cha, 2017). In their study of American college students in France and Spain, Cubillos and Ilvento
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(2013, p. 505) highlighted that, while L2 self-efficacy beliefs in all language skills benefited at statistically significant levels, “the net gain was greatest for oral skills”.

Data Elicitation

As noted earlier, the evidence presented above is exclusively from selected studies that elicited agent-means L2 self-efficacy beliefs. However, this is not to suggest that studies that have elicited these beliefs more globally through agent-ends survey items (e.g., Phatiki, Hirsch, & Woodrow, 2013) have not also demonstrated that L2 self-efficacy beliefs have predictive power. Nevertheless, the effect on performance appears greater in studies that have incorporated agent-means items in their elicitations (e.g., Chen, 2007; Mills et al., 2007), which may be due to them offering a close connection to criterial tasks that respondents can relate to (Pajares, 1996). While I have focused on studies exploring agent-means beliefs, there are various issues related to data elicitation in these studies that I now wish to discuss.

A key issue is whether or not, and how, the relationships between L2 self-efficacy beliefs and performance have been explored. While positive L2 self-efficacy beliefs have value in themselves, they can clearly appear to have greater value if they are seen to impact performance, particularly in research areas where the predictive power of the psychological construct under consideration may need to be demonstrated to skeptical readers. In several studies reviewed, there was perhaps unexplored potential to investigate connections between L2 self-efficacy beliefs and performance; Leeming (2017) and Ruegg (2018), for example, apparently collected unanalyzed data relating to language assessment. Meanwhile, Mills and Péron (2008) only analyzed data relating to performance after a “late decision” (p. 11). Yet, though it can be challenging to align self-efficacy beliefs elicitation items with measures of language assessment, it may be rewarding. While Graham (2007) reported that L2 listening self-efficacy beliefs for understanding details and opinions strengthened significantly after the intervention (more so than for other aspects of listening) but then only assessed listening performance more globally (as reported in Graham & Macaro, 2008), Mills and Péron (2008) did look for and find synergy within sub-skills; students became most efficacious in the dimensions of writing they were later found to improve in most. There would be implications here for the teacher or curriculum designer. If there is a good fit in measurement between self-efficacy beliefs items and assessed sub-skills, the results can inform teaching and course design.

Many of the selected studies were carried out by language teachers able to capitalize on their roles within the educational settings where they worked and within their wider networks, for example co-researching with colleagues at other universities, to access student participants. However, the resulting research may on occasion raise ethical concerns. For example, the selected studies include quasi-experimental research designs, such as McLean and Poulshock (2018) who used two classes as treatment groups and another class as a comparison group. Given that the most likely prediction is that treatment involving a heightened attention to reading would benefit the research participants, there may be an ethical issue in the comparison group being effectively denied the treatment in such cases; where possible, the comparison group could be offered the treatment at a later date (Howard-Jones & Fenton, 2012). Consequently, researchers in educational settings exploring the effects of educational innovation may sometimes be on safer ethical ground when eschewing comparison/control groups and conducting studies evaluating the pedagogical innovations instead; this may be necessary anyway in contexts where it is mandated that “curriculum and assessment are uniform” across classes at the same level (Mills, 2009, p. 626). If the predictive power of L2 self-efficacy beliefs is considered sufficiently well-established (Chen, 2007; Mills et al., 2007), then focusing research on how these beliefs are shaped by educational innovation, as in Mills (2009), may seem an appropriate strategy.

A related issue, though, is that while designing research instruments and collecting data in their educational settings, teacher–researchers in this field need to be reflexive. In some cases, they might
need to consider quite carefully their learners' beliefs about SLA (Barcelos & Kalaja, 2011). For example, in Leeming’s (2017) study, while explaining their low scores on L2 self-efficacy beliefs items such as “I can speak English fluently when taking part in a group discussion” (p. 16), a participating student informed the researcher: “I thought I would need grammar … that I would have to talk properly. But you said we don’t need grammar” (p. 12). This quote highlights the value of eliciting qualitative interview data, sometimes in tandem with data from reflective journals, to gain explanations from students as to the meaning that they attach to survey items; such methods can also provide in-depth understandings of change processes. However, comparatively few of the studies reviewed (e.g., Graham, 2007; Han & Hiver, 2018; Thompson, 2018; Woodrow, 2011) have used such a mixed-methods strategy. It could be adopted more widely. As noted above, there could also be greater consideration in research design paid to outcome expectations.

**Practical Applications**

A strong feature of the L2 self-efficacy beliefs research reviewed above is its strong pedagogical orientation. Innovative teaching and materials design that has been found to boost L2 self-efficacy beliefs in different contexts has focused on supporting the development of L2 listening (Graham, 2007; Yan, 2012) and reading strategies (Burrows, 2012; LeBlanc, 2015), introducing genre-based L2 writing instruction (Han & Hiver, 2018), encouraging task-based or project-based learning (Leeming, 2017; Mills, 2009), bringing the virtual world platform Second Life into the classroom (Henderson et al., 2012), and making a global simulation framework central to the curriculum (Mills & Péron, 2008). Providing students with the opportunity to study abroad has helped strengthen L2 self-efficacy beliefs (Cubillos & Ilvento, 2013; Kim & Cha, 2017).

As to how enhanced L2 self-efficacy beliefs might be achieved, the selected studies reviewed offer some insights. Given the role of anxiety, for example, in physiological and emotional arousal, it can help to foster a safe and stimulating learning environment (Henderson et al., 2012; Mills & Péron, 2008), encourage students to develop openness to experience (Rivers & Ross, 2020), and integrate mindfulness training and nurture self-perceptions of capability (Chen, 2007; Han & Hiver, 2018). Encouraging self-regulatory practices, which can be invaluable to the development of L2 self-efficacy beliefs (Mills et al., 2007; Wang, 2004), involves careful modeling (providing vicarious experiences), sensitive feedback (offering social persuasion), and facilitating the opportunity to gain enactive mastery experiences as self-regulation is practiced (Schunk & Zimmerman, 2007). To support enactive mastery experiences, it can be useful to differentiate materials to ensure appropriate challenge levels (Almutlaq, 2018), break language tasks down so that they are sufficiently manageable (Graham, 2007), and sequence tasks carefully so that their step-by-step completion builds towards success (Han & Hiver, 2018; Woodrow, 2011). It can also help to provide opportunities for learners to recycle material in meaningful ways (Mills, 2009). The teacher’s facilitative role includes encouraging reflection on potentially efficacy-building experiences to support cognitive processing. It can therefore help to encourage self-assessment, while scaffolding language skills development (Ho, 2016; Woodrow, 2011) and providing supportive feedback (Wang, 2004; Wang & Bai, 2017).

**Future Directions**

As should be evident from this review of selected studies, considerable progress has been made in the last two decades in research into L2 self-efficacy beliefs, with various dimensions of these beliefs explored in relation to learning strategies and language skills. Evidence has accumulated that in L2 settings, as in academic settings more generally (Pajares, 1996), self-efficacy beliefs have predictive power and require nurturing. Consequently, rather than aiming for quasi-experimental research designs (e.g., McLean & Poulshock, 2018), which perhaps risk some student groups being deprived
of presumably beneficial treatment (Howard-Jones & Fenton, 2012), it may be time to direct efforts more towards effecting beneficial change for everyone. This suggests there may be a need for more studies evaluating pedagogical innovation (e.g., Mills, 2009) or those that embrace participatory action research designs, employing mixed methods and by doing so making greater use of qualitative data to gain an in-depth understanding of psychological processes (e.g., Han & Hiver, 2018). There could be greater consideration in research designs for outcome expectations (Bandura, 1986) and learners’ beliefs about SLA (Barcelos & Kalaja, 2011). Finally, given the facilitative role of the teacher in stimulating stronger L2 self-efficacy beliefs in their learners, there could be some consideration for language teachers’ self-efficacy beliefs (Wyatt, 2018), and how to support these beliefs, so that beneficial outcomes for both teachers and their learners can be achieved. This consideration may be particularly important with regard to contexts where the teaching takes place in difficult circumstances (Wyatt, 2021), with learners needing to develop stronger L2 self-efficacy beliefs but with far more limited resources than those of the participants of many of the studies reviewed in this chapter.

References


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