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Self-efficacy and language learning – what it is and what it isn't

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Suzanne Graham

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Self-efficacy and language learning – what it is and what it isn't

Suzanne Graham

Institute of Education, University of Reading, Reading, UK

ABSTRACT

This article considers the presentation of self-efficacy in the OFSTED 2021 Curriculum Research Review for languages (OCRR). It begins by elucidating how self-efficacy is defined in the work of Albert Bandura and within social cognitive theory more broadly; its position in relation to theories of motivation and models of self-regulation; and what, according to social cognitive theory, are the factors that influence self-efficacy. It then examines critically how self-efficacy features within the OCRR, focusing on the mismatch between the conclusions the OCRR draws from cited publications and what the latter actually say. The article next presents its own summary of findings of intervention studies targeting language learning self-efficacy development within school contexts. It ends by highlighting the misalignment that exists between that research-based view of self-efficacy development and the type of curriculum proposed by the OCRR.

Introduction

At the time of writing, England's Department for Education (DfE) had just announced its decision to go ahead with a revised curriculum for modern foreign languages (MFL) examinations taken at age 16 (the GCSE), characterised by a focus on vocabulary, phonics and grammar and a more clearly defined and limited range of vocabulary to be assessed. The DfE press release to publicise that decision made much of the claim that this will 'help students build confidence' (DfE 2022), continuing a line of argument that asserts that confidence, or self-efficacy, is boosted by limiting what is expected of learners and focusing first and foremost on the 'building blocks' of language learning (OFSTED 2021; henceforth, OCRR). That focus coincides with a move away from foregrounding communicative and intercultural competence present within the existing GCSE, including understanding and appreciating a range of often authentic materials, in order to make languages more 'accessible' and hence supposedly more appealing to learners. The OCRR then seeks to support those views with reference to the construct of self-efficacy, essentially arguing that a narrower and more clearly defined body of knowledge to acquire will make learners feel more 'successful' and hence more confident and by extension more motivated. The extent to which the research evidence around self-efficacy does in fact accord with that view is the subject of the current article.

Self-efficacy originates in the work of Albert Bandura, a psychologist who is claimed to be the fourth most frequently cited ever, after B.F. Skinner, Sigmund Freud and Jean Piaget (Haggbloom et al. 2002). In spite of, or perhaps because of, this reputation, however, his work and its meaning are not always accurately portrayed or applied. Because of the tendency in texts such as the

CONTACT Suzanne Graham s.j.graham@reading.ac.uk

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OCRR to present concise but not necessarily representative summaries of how Bandura conceives of self-efficacy, this article will present his views through verbatim quotations where appropriate.

Self-efficacy within the work of Bandura

Persistence in the face of aversive experiences

It is important to understand at the outset that Bandura developed his thinking on self-efficacy firstly within the context of phobia treatment, in which sufferers, instead of being shielded from the experiences they feared, were given 'guided mastery treatment, in which [they] confront the things they dread and learn how to exercise control over them' (Bandura 1999: 30). In other words, self-efficacy concerns the extent to which people develop behaviours that allow them to persist within potentially stressful situations. The notion of perseverant effort in the face of challenging and anxiety-producing tasks is central to Bandura's thinking and appears throughout his work, as in the following:

> … expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences. Persistence in activities that are subjectively threatening but in fact relatively safe produces, through experiences of mastery, further enhancement of self-efficacy and corresponding reductions in defensive behavior. (Bandura 1977: 191)

The term 'aversive experiences' is an important one, indicating that self-efficacy is associated with the belief that one can be successful on a *challenging* task (Bandura 1999) and indeed is nurtured by such experiences. Self-efficacy is task specific and self-efficacy beliefs relate to specific levels of performance (Bandura 1994). This stands in contrast to rather more general evaluation of one's capabilities (e.g. 'I believe I am good at French'), which might be better described as 'self-concept'. Self-efficacy beliefs are also measured in rigorous research in relation to future tasks of a specific level of difficulty (Mills 2014).

Personal agency and social cognitive theory

A careful reading of Bandura himself (rather than relying on reviews of his work by others) also makes clear that self-efficacy is more than the belief that one can be successful on a task. Instead, it is the belief 'in one's capabilities to *organize and execute the courses of action required to produce given attainments*' (Bandura 1997: 3) (emphasis added). In other words, self-efficacy has personal agency at its centre, whereby success is understood to be caused by the actions the individual themselves has undertaken. Thus, it is more than just expecting to be successful.

Personal agency is, furthermore, at the heart of Bandura's (1986) social cognitive theory (SCT) in its entirety. SCT posits that human functioning is influenced by personal, behavioural and environmental factors, which all interact with each other. Within the context of schooling, personal factors include beliefs and attributional tendencies; behaviour includes learning strategy use and self-regulation; and environmental factors concern aspects such as the way the classroom and its activities are structured (Schunk and DiBenedetto 2016). Within that triadic relationship, self-efficacy both influences and is influenced by behaviour and environmental factors (Bandura 1986). We will return to this issue when considering how higher levels of self-efficacy can be fostered.

Self-efficacy in relation to other theories related to motivation

Agency and the individual's belief that they are the agent of their own outcomes are closely linked to causal attributions (Weiner 1986). Attribution theory concerns the way in which individuals, consciously or sub-consciously, seek to interpret or explain why they have been successful or unsuccessful on different tasks. Attributions are considered to have an 'adaptive' influence on motivated behaviour when they concern factors within an individual's control – for example, the amount of effort expended. By contrast, attributing success to being given an easy task would likely be seen as having a maladaptive or negative impact on subsequent motivated behaviour, in that success would be believed to not stem

from the individual's own levels of competence but from low task difficulty. Individuals with high levels of self-efficacy thus tend to attribute outcomes to factors within their personal control, such as effort expended or strategies applied; by contrast, those with low self-efficacy attribute failure to unchangeable factors such as low ability (Bandura 1999). As such, self-efficacy is clearly important for persistence, as individuals who believe the outcomes they achieve are down to factors over which they have some control are more likely to keep going in the face of difficulties.

As well as aligning self-efficacy theory with attributional theory, Bandura (1999: 28) also situates it clearly within an expectancy-value framework, whereby 'motivation is the product of the expectation that a given course of action will produce certain outcomes and the value placed on those outcomes'. In other words, within expectancy-value theory, motivation is driven by expectations of being successful in a given activity (expectancy), and also by sense of *value*. *Value* concerns how far success in any given activity is important to the individual. The latter includes intrinsic value, namely how enjoyable the task is for the individual and relatedly, how interesting it is. It also includes utility value, the activity's perceived relevance to the individual's goals (Eccles and Wigfield 2002). Value can be related, furthermore, to Self-Determination Theory (SDT, Deci and Ryan 2000), in which intrinsic and extrinsic motivation are key constructs (see also Lanvers and Graham, this issue). Intrinsic motivation can be characterised as undertaking an activity for the sheer enjoyment or interest it stimulates. In turn, the maintenance of intrinsic motivation requires three fundamental psychological needs be met: autonomy, the sense of undertaking activities with an entirely free choice; relatedness, 'the desire to feel connected to others' (Deci and Ryan 2000: 231); and competence, feeling able to undertake the activity effectively. There are thus clear links between the intrinsic motivation, autonomy and competence aspects of SDT and expectancy-value theory, and hence self-efficacy theory; all emphasise that sense of competence has to function in relation to a *valued* task, and the centrality of personal agency. Thus, Deci and Ryan (2000) argue that for competence to support intrinsic motivation, it has to be perceived as internally controlled, echoing Bandura's (1997) emphasis on personal agency as a fundamental aspect of self-efficacy.

What is also very clear from the above is that self-efficacy cannot function on its own. In respect of expectancy-value, research evidence drawn from 398,750 15-year-olds from 57 countries (Nagengast et al. 2011) shows that the two halves of the motivational equation (i.e expectancy and value) exist in a multiplicative rather than an additive relationship. In other words, if expectations of success have a level of, say, 10, but value has a level of zero, motivation will in turn be zero ($10 \times 0 = 0$) rather than 10. Nagengast et al. (2011), commenting on science education but in terms that could be applied to any curriculum subject including MFL, sum up forcefully the importance of understanding the nature of the expectancy-value equation correctly:

> The essence of the non-compensatory, multiplicative relation between expectancy and value is that both have to be high. […]; teachers – supported by appropriate policy-practice – must be sufficiently skilled to simultaneously enhance both constructs. *If teachers focus on one to the exclusion of the other, then the influence of each is undermined*. (Nagengast et al. 2011: 1064–1065, emphasis added)

Hence, however important it is for motivation and persistence, self-efficacy clearly does not function in a vacuum. The dual role of *value* and self-efficacy is demonstrated in a recent study of school-aged language learners. Bai and Wang (2020) investigated the factors that predicted effort regulation and self-regulated learning strategy use for 490 4th grade students of English in Hong Kong. Perceptions of the intrinsic value of learning English in fact acted as a slightly stronger predictor of effort regulation than did self-efficacy beliefs, and having a growth mindset was the strongest predictor still. Finally, in a study cited by the OCRR but not really elaborated on, Taylor and Marsden (2014) reported that the decisions of 604 14 year-old learners in England regarding GCSE languages uptake were driven by the two halves of the expectancy-value equation, not only by whether learners felt languages were easy to learn (which one might conceivably, albeit loosely, view as self-efficacy), but also by how far they felt languages were personally relevant to them (which one could interpret as the perceived *value* of languages). The close relationship between expectancy

and value is seen still more clearly in the Final Report version of the Taylor and Marsden study, where the authors underlined the importance of what they called the 'enjoyment-competence-relevance triangle' (Taylor and Marsden 2012: 20) which turns into a 'vicious circle' when one element of these is missing.

Self-efficacy and self-regulation

The above underlines the importance of self-efficacy for learning, and indeed in due course Bandura did apply his work to the field of academic achievement, notably with one of the most prominent theorists and researchers in self-regulated learning, Barry Zimmerman. Zimmerman presents self-regulated learning research as a body of work that 'provides detailed knowledge on how instructional practices influence children's development of a sense of personal efficacy as well as their self-regulatory capabilities' (Zimmerman 1995: 225). In the context of England, the recent Educational Endowment Foundation toolkit 'Metacognition and self-regulation' report (EEF 2018) outlines the value of teaching approaches that enhance metacognition and self-regulation, in that they 'support pupils to think about their own learning explicitly, often by teaching them specific strategies for planning, monitoring, and evaluating their learning'. These EEF comments echo what is presented in Zimmerman's (2000, 2013) model of self-regulated learning, grounded in the Social Cognitive Theory of Bandura (1986) outlined earlier.

Figure 1 presents the model's three cyclical stages, involving the interaction of cognitive, metacognitive, and motivational processes during learning. Self-efficacy is named explicitly in the *forethought* phase. That involves the analysis of the learning task, the setting of goals, the creation of plans to meet them, including plans for strategy use, and the activation of motivational beliefs such as self-efficacy concerning the likely outcome of undertaking the task at hand. In the *performance* phase, the learner carries out the task and monitors their progress, applies strategies to

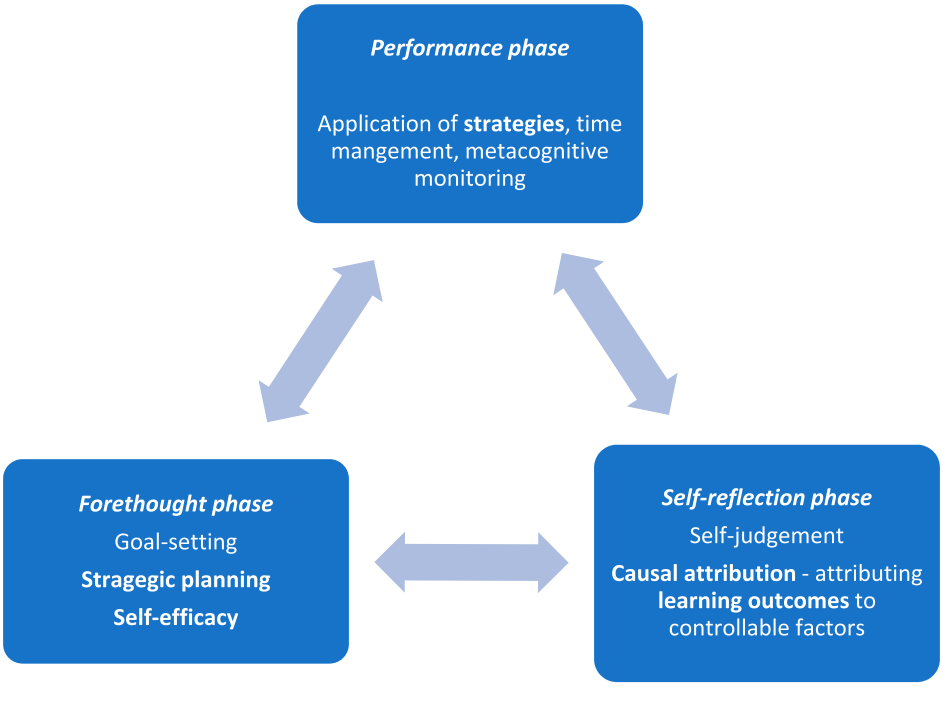

Figure 1. Self-regulated learning (adapted from Zimmerman 2013; see also Graham et al. 2020: 695).

complete the task effectively, and regulates their engagement and motivation. Finally, in the *self-reflection* phase, the learner assesses their performance and offers explanations for the task outcome. Understanding that how one carried out the task and the level of success achieved are related is likely to influence levels of self-efficacy for completing similar tasks in the future, helping the learner grasp that they are 'the originator of their own achievements' (Graham et al. 2020: 695). Learners who thus make links between outcomes and their own actions, such as use of learning strategies (Zimmerman 2000: 22), are likely to feel more in control of their learning, which has been found to influence academic buoyancy and hence achievement (Collie et al. 2015). This sense of control arises because learning strategies applied to a task can be viewed as 'correctable causes', and hence 'attributions to their use protect against negative self-reactions and foster a strategically adaptive course of subsequent action' (Zimmerman 2000: 23).

The previous paragraph should make clear that self-efficacy and learning strategies are closely connected in models of self-regulated learning, working in partnership and in conjunction with metacognition and causal attributions. Learning strategies also figure prominently in a number of recent meta-analyses of the impact of self-regulation in learning, for example, Donker et al. (2014). An understanding of how self-efficacy itself can be influenced depends on an understanding of that relationship. That is also true of how and why self-efficacy influences learning outcomes, the topic of the next section.

Self-efficacy and academic outcomes

In his writing on self-efficacy in academic contexts, Bandura makes clear that its impact on outcomes stems largely from its influence on persistence. Learners with higher levels of self-efficacy choose more challenging tasks, persist on them for longer, attribute outcomes to their own controllable efforts or strategies, and hence achieve more highly (Bandura 1994). This suggests that the impact of self-efficacy is an indirect rather than a direct one. In summary, self-efficacy theory suggests that self-efficacy influences academic achievement because it influences learners' persistence, effort, and self-regulation, which in turn lead to more positive learning outcomes. This has then been supported by empirical research.

Factors that influence self-efficacy

Earlier it was argued that self-efficacy forms a core part of self-regulation and that self-regulated learning is closely bound up with strategy use, causal attributions, and metacognition. Figure 1 showed that in self-regulated learning, the self-efficacy beliefs that come into play in the Forethought Phase are influenced by the Self-reflection Phase, during which learners evaluate their learning and attribute reasons for how well they have done, drawing on evidence they will have gathered during metacognitive monitoring in the Performance Phase. Self-efficacy levels will be influenced by the extent to which learners connect their achievements with their own actions.

The details of this self-regulatory cycle have been reiterated because they are fundamental to how Bandura (1997) conceptualised the four main factors that he believed would have an influence on levels of self-efficacy. He argued that the most important factor was what he called [enactive] 'mastery experiences' (Bandura 1997: 80). These involve experiencing success – but not just any kind of success. Rather the individual needs to perceive that such success has been achieved on a *challenging* task through their own efforts and actions, whereby they have dealt successfully with any problems that arose. This is clearly apparent in Bandura's (2012: 13) definition of mastery experiences and how they influence self-efficacy:

> If people experience only easy successes they come to expect quick results and are easily discouraged by setbacks and failures. Resilient self-efficacy requires experience in overcoming obstacles through perseverant effort. Resilience is also built by learning how to manage failure so that it is informative rather than demoralizing.

This view of the power of enactive mastery experiences relates strongly to the notion of personal agency outlined earlier, whereby learners who thus attribute outcomes to their own actions, such as to learning strategies (Zimmerman 2000: 22), are likely to experience a greater sense of control over their learning and hence higher levels of self-efficacy. It is not to say that an individual should be left unsupported in facing challenging tasks. On the contrary, the teacher or instructor has a clear role to play by providing careful scaffolding, so that 'feared activities are first modelled to show people how to cope with threats and to disconfirm their worst fears. Coping tasks are broken down into subtasks of easily mastered steps' (Bandura 1994: 6).

Bandura's second hypothesised source of self-efficacy is termed 'vicarious experiences', whereby an individual observes similar others achieving success. The impact of such experiences is believed to stronger when an individual observes '*coping models*, those who struggle through problems until they reach a successful end', rather than observing '*mastery models,* those who respond to mistakes as though they never make them' (Usher and Pajares 2008: 753, emphasis in the original). Thus, as before, it is not enough for an individual to observe someone like them being successful for their own self-efficacy to increase – they need to witness the observed persevering on difficult and challenging tasks through the effective application of 'effective skills and strategies' (Bandura 1994: 3).

The third influencing factor identified by Bandura is 'social persuasion', which in the classroom context is most likely to come from the teacher in the form of comments emphasising to a learner that they possess the skills needed to overcome perceived difficulties in a challenging task. Interestingly, Bandura (1994: 3) commented that it is harder to boost self-efficacy through social or verbal persuasion than it is to undermine it through messages, implicit or explicit, that suggest individuals 'lack capabilities' for challenging tasks, such as might be given by reducing the level of challenge of tasks given to learners.

Finally, the fourth influence is termed 'emotional states' by Bandura (1994). These include feelings of fatigue, stress and tension. Once again, it is less the experiencing of such feelings that undermines self-efficacy than how an individual interprets them.

Studies have been undertaken to evaluate all these hypothesised influences on self-efficacy, as reviewed by Usher and Pajares (2008), by analysing more than 25 studies conducted between 1977 and 2008. They found that, overall, mastery experiences were the strongest predictor of self-efficacy, while vicarious experiences, verbal persuasion and emotional/physiological states inconsistently predicted it.

To conclude this section, it is important to emphasise that none of the four factors outlined by Bandura can automatically influence self-efficacy; to do so, they need to be 'cognitively appraised' (Bandura 1986: 401). This means that self-efficacy development depends on how far an individual considers that their achievements on a task can be attributed to their own efforts and actions, on how difficult the task is perceived to be, and how much help they needed on it. In other words, if an individual experiences success on an undemanding task requiring little effort, their self-efficacy may not be boosted at all. We will return to this point in the Discussion.

Summary

Self-efficacy should be viewed as an individual's belief that they are able to 'organize and execute the courses of action required to produce given attainments' (Bandura 1997: 3). It thus has personal agency at its centre. Its impact on learning comes primarily from its effect on persistence with challenging tasks. Self-efficacy does not function on its own – the individual has to value the challenging tasks which they seek to master, as is made clear in the expectancy-value theory of motivation to which self-efficacy is related. It features most prominently within models of self-regulation, in which it acts in partnership with the application of learning strategies, metacognition and causal attributions.

Self-efficacy is thus difficult to reduce to a simple formulation. Understanding how it functions and how it can be developed requires insights into broader theoretical perspectives such as those of social cognitive theory, expectancy-value theory and self-regulation. While the OCRR, written as it seems to be, to give a brief accessible view on L2 research, might arguably not be expected to go into that amount of detail, it is undeniably important that it presents self-efficacy accurately and fully. Otherwise, there is, at best, the danger of over-simplification in the thinking of teachers and policymakers regarding this construct. At worst, there is the risk of giving rise to teaching and curriculum choices which undermine rather than support self-efficacy.

In the remainder of this article, the following research questions will therefore be addressed:

1. To what extent does the account given in the OCRR of self-efficacy, its effects and its sources, accord with how it is presented by Bandura and the wider self-efficacy research literature?
2. What does research indicate are effective ways of improving L2 self-efficacy among school-aged students?

Methodology

In order to address Research Question 1, the OCRR was firstly examined carefully for the background it gives to L2 motivation research more broadly by way of introduction to self-efficacy. Next, each reference to self-efficacy made in the OCRR was located and listed. As most (but critically, not all) of these points were attached to a footnote giving details of supporting references, each of these references was read carefully. Again, the arguments, findings and study design (in the case of interventions) of these sources were reviewed and compared with how the OCRR depicted them.

For Research Question 2, a search was conducted in the following journals: *Language Learning, The Modern Language Journal, Applied Linguistics, Language Teaching Research, The Language Learning Journal* and *System*. These were selected because of their relevance for MFL teaching and second language teaching more broadly, as well as for their position in the field as leading publications. 'Self-efficacy' was used as an initial search term. This resulted in an initial total of 682 articles. Next, articles were selected for further review that met the following criteria:

1. The study was undertaken with participants who were 18 or under, i.e. school-age students
2. The article reported an intervention, in which at least one of the outcome variables was self-efficacy, and where there was a control group.
3. The study was published between 2000 and 2022.

The first criterion was used because, as noted by Ardasheva et al. (2017), self-regulatory variables such as self-efficacy follow a developmental trajectory; in order to understand how self-efficacy is influenced in school-aged learners of MFL (an aim of the OCRR), it is wisest to look at studies undertaken with school-aged participants. The second criterion was important as it is very difficult, if not impossible, to ascertain causality as opposed to association, if an experimental research design is not used and there is no control group (Price et al. 2017).

After applying these criteria, a very much smaller sample of articles remained, reflecting the tendency of second language research to focus on adult and university-level learners. In order to widen the pool, a re-examination was conducted of studies thrown up in the initial search which did not name self-efficacy as an outcome variable per se, but which did examine similar constructs, such as 'self-confidence'. In addition, widely-cited metanalyses of L2 learner strategies research (Ardasheva et al. 2017; Plonsky 2019) were scrutinised, as these were known to include studies that assessed the impact of interventions on L2 self-efficacy. The OASIS database was also reviewed (oasis-database.org). A final sample of 13 studies was reached after all these steps (Appendix). All selected publications were reviewed for details of their participants, methods, including intervention focus, and the reported findings with respect to impact on self-efficacy.

Findings

RQ1: To what extent does the account given in the OCRR of self-efficacy, its effects and its sources, accord with how it is presented by Bandura and the wider self-efficacy research literature?

Self-efficacy is introduced in the OCRR via motivation, listing possible motivators for language learning, including improved employment prospects, desire to communicate and travel, learning about culture, and how pupils view themselves as language learners. It might be expected that a review of research evidence would at this point evaluate the strength and importance of such factors. Instead, however, the OCRR goes on to settle squarely on perceived lack of relevance (citing Taylor and Marsden 2014), and perceptions of lack of ability and insight into how to improve (citing Graham 2004) as the most important areas for further consideration. Of these two factors, however, only self-efficacy is considered in any detail in the OCRR.

The OCRR's consideration proper of self-efficacy begins with a reference to what is called 'the growing body of research on 'self-efficacy' (p. 4), marked by Footnote 33, which cites Bandura (1997) and Mills (2014). A number of definitions and claims then follow:

> Self-efficacy is the belief we have in our own ability, specifically to meet challenges and complete a task successfully (OCRR: 4–5).

Believing one can meet challenges and complete a task successfully might be seen as reasonable shorthand for Bandura's own definition of the construct, although arguably it does not really address the important idea that successful task completion has to have personal actions at its origin.

> Studies show that pupils' self-efficacy consistently results in academic achievement more than other motivational factors. It also improves their language proficiency. (OCRR: 5).

The first claim here is linked to Footnote 34, which cites a chapter by Sandra Graham and Bernard Weiner (1996), and articles by Raoofi, Tan and Chan (2012) and Multon, Brown and Lent (1991). Both claims are problematic and puzzling from a number of perspectives. First, given that the OCRR has just stated that there is currently a 'growing body of research' related to self-efficacy, it seems strange that of the three supporting references given, only one is from the twenty-first century, and that one is ten years old. Second, a reading of each of these sources shows that none of them says what the OCRR claims they do.

What do these sources in fact say about self-efficacy? Graham and Weiner (1996: 65 and 74) list it within tables outlining key features of various motivation constructs. They then identify important self-efficacy theorists, basic assumptions and key empirical findings. The latter do not mention anything connected to the OCRR claim that 'pupils' self-efficacy consistently results in academic achievement more than other motivational factors'. Instead, Graham and Weiner review empirical research to emphasise that improved self-efficacy and learning outcomes arise when learners are prompted to strive towards short-term rather than long-term goals, when they are taught specific learning strategies, and receive performance–contingent rewards. Self-efficacy is also linked by the authors to causal attributions. That is the only mention of self-efficacy in relation to learning outcomes in the chapter. Rather worryingly, furthermore, it is possible that the OCRR has misinterpreted some of the closing lines of Graham and Weiner's (1996) section on self-efficacy. There, they compare self-efficacy with other aspects of expectancy-value theory such as locus of control as follows:

> What cannot be disputed is Bandura's argument that *self-efficacy has been a much more consistent predictor of behavior and behavior change than has locus of control or any of the closely related expectancy variables. Efficacy beliefs have been related to the acquisition of new skills* and to the performance of previously learned skills at a level of specificity not found in any of the other motivation conceptions that include an expectancy construct. (Graham and Weiner 1996: 75, emphasis added)

These lines sound superficially similar to the OCRR claim that 'studies show that pupils' self-efficacy consistently results in academic achievement more than other motivational factors'. They are, of course, quite different in meaning.

Turning to Raoofi et al. (2012), the authors did indeed comment that ' … self-efficacy is a strong predictor of performance in different language skills and tasks' and 'self-efficacy appears to play a vital role in predicting learners' performance in educational contexts' (Raoofi et al. 2012: 60). They further located and reviewed 12 studies that reported a positive relationship between self-efficacy and L2 achievement. Indeed, there is plentiful research showing that self-efficacy is positively associated with a range of L2 outcomes, including overall proficiency (for example, Hsieh and Kang 2010), listening and reading (Mills, Pajares and Herron 2007) and writing (Woodrow 2011). But once again, Raoofi et al. (2012) made no attempt to compare self-efficacy with 'other motivational factors'.

More importantly, to say that self-efficacy is a 'predictor' of academic achievement is not the same as self-efficacy 'resulting' in academic achievement or that it 'improves' language proficiency. The latter implies that there is a causal relationship between self-efficacy and achievement or proficiency, whereas a 'predictor' is a variable that is related to the outcome of interest (e.g. achievement) within a statistical model that includes different factors ('predictors') 'to accurately predict an outcome in individuals' (Ramspek et al. 2021: 889). This is an extremely important distinction to make. It is difficult to conclude from the three sources cited by the OCRR that self-efficacy 'results in' academic achievement, as they consider mainly correlational studies rather than interventions designed to assess a causal pathway from self-efficacy to academic outcomes. Where intervention studies are included, as in those by Schunk and colleagues in Multon et al. (1991), self-regulatory interventions are shown to have a positive outcome on *both* self-efficacy and performance.

In addition, as outlined in the literature review above, Bandura (1977, 1994) argued that self-efficacy has an impact on achievement because it influences the extent to which individuals persist on challenging tasks; greater persistence, especially when used in conjunction with greater self-regulation, is likely to lead to better skill development and hence improved outcomes. The latter then loops back to boost self-efficacy still further, when learners link their success to their own efforts and actions. Such views are supported empirically by studies such as that of Yun, Hiver and Al-Hoorie (2018) of university level learners of English in South Korea, in which self-efficacy worked in concert with self-regulatory strategies as significant predictors of buoyancy – 'the capacity of students to navigate challenges that are typical of the ordinary course of school life and to successfully deal with academic setbacks' (Yun et al. 2018: 2) – and thence to improved L2 outcomes.

Finally, a reading of Multon et al. (1991) shows that the authors neither investigated nor concluded that self-efficacy is a stronger influence on performance than other motivational variables. Instead, they found, from a meta-analysis of 36 studies *outside* the field of language learning, that self-efficacy was moderately related to both performance outcomes and persistence, although there was a lot of variation across studies. On average, self-efficacy accounted for 14% of the variance in performance outcomes and 12% of persistence outcomes. Additionally, given the focus of the OCRR, it is surprising that the OCRR authors did not look at more recent and relevant research on the question of the relationship between self-efficacy and achievement in *language learning*. They might easily have included Wang and Sun (2020), a meta-analysis drawing on 74 studies. These authors reported a positive *relationship* between self-efficacy and language proficiency with a small to medium effect size on average, which was mediated by publication type and context.

The development of self-efficacy in language learning

The OCRR turns next to how self-efficacy can be nurtured (p.5), stating briefly but assertively (note the causality implied by 'impact'):

The following are likely to have a positive impact on pupils' self-efficacy:
(a) 'language-learning experiences that pupils perceive as successful' [Leeming (2017)].
(b) 'knowing how to sound out words in a foreign language'. [Erler and Macaro (2011)]
(c) 'ensuring that the building blocks of language are in place so that pupils can exercise greater autonomy'. [*No citation is given to support this statement*.]
(d) 'seeing non-native peers communicating effectively' [Mills (2009)].

Citations in square brackets are given as footnotes in the OCCR

At first glance, statements (a) and (d) seem to relate, respectively, to the notions of 'mastery experiences' and 'vicarious experiences' that Bandura (1994, 1997, 2012) believed to be two of the four sources of self-efficacy. They do so, however, on only a rather superficial level, even if, as before, one makes allowances for the fact that the OCRR is addressed to a general teaching audience rather than to academic researchers. Setting aside the fact that 'language-learning experiences that pupils perceive as successful' is a rather strange way of putting things (presumably it means 'language-learning activities in which pupils perceive themselves to have been successful)', the phrase suggests that success alone leads to increased self-efficacy. This is very far from the enactive mastery experiences outlined by Bandura, which occur within the completion of challenging rather than easy tasks, and through the individual's own efforts and actions 'in overcoming obstacles through perseverant effort' (Bandura 2012: 13). The same caveat should be applied to the phrase 'seeing non-native peers communicating effectively'. As outlined in the literature review above, it is not enough for an individual to observe someone like them being successful – it is witnessing others like them succeed on difficult and challenging tasks through the effective application of 'effective skills and strategies' (Bandura 1994: 3) that boosts self-efficacy. Finally, for both mastery experiences and vicarious experiences to have a positive impact on self-efficacy, they need to occur in relation to a task that is *valued*.

And how far do the publications cited by the OCRR support the conclusions drawn by the OCRR authors in respect of how self-efficacy can be nurtured? Two of them are classroom-based, implementing an intervention (Leeming 2017, and Mills 2009), and assess changes in self-efficacy over time. Neither however has a control group, which the study authors acknowledge as an important limitation. The third, Erler and Macaro (2011), is a non-intervention cross-sectional study, which shows the relationship between decoding self-efficacy and decision to study French, but does not demonstrate a causal link between developing decoding skills and self-efficacy (nor did the authors set out to do so). Furthermore, going into each study in more detail, the findings reported lead to quite different conclusions from those presented in the OCRR.

What is most striking about both Leeming (2017) and Mills (2009) is that both report on learning experiences and curricula that are very different from what is recommended in the OCRR. In both studies, reported increased self-efficacy arose from engagement in activities that students valued: those that developed their oral communicative competence rather than grammatical accuracy (Leeming) or involved creative interaction with cultural artefacts and collaborative group work (Mills). Beginning with Leeming (2017), participants ($N = 77$, 23 female and 54 male) were enrolled in a compulsory first-year oral English course in the science department of a private university in Japan. Early in the publication, the benchmark for a 'successful' language learning experience is outlined: 'With an emphasis on communication rather than grammatical accuracy, students were told that if communicative objectives were achieved then the task was a success' (Leeming 2017: 5). We are also told that such an approach was a novel one for students, given that they were used to the grammar-translation focus common in Japan.

Interviews with eight students were used to explore students' perceived reasons for their increased speaking self-efficacy over the course. The first reason is categorised as *acclimatization*, whereby the students gained understanding of what was required on the course. Interestingly, this acclimatization included getting used to, and valuing, the lack of emphasis on grammatical accuracy, in the words of one student: 'At first it (SE) was low. I thought I would need grammar … that I

would have to talk properly. But you said we don't need grammar' (p. 12). The importance for self-efficacy development of this focus on oral communicative fluency rather than the assessment of grammar is emphasised by Leeming (2017: 12), in a passage worth citing at length:

> Students in this context have studied English grammar for six years in order to pass the often technical and demanding university entrance exams, and therefore have a good understanding of grammar, but little or no opportunity to use English in communicative conversational settings. This means that students often focus on producing grammatically accurate sentences at the expense of fluency. The focus in the class was on developing oral fluency and therefore the teacher regularly reminded students that grammar was not being assessed. This reminder clearly had an impact and meant that students felt more relaxed, leading to greater feelings of confidence and speaking SE.

Finally, it is clear from the article's conclusion that the kind of activities these students perceived as successful were those that had both value and challenge: 'For mastery to have a positive influence on SE, students must perceive the task to be challenging and then they can feel a sense of accomplishment upon successful completion' (p. 15). Furthermore, sense of accomplishment resided for students in developing oral communicative competence rather than grammatical accuracy.

The importance of learners undertaking activities that are of value to them is also reinforced in Mills (2009). Cited to support the claim that self-efficacy develops through 'seeing non-native peers communicating effectively', the study investigated self-efficacy among university 'false beginner' level learners of French. The publication abstract emphasises that the study focus is on project-based learning (PBL), 'a student-centered approach to learning in which students collaborate on sequential authentic tasks and develop a final project' (Mills 2009: 607). Within that context, the extent to which PBL developed learners' self-efficacy in the areas of Communication, Cultures, Connections, Comparisons, and Communities was investigated, all competences stipulated in the context of the curriculum in which the study was based, the US Standards for Foreign Language Learning (National Standards 1996).

Crucially, students in the study engaged in independent, non-textbook based research using authentic materials to create a travel diary, in which they responded to weekly scenarios requiring online research in order to produce 'creative journal entries that integrated the weekly linguistic and cultural objectives' which were then shared and discussed as a class. The emphasis was on 'meaningful contexts, and the opportunity to provide creative and divergent responses' (Mills 2009: 613). Paired-samples *t*-tests established increases with large effect sizes in reported self-efficacy (as assessed through a questionnaire) in all assessed curriculum areas. Higher mean differences in pre- to post-intervention self-efficacy were found for more challenging areas of expertise. Mills (2009) did indeed attribute these changes to students observing peers 'communicating effectively'. As important, however, was the effect of collaborative learning, the increased interest that the authentic and meaningful contexts prompted and the role of mastery experiences, whereby students gained confidence in areas that clearly mattered to them. It is the element of 'choice, creativity, and self-directed learning' (p. 631) and personal, cultural enrichment that Mills emphasises repeatedly as impacting on students' self-efficacy. Space does not permit extensive verbatim quotations to support that claim, but the following is typical of each of the curriculum areas on which the study reports:

> Role-plays, online scavenger hunts, oral exams, and quizzes also required that students be divergent and creative with language. This learner-centered curriculum allowed students to become active decision makers who could present the cultural content that personally engaged them from the wide network of available resources and tools. These features of the curriculum may have played a role in increasing students' self-efficacy in the Communities goal area. (Mills 2009: 631)

Hence the study demonstrates more than anything that for self-efficacy to flourish, learners need to experience sense of achievement by carrying out valued and meaningful activities.

Finally, the OCRR attributes improved self-efficacy to 'knowing how to sound out words in a foreign language' (i.e. decoding, p. 5), citing Erler and Macaro (2011). That study set out to explore relationships rather than impact or causality, through the following question: 'Are there

links between learners' ability to decode French, their perceived self-efficacy in decoding-related activities, their perceptions of learning French more generally, and their intention to continue learning it?' (Erler and Macaro 2011: 501). Data were drawn from a representative sample of 1,735 learners from Years 7 to 9 (ages 11–14) in England. Self-efficacy for decoding was assessed in two ways. First, through a questionnaire that asked about perceived self-efficacy for decoding French during classroom tasks; second, before and after completing two decoding tasks (based on rhyme and segmentation respectively), learners were asked whether they were confident or not (yes/no) that they could complete the test successfully (pre-test) or had in fact done so successfully (post-test).

Examining the study findings, it is not possible to locate where the *impact* of decoding ability on self-efficacy is reported (the focus of the OCRR claim). Instead, we read of a significant, but weak to moderate, relationship (applying Plonsky and Oswald's [2014] benchmarks) between learners' intention to continue with French on the one hand (*not* self-efficacy) and their decoding scores on the other. Similarly, a regression analysis was conducted where the outcome variable was 'positive feelings' towards French (looking forward to French next year, finding French easy and feeling good at it, and enjoying French). Decoding test scores only weakly predicted positive feelings ($\beta = .091$), compared with $\beta = .568$ for decoding self-efficacy. These results led Erler and Macaro to conclude that decoding self-efficacy was 'a stronger predictor of positive feelings toward French than the actual ability to decode' (p. 508); finally, they reported that 'self-efficacy, test results, and positive feelings together predicted 23.1% of the variance in the intention to continue with French at Key Stage 4' (Erler and Macaro 2011: 508).

Hence, it is therefore very difficult to see how Erler and Macaro (2011) provides evidence that 'knowing how to sound out words' causes enhanced language learning self-efficacy, nor did the authors set out to demonstrate that view. Rather, the study established a *relationship* between decoding self-efficacy and positivity towards French, and that decoding self-efficacy, ability to decode, and positive feelings about French are together positive predictors of stated intention to continue with French post-14. Erler and Macaro (2011: 512) also highlighted in the Discussion (i.e. not in the Results) that learners with 'higher levels of decoding ability demonstrated higher self-efficacy in specific decoding-related tests'. As should be readily apparent, that is not the same as saying that decoding ability is the cause of decoding self-efficacy.

Thus, across all three cited publications, the OCRR interpretation of their findings in relation to self-efficacy development is at best selective. The same might be said of how the OCRR section on motivation and self-efficacy ends (OCRR: 5), as follows:

> The above points suggest that, in order to have a positive impact on their motivation, curriculum design should ensure that pupils:
>
> - feel successful in their learning
> - are clear about how to make progress

These suggestions hark back to a study cited at the very start of the section on self-efficacy, Graham (2004), used in the OCRR to support its claim that MFL learners' low motivation stems from 'a lack of belief in their ability and a lack of clarity about how they can improve' (p. 4). That study's findings can indeed be summarised in that way. Yet its conclusions and the solutions to those issues it proposes are also very different from what is advocated in the OCRR. Investigating as it does the causal attributions learners made for success or lack of it in MFL, and how those differed between Year 11 learners who intended to study French post-GCSE and those who did not, Graham (2004) is fundamentally about self-regulated learning. The article concludes by arguing that persistence and enhanced self-efficacy can be achieved by guiding learners to make more adaptive attributions for success and failure as part of learning strategy instruction, by which 'learners should be invited to explore fully the link between strategy use and learning outcomes, perhaps by planning strategies to try in the light of problems identified, noting which strategies helped and which did not, and why'

(p. 187). Thus, the study links very closely with Bandura's (1999) comments on the role of causal attributions in the development of self-efficacy and with Zimmerman's (2000) model of self-regulated learning, offering a very different perspective than that of the OCRR.

RQ2: What does research indicate are effective ways of improving L2 self-efficacy among school-aged students?

This section begins with a brief return to Raoofi et al. (2012). That publication was cited by the OCRR to support the claim of a link between self-efficacy and learning outcomes. As well as examining that issue, however, the authors also posed the following question: 'What factors affect learners' self-efficacy beliefs in learning English as a foreign language?' (p. 61) It is therefore surprising that the OCRR makes no mention of the answer provided by Raoofi et al. They addressed the issue through a review of 32 studies, from which they determined three broad influencing factors, which they termed 'styles', 'strategies', or 'contextual variables'. While most of the 32 studies reviewed involved adult rather than school-aged learners, the overall findings of the review are noteworthy.

Of the three groups identified, the largest (comprising 13 studies) explored learning strategy use and self-efficacy, either in terms of their relationship (six studies) or within intervention studies (seven), in which participants experienced instruction in learning strategy use. The correlational survey studies revealed significant relationships between strategy use and self-efficacy. Among the intervention studies, two did not in fact consider learning strategy interventions. The remaining five studies reported a positive effective from instruction in concept mapping (Chularut and DeBacker 2004; Khajavi and Ketabi 2012), general reading strategy instruction (Shang 2010), listening strategy instruction (Graham 2007), and strategy-oriented feedback for vocabulary learning (Chan and Lam 2008). In other words, the largest body of studies reviewed by Raoofi et al. (2012) provides evidence of the importance of self-regulatory learning strategy use for improved self-efficacy, an area completely overlooked by the OCRR. This is also true of Mills (2014), who likewise emphasises the positive role of self-regulatory strategies in the development of self-efficacy, especially when attributions are targeted as well and when precise methods for measuring self-efficacy are used (citing Graham 2007; Graham and Macaro 2008; and Mills, Pajares, and Herron 2007).

The same conclusion can be drawn from the studies we selected according to the criteria outlined in the Methodology (see Appendix for details of all studies). Of the 13 studies identified, 10 reported some positive impact on language learning self-efficacy or related constructs from interventions targeting self-regulation, with most involving a form of learning strategy instruction, across the skills of reading, listening, writing and speaking, as well as self-efficacy for language learning more broadly. As noted elsewhere (Lanvers and Graham, this issue) the studies varied in terms of the strength of the change in self-efficacy that occurred. Nevertheless, a message to emerge from the studies as a whole is the importance of providing guided mastery and modelling of strategic behaviour within a framework encouraging students to reflect on their learning, the strategies they employed on tasks, and the relationship those strategies have with the outcomes achieved: in other words, to help them develop a sense of personal agency, which, as earlier sections of this article have emphasised, is what self-efficacy chiefly concerns.

Of further interest is the number of studies identified in the Appendix that are set in school classrooms in England. At least four of these were conducted with medium to large samples of learners, and with funding from prominent UK research bodies (Forbes et al. 2021; Graham et al. 2020; Graham and Macaro 2008; Macaro and Erler 2008). It is therefore very surprising that none was considered for inclusion in the OCRR in its examination of what would enhance the language learning self-efficacy of school students in that context. We suggest possible reasons for that exclusion in the Discussion.

Discussion and conclusions

This article set out to clarify how self-efficacy is defined in the work of Bandura and within social cognitive theory more broadly, its position in relation to theories of motivation and models of self-regulation, and what, according to social cognitive theory, are the factors that influence self-efficacy. It concluded that self-efficacy is essentially a theory of personal agency. It drives levels of persistence on challenging tasks and hence perfomance, but does not function on its own – the individual has to value the challenging tasks which they seek to master. It is at the core of models of self-regulation and self-regulated learning, in which it acts in partnership with the application of learning strategies, metacognition and causal attributions. It is primarily fostered through enactive mastery experiences, whereby individuals experience success on a valued and challenging task and perceive that such success has been achieved through their own efforts and actions.

The article then examined critically how self-efficacy is presented within the OCRR, showing how studies are cited selectively, with interpretations of their findings that could be called at best incomplete. Indeed, what is arguably the most interesting is what the OCRR does *not* mention about the studies that it cites. Thus, while it is technically correct to say that self-efficacy developed when students felt they were being successful (Leeming 2017) and saw peers being successful (Mills 2009), the OCRR is silent on the kind of activities and curricula in which such success occurred in those studies. The most obvious reason for such silence is that both studies present a view of language learning at odds with what the OCRR advocates: namely one that foregrounds (oral) communication, culture, and creativity as features valued by learners, rather than vocabulary, phonics and grammar.

As a counter to the incomplete view of self-efficacy proposed by the OCRR, the present article then examined studies from school-based interventions seeking to improve language learning self-efficacy. The majority of those studies did so by applying the principles of self-regulated learning, particularly in the form of learning strategy instruction. As such they confirm what has been established for adult second language learners (Ardasheva et al. 2017). None of the intervention studies identified found their way into the OCRR, however, even though they explored self-efficacy development in the very context that the review is meant to serve, namely school-based language learning.

Earlier it was argued, with reference to Bandura (1986), that if an individual experiences success on an undemanding task requiring little effort, their self-efficacy may not be boosted at all. Similarly, the findings of at least two of the reviewed intervention studies (Graham et al. 2020; Macaro and Erler 2008) would support the view that self-efficacy develops when learners, rather than experiencing materials selected to primarily 'to support the school's systematic sequencing of vocabulary and grammar' (OCRR: 18), are taught within a curriculum which exposes learners to challenging activities along with the tools with which to overcome any difficulties they experience with them. Once again it is the divergence between these two views of language learning that might well explain the absence of such studies from the OCRR.

Finally, it should be remembered that no references were provided in the OCRR to support the claim that language learning self-efficacy can be enhanced by 'ensuring that the building blocks of language are in place so that pupils can exercise greater autonomy' (OCRR: 5). One reason for that omission might be the lack of empirical studies that do unequivocally support that view. Indeed, learners in Leeming (2017) had very low levels of self-efficacy after six years of a curriculum focused on grammar-translation. Likewise, Graham et al. (2020) found that at the end of Year 7, knowledge of phonics and vocabulary did not significantly predict levels of French reading self-efficacy, but use of self-regulatory strategies did. That is not to say, however, that such knowledge is unnecessary for the development of self-efficacy. The successful outcomes of Macaro and Erler's (2008) reading intervention, for both positivity towards French reading and reading comprehension, may have arisen because learners were taught to use 'sounding out', not as an end in itself, but as a strategy to aid comprehension. In other words, to develop self-efficacy, acquired knowledge needs to be integrated as part of a self-regulatory cycle, in which a combination of knowledge, skills and

strategies is applied to the execution of a challenging and valued task. All of those components are necessary. Unfortunately, that view of self-efficacy development is very difficult to align with the type of curriculum advocated in the OCRR, with all the implications that has for motivation development more broadly.

Disclosure statement

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ORCID

Suzanne Graham http://orcid.org/0000-0002-7743-3977

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*Includes studies referred to in the Appendix, marked by **

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Appendix. Intervention studies involving self-efficacy development.

Study	Contexts and participants	Nature of intervention	Details of intervention	Measurement of self-efficacy	Basic findings
Baleghizadeh and Mortazavi (2014)	60 Iranian female English language learners at upper intermediate level at a language school in Iran, randomly assigned to a no-feedback condition (NFC), teacher-feedback (TFC), or peer-feedback condition (PFC), or to a control group/ no-journal condition (15 students per group).	Reflection on strategy use with or without different kinds of feedback	All learners in intervention groups kept reflective journals, writing on learning strategies, goals, problems encountered in lessons and in learning, as well as strategies they applied to deal with problems and how successful they thought strategies were. Feedback given on use of strategies reported by learners, by the teacher (TFC) or by peers (PFC). NFC just kept journal without feedback.	General Self-Efficacy Scale completed before and after the intervention.	A significant main effect of experimental conditions. Self-efficacy scores for those in TFC were higher than those of other groups, but only significantly so for the NFC and the NJC, i.e. the PFC and TFC were equally effective for self-efficacy. All intervention groups significantly outperformed the NJC. Keeping a reflective journal whether with or without feedback had a positive impact on learner self-efficacy, but was more effective when feedback was received.
Chinpakdee and Gu (2021)	Thai secondary school learners of EFL age 17: 30 learners in intervention class and 32 in comparison class.	Strategy-based instruction for reading	10 week intervention, 50 mins a week – setting goals, preparing for reading, taking notes, imagery, self-questioning, making inferences, summarising and goal checking, how to strategically arrive at word meaning from word parts and contextual clues.	4 group interviews conducted with the intervention class learners to explore how strategy-based intervention affected their perceptions of their ability to read English.	Learners' experiences during intervention and their improved reading competence made them feel more confident reading English texts; they expressed intention to continue using strategies in future learning tasks, indicating willingness to take control of their learning
Chularut and DeBacker (2004)	79 participants aged 15–22: 55 college undergrads., 24 high school students. At 4 levels of English: beginner, intermediate, advanced and expert. Students assigned by stratified random assignment to 2 groups (concept-mapping and individual	Concept mapping as a reading strategy	After pre-test, all students participated in 5 × 60-min. study sessions. In each session they studied a different passage. Both groups were encouraged to read passages in order to understand stated and implied information. In concept mapping group, concept mapping was modelled,	Pre- and post- intervention, Achievement Test and the Survey of Learning Behaviors was completed. Included 3 subscales, including self-efficacy and self-regulation.	The concept mapping group showed significantly greater gains in self-efficacy over time than the individual study group (medium-large effect sizes). The same was true for self-regulation

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Study	Contexts and participants	Nature of intervention	Details of intervention	Measurement of self-efficacy	Basic findings
	study) with each level represented equally.		explained and practised. In individual study group, passage was studied individually w. no specific strategies recommended but instructor-led discussion of meaning and implications.		
Forbes et al. (2021)	268 Year 9 (age 13–14) MFL students in 4 schools in England, divided into a 'full' intervention group ($n = 87$), a 'partial' intervention ($n = 99$) and a control group ($n = 82$).	Development of students' multilingual identity	Intervention groups had 6 × 1-hour intervention lessons over 1 academic year (2 per term). Activities provided information about cognitive and social benefits of multilingualism (full and partial intervention groups); full intervention classes also had awareness-raising and reflective activities where learners reflected on how these issues related to their identity.	Pre- and post-intervention questionnaires to collect data on key dimensions of multilingual identity, including 'Language self-beliefs' which largely consisted of items related to self-efficacy	Small but significant improvement in language beliefs scores for both full and partial intervention groups but not control.
Graham and Macaro (2008)	107 learners of French in England (age 16–17, 5 years learning French i.e. intermediate proficiency level). Intact classes, matched across conditions, assigned to 1 of 3 groups: 2 intervention groups (High Scaffolding Group, $n = 29$; Low Scaffolding Group, $n = 39$) and a comparison group, $n = 39$.	Self-regulatory listening strategy instruction	Over 6 months, both HSG and LSG learners were taught to use range of listening strategies. Included tick-sheets to remind them of strategies to use, and to record which strategies they had used and how helpful they were. HSG also had awareness-raising session at start of instruction, as well as attribution-directed feedback from researchers on their strategy use and its effectiveness.	Pre and post intervention learners completed a self-efficacy for listening questionnaire, in which they indicated on a scale of 0–100 how confident they were about 4 areas of listening.	At post-test, higher mean scores for total listening self-efficacy for HSG, followed by LSG, with lowest for CG. Significant differences between HSG and CG, and between LSG and CG, but not between HSG and LSG .
Graham et al. (2020)	529 learners of French, 1st year of secondary education (aged 11–12) in England. Intact classes were divided into 2 instruction groups (reading strategies or phonics) plus control (no reading	Self-regulatory reading strategy instruction	Learners experienced 1 of 3 approaches for reading over 16 weeks, for 20–30 minutes a week. All 3 approaches used same challenging texts covering culturally interesting topics. Strategy instruction included awareness raising, modelling by	Pre- and post-intervention, learners completed self-efficacy for reading questionnaire, in which they indicated how confident they were about 5 areas of reading in relation to the kind of challenging text they had just read as part of the pre	For Cluster 3, where learners had low reading, self-efficacy and linguistic knowledge scores and low reported strategy use at pre-test, increases in self-efficacy were the most marked. Significant differences on gain scores between the strategies

	instruction but same texts read as other 2 groups).		teacher, guided practice using modelled strategies with challenging texts, use of ticksheets to record and reflect on strategy use, sometimes discussed with peers. Phonics instruction group were taught French phonics, and used that knowledge to read aloud sections of challenging texts and answer simple comprehension questions.	and post-test. Cluster analysis divided participants into 3 clusters, based on their reading self-efficacy, linguistic knowledge, reported reading strategy use.	group and the phonics group (small to medium effect size) and between the strategies group and the texts group (small effect size).
Lanvers (2020)	MFL learners in England, age 13–14: 220 in intervention groups (across 3 schools), 52 in control groups (across 2 schools)	Awareness-raising and tackling negative mindsets.	Over 6 sessions, through whole class and small group teaching, learners' awareness was raised of issues such as cognitive benefits of language learning, how setbacks and challenges are a normal part of language learning, and how differences in curriculum focus and time could explain their perceived low language proficiency, as a way of challenging low self-efficacy.	Questionnaire, pre-post test changes explored	1 item from those aimed at assessing self-efficacy showed significant change, but with small effect size, in the intervention group only: *The language I'm trying to speak is v. difficult/difficult/ medium/ easy/v. easy*.
Macaro and Erler (2008)	Learners of French aged 11–12 in England. 6 participating school with 1 class each. Learners in 3 schools were taught reading strategies ($n = 62$); those in the other 3 groups received normal French instruction without reading strategies ($n = 54$)	Self-regulatory reading strategy instruction	Over 14 months, spanning 2 school years, intervention group received reading strategy instruction Steps also taken to enhance metacognition about decisions on which clusters of strategies to use. Researchers gave attribution-directed written feedback on learners' records of strategy use. Strategy instruction conducted using what the authors describe as 'challenging' texts. Some decoding taught to support strategy of 'sounding out' a word to work out its meaning.	Before and after intervention, learners used a point scale to say how happy they were with reading (and other language skills). They also completed a pre- and post-intervention questionnaire on strategy use, as well as reading comprehension tests. All 3 measures represented an aspect of self-efficacy, i.e. reading confidence; reading agency via 'text engagement' strategies, vs. 'teacher reliance' strategies; persistence in reading the text used in the post-test.	At Time 2, intervention group showed significantly higher levels of positivity towards French reading; significantly greater use of text engagement strategies and lower levels of teacher reliance strategies. 97% of intervention cohort attempted the Idea Units text at Time 2 vs. only 77% of the comparison cohort.

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Study	Contexts and participants	Nature of intervention	Details of intervention	Measurement of self-efficacy	Basic findings
Molway and Mutton (2019)	5 Year 9 German classes in England (N = 127), divided into intervention group (n = 43) and control group (n = 73). Data from 119 students analysed.	Reading strategy instruction and changing mindsets	Over 2 months approx., 2 classes received both a 'Theories of Intelligence' (TI) and Reading Strategy (RS) intervention. 2 other classes had just the RS intervention. TI involved giving learners explicit, research-informed information about nature of intelligence and its malleability. RS involved 2 × 1-hour sessions. Learners shown how to use reading strategies and given opportunities to practise them.	Assessed indirectly via questionnaire items administered at 4 points before, during and after intervention, targeting causal attributions for success and failure, and beliefs about the nature of intelligence. Descriptive statistics only, plus a correlation analysis between reading scores on test administered and answers to questions about Theories of Intelligence.	Some shift in mindsets to a more incremental view of intelligence in intervention group but not in control. Graphs provided claim to support an increase in reported 'adaptive' classroom behaviours in TI & RS classes (e.g. *When I get things wrong in German I try to understand what my mistakes were so that I can avoid them next time*) and a decrease in agreeing with the statement *When I get things wrong in German I feel depressed*. Learners receiving RS intervention more likely to attribute success to successful use of strategies. Strong correlations were established between an incremental mindset at Time 4 and willingness to attempt questions in a reading test that posed a moderate and high challenge.
Moskovsky et al. (2013)	296 Saudi EFL, aged 12–25 at different levels of study and English proficiency (beginner, intermediate, advanced). Experimental group = 153, control group = 143. Two groups matched on key variables (teachers and learners).	Motivational teaching strategies	These included: teachers expressed belief in students' efforts to learn and capabilities to succeed; increased amount of target language used in the classroom; tried to make activities attractive to learners with new & humorous elements.	Motivation questionnaire including items relating to self-efficacy.	Statistically significant improvement at post-test in learning self-efficacy and English self-efficacy for experimental group (small-medium effect sizes).
Van Batenburg et al. (2019)	147 Dutch learners of EFL, aged 14–15, in pre-vocational classes, divided randomly into 3 groups: form-focused (n = 48), language-directed	Different kinds of instruction for oral interaction: form-focused (FF) vs. language-directed	All groups worked with same sample dialogues modelling use of targeted language in 9 × 40–45-minute lessons, taught over 12 weeks. FF focused on learning language forms needed	Pre- and post-intervention questionnaire, including items targeting oral self-confidence and perceived competence to speak (accurate) English, e.g. *I feel confident when I have to*	Self-confidence for EFL oral interaction developed significantly after SD instruction, but not after LD or FF instruction.

	($n = 46$) and strategies-directed ($n = 53$)	(LD) vs. strategies-directed (SD).	for different functions, with noticing target forms in dialogues, explicit rule presentation, and controlled practice. LD same as FF except learners completed information gap activities. SD focus was on explicit teaching and practice of interaction strategies, with same information gap tasks as LD.	*speak English*; *When I have to speak English with a classmate, I am afraid to make mistakes*	
Zarrinabadi and Rezazadeh (2020)	210 female intermediate language learners (mean age 17) assigned to 7 experimental conditions, 30 in each.	Different kinds of feedback	Over 12 sessions, all groups to write 6 assignments. Each group received different type of comment on writing: feedback, feed up, feed forward, feedback + feed up, feedback + feed forward, feed up + feed forward, and feedback + feed up + feed forward. Feedback = comments on errors & correct forms; Feed up = reminders about goals and success criteria of task; Feed forward = comments on next steps in learning.	Writing self-efficacy scale. Before and after intervention participants indicated how sure they were they could perform different writing skills (e.g. 'write a strong paragraph that has a good topic sentence or main idea').	Learners receiving just feedback, and those receiving feed up and feed forward together with feedback, had significantly higher levels of writing self-efficacy vs. the feed up and feed forward groups, and showed significant pre-post test improvement.
Ziegler (2014)	Learners of English in Germany. Intervention = 318 students in grades 4–9 in 4 schools. Control = 257students in grades 5–9 in 2 schools.	Self-regulated learning	Intervention group used ELP (European Language Portfolio): learners set language learning targets, monitored progress, and recorded and reflected on language learning & intercultural experiences. Tasks encouraged self-reflection and reflection on learning strategies, learning goals and progress.	Questionnaire incl. items adapted from the Motivated Strategies for Learning Questionnaire (Pintrich et al. 1991) and the Patterns of Adaptive Learning Scales (Midgley et al. 2000).	After intervention, compared w. control, intervention group had higher academic self-efficacy (small effect size), higher self-regulatory efficacy (medium effect size), more aspects of self-regulated learning, including mastery goals, higher academic self-efficacy, and reported using more effective learning strategies.