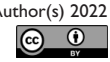
Check for updates

Article

LANGUAGE
TEACHING
RESEARCH

Autonomy of English language learners: A scoping review of research and practice

Language Teaching Research
2025, Vol. 29(2) 607–632
© The Author(s) 2022

Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/13621688221075812
journals.sagepub.com/home/ltr


Sin Wang Chong
Queen's University Belfast, UK; University of St. Andrews, UK; Institute of Education, University College London, UK

Hayo Reinders
King Mongkut's University of Technology Thonburi, Thailand; Anaheim University, USA

Abstract

Learner autonomy is a vibrant and diverse field. In its approximately 40-year history, it has drawn liberally on theoretical constructs and research methodologies from other disciplines. In turn, it has contributed to the field of applied linguistics by drawing attention to the fundamental importance of understanding the language learner as an active agent in the learning process. To understand the role of autonomy in, and its connections with other areas of study, it is important to ask how it has been conceptualized and operationalized. In addition, given its elusive and amorphous nature, it is timely to ask if and how (the development of) learner autonomy has been evaluated. In this article we conducted a scoping review, or a systematic and comprehensive literature review, of 61 empirical studies in this field. The results show a rich array of conceptualizations and numerous operationalizations, in addition to a somewhat limited use of evaluations. We draw from this a number of implications for research. In particular, we encourage learner autonomy researchers to make explicit their theoretical frameworks, extend their investigation to the role of language learning beyond the classroom in promoting learner autonomy, and diversify their use of research methods.

Keywords

autonomous learning, English language, learner autonomy, scoping review, TESOL

I Introduction

The field of learner autonomy is reaching a stage of maturity. Since its emergence in the early 1980s it has spawned a greater interest in the roles that learners play in their own learning and greater recognition of the myriad ways in which learning, both in and

Corresponding author:
Sin Wang Chong, Queen's University Belfast, University Road, Belfast, BT7 1NN, UK
Email: S.Chong@qub.ac.uk

outside of the classroom, takes place. In addition, it is intimately connected with the recent explorations of the psychology of the language learner and the ways in which learners' internal experiences significantly shape the learning process and its outcomes. Given its historical and continued influence, a scoping review is warranted of its theoretical underpinnings and the ways these are translated into context-specific operationalizations. Furthermore, how the concept is understood in different cultures, with learners of different ages, and across school types, to name only some variables, is unclear and has not been systematically investigated.

A feature of the scholarly canon in the field of learner autonomy is that much of the extensive literature comprises theoretical explorations or descriptions of good practice, rather than empirical studies. Moreover, although there are a number of frequently-cited definitions of learner autonomy that conceptualize learner autonomy as learners' ability and capacity (e.g. by Benson, 2001; Holec, 1981; Little, 1991; Littlejohn, 1985; Nunan, 1996), distinctions between learner autonomy and related constructs such as self-regulated learning, motivation, self-efficacy, and metacognition remain blurred and conceptualizations are often not clearly founded or described. Similarly, operationalizations of autonomy are mostly unsystematic and frequently not described in detail. This is a significant lacuna, as it prevents a comprehensive comparison of the relative effects of different pedagogical practices. Of particular interest in the field is whether, and if so, how autonomy can be evaluated. Little (2007, 2017) strongly argues that the development of language proficiency and learner autonomy should not be separated as they are 'mutually supporting and fully integrated with each other' (Little, 2007, p. 14) so attempting to evaluate learner autonomy is not necessary – or recommended – as the results will speak for themselves in terms of the development of language proficiency. This convincing stance goes some way to explain why there are few empirical studies isolating learner autonomy. In addition, Benson (2011) notes that observations and intuitions made by teachers with regards to ascertaining the extent to which learners are taking charge of their learning may be sufficient and further evaluation–often through lengthy systematic research–is not always necessary. However, other researchers have suggested that it might be useful to evaluate some aspects of learner autonomy in order to show whether teaching practices and learning opportunities are effective. It could be argued that although the capacity for learner autonomy itself cannot be evaluated, observable behaviors can be researched and this could be an indication of the degree of autonomy that a learner possesses. Examples of observable behaviours are, for example, demonstrating greater awareness and control over one's self-directed learning (see Curry et al., 2017), identifying evidence of metacognitive development using a rubric or trajectory (Kato & Mynard, 2016; Sinclair, 1999), or showing the degree of ownership over learning task selection and design (Nunan, 1997). It remains unclear whether there is a consensus either way. It is important to gain a more detailed understanding of the current state of the field and for this reason this article reports on a scoping review of the literature. This scoping review focuses on a number of contestable issues in the field, which pertain to the conceptualization (what conceptual and/or theoretical frameworks are used to understand learner autonomy?), operationalizations (what are some in-class and/or out-of-class activities designed by English teachers to develop learners' autonomy?), and evaluation of learner autonomy (what research instruments or methods are used to investigate learner autonomy?). The scope of this present review is on English

language learners (ELL) rather than learners of other languages because the majority of the scholarly publications on language learner autonomy focus on ELL (see a comprehensive bibliography on learner autonomy compiled by Hayo Reinders[1]). While there are a handful of publications on learners of other languages, we decided to confine our synthesis to ELL to maintain ecological validity of our review, which refers to the 'relation between real-world phenomena and the investigation of these phenomena in experimental contexts' (Schmuckler, 2001, p. 420). A study is considered ecologically valid when its findings are likely to be used by stakeholders in similar contexts (Ledford et al., 2016). In other words, by focusing on a particular group of learners (i.e. ELL), we intend to make our synthesized results more useful and relevant to English teachers and learners. Another reason for setting a confine to our remit concerns the practicality of conducting a scoping review, which involves some labour-intensive and time-consuming works because of its inclusive nature (Pham et al., 2014). This warrants synthesists to explicate a boundary regarding the scope of the review in the form of inclusion and/or exclusion criteria (Chong & Reinders, 2021) (see Section II.4).

II Methodology

This study is a scoping review, which refers to a type of systematic literature review which summarizes substantive and methodological features of primary studies on a particular topic (Chong & Plonsky, 2021a; Visonà & Plonsky, 2019). A scoping review distinguishes itself from other types of research synthesis (e.g. narrative review) in terms of its more inclusive and systematic approach to study selection. Because of its more comprehensive coverage, a scoping review is often used to survey a research landscape of emerging or vibrant areas of research where published work 'has not yet been extensively reviewed or is of a complex or heterogeneous nature' (Tricco et al., 2016, p. 2). Scoping review can synthesize qualitative and/or quantitative data, which makes it resemble other types of systematic literature reviews namely qualitative research synthesis (which focuses on synthesis of qualitative data) and meta-analysis (which focuses on synthesis of quantitative data). For the present study, which adopts a thematic and qualitative approach to data synthesis, we draw on a recently developed methodological framework for conducting qualitative research synthesis in TESOL and Applied Linguistics (Chong & Plonsky, 2021b) (Figure 1). The rationale for adopting this framework is twofold: First, to the best knowledge of the authors, it is the only framework on synthesizing research findings in a qualitative, thematic manner in TESOL. Second, this framework is rather generic and resembles other types of systematic literature reviews (see Table 1 in Chong & Plonsky, 2021a).

1 Design research questions

This scoping review on autonomy of ELL includes a dual focus on research and practice, which is reflected in its three research questions:

1. How is ELL autonomy conceptualized?
2. How is ELL autonomy operationalized?
3. How is ELL autonomy evaluated?

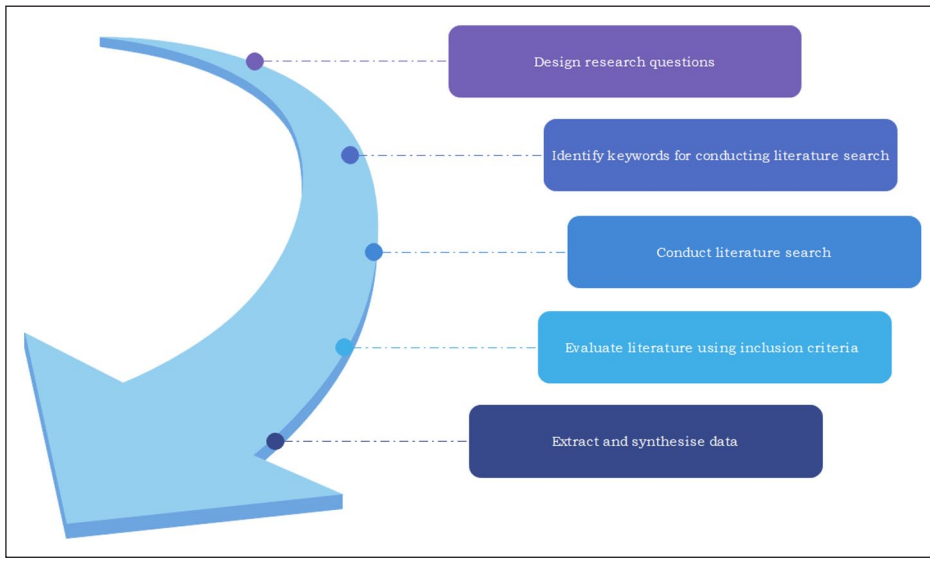


Figure 1. A methodological framework.
Source. Chong & Plonsky, 2021b.

2 Keywords identified for conducting the literature search

The research team agreed on a search string of 20 terms. When finalizing this, we considered the inclusive nature of a scoping review and the volatility of the notion of learner autonomy (Dam, 2009). In consultation with two leading scholars in the field of language learner autonomy, the following search terms were developed, taking into consideration that studies on learner autonomy do not always use the term 'learner autonomy' (see examples from the online bibliography in Footnote 1). We were fully aware that the use of other associated terms in our search might result in publications which do not virtually discuss the key construct of this study. However, adhering to the exploratory and comprehensive nature of scoping review (Pham et al., 2014), we decided to conduct a more holistic search, refining the results using a stringent set of inclusion criteria which ensure the included studies focus explicitly on ELL's autonomy (see Table 1, especially the 'conceptualization' criterion). The use of a rather exhaustive list of search terms indicates our position regarding a more inclusive definition of 'learner autonomy', considering also its related concepts. For example, while 'self-directed (language) learning' and 'learner autonomy' studies draw on slightly different strands of research and terminologies, they are related to learners taking ownership of their own learning. Therefore, in this review, these studies were included. For this review, the following search string was used:

> 'adult learning' OR 'autonomous learning' OR 'extramural learning' OR 'good language learner' OR 'independent learning' OR 'informal learning' OR 'language advising' OR 'language counselling' OR 'learner autonomy' OR 'learning beyond the classroom' OR 'learning how to learn' OR 'learning in the wild' OR 'learning to learn' OR 'nonformal language learning' OR 'out-of-class learning' OR 'self-access learning' OR 'self-directed (language) learning' OR 'self-motivation' OR 'self-regulated learning' OR 'strategy instruction'

Table 1. Inclusion criteria of the scoping review.

Criteria	Description
Time frame	Publications available in the public domain prior to the search conducted in December 2019
Language	English
Type of publication	Primary studies
Participants of studies	English language learners
Conceptualization	There should be a section (e.g. literature review/conceptual framework) which explicitly discusses the construct of learner autonomy (or its alternative terms).
Quality of studies[2]	Qualitative studies, quantitative studies and mixed-methods studies – guidelines from *TESOL Quarterly* used. For instance, qualitative studies included should provide descriptions of theoretical framework and data sources; as for quantitative studies, justification of the statistical analysis used should be included. Regarding mixed-methods studies, the specific type of mixed-methods research design needs to be described.

3 Literature search conducted

Literature was searched in two ways: *exploratory* and *focused*. An exploratory search was performed on electronic research databases. For each keyword, a search was performed on the following databases in December 2019: ERIC (EBSCO), Education Database (ProQuest), Education Research Complete (EBSCO), Linguistics and Language Behaviour Abstracts, Open Access Summaries in Language Studies (OASIS), IRIS (digital repository of instruments and materials for research into second languages). A focused literature search was performed on two refereed journals, *Relay Journal* and *Studies in Self-Access Learning*, and nine edited volumes on language learner autonomy. Articles were searched and first-screened by a research assistant who has experience in conducting systematic literature reviews following the steps outlined in Figure 2.

4 Evaluate literature using inclusion criteria

To conduct a second screening on the included studies, the following inclusion criteria were developed by the research team (Table 1). In particular, we decided to only focus on primary studies and exclude theoretical explorations in our corpus because we were not only interested in the conceptualization of the construct of ELL autonomy but also how the construct is implemented and evaluated. A second screening was conducted by a research assistant and was cross-checked by the first author, who is a methodologist of research synthesis. The two reviewers communicated through emails and on an instant messaging mobile application, WhatsApp, to discuss and resolve cases of discrepancy. Ultimately, following Figure 3, 61 studies on ELL autonomy were included in this scoping review.

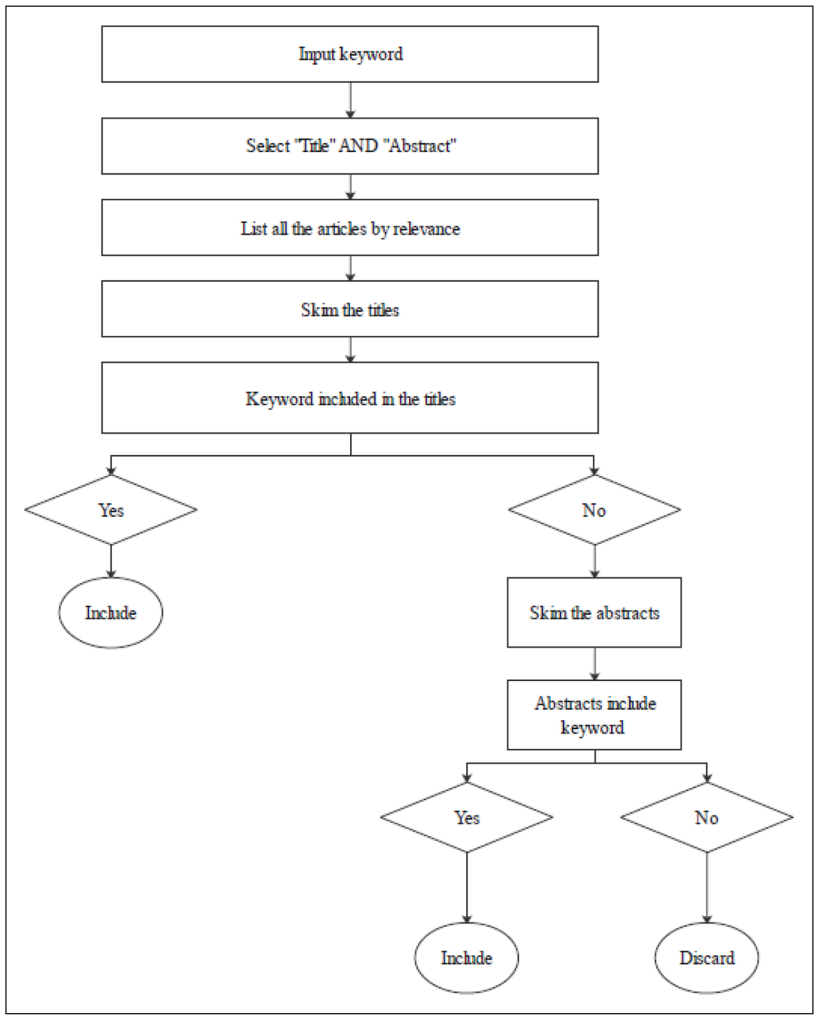


Figure 2. Searching and first-screening articles.

5 Extracting and synthesizing data

A data extraction form (Appendix 1 in supplemental material) was created by the research team which includes items related to the three research questions. Data extraction was performed by the first author. To ensure the accuracy of the extracted data, the first author first completed data extraction on five studies; the extracted data were reviewed and approved by the second author. The first author then finished data extraction on the remaining studies. Issues and queries raised during the process were relayed to the rest of the team for comments. The completed 61 data extraction forms (Appendix 2 in supplemental material[3]) were uploaded to a secure Google Drive folder, and were independently reviewed and commented on by the second author.

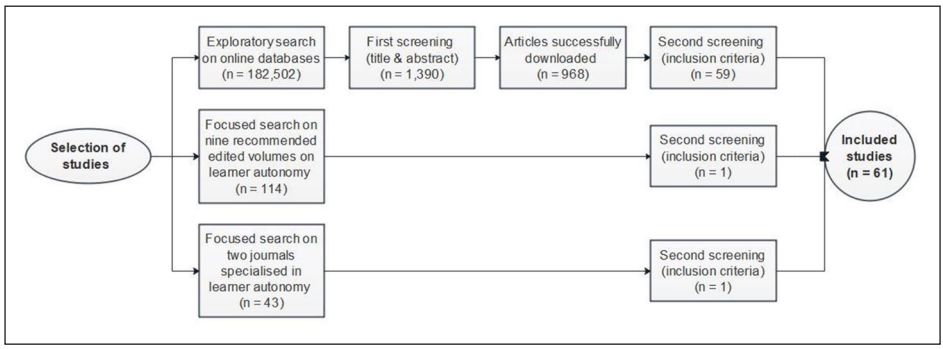


Figure 3. Flow chart of study selection.

The finalized data extraction forms were imported into NVivo Pro 12 and inductive coding was performed to develop new themes. Following latest practices in qualitative research synthesis in TESOL (e.g. Chong & Reinders, 2020), open coding was performed iteratively through initial, focused, and axial coding to enable constant comparison between data and consolidation of thematic structures (i.e. the development of themes and sub-themes). This approach to open coding is informed by seminal work by grounded theorist, Kathy Charmaz (e.g. Charmaz, 2006). Similar to the data extraction stage, the synthesized data were shared with the co-author; queries and comments were exchanged via email. Appendix 3 (in supplemental material) includes a detailed coding scheme of the three research questions, consisting of three analytical categories, 12 descriptive categories, and 49 sub-categories.

It was our deliberate decision to reach consensus through written correspondence and discussions although we are aware that other statistical means are available (e.g. Cohen's kappa). We believe that a more reflective and discursive approach to reaching agreement is more suitable for the present study which focuses on such a complex learner construct as learner autonomy.

6 An overview of the included studies

The included studies represent an international student population, learning English mostly as a foreign or second language. Iran, China, and Turkey are the top three locations ELL autonomy studies were conducted, followed by Taiwan, Japan, Saudi Arabia, Hong Kong, United States, Colombia, Egypt, Malaysia, France, Greece, Korea, Poland, Portugal, and Sweden; four studies do not specify their locations[4] (Figure 4). It is noted that the autonomy research seems to be popular in Asian countries. This is partly the result of the pivotal role played by universities in Hong Kong where an early interest in self-access learning and autonomy resulted in a great deal of activity. In addition, a number of professional organizations (e.g. HASALD in Hong Kong and the JALT Learner Development SIG in Japan) generated a great deal of interest and collaboration. Finally, a number of highly influential researchers have worked in the region, which has led to a great deal of research and postgraduate study in this area. The majority of the studies

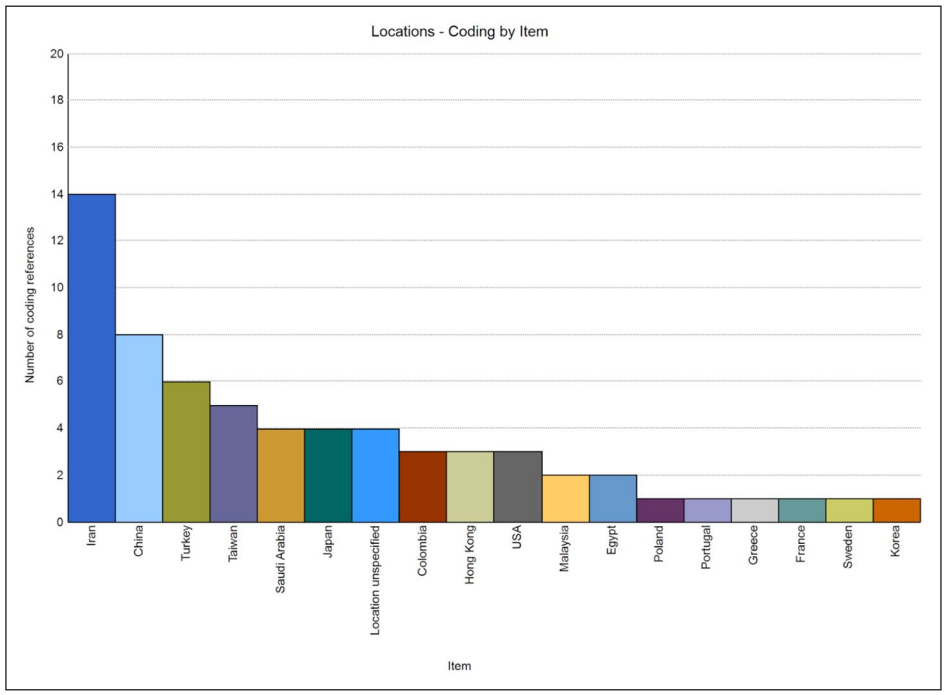


Figure 4. Locations of the included studies.

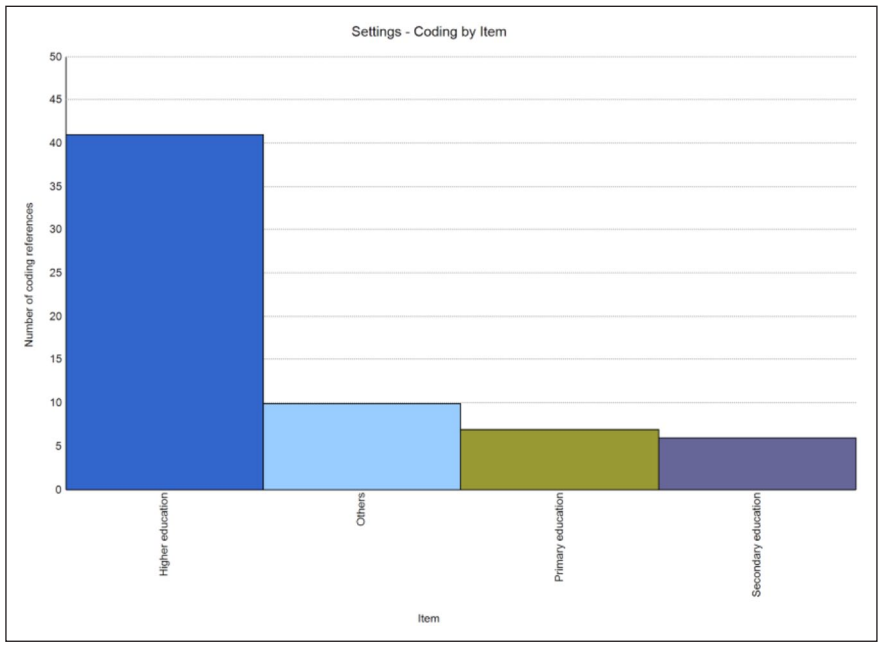


Figure 5. Settings of the included studies.

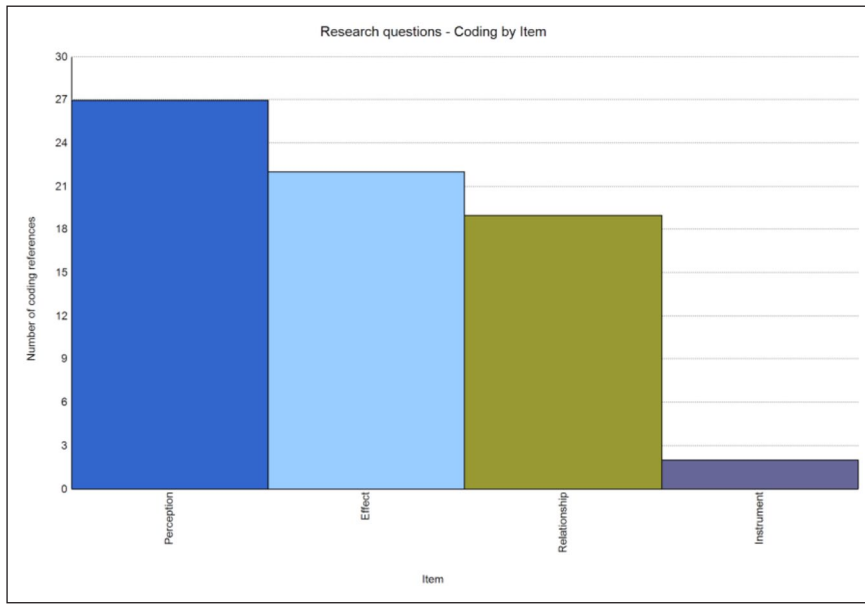


Figure 6. Research questions of the included studies.

were conducted in higher education institutions (40), followed by language schools (7), primary schools (7), secondary schools (5), and vocational schools (3)[5] (Figure 5). This may be due to the fact that autonomous learning behaviours are usually associated with maturity of learners.

Four types of questions were answered by these studies: Perception and/or experience, effect of intervention on learner autonomy/related construct or relationship between two psychological constructs (e.g. Ghahari & Basanjideh, 2017, investigated the relationship between EFL learners' awareness of reading strategies and their autonomy), relationship between learner autonomy and language proficiency/other constructs, and instrument development and/or validation[6] (Figure 6). As far as research designs are concerned, over half of the included studies employed a (quantitative) survey design, while the remainder of the selected studies are mixed-methods and (quasi-)experimental studies respectively. Only four of the studies utilized qualitative research methods (Figure 7).

III Findings

1 How is ELL autonomy conceptualized?

The included studies employed various conceptual and/or theoretical frameworks to inform their research. Conceptual frameworks adopted in these studies include self-regulation (28 studies), learner autonomy (27 studies), other concepts related to learner psychology (19 studies), autonomy-promoting language teaching and learning practices

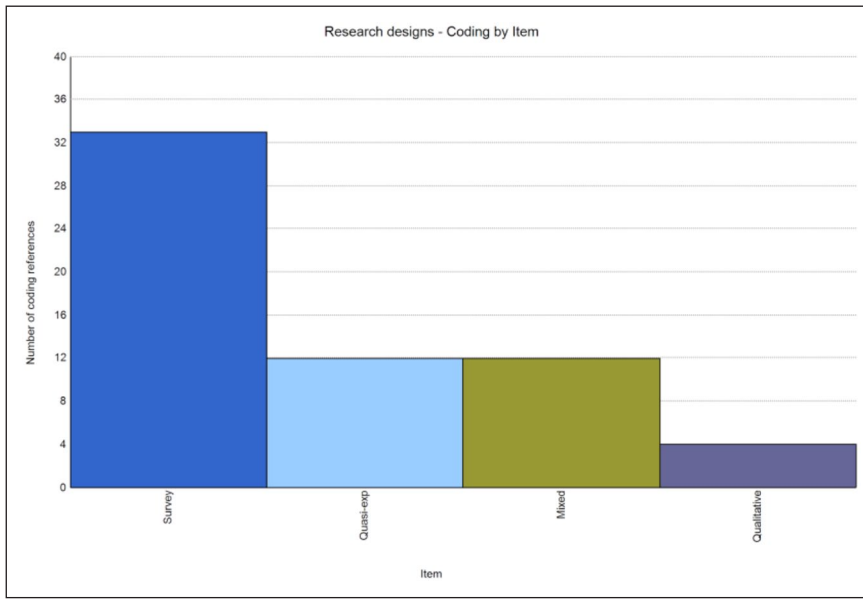


Figure 7. Research designs of included studies.

(nine studies), and language learning strategies (six studies).[7] A few of the studies were underpinned by socio-cultural or social constructivist theories (six studies) and second language acquisition hypotheses (one study).

'Self-regulation' is the conceptual framework most commonly drawn on (28 studies). In some studies, self-regulation is also referred to as 'self-regulated learning' (e.g. Fukuda, 2018), 'self-regulated learning strategies' (e.g. Martirossian & Hartoonian, 2015), 'self-directed learning' (e.g. Giveh, 2018), 'independent learning' (e.g. Cakici, 2017), or 'out-of-class learning' (e.g. Wu, 2012). Although the majority of these studies perceive self-regulation as an overarching construct, a few studies discuss the notion more specifically. For instance, self-regulated learning for specific language skills, including speaking (El-Sakka, 2016), writing (Abadikhah et al., 2018; Bai & Guo, 2018), and reading (Kavani & Amjadiparvar, 2018); self-regulated learning development (Barkel, 2018), self-regulated learning readiness (Xuan, Razali & Samad, 2018). Works frequently cited in these studies include those by Barry Zimmerman (27 studies) (e.g. Zimmerman, 1998), Paul Pintrich (21 studies) (e.g. Pintrich & Schunk, 1996), and Dale Schunk (18 studies) (e.g. Schunk, 1996), Philip Candy (8 studies) (e.g. Candy, 1991), D. Randy Garrison (5 studies) (e.g. Garrison, 1997). Specific frameworks referred to include classic models such as self-regulated learning strategies framework by Garcia and Pintrich (1994) (cognitive, metacognitive, and resource management strategies), the social-cognitive model of self-regulation (Zimmerman, 1989), the four-dimensional self-regulated learning model by Candy (1991), the three self-regulated learning phases by Zimmerman (1998) (forethought, performance control, self-reflection), affective-cognitive

model of self-regulated learning (Pintrich, 2000), as well as more recent self-regulated learning models such as the ones by Song (2005) and Thornton (2010).

Not surprisingly, adopted by 27 studies, 'learner autonomy' is another prominent conceptual framework in this pool of studies. Prominent works which inform the conceptualizations of learner autonomy in these studies include those by Phil Benson (26 studies) (e.g. Benson, 2001), Henri Holec (24 studies) (Holec, 1981), David Little (14 studies) (e.g. Little, 1991), Leslie Dickinson (13 studies) (e.g. Dickinson, 1987), William Littlewood (10 studies) (e.g. Littlewood, 1999), David Nunan (14 studies) (e.g. Nunan, 1996), Leni Dam (8 studies) (e.g. Dam, 2009), and Andrew Littlejohn (2 studies) (e.g. Littlejohn, 1985). Conceptualizations of learner autonomy have undergone considerable transformation. Early works conceptualized autonomy as an ability or capacity. A representative example is Holec's (1981) definition of learner autonomy as 'the ability to take charge of one's own learning' (p. 3). Later works suggest that such ability or capacity can be translated into demonstrable learning behaviours inside and outside the classroom. For example, Little (1991) incorporates other learning facets as part of learner autonomy including 'detachment, critical reflection, decision making and an independent action' (p. 4). Similarly, Nunan's (1997) learner autonomy model focuses on learners' actions, including 'awareness', 'involvement', ' intervention', 'creation', and 'transcendence' (p. 195). The models by Littlewood (1997) and Benson (2001) further expand and compartmentalize behaviours exhibited by autonomous language learners to include not only the language learning dimension but also second language acquisition and learning strategies.

Additionally, some of these learner autonomy studies are framed based on other psychological constructs, namely motivation (eight studies), self-efficacy (four studies), metacognition (three studies), learner beliefs (two studies), anxiety (one study), and awareness (one study). Conceptual frameworks vis-à-vis 'motivation' employed include Dörnyei's (2005) L2 motivational and self system (e.g. Lu & Berg, 2019), Schunk and Zimmerman's (2008) motivational regulation strategies (e.g. Teng & Zhang, 2018), Dörnyei and Ryan's (2015) dynamic motivation (e.g. Bahari, 2018). 'Self-efficacy', which is generally defined as one's belief about one's own ability in completing an action and achieving a goal (Bandura, 1995), is referred to in four studies, namely Bai and Guo (2018), Mizumoto (2013), Tabrizi and Saeidi (2015), and Wang et al. (2012). Their conceptual frameworks of self-efficacy are underpinned by works by Bandura (1995), Graham (2004), Zimmerman (2000), Schunk and Zimmerman (2007), and Pintrich and Schunk (1996). 'Metacognition', or simply put, 'thinking about thinking', informs the conceptualization of three studies (Eissa, 2015; Fukuda, 2018; Huei-Ju, 2018). Despite the multiple facets of the notion (e.g. metacognitive knowledge, metacognitive experience, metacognitive strategies), these three studies focus on the dimension of metacognitive strategies, including goal setting (Huei-Ju, 2018), metacognitive reading strategies (Eissa, 2015), and general metacognitive strategies (Fukuda, 2018). 'Learner beliefs' is used as a conceptual framework in two studies (Benson & Lor, 1998; Wu, 2012). Benson and Lor (1998), for example, considered learners' conceptions of language, language learning, learning context, and self while Wu (2012) focused mainly on learners' beliefs of language learning. 'Anxiety' and 'awareness' are used in one study each. Martirossian and Hartoonian (2015) discussed language anxiety and more specifically strategies to

overcome language anxiety when conceptualizing their study. Xuan et al. (2018) underscored the importance of learners' awareness of their own language learning process in developing self-regulated learning habits, referring to such works as Sinclair's (1999).

In addition to the aforementioned constructs related to learner psychology, a number of studies made reference to language education literature, considering autonomy-promoting language teaching and learning practices (nine studies) and language learning strategies (six studies) as conceptual frameworks. Autonomy-promoting language teaching and learning practices introduced as conceptual frameworks in the 10 studies include use of technology (technology-mediated autonomous learning in Liu, Huang and Lu, 2018; mobile language learning in Shadiev, Hwang and Liu, 2018; digital games in Sylvén and Sundqvist, 2012), assessment practices (alternative assessment in Hashemian and Fadaei, 2013; portfolio assessment in Everhard, 2019), community of practice (Yamaguchi, 2011), cooperative learning and learner-centered teaching (Ahmed & Dakhiel, 2019), reflective teaching (Fallah & Abdolrezapour, 2015), and scenario-based learning (Seker, 2016). Six of the included studies are informed by language learning strategies research, focusing on reading skills (Karimi & Dastgoshadeh, 2018; Kavani & Amjadiparvar, 2018), writing skills (Na & Yoon, 2016), vocabulary learning strategies (Mizumoto, 2013), and general learning strategies (Huang, 2010; Xuan et al., 2018).

Only a handful of the included studies are explicitly informed by theories or theoretical frameworks. Among the seven which do, six are informed by constructivist theories, including connectivism (Bedoya, 2014), socio-constructivism (Ahmed & Dakhiel, 2019; Ciekanski, 2007; Wach, 2012; Yamaguchi, 2011), and sociocultural theory (Sylvén & Sundqvist, 2012). One study is informed by second language acquisition hypotheses namely Krashen's (1982) Input Hypothesis and Long's (1981) Interaction Hypothesis (Sylvén & Sundqvist, 2012).

2 How is ELL autonomy operationalized?

Operationalization of ELL autonomy refers to the in-class and/or out-of-class activities designed by English teachers to cultivate autonomous learning habits of their students. Interestingly, but perhaps not surprisingly given the controversies related to researching the concept of learner autonomy mentioned previously in this article, the analysis revealed that 61% of the included studies (37 studies) did not report or evaluate any autonomy-promoting interventions while 39% (24 studies) did. In other words, the goal of the majority of the studies was to gauge ELLs' perceived autonomy through questionnaires and interviews rather than adopting methods such as recording and evaluating evidence-based practices i.e. methods associated with other branches of applied linguistics research. (For more details, see Section III.3.) This section presents a synthesis of autonomy-fostering interventions reported in the 24 studies (Table 2).

13 interventions took place in universities, four in primary schools, four in language schools, and three in secondary schools. The duration of these interventions ranged widely, from 30 minutes (Kondo et al., 2012) to five years (Everhard, 2019). The interventions included both didactic and experiential approaches, took place in the classroom or outside the classroom; were conducted face-to-face or using technology. Interventions which took place in the classroom were usually more didactic, namely instruction on

Table 2. A summary of autonomy-promoting interventions for English language learners (ELLs).

	Study	Educational level	Description of intervention	Materials	Inside/outside the classroom	Duration
1	Ahmed & Dakhiel (2019)	Secondary education	A learner-centered approach	Tasks which encourage learners' participation and application	Inside	Not specified
2	Alzubi et al. (2018)	Higher education	A training programme on social strategies	Materials developed based on Oxford's (1990) model	Inside	Three weeks
3	Bahari (2018)	Higher education	Instruction based on a non-linear dynamic motivation telecollaborative model	Not specified	Inside	Not specified
4	Barkel (2018)	Primary education	Self-regulated strategies development writing instruction	A student folder containing teaching materials, self-assessment tasks, and tools	Inside	13–17 sessions
5	Bazleh & Yarahmadzehi (2012)	Language schools	A series of activities on development of learning skills	Not specified	Inside	20 weeks
6	Benson & Lor (1998)	Higher education	An independent learning programme	Workshop handouts	Inside and outside	16 weeks
7	Ciekanski (2007)	Higher education	Individual language advising	Materials focusing on learning how to learn English rather than learning English	Outside	15 days – four months (each session lasts for 30–60 minutes)

(Continued)

Table 2. (Continued)

	Study	Educational level	Description of intervention	Materials	Inside/outside the classroom	Duration
8	Eissa (2015)	Secondary education	A phonological awareness intervention programme on EFL reading skills	Learning tasks	Inside	21 sessions
9	El-Sakka (2016)	Higher education	A self-regulated strategy intervention	A textbook	Inside	Not specified
10	Everhard (2019)	Higher education	Student-centered assessment activities	Assessment checklists	Inside	2005–2010
11	Fallah & Abdolrezapour (2015)	A language school	Instructions by a reflective teacher	Not specified	Inside	Not specified
12	Ferreira, Simao & da Silva (2017)	Primary education	Learning diary	Not specified	Inside	A trimester
13	Giveh (2018)	Higher education	Transformative learning and instruction on self-regulated learning	A textbook	Inside	12 sessions
14	Hashemian & Fadaei (2013)	Language schools	Portfolio assessment	Writing rubrics, learners' writing	Inside	10 sessions
15	Huang (2010)	Higher education	Dynamic assessment	Not specified	Inside	Not specified
16	Karimi & Dastgoshadeh (2018)	Higher education	Instruction on reading strategies	Not specified	Inside	Eight weeks
17	Kavani & Amjadiparvar (2018)	Language schools	Instruction on reading strategies	A textbook	Inside	14 sessions

(Continued)

Table 2. (Continued)

	Study	Educational level	Description of intervention	Materials	Inside/outside the classroom	Duration
18	Kondo et al. (2012)	Higher education	Mobile-assisted language learning activities and digital games	Nintendo	Inside and outside	Study 1: 30 minutes; Study 2: a semester
19	Liu, Lan & Ho (2014)	Higher education	Use of Google Docs	Reading texts & vocabulary learning materials	Inside	Two 50-minute workshops
20	Liu, Huang & Xu (2018)	Primary education	Inquiry-based learning tasks	Websites	Inside and outside	Seven 45-minute lessons
21	Na & Yoon (2016)	Higher education	Timed and untimed writing tasks	Writing tasks	Inside and outside	Not specified
22	Nazari (2014)	Primary education	Error noticing tasks	A textbook, reading texts, tasks, and writing topics	Inside	Three days
23	Seker (2016)	Higher education	Scenario-based self-regulated learning instruction	Presentations of scenarios about language learning difficulties and tasks	Inside	Eight weeks
24	Shadiev et al. (2018)	Secondary education	Mobile-assisted language learning	A mobile multimedia learning system	Inside and outside	Approximately six weeks

reading strategies (e.g. Karimi & Dastgoshadeh, 2018), instruction on self-regulated learning (e.g. Giveh, 2018), workshops on independent learning (Benson & Lor, 1998), some of which were based on a set text (e.g. textbooks). Few of these interventions happened outside the classroom; these include language advising (Ciekanski, 2007), self-study using Nintendo (Kondo et al., 2012) and a mobile learning system (Shadiev et al., 2018). It is worth noting that not only teaching and learning activities were featured in these studies but also learner-centered assessment activities, including peer assessment, self-assessment (Barkel, 2018), dynamic assessment (Huang, 2010), and portfolio assessment (Hashemian & Fadaei, 2013). This shows that formative assessment may have the potential to develop autonomy of ELL. Technology-mediated interventions usually involved more active learner participation and/or collaboration using, for instance, digital games (Kondo et al., 2012), cloud-based learning tools (Liu, Lan & Ho, 2014), websites (Liu et al., 2018), or mobile learning systems (Shadiev et al., 2018).

3 How is ELL autonomy evaluated?

The number of research tools used in each of the 61 studies to evaluate ELL autonomy ranged from one to six, with the majority of the included studies using only one to two (Figure 4). Almost all included studies investigated ELLs' perceived autonomy using such tools as questionnaires, scales, interviews, and a modest number of the studies examined learners' language performance, usually in the form of tests conducted before and after an autonomy-enhancing intervention. Evaluation tools which aimed to yield observational data (e.g. field notes) were rarely featured (Figure 5)[8]; some examples of these tools include transcripts of discussions, learning analytics, curriculum materials, and field notes. Table 3 lists the evaluation tools used in the 61 studies. Figure 8 gives the number of evaluation tools used and Figure 9 indicates the nature of evaluation of ELL autonomy.

Among the 59 studies which examined ELLs' perception of their autonomy, only three studies did not employ a questionnaire (Benson & Lor, 1998; Ciekanski, 2007; Yamaguchi, 2011). Three types of questionnaires were used in these studies: existing, adapted, and original.

- Existing questionnaires refer to the use of previously developed questionnaires or scales by other researchers without any modification, e.g. Hashemian & Fadaei's (2013) adoption of Kashefian's (2002) Learner Autonomy Questionnaire;
- Adapted questionnaires are instruments which are developed based on existing ones, e.g. El-Sakka's (2016) speaking anxiety scale;
- Original questionnaires are those specifically developed by the researchers for their study, e.g. Teng & Zhang's (2016) Writing Strategies for Self-Regulated Learning Questionnaire.

Only 11 of these 59 studies used interviews as a research method to evaluate ELLs' perceived autonomy (e.g. Arias, 2015; Seker, 2016). Interviews conducted for the studies included (individual) semi-structured interviews (e.g. Seker, 2016) and unstructured interviews (Lu & Liu, 2016). Eight perception-focused studies included both questionnaires

Table 3. Types of evaluation tool.

Types of evaluation tool	Nature of evaluation	Number of studies	Examples
Questionnaires	Perceptual	56	Bekleyen and Selimoğlu's (2016) adapted questionnaire on autonomous language learning; Cheng, Raj and Ai's (2018) questionnaire based on two existing instruments on measuring motivation and autonomy
Language proficiency tests	Performance-based	19	TOEFL (Bazleh & Yarahmadzehi, 2012); reading comprehension test (Eissa, 2015)
Interviews	Perceptual	11	Semi-structured interviews (Seker, 2016); unstructured interviews (Lu & Liu, 2016)
Tasks	Observational	11	Diary (Sylvén & Sundqvist, 2012); learning analytics on mobile device usage (Kondo et al., 2012)
Field notes	Observational	2	Benson & Lor (1998); Ciekanski (2007)
Documents	Observational	1	Teaching plans (Lu & Liu, 2016); curriculum materials (Lu & Liu, 2016)

and interviews as their research methods to garner both qualitative and quantitative insights (e.g. Lu & Liu, 2016; Na & Yoon, 2016).

For the 25 studies which aimed to evaluate ELLs' autonomy from the angle of performance, 19 employed at least one language test (e.g. the IELTS speaking test used in El-Sakka, 2016), usually as a pre-test and post-test to determine the effectiveness of an autonomy-enabling intervention, while the remainder used a range of language tasks (e.g. online speaking and vocabulary tasks in Ferreira et al., 2017). These studies worked on the assumption that a higher degree of autonomy will lead to improved language proficiency. Unlike questionnaires, interviews, and tests, tasks appeared to be a versatile autonomy evaluation tool. As shown in the above, language tasks could be used to measure ELLs' language proficiency before and after an intervention; tasks were also used to provide observational data to shed light on what happened during the autonomy-enhancing intervention (e.g. project reports written by learners at the end of an independent learning programme in Benson and Lor,1998). Alternatively, a task such as completing a self-report could be used to tap into learners' perceptions regarding autonomous language learning (e.g. Bahari, 2018).

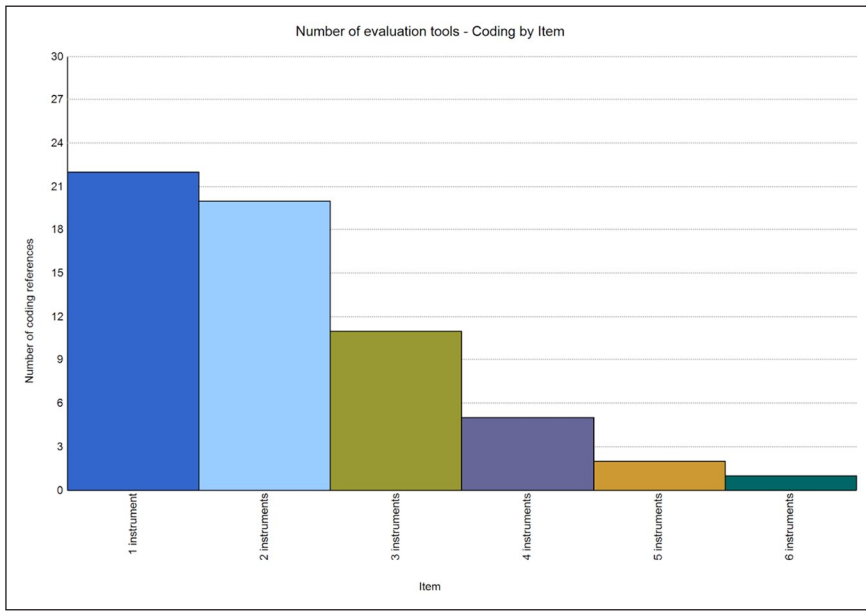


Figure 8. Number of evaluation tools used.

IV Discussion

Below we review the key findings and offer a number of tentative conclusions and implications. Regarding conceptualization of learner autonomy, there seems to be a lack of agreement about what learner autonomy is (as exemplified by the body of frequently cited works) and the large number of conceptual frameworks used in learner autonomy studies. This is likely due to its multifaceted nature with seminal publications (Little, 1995) recognizing a psychological, a political and a social component, and its intricate relationship with other key constructs in language learning, such as motivation (Spratt, Humphreys & Chan, 2002). However, beyond broad and brief reference, many studies are not explicit about their theoretical underpinnings.

Another observation is the continuing emphasis on classroom-based studies which are exemplified by the number of included studies reporting interventions implemented in the classroom. In Table 2, among the 24 publications which describe pedagogical interventions, 18 report autonomy-promoting activities which took place inside the classroom; five reported activities which take place both inside and outside the classroom; only one reported an intervention which requires learners to complete outside the classroom (one-on-one language advising, Ciekanski, 2007). Clearly a key driver in autonomy research is to investigate how teachers and/or the educational context can help learners to develop autonomy. With the increased interest in the field of 'learning beyond the classroom' (Reinders, Lai & Sundqvist, 2022) this is somewhat surprising. The vast majority of the studies reported here used teacher-fronted instructional approaches without exploring how learners craft and experience their own journeys. Related to this issue

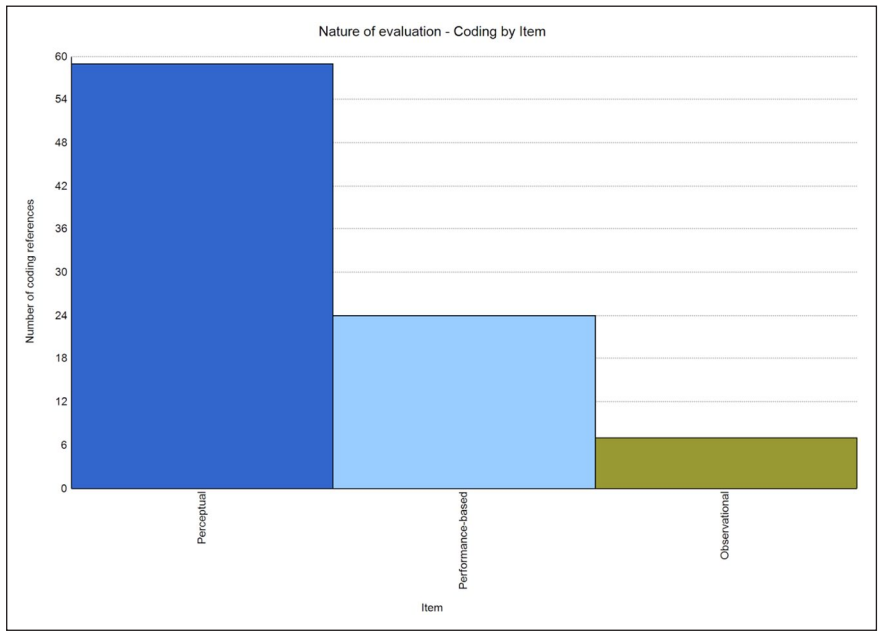


Figure 9. Nature of evaluation of English language learners (ELL) autonomy.

is the limited duration of most studies. The development of autonomy involves deep, even fundamental, changes in learners' beliefs, identity, and affective realities in learning. These do not happen overnight and they do not manifest themselves only in a limited range of contexts, such as the classroom.

Concerning the issues around evaluating autonomy, the range of methods employed is limited to a single questionnaire or language tests being the most common and the use of a single or two instruments only. Given the wide adoption of mixed-methods research (Riazi & Candlin, 2014) and the prominence of qualitative research methods in closely-related fields (such as learners' beliefs), this is surprising - as is the virtual absence of observations. Combined with self-reports, either using questionnaires or journals, these could yield rich data on changes in learners' attitudes and behaviours. Additionally, less than half of the included studies included an intervention, demonstrating there is a lopsided focus in the literature to focus on measuring perceived autonomy rather than developing evidence-based interventions to promote learner autonomy.

V Conclusions and implications

The above discussion leads to a number of conclusions and recommendations. The first is that despite researchers' willingness to adopt a plethora of conceptual frameworks, there appears to be a hesitation to make explicit the theoretical framework of their studies. This is regrettable. Unless there is both conceptual clarity and an attempt to build on, improve on and develop new theories, it is difficult for the field to move forward and to subsequently make connections to other disciplines.

Another challenge to existing research is its continued focus on the classroom. Although the classroom, obviously, has an important role to play in fostering learner autonomy, we hope future studies will more extensively investigate learners' experiences beyond the classroom so as to better capture both the lifelong and lifewide nature of autonomous learning.

There are a number of limitations in this research synthesis to acknowledge. The first of these is the possibility that we may have missed papers because of our scope limited by our research questions and inclusion criteria. For instance, we focus on primary studies on learner autonomy which were conducted according to methodological guidelines of *TESOL Quarterly* to ensure the methodological rigour of the included studies. The second is that we limited ourselves to studies on English language learning. The rationale for this was pragmatic; the vast majority of papers in learner autonomy are on English learning and of those that are not, a number are published in other languages, which would have complicated the analysis. Lastly, data in this scoping review were synthesized using an inductive coding method. Like all qualitative research, coding of qualitative data involves a certain degree of interpretation which reflects researchers' experiences, viewpoints, and sometimes bias. We acknowledge that it is unrealistic to attempt to remove subjectiveness in qualitative data analysis; however, we endeavoured to minimize bias, for example, by involving multiple researchers in the analysis process. Subjectivity in qualitative data analysis may be especially evident in topics on which there is a less consensual view, namely learner autonomy. For example, in this review, we adopted a more inclusive definition of 'language learner autonomy' to include associated constructs such as self-regulated learning, motivation, which may not be shared by all autonomy researchers. Nonetheless, we hope that our synthesis will prove a useful starting point, giving a clearer picture of where the field of learner autonomy has come, and where it might head to next. Future synthetic attempts can summarize not only primary studies but also more broadly conceptual and theoretical pieces on autonomy of learners of different foreign languages. Since learner autonomy is a vibrant field of research, an updated review based on our attempt is also useful, for instance, by using the open data we share in Appendices 2 and 3 in supplemental material.

Acknowledgements

We would like to thank Prof. Jo Mynard, Kanda University of International Studies, Japan, for her valuable comments on earlier versions of this review. We would like to thank the editor and the peer reviewers for devoting their valuable time to give feedback on earlier versions of this manuscript.

Authors' Note

Sin Wang Chong is now affiliated to University of St. Andrews, UK; Institute of Education, University College London, UK.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Sin Wang Chong https://orcid.org/0000-0002-4519-0544

Supplemental material

Supplemental material for this article is available online.

Notes

1. The online bibliography can be accessed using this link: http://www.autonomybibliography.org
2. These guidelines can be found on the website of *TESOL Quarterly*: https://onlinelibrary.wiley.com/page/journal/15457249/homepage/forauthors.html.
3. Appendix 2 in supplemental material provides access to all 61 data extraction forms and bibliographical information of the 61 studies included in the review.
4. The total number in Figure 4 is 62 instead of 61 because one study includes the student population from two countries (Arias, 2015).
5. The total number in Figure 5 is 62 instead of 61 because one study includes two educational contexts (Alrabai, 2017).
6. The total number reported in Figure 6 is 69 instead of 61 because some studies include research questions with different foci (e.g. Alrabai, 2017; Giveh, 2018).
7. The total number here is 89 instead of 61 because some studies refer to multiple conceptual frameworks (e.g. Hashemian & Fadaei, 2013; Lu & Berg, 2019).
8. The total number of studies in Figure 5 is 91 instead of 61 because some studies included more than one evaluation tool (e.g. Benson & Lor, 1998).

References

Notes. Asterisked references are those which are included in the scoping review. For complete bibliographical information of all 61 studies, refer to Appendix 2 in supplemental material.

*Abadikhah, S., Aliyan, Z., & Talebi, S.H. (2018). EFL students' attitudes towards self-regulated learning strategies in academic writing. *Issues in Educational Research*, *28*, 1–18. Available at http://www.iier.org.au/iier28/abadikhah.pdf (accessed January 2022).

*Ahmed, S.A., & Dakhiel, M.A. (2019). Effectiveness of learner-centered teaching in modifying attitude towards EFL and developing academic self-motivation among 12th grade students. *English Language Teaching*, *12*, 139–148.

*Alrabai, F. (2017). Exploring the unknown: The autonomy of Saudi EFL learners. *English Language Teaching*, 10(5), 222–233.

*Alzubi, A. A., Kaur, M., & Singh, M. (2018). The impact of social strategies through smartphones on the Suai learners' socio-cultural autonomy in EFL reading context. *International Electronic Journal of Elementary Education*, 11(1), 31–40.

*Arias, X.P.B. (2015). A comparison of Chinese and Colombian university EFL students regarding learner autonomy. *PROFILE Issues in Teachers' Professional Development*, *17*, 35–53.

*Bahari, A. (2018). Learning via formulaic sequences to foster learner autonomy. *Teaching English with Technology*, *18*, 69–85.

*Bai, B., & Guo, W. (2018). Influences of self-regulated learning strategy use on self-efficacy in primary school students' English writing in Hong Kong. *Reading and Writing Quarterly*, *34*, 523–536.

Bandura, A. (Ed.). (1995). *Self-efficacy in changing societies*. Cambridge University Press.

*Barkel, A.A. (2018). Self-regulated strategy development writing instruction with elementary-aged students learning English. Unpublished doctoral thesis, Arizona State University, Tempe, AZ, USA.

*Bazleh, E., & Yarahmadzehi, N. (2012). The effects of applying Bett's autonomous learner model on Iranian students. *Studies in Self-Access Learning Journal*, *3*, 310–321. Available at: https://sisaljournal.files.wordpress.com/2012/09/bazleh-and-yarahmadzehi.pdf (accessed January 2022).

*Bedoya, P.A. (2014). The exercise of learner autonomy in a virtual EFL course in Colombia. *HOW, A Colombian Journal of Teachers of English*, *21*, 82–102.

*Bekleyen, N., & Selimoğlu, F. (2016). Learner behaviors and perceptions of autonomous language learning. *TESL-EJ*, *20*, 1–20. Available at: https://files.eric.ed.gov/fulltext/EJ1122803.pdf (accessed January 2022).

*Benson, P., & Lor, W. (1998). *Making sense of autonomous language learning*. University of Hong Kong.

Benson, P. (2001). *Teaching and researching autonomy in language learning*. Longman.

Benson, P. (2011). *Teaching and researching autonomy*. 2nd edition. Pearson Education.

*Cakici, D. (2017). An investigation of learner autonomy in Turkish EFL context. *International Journal of Higher Education*, *6*, 89–99.

Candy, P.C. (1991). *Self-direction for lifelong learning*. Jossey-Bass.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.

*Cheng, J., Raj, G.S., & Ai, J.T.T. (2018). The correlations among learning motivation, autonomy and language proficiency in Chinese EFL context. *LEARN Journal: Language Education and Acquisition Research Network Journal*, *11*, 1–14. Available at: https://files.eric.ed.gov/fulltext/EJ1225852.pdf (accessed January 2022).

Chong, S.W., & Plonsky, L. (2021a). *A typology of secondary research in Applied Linguistics*. Epub 15 June 2021. DOI: 10.31219/osf.io/msjrh.

Chong, S.W., & Plonsky, L. (2021b). A primer on qualitative research synthesis in TESOL. *TESOL Quarterly*, *55*, 1024–1034.

Chong, S.W., & Reinders, H. (2020). Technology-mediated task-based language teaching: A qualitative research synthesis. *Language Learning and Technology*, *24*, 70–86. Available at: http://hdl.handle.net/10125/44739 (accessed January 2022).

Chong, S. W., & Reinders, H. (2021). A methodological review of qualitative research syntheses in CALL: The state-of-the-art. *System*, 103, 102646. DOI: 10.1016/j.system.2021.102646

*Ciekanski, M. (2007). Fostering learner autonomy: Power and reciprocity in the relationship between language learner and language learning advisor. *Cambridge Journal of Education*, *37*, 111–127.

Curry, N., Mynard, J., Noguchi, J., & Watkins, S. (2017). Evaluating a self-directed language learning course in a Japanese university. *International Journal of Self-Directed Learning*, *14*, 37–57.

Dam, L. (2009). The use of logbooks - a tool for developing learner autonomy. In Pemberton, R., Toogood, S., & A. Barfield (Eds.), *Maintaining control: Autonomy and language learning*. (pp. 125–144). Hong Kong University Press.

Dickinson, L. (1987). *Self instruction in language learning*. Cambridge University Press.

Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum.

Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.

*Eissa, M.A. (2015). The effectiveness of a self-regulated learning-based training program on improving cognitive and metacognitive EFL reading comprehension of 9th graders with

reading disabilities. *International Journal of Psycho-Educational Sciences*, *4*, 50–59. Available at: https://files.eric.ed.gov/fulltext/ED565631.pdf (accessed January 2022).

*El-Sakka, S.M.F. (2016). Self-regulated strategy instruction for developing speaking proficiency and reducing speaking anxiety of Egyptian university students. *English Language Teaching*, *9*, 22–33.

*Everhard, C.J. (2019). Tiptoeing through the TULIPS: Aiming for autonomy through assessment in EFL higher education. In Burkert, A., Dam, L., & C. Ludwig (Eds.), *The answer is learner autonomy: Issues in language teaching and learning*. Candlin and Mynard ePublishing.

*Fallah, E., & Abdolrezapour, P. (2015). An investigation into the impact of reflective teaching on EFL learners' autonomy and intrinsic motivation. *Cypriot Journal of Educational Science*, *10*, 305–315.

*Ferreira, P.C., Simao, A.M.V., & da Silva, A.L. (2017). How and with what accuracy do children report self-regulated learning in contemporary EFL instructional settings? *European Journal of Psychology of Education*, *32*, 589–615.

*Fukuda, A. (2018). The Japanese EFL learners' self-regulated language learning and proficiency. *Journal of Pan-Pacific Association of Applied Linguistics*, *22*, 65–87.

Garcia, T., & Pintrich, P.R. (1994). Regulating motivation and cognition in the classroom: The role of self-schemas and self-regulatory strategies. In Schunk, D.H., & B.J. Zimmerman (Eds.), *Self-regulation of learning and performance: Issues and educational applications* (pp. 127–153). Lawrence Erlbaum.

Garrison, D.R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, *48*, 18–33.

*Ghahari, S., & Basanjideh, M. (2017). Psycho-linguistic model of reading strategies awareness in EFL contexts. *Reading Psychology*, 38, 125–153.

*Giveh, F. (2018). Self-directed learning via contemplative teaching to promote reading comprehension ability. *English Language Teaching*, *11*, 58–76.

Graham, S.J. (2004). Giving up on modern foreign languages? Students' perceptions of learning French. *The Modern Language Journal*, *88*, 171–191.

*Hashemian, M., & Fadaei, B. (2013). Fostering EFL learners' autonomy in light of portfolio assessment: Exploring the potential impact of gender. *Iranian Journal of Language Teaching Research*, *1*, 135–151. Available at: https://files.eric.ed.gov/fulltext/EJ1127429.pdf (accessed January 2022).

Holec, H. (1981). *Autonomy in foreign language learning*. Pergamon. First published 1979, Council of Europe.

*Huang, S. (2010). Convergent vs. Divergent assessment: Impact on college EFL students' motivation and self-regulated learning strategies. *Language Testing*, *28*, 251–271.

*Huei-Ju, S. (2018). Promoting language learners' awareness of autonomy through goal setting: An alternative approach of assessing goal setting effects. *English Language Teaching*, *11*, 52–65.

*Karimi, S., & Dastgoshadeh, A. (2018). The effect of strategy-based instruction on EAP students' reading performance and reading autonomy. *Cogent Education*, *5*, 1527981.

Kashefian, S.N. (2002). An investigation into college EFL learners' beliefs demonstrating their predispositions towards learner autonomy. Unpublished master's thesis, Shiraz University, Shiraz, Iran.

Kato, S., & Mynard, J. (2016). *Reflective dialogue: Advising in language learning*. Routledge.

*Kavani, R., & Amjadiparvar, A. (2018). The effect of strategy-based instruction on motivation, self-regulated learning, and reading comprehension ability of Iranian EFL learning. *Cogent Education*, *5*, 1556196.

*Kondo, M., Ishikawa, Y., Smith, C., et al. (2012). Mobile assisted language learning in university EFL courses in Japan: Developing attitudes and skills for self-regulated learning. *ReCALL*, *24*, 169–187.

Krashen, S. (1982). *Principles and practice in second language acquisition*. Pergamon.

Ledford, J.R., Hall, E., Conder, E., & Lane, J.D. (2016). Research for young children with autism spectrum disorders: Evidence of social and ecological validity. *Topics in Early Childhood Special Education*, *35*, 223–233.

Little, D. (1991). *Learner autonomy 1: Definitions, issues and problems*. Authentik.

Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System*, *23*, 175–182.

Little, D. (2007). Language learner autonomy: Some fundamental considerations revisited. *Innovation in Language Learning and Teaching*, *1*, 14–29.

Littlejohn, A. (1985). Learner choice in language study. *ELT Journal*, *39*, 253–261.

Littlewood, W. (1997). Self-access: Why do we want it and what can it do? In Benson, P., & P. Voller (Eds.), *Autonomy and independence in language learning* (pp. 79–92). Longman.

Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied Linguistics*, *20*, 71–94.

*Liu, S.H.J., Lan, Y.J., & Ho, C.Y.Y. (2014). Exploring the relationship between self-regulated vocabulary learning and web-based collaboration. *Educational Technology and Society*, *17*, 404–419. Available at: http://www.jstor.org/stable/jeductechsoci.17.4.404 (accessed January 2022).

*Liu, M., Huang, Y., & Xu, Y. (2018). Effects of individual versus group work on learner autonomy and emotion in digital storytelling. *Educational Technology Research and Development*, *66*, 1009–1028.

Long, M.H. (1981). Input, interaction, and second- language acquisition. *Annals of the New York Academy of Sciences*, *379*, 259–278.

*Lu, Y., & Berg, D.R. (2019). Taiwanese university students ideal L2 selves and autonomy: Does high school program make a difference? *International Journal of Educational Methodology*, *5*, 564–575.

*Lu, J., & Liu, Y. (2016). Learner autonomy as an element in Chinese education reform: A case of English language subject. *English Language Teaching*, *9*, 33–48.

*Martirossian, A., & Hartoonian, A. (2015). Lowering foreign language anxiety through self-regulated learning strategy use. *English Language Teaching*, *8*, 209–222.

*Mizumoto, A. (2013). Effects of self-regulated vocabulary learning process on self-efficacy. *Innovation in Language Learning and Teaching*, *7*, 253–265.

*Na, S., & Yoon, H. (2016). Effects of in-class and out-of-class writing assignments on L2 writing strategy use and writing quality. *Asia-Pacific Educational Researcher*, *25*, 195–205.

*Nazari, N. (2014). The impact of implicit tasks on improving the learners' writing in terms of autonomy and grammatical accuracy. *International Journal of Instruction*, 7(1), 121–134.

Nunan, D. (1996). Towards autonomous learning: Some theoretical, empirical and practical issues. In Pemberton, R., Li, E.S.L., Or, W.W.F., & H.D. Pierson (Eds.), *Taking control: Autonomy in language learning* (pp. 13–26). Hong Kong University Press.

Nunan, D. (1997). Designing and Adapting Materials to Encourage Learner Autonomy. In Benson, P., & P. Voller (Eds.). *Autonomy and independence in language Learning* (pp. 192–203). Longman.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Newbury House.

Pham, M.T., Rajić, A., Greig, J.D., et al. (2014). A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Research Synthesis Methods*, *5*, 371–385.

Pintrich, P.R. (2000). The role of goal orientation in self-regulated learning. In Boekaerts, M., Pintrich, P.R., & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 452–502). Academic Press.

Pintrich, P.R., & Schunk, D.H. (1996). *Motivation in education: Theory, research, and applications*. Merrill.

Reinders, H., Lai, C., & Sundqvist, P. (Eds.) (2022). *The Routledge encyclopedia of language learning beyond the classroom*. Routledge.

Riazi, A.M., & Candlin, C.N. (2014). Mixed-methods research in language teaching and learning: Opportunities, issues and challenges. *Language Teaching*, *47*, 135–173.

Schmuckler, M.A. (2001). What is ecological validity? A dimensional analysis. *Infancy*, *2*, 419–436.

Schunk, D.H. (1996). Goal and self-evaluative influences during children's cognitive skill learning. *American Educational Research Journal*, *33*, 359–382.

Schunk, D.H., & Zimmerman, B.J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading and Writing Quarterly*, *23*, 7–25.

Schunk, D.H., & Zimmerman, B.J. (Eds.). (2008). *Motivation and self-regulated learning: Theory, research, and applications*. Lawrence Erlbaum Associates.

*Seker, M. (2016). Scenario-based instruction design as a tool to promote self-regulated language learning strategies. *SAGE Open*, *6*, 1–11.

*Shadiev, R., Hwang, W., & Liu, T. (2018). Investigating the effectiveness of a learning activity supported by a mobile multimedia learning system to enhance autonomous EFL learning in authentic contexts. *Educational Technology Research and Development*, *66*, 893–912.

Sinclair, B. (1999). More than an act of faith? Evaluating learner autonomy. In Kennedy, C. (Ed.) *Innovation and best practice in British ELT*). Longman, in association with the British Council.

Song, L. (2005). *Adult learners' self-directed learning in online environments: Process, personal attribute, and context* (Unpublished Doctoral Dissertation). The University of Georgia, Athens, GA.

Spratt, M., Humphreys, G., & Chan, V. (2002). Autonomy and motivation: Which comes first? *Language Teaching Research*, *6*, 245–266.

*Sylvén, L.K., & Sundqvist, P. (2012). Gaming as extramural English L2 learning and L2 proficiency among young learners. *ReCALL*, *24*, 302–321.

*Tabrizi, H.M., & Saeidi, M. (2015). The relationship among Iranian EFL learners' self-efficacy, autonomy and listening comprehension ability. *English Language Teaching*, *12*, 158–169.

*Teng, L.S., & Zhang, L.J. (2016). A questionnaire-based validation of multidimensional models of self-regulated learning strategies. *The Modern Language Journal*, *100*, 674–701.

*Teng, L.S., & Zhang, L.J. (2018). Effects of motivational regulation strategies on writing performance: A mediation model of self-regulated learning of writing in English as a second/foreign language. *Metacognition and Learning*, *13*, 213–240.

Thornton, K. (2010). Supporting self-directed learning: A framework for teachers. *Language Education in Asia*, 1(1), 158–170.

Tricco, A.C., Lillie, E., Zarin, W., et al. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC Medical Research Methodology*, *16*, 15.

Visonà, M.W., & Plonsky, L. (2019). Arabic as a heritage language: A scoping review. *International Journal of Bilingualism*, *24*, 599–615.

*Wach, A. (2012). Computer-mediated communication as an autonomy-enhanced tool for advanced learners of English. *Studies in Second Language Learning and Teaching*, *2*, 367–389. Available at: https://files.eric.ed.gov/fulltext/EJ1135871.pdf (accessed January 2022).

*Wang, C., Hu, J., Zhang, G., Chang, Y., & Xu, Y. (2012). Chinese college students' self-regulated learning strategies and self-efficacy beliefs in learning English as a foreign language. *Journal of Research in Education*, *22*, 103–135. Available at: https://files.eric.ed.gov/fulltext/EJ1098422.pdf (accessed January 2022).

*Wu, M.M. (2012). Beliefs and out-of-class language learning of Chinese-speaking ESL learners in Hong Kong. *New Horizons in Education*, *60*, 35–52. Available at: https://files.eric.ed.gov/fulltext/EJ974077.pdf (accessed January 2022).

*Xuan, L.Y., Razali, A.B., & Samad, A.A. (2018). Self-directed learning readiness (SDLR) among foundation students from high and low proficiency levels to learn English language. *Malaysian Journal of Learning and Instruction*, *15*, 55–81. Available at: https://files.eric.ed.gov/fulltext/EJ1201752.pdf (accessed January 2022).

*Yamaguchi, A. (2011). Fostering learner autonomy as agency: An analysis of narratives of a student staff member working at a self-access learning center. *Studies in Self-Access Learning Journal*, *2*, 268–280. Available at: https://sisaljournal.org/archives/dec11/yamaguchi/ (accessed January 2022).

Zimmerman, B.J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *81*, 329–339.

Zimmerman, B.J. (1998). Academic studying and the development of personal skill: A self-regulatory perspective. *Educational Psychologist*, *33*, 73–86.

Zimmerman, B.J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, *25*, 82–91.