Exploring Self-Determination Theory in ELT: A Content Analysis of Research Trends between 2020 and 2024

Ha Thanh Bich Loan[1,2*]

[1] Can Tho University, Vietnam
[2] University of Economics Ho Chi Minh City (UEH), Vietnam
[*] Corresponding author's email: loanhatb@ueh.edu.vn
[*] https://orcid.org/0000-0002-9677-3811
https://doi.org/10.54855/ictep.24512

ABSTRACT

Keywords:

SDT, motivation, ELT, language learning

This study aims to seek recent research trends in the applicability of Self-Determination Theory (SDT) to English language teaching (ELT) by reviewing the literature on this new approach to studying learner motivation, which plays a crucial role in language acquisition. The subject of the study is a series of related articles collected between 2020 and 2024, and the data is gathered from fifty selected articles during this period. The method employed for data analysis is content analysis approach, which helps identify themes and common trends throughout the articles' contents. The findings reveal various trends in applying SDT to foster learner motivation in ELT, including trends in research topics, methods, and noteworthy new themes in the applicability of SDT and its six sub-theories to ELT. These provide insights into the great potential of SDT in ELT research. The paper also has implications for new research ideas of learner motivation with STD.

Introduction

In language learning, *motivation* is a complex phenomenon with many different aspects influencing the process of language acquisition. Self-Determination Theory (SDT) is a comprehensive framework for understanding this complexity. SDT proposes a broad framework for studies on human motivation in health care, education, work, and sport and focuses on three basic psychological needs: autonomy, competence, and relatedness, all critical for enhancing motivation. *Autonomy* in education refers to students' self-directed actions that boost their engagement when supported (Reeve, 2009). While *competence* involves achievement and performance, positively impacting learner outcomes when fostered (Malmberg et al., 2015), *relatedness* emphasizes the significance of social connections, which enhance learner motivation and satisfaction through positive relationships with peers and teachers (Jang et al., 2010).

Developed by Deci and Ryan in 1985, Self-Determination Theory (SDT) is considered a comprehensive psychological framework for exploring individuals' motivation in their work, study, life, etc. SDT comprises three core concepts of basic psychological needs (BPNs):

autonomy*, competence, and relatedness* (Deci & Ryan, 1985). If these three elements are satisfied, individuals will feel more autonomous, competent, and connected in their community; in a word, they will become more self-determined in what they are doing, leading to their well-being (Deci & Ryan, 2012). This theory has been applied in various fields, such as health care, sports, work, and education, as well (Deci & Ryan, 2012).

In the context of education, which, in the scope of this study, refers to teaching and learning school subjects at different levels, from primary schools to high schools to colleges or universities, the BPNs in SDT play a critical role in fostering learner motivation and enhancing their learning outcomes. First of all, SDT asserts that when learner *autonomy* is supported, it promotes engagement and persistence in students' learning process (Reeve, 2009). Autonomy implies that in their studying, students' autonomous actions happen because they are willing but not being forced to do so (Noels et al., 2019). Second, *competence*, defined as achievement and performance, brings students a sense of capability, leading to improved learning outcomes (Malmberg et al., 2015); e.g., if teacher feedback makes students feel that they are competent, they will sustain a high level of learner motivation (Vansteenkiste et al., 2006). Finally, *relatedness* emphasizes the importance of social connections, where positive relationships with classmates and teachers may strengthen students' motivation. In other words, when students feel autonomous, competent, and socially connected in their learning environment, they will be satisfied with their academic life, leading to better learning outcomes (Jang et al., 2010).

Acquiring a new language is not a piece of cake except for gifted learners; accordingly, learning a foreign language, especially an international one, requires a certain degree of motivation (Tran, 2024; Le, 2023), especially intrinsic motivation - the strongest level of motivation continuum. Learning a new language is often challenging as learners tend to face obstacles like complex grammar rules, unfamiliar vocabulary, pronunciation, and so forth. Intrinsic motivation, driven by personal interest and enjoyment, is essential for overcoming these challenges (Gilakjani et al., 2012). Therefore, it is vital for teachers to have a nuanced understanding of *learner motivation* for effectively supporting their students through developed curricula and innovative teaching practices, with the purpose of contributing to more effective and meaningful language learning experiences (Vansteenkiste et al., 2023; Jang et al., 2010; Reeve, 2006).

As aforementioned, SDT is a macro-theory for profoundly understanding learner motivation in education, specifically in ELT. Consequently, when it comes to learner motivation, it is inevitable to discuss the framework of SDT and how it has been applied in different studies. As the title of this paper says, the applicability of SDT was explored to find out its trends in research on ELT.

This study is a part of the author's PhD project, which explores EFL learner motivation under SDT. The aim of this review is to seek current trends in research on language learners' motivation with the application of SDT. Hence, this systematic review synthesizes empirical studies and theoretical discussions in fifty related articles on the application of SDT in ELT, published between 2020 and 2024 to ensure the update of research works here and there in the academic world about the field.

Literature review

Overview of Self-Determination Theory (SDT)

SDT focuses on enhancing individuals' intrinsic motivation by meeting the needs for autonomy, competence, and relatedness. Once these BPNs have been satisfied, individuals will be intrinsically motivated, feel well-being, and gain positive outcomes (Deci & Ryan, 2000).

Conversely, thwarted BPNs can lead to decreased motivation and negative outcomes (Leeming & Harris, 2022b).

According to Ryan & Deci (2017), the authors of SDT, numerous studies in Asia, especially from Japan and China, have applied SDT to a wide range of areas, "from language learning to Internet use" (p.vii). A few many of those studies on motivation in language learning include Tanaka (2017), Noels et al. (2019), Oga-Baldwin & Fryer (2020), Oga-Baldwin & Nakata (2020), Alghazo (2021), Al-Hoorie et al. (2022), Liu & Oga-Baldwin (2022), Oga-Baldwin et al. (2022), Oga-Baldwin (2022), Oga-Baldwin & Hirosawa (2022), Wang & Zhang (2022), Tanaka & Kutsuki (2023), David & Weinstein (2023), Zhang & Crawford (2024), Evans et al. (2024), and so forth.

However, SDT goes beyond a simple dichotomy of intrinsic and extrinsic motivation. It proposes a self-determination continuum (Ryan & Deci, 2017) with three orientations: (i) *amotivation* - a complete lack of motivation (Leeming & Harris, 2022b), (ii) *extrinsic motivation* - a spectrum ranging from externally regulated behaviors (driven by external rewards or pressures) to integrated regulation, where extrinsic rewards become aligned with personal values (Noels et al., 2019), and (iii) *intrinsic motivation* - the most autonomous and satisfying form of motivation, driven by enjoyment and interest in the activity itself (Deci & Ryan, 2000).

This continuum, illustrated in Figure 1, highlights the internalization process. As individuals move from introjected regulation (doing something due to pressure but valuing it somewhat) towards identification (finding personal value in the activity) and finally integration (fully aligning the activity with personal goals), their motivation becomes increasingly autonomous and intrinsic (Noels et al., 2019). Understanding this process helps design interventions to foster intrinsic motivation and sustained engagement in goal-oriented activities (Schunk et al., 2014)
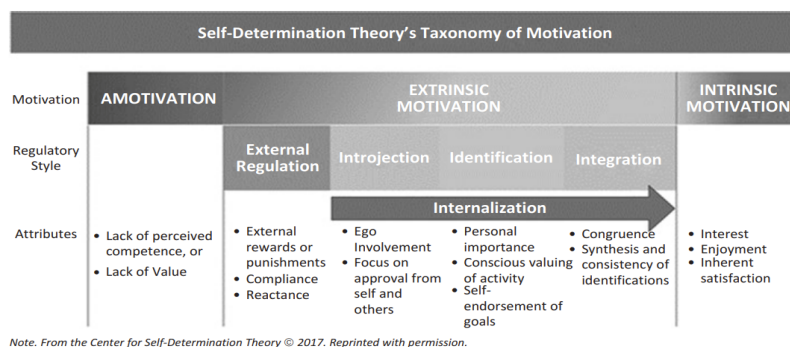

Figure 1. Motivational orientations and the self-determination continuum (Noels et al., 2019, p.98)

The Link between Self-Determination and Intrinsic Motivation

The overarching idea of SDT is that the satisfaction of BPNs contributes to intrinsic motivation, in which autonomy is the key element leading to self-determination (Ryan & Deci, 2017); that is to say, the more individuals are autonomous, the more self-determined they are.

People have a sense of autonomy when they have control over their own choices and actions, i.e., they do not feel like being coerced or controlled by others. Autonomy enables people to set and pursue their goals based on their interests (Deci & Ryan, 2000). Moreover, autonomy also has a positive impact on the other two of the BPNs (competence and relatedness), e.g., when people feel autonomous, they tend to engage in activities that are helpful for their developing skills in particular and competence in general. Likewise, being autonomous helps people proactively connect with those around them in the same community or environment. This

fosters better relationships and gives them a sense of belonging or relatedness, not isolation or loneliness (Ryan & Deci, 2017).

In other words, autonomy lies at the heart of SDT or is the central component (Ryan & Deci, 2017), and it is also the core of the self-determination continuum. Accordingly, autonomy or self-determination exists along a spectrum with the motivation behind it, as in Figure 2.
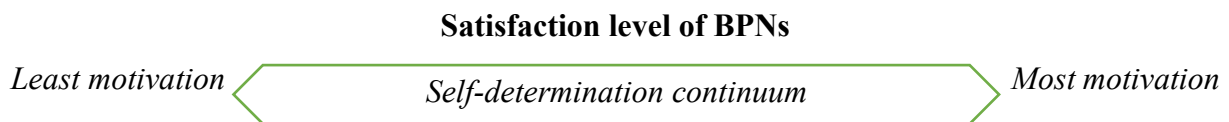
Satisfaction level of BPNs

Least motivation   *Self-determination continuum*   *Most motivation*

Figure 2. *Intrinsic Motivation in SDT*

Six Sub-Theories of SDT

According to Ryan & Deci (2017), SDT is like an umbrella with six mini-theories under it. Each of them plays a role in supplementing and completing the grand theory:

(i) *Cognitive Evaluation Theory* stresses *intrinsic motivation,* which means people learn new things through innate curiosity. In education, students are motivated to learn because of being naturally curious, i.e., they enjoy learning to develop themselves, not for rewards (Noels, 2018).

(ii) *Organismic Integration Theory* states that motivation exists on a *continuum*, from amotivation to more internalized motivation, including five types: extrinsic, introjected, identified, integrated, and intrinsic motivation. In educational settings, the goal is to make students' motivation more internalized, from the beginning of the motivation spectrum to its end – intrinsic motivation (the highest level of the continuum), leading them from learning for rewards to interest-based learning (Y. Tanaka & Kutsuki, 2023).

(iii) *Causality Orientations Theory* refers to *individual differences*; i.e., learners orientate to tasks using three orientations: autonomous, control, and impersonal. This theory focuses on how students deal with tasks, whether they are autonomous or controlled (Al-Hoorie et al., 2022).

(iv) *Basic Psychological Needs Theory* involves autonomy, competence, and relatedness. BPNs in education mean that if students have a sense of freedom (autonomy), feel capable (competence), and have connections with others (relatedness), they remain motivated in learning (Printer, 2021).

(v) *Goal Contents Theory* refers to two types of goals: *intrinsic and extrinsic goals*. The former includes activities that contribute to individuals' community, develop their potential, or build intimate relations; on the other hand, the latter involves activities that pursue fame and popularity, an attractive image, or a materialistic lifestyle (Vansteenkiste et al., 2023). In education, *intrinsic goals* involve personal growth, and *extrinsic goals* refer to rewards (Vansteenkiste et al., 2004).

(vi) *Relationships Motivation Theory* focuses on *relatedness*. It explains how developing and sustaining relationships and feelings of belonging to groups are necessary conditions for psychological well-being. This theory, in education, stresses the significance of relationships in learning, e.g., positive relationships with peers and instructors are critical in enhancing learner motivation and learner satisfaction (Vandergrift, 2005; Jang et al., 2010) .

Ha Thanh Bich Loan

History and Development of SDT

Developed in the 1980s by Deci and Ryan, with foci on human motivation and personality development, SDT has evolved over the decades. Since its introduction in Deci & Ryan (1985) and its evolution in Deci & Ryan (2000) and Ryan & Deci (2017), the theory has been applied to different domains with numerous studies in terms of quantitative approach, qualitative research, and mixed methods.

Researchers have been exploring SDT and its sub-theories through varied methods. Literature over the past two decades shows that experimental studies or quantitative research accounts for a high proportion, employing different scales or models (Noels et al., 2003; Tanaka, 2017; (Hu & Zhang, 2017); Leeming & Harris, 2022a; Sazegar et al., 2018; Wang & Wind, 2020; Someya & Honda, 2020; Alamer & Khateeb, 2021; Alamer & Alrabai, 2022; Liu & Oga-Baldwin, 2022; Phuong, 2022; Tanaka & Kutsuki, 2023; Alamer, 2023). Meanwhile, there have been few qualitative studies on SDT or its mini-theories (Barrett III, 2016; Raharja & Ashadi, 2019).

Recently, SDT and its sub-theories have gained prominence for its application not only in health care, work, sport, and education in general but also in language learning in particular. In a word, SDT has a rich history, and over time, it has taken root and enormously and sustainably grown, especially in the context of language learning (Oga-Baldwin et al., 2022), as in Figure 3.
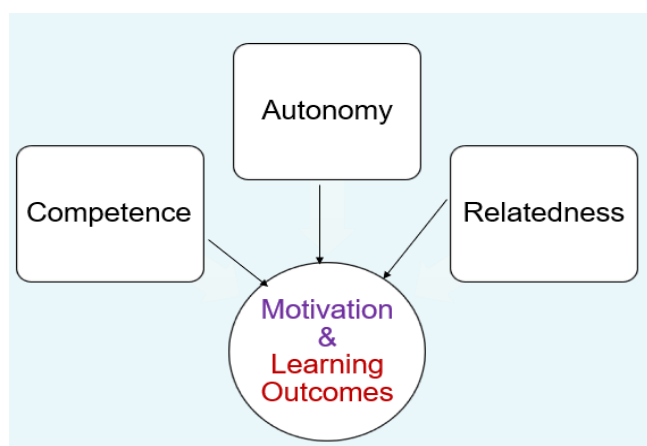

Figure 3. SDT in education

As regards SDT in language learning, in his article titled "*Self-Determination Theory and Second Language Research: A Match for Many Reasons,*" Ryan (2022), a co-developer of SDT, emphasizes that SDT is a comprehensive theory of motivation and well-being, its application to language learning is "*particularly promising*" (p.2), and he recommends that despite the dominance of evidence from quantitative research over qualitative one, there should be more qualitative studies to "*add nuance and specificity*" (p.2) to applications and explanations; and that SDT relies on more research in *different age groups*, and *cultures* as it is "*a self-critical approach*" (p.2).

A Framework of SDT

According to Deci & Ryan (1985) and Ryan & Deci (2017), SDT is a macro-theory, hence a comprehensive framework, with *a series of concepts*: BPNs (autonomy, competence, and relatedness), self-determination, self-determination continuum, self-determined, motivation, intrinsic motivation, extrinsic motivation (external regulation, introjection, identification, and integration), motivation continuum, optimal functioning, performance, outcomes, goals,

persistence, well-being, etc., along with *six sub-theories*: Cognitive Evaluation Theory, Organismic Integration Theory, Causality Orientations Theory, Basic Psychological Needs Theory, Goal Contents Theory, and Relationships Motivation Theory (See Appendix 1 for more details).

Recent Studies on SDT in Education

The recent studies on SDT in language learning were selected for analysis in the paper based on three criteria: (i) applying SDT in language learning or education (focusing on learner motivation), (ii) published between January 2020 – June 2024 (this paper was written in June 2024), and (iii) published in prestigious journals. Specifically, most of the selected articles explore the relationship between motivation and language achievement. Many studies delve into the role of BPNs in language education, while several studies examine the impact of technology on language learning motivation. Some focus on motivation in specific cultural contexts, and some investigate the role of positive emotions in sustaining intrinsic motivation, as in Table 1.

Table 1.

The recent studies on SDT in education

Area/Subject	Number of Studies	Studies	(%)
English language learning	40	(Muñoz-Restrepo et al., 2020); (Papi & Hiver, 2020); (Schürmann et al., 2020); (Shelton-Strong & Mynard, 2020); (Shelton-Strong, 2020); (Shelton-Strong, 2022); (Yu, 2020); (Someya & Honda, 2020); (Alamer, 2021); (Alamer & Khateeb, 2021); (Chiu, 2021); (Howard et al., 2021); (Loh et al., 2021); (Printer, 2021); (Alamer et al., 2022); (Alamer, 2022a); (Alamer, 2022b); (Al-Hoorie et al., 2022); (Chiu et al., 2022); (Davis, 2022); (Jeon, 2022); (Lasalle & Hess, 2022); (Lim et al., 2022); (Leeming & Harris, 2022a); (Leeming & Harris, 2022b); (Liu & Oga-Baldwin, 2022); (Parrish & Vernon, 2022); (Mynard & Shelton-Strong, 2022a); (Mynard & Shelton-Strong, 2022b); (Alamer et al., 2023); (Burnell et al., 2023); (Tran, 2023); (Chapman et al., 2023); (David & Weinstein, 2023); (Tanaka & Kutsuki, 2023); (Wijaya, 2023) (Zeng & Fisher, 2023); (Dhiman et al., 2024); (Hendriks et al., 2024); (Nishimura, 2024)	80
French language learning	2	(Meristo, 2022); (Printer, 2023)	4
AI in education	2	(Xia et al., 2022); (Chiu, 2024)	4
Education in general	6	(Alamri et al., 2020); (Robinson, 2022); (Ryan & Deci, 2020); (Wang & Wind, 2020); (Evans et al., 2024); (Urhahne & Wijnia, 2023)	12
Total	**50**		**100**

Research Questions

To reach the aim of the study, the systematic review was seeking to find out the answers to the following research questions:

1. *What are the emerging themes in the selected articles on SDT in education?*

2. *What are the overarching trends in research on SDT in ELT?*

Methods

Research design

The purpose of this paper is to identify research trends in applying SDT in ELT by analyzing the contents of selected articles. Specific words for phrases in texts are counted and analyzed to see frequencies and themes, and the meaning behind them. Hence, an appropriate approach to conduct this study is *content analysis* (Mazov et al., 2020).

The aim of content analysis is "to provide knowledge and understanding of the phenomenon under study" (Downe-Wamboldt, 1992, p.314). This study focuses on analyzing texts from the selected articles to identify and categorize themes through frequency counts and percentages of occurrence and then discussing the meanings behind them.

In this paper, content analysis was employed to uncover *"underlying meanings of the words or the content"* (Hsieh & Shannon, 2005, p.1284); i.e., it is usually used to identify themes, hence find out research trends from a cluster of articles (Donthu et al., 2021). When applying a content analysis, a study "starts with *keywords* which are identified before and during the data analysis, and derived from the interest of the researcher or review of the literature" (Hsieh & Shannon, 2005, p.1286).

Data collection

In this study, the data was collected from searching journal articles based on the search terms '*self-determination theory*' and '*learner motivation*' using these triggers:

(i) Search terms: "*self-determination theory*" AND "*learner motivation*"; "*self-determination theory*" AND "EFL *learner*"

(ii) Years of publication: 2020, 2021, 2022, 2023, 2024

(iii) Prestigious publishers

(iv) Search engine: Google Scholar

When entering these search terms into the search engine of Google Scholar, all dark keywords (appearing in the search results) associated with these terms were considered, along with years of publication (between 2000 and 2024) and prestigious publishers. The search terms were *observed in four places* of each article: (i) the title of the article, (ii) its abstract, (iii) the authors' keywords, and (iv) the full text. The search results showed more than fifty appropriate articles, but some were taken off due to their incomplete contents as needed. Finally, the number of observed articles was fifty, as listed in Table 1 above.

The information synthesized from the articles was arranged into a table and categorized into topics, namely articles' titles, authors' keywords, methods used in those studies, their findings, implications, and directions or suggestions for future research.

Data analysis

Content analysis is an appropriate approach for both *primary data* (Brown et al., 2020; Champion et al., 2019) and *secondary data* (Edling et al., 2022; Kiptinness & Kiwanuka-Tondo, 2019; Lee et al., 2021; Schaaf et al., 2022) from *journal articles* (Edling et al., 2022; Schaaf et al., 2022), *newspaper articles* (Kiptinness & Kiwanuka-Tondo, 2019), to *professional documents* (Lee et al., 2021), etc.

In this paper, the data analysis focuses on identifying research trends on SDT in education, focusing on learner motivation, from a cluster of fifty articles. This process complies with the procedure for a *content analysis* approach, basically encompassing two main steps: (i) counting key terms of interest and (ii) coding to themes. Nonetheless, it can be flexible depending on the aim of a specific study (Hsieh & Shannon, 2005). Accordingly, based on the aforementioned objectives of the research, the data analysis follows a five-step *procedure*:

Step 1: Summarize the key information from the selected articles and arrange it into **a table** (See Appendix 2 for more detail) by *authors and year of publication, research topics, methods, results, and directions for future research.*

Step 2: Count repetitive keywords (authors' keywords under the abstracts of all the articles) to identify their frequency by using a *word cloud* tool (available and accessible on the Internet)

Step 3: Analyze and synthesize the articles' contents based on key information from steps 1 and 2.

Step 4: Group the commonalities of the selected articles into themes.

Step 5: Code the themes to trends.

One or two of the steps above can be removed based on the specific research aim, but the procedure generally stays the same for this kind of analysis.

Findings and Discussion

The findings from a summative content analysis reveal critical information about the fifty selected articles, categorized into frequencies, themes, and trends.

Frequencies refer to the number of times a specific word, phrase, concept, or category appears within the data being analyzed (Krippendorf, 2013; Neuendorf, 2002; Vaismoradi et al., 2013), and here in this study, they are from counting the number of repeated words in the article authors' keywords (*frequency of authors' keywords*) and methods utilized in their studies (*frequency of the methods employed*).

Themes are recurring ideas in the data related to the research questions, which provide key messages or insights that emerge from the qualitative data (Braun & Clarke, 2006; Maguire & Dundalk, 2014). In this research, the themes are identified by the core contents of an article, such as authors' keywords, findings, implications, authors' suggestions for further research, and new relevant themes or noteworthy themes (beyond what needs to be explored).

Trends in this study refer to recurrent patterns in the data across the fifty articles published between 2020 and 2024. Specifically, trends focus on research topics based on the article titles and the generalized themes in applying SDT in researching education in general and ELT in particular.

The results based on a *summative content analysis* of the fifty selected articles are arranged according to the order of the contents of a typical article format, as follows:

(i)   Trends in research topics

(ii)   Frequency and themes in authors' keywords

(iii) Frequency of the methods employed

(iv) Themes in the findings

(v)   Themes in the authors' implications

(vi) Themes in authors' suggestions for further research

(vii) New relevant themes or noteworthy themes

In addition, the results also include an overview of the *commonalities of the selected articles* at the beginning and *a summary of trends* in research on SDT in education and ELT in the end.

Commonalities of the fifty selected articles

The selected articles discuss various aspects of *Self-Determination Theory (SDT),* focusing on intrinsic and extrinsic motivation, psychological needs satisfaction, and their influence on learning outcomes. *The use of Technology in Education* also accounts for a significant number of studies that examine the role of technology, including mobile-assisted language learning (MALL), digital game-based learning, adaptive learning systems, and AI-based tools in enhancing learning experiences and motivation. Furthermore, *motivation and engagement* are the recurring themes of student motivation, its measurement, and the factors that enhance or hinder it, and they are prevalent across many studies, which show how SDT influences student motivation and engagement in different learning environments.

Additionally, the fifty articles point out that SDT has been applied to teaching and learning in a wide variety of educational contexts, ranging from primary to higher education and in many different countries in the world, as shown in Table 2. Its applicability has been growing so much that Oga-Baldwin et al. (2022) emphasize its development with the phrase "taking root." In fact, the contents of the above fifty articles show that SDT has increasingly appeared in education, especially in language teaching and learning.

Table 2.

The popularity of SDT's application on an international scale

Countries	Studies	Continents
Japan	10	Asia
Saudi Arabia	8	Asia
UK	6	Europe
USA	5	America
Australia	4	Australia/Oceania
Hong Kong	4	Asia
Germany	3	Europe
Canada	1	America
China	1	Asia
Colombia	1	America
Estonia	1	Europe
Greece	1	Europe
Indonesia	1	Asia
Korea	1	Asia
Singapore	1	Asia
The Netherlands	1	Europe
Vietnam	1	Asia
Total	50	

Trends in the research topics

The titles of the fifty articles together signify trends in research on SDT in the early 2020s, as shown in Table 3. This implies that there is significant potential for conducting studies on learner motivation within the SDT framework, particularly in language learning and in education in general.

Table 3.

Trends in the fifty research topics

No.	Trends	Detail
1	*Increased use of SDT*	Increasing use of SDT in different educational contexts, especially language learning
2	*Focus on technology*	Rising interest in digital tools to boost motivation and learning
3	*Psychological needs and well-being*	Greater focus on student psychological well-being to improve learning outcomes
4	*Intrinsic vs. extrinsic motivation*	Ongoing exploration of intrinsic and extrinsic motivation in education, especially in language learning
5	*Diverse educational contexts*	Expanding research into cultural and linguistic settings for a global view on motivation

Frequency of authors' keywords

The authors' keywords (under each abstract) of the fifty articles also reveal some commonalities in terms of word frequency. Figure 4 manifests the most frequent words throughout the articles. The larger and bolder the word is, the more frequently it represents the text data. The biggest word means the most important word or the core term, with the highest frequency in the observed articles. This picture was generated by a word cloud tool[1] based on the frequency and relevance of the authors' keywords.

This visual overview indicates that the commonalities of the fifty selected articles ***converge in seven themes*** arranged in the order of frequency, such as *self-determination theory* (the biggest and boldest), *motivation*, *BPNs*, *well-being, intrinsic motivation, ESEM,* and *MALL*. This provides insights into trends in research on learner motivation under SDT, unveiling various ideas for future studies on learner motivation with a new approach to theories of motivation: SDT.

Figure 4*. Word cloud based on the keywords from the fifty articles*

Themes in authors' keywords

Through the frequency of authors' keywords in Figure 4, several key themes are unveiled, as shown in Table 5. These themes indicate the importance of studying learner motivation, especially intrinsic motivation, by employing SDT to gain a nuanced understanding of how learners achieve well-being through satisfying their BPNs. Moreover, validating factors affecting learner motivation using models like ESEM and MALL in different teaching and learning contexts is also highly promising for future research on the applicability of SDT in ELT.

---

[1] https://wordcloud.ahaslides.com/iframe.html

Table 5*.*

Themes in the authors' keywords in the fifty research topics

No.	Theme	Message
1	*Self-determination theory (SDT)*	*SDT* is the most recurring theme, highlighting its importance in the context of motivation, language learning, and educational research.
2	*Motivation*	*Motivation* is another key theme, frequently mentioned alongside SDT, indicating a strong focus on understanding and enhancing motivators in learning environments.
3	*BPNs*	Many studies centralize the importance of fulfilling *BPNs* (autonomy, competence, relatedness).
4	*Well-being*	*Well-being* underscores the importance of holistic learner support.
5	*Intrinsic motivation*	*Intrinsic motivation* is strongly related to better learning outcomes compared to extrinsic motivation.
6	*Exploratory structural equation modeling (ESEM)*	*ESEM* is prominent in methodological approaches, reflecting the importance of robust statistical techniques in educational research.
7	*Mobile-assisted language learning (MALL)*	*MALL* emphasizes the application of theories and methods in language acquisition and technology-assisted learning contexts.

Frequency of the methods employed

As Table 6 shows, quantitative methods have been employed most (58%), and mixed methods are in second place, with 22%. This is a commonality or a trend in using more quantitative and mixed methods than qualitative approaches when conducting research on learner motivation.

Table 6.

Frequency of methods used in the fifty articles

Research Method	Number of Studies	(%)
Quantitative	29	58
Qualitative	10	20
Mixed Methods	11	22
Total	**50**	**100**

Themes in findings

The findings of the fifty articles have five things in common. First, the results indicate that *SDT-based interventions* positively impact motivation and learning outcomes. Second, there is strong evidence supporting the *role of BPNs* in fostering motivation; in fact, satisfying BPNs is crucial for sustained motivation. In addition, *digital tools* like WhatsApp and Duolingo can effectively enhance motivation and reduce anxiety in language learners. Moreover, *autonomy-supportive environments* have a positive impact on learner motivation. Last but not least, *intrinsic motivation* plays a crucial role in leading to better learning outcomes.

Themes in authors' implications

The implications of the selected articles specify some common things, such as *educational interventions, teacher training, technology integration, and policy development.* The first suggestion refers to designing and implementing interventions based on SDT to enhance learner motivation, especially intrinsic motivation. The second implication encourages training educators to apply SDT principles in their teaching practices to foster student motivation. For

example, identifying effective strategies to elevate motivation and learning outcomes is a key objective. Next, the authors of the articles also recommend that there should be guidelines for the effective use of technology to boost learner motivation and academic achievements. Finally, the implications also provide policymakers with insights into the importance of supporting BPNs in educational settings.

Themes in suggestions for further research

Technology integration, longitudinal studies, cross-cultural validation, intervention studies, and integrated approaches are prevalent directions for further or future research. Regarding the first theme, further investigation should be conducted into different digital tools and their impacts on motivation and learning outcomes. Plus, more longitudinal research should be carried out to understand how motivation and learning outcomes evolve over time; in a word, there needs to be more long-term studies to understand or track changes in motivation over time.

Furthermore, it is essential for researchers to validate SDT-based scales and findings across different cultural contexts. In connection with intervention studies, developing and testing targeted interventions to enhance intrinsic motivation and address extrinsic motivators are promoted. Additionally, studies on integrating SDT with other motivational theories and educational frameworks are indispensable.

New relevant themes or noteworthy themes

In addition to the aforementioned common themes, the selected articles disclose new relevant or noteworthy themes, such as *AI integration in education, gamification, and frustration of psychological needs*. As for the first one, using AI tools like ChatGPT to support self-regulated learning and motivation is an emerging area of interest among some selected articles. Similarly, an emerging interest in applying SDT in education is using gamification based on SDT principles to boost motivation. Plus, the satisfaction of learners' BPNs was mentioned, but psychological needs frustration is a new relevant theme that implies the significance of understanding how the frustration of psychological needs influences learner motivation.

Recent trends in research on SDT in modern education reveal several key foci, such as *emphasis on motivation, technology integration, adaptive learning, student well-being, and motivational theories*.

As a matter of fact, there has been more investigation into how intrinsic and extrinsic motivation affects learner motivation and learning outcomes using different theoretical frameworks, particularly SDT. Additionally, research into how emerging technologies like AI, mobile apps, and digital game-based learning can enhance educational practices. Essentially, studies on the effectiveness of these technologies in various educational settings, from K-12 to higher education, have been conducted to enhance learning outcomes and student engagement. Another trend in research on SDT in education is an exploration of adaptive learning systems and their potential to personalize education to understand and promote student well-being. Finally, the applicability of motivational theories, particularly self-determination theory, has been constantly applied and tested to explain student behavior and outcomes.

In short, these trends convey insightful messages of conducting more research on how to support students by creating innovative learning environments that improve motivational strategies to satisfy their BPNs, thereby amplifying their intrinsic motivation. This leads to student well-being and effective learning outcomes, which are the ultimate goals in any educational discipline.

Trends in research on SDT in ELT

In modern educational research and practice, a growing trend in applying SDT in ELT research focuses on the ***increased use of technology*** like MALL apps or digital tools (e.g., WhatsApp, Duolingo) to motivate learners and improve language acquisition, especially outside traditional classroom settings. Moreover, there is a growing interest in investigating the impact of digital tools on learner motivation and language learning through SDT.

Another trend in ELT research is ***psychological support in language learning***. Studies increasingly center on understanding and supporting learners' psychological needs. Specifically, there is more investigation into the role of advising and psychological support in enhancing language learner well-being; indeed, the importance of BPNs in fostering language learner motivation is frequently highlighted. Take autonomy-supportive strategies, for example. Designing autonomy-supportive learning environments to enhance intrinsic motivation is progressively emphasized.

Intrinsic motivation is also one of the key trends in ELT research. Recent literature indicates that various studies have been conducted to explore how intrinsic motivation can be fostered through diverse interventions, as well as its impact on language learning outcomes. Notably, ***motivational strategies*** have been developed to strengthen L2 motivation by combining SDT and other motivational frameworks to examine specific motivational factors (autonomy, competence, and relatedness) that impact English language learners.

What's more, ***validation of SDT constructs*** manifests in numerous studies that focus on validating different SDT-based scales and tools used to measure motivation and psychological constructs in language learning. In other words, using these validated tools to assess the effectiveness of different teaching strategies and technologies demonstrates ongoing efforts to develop and validate surveys and instruments to measure motivation in English language learning more effectively. The final key trend in applying SDT in ELT is longitudinal and cross-cultural studies. Researchers emphasize the need for longitudinal and cross-cultural studies to validate and extend findings across different contexts.

Furthermore, ***validation of SDT constructs*** is evident in numerous studies focusing on validating different SDT-based scales and tools used to measure motivation and psychological constructs in language learning. In other words, using these validated tools to assess the effectiveness of different teaching strategies and technologies demonstrates ongoing efforts to develop and validate surveys and instruments to measure motivation in English language learning more effectively. The final key trend in applying SDT in ELT is the emphasis on ***longitudinal and cross-cultural studies***. In fact, researchers are highlighting the need for such studies to validate and extend findings across different contexts.

In a nutshell, the fifty articles highlight specific trends in research on SDT in ELT, indicating significant potential for further exploration of learner motivation in ELT.

Conclusion

The findings reveal commonalities, prevalent themes, and specific trends across the fifty articles published in the early 2020s (between January 2020 and June 2024), providing insights into the applicability of SDT in education, particularly in language learning.

The trends found in the fifty selected articles on SDT and learner motivation reveal ideas for future research. First, intrinsic motivation, related to the satisfaction of BPNs, has a strong impact on *learning outcomes*, which are the core issue of each syllabus in educational programs.

This implies ideas for educators and policymakers in curriculum development.

Second, there is *less evidence from qualitative studies* on learner motivation compared to quantitative research (Ryan, 2022). This suggests there should be more research employing qualitative methods to gain a deeper understanding of learner motivation in education in general and in language learning in particular. When learner motivation is completely explored, there may be more innovative ideas for improving educational programs, teaching methods, etc.

In addition, *technology-integrated teaching approaches* that enhance students' motivation should receive more attention in the Vietnamese context. This suggests more studies on technology integration in teaching and learning under SDT, which seems to be new in the educational contexts of Vietnam.

The themes and trends found in this study are limited to the number of articles on SDT and language learner motivation published between January 2020 and June 2024. A research trend is the collective focus of researchers on a specific topic within a field in a specific period of time, characterized by a sustained increase in research activity on that topic (Mazov et al., 2020). Accordingly, upcoming articles on SDT in ELT should be continuously tracked to determine the extent to which these trends change over time.

References

Al-Hoorie, A., Oga-Baldwin, W., Hiver, P., & Vitta, J. (2022). Self-Determination Mini-Theories in Second Language Learning: A Systematic Review of Three Decades of Research. *Language Teaching Research*, 1–36. https://doi.org/10.1177/13621688221102686

Alamer, A. (2021). Construct Validation of Self-Determination Theory in Second Language Scale: The Bifactor Exploratory Structural Equation Modeling Approach. *Frontiers in Psychology*,12, 1–7. https://doi.org/10.3389/fpsyg.2021.732016

Alamer, A. (2022a). Basic Psychological Needs, Motivational Orientations, Effort, and Vocabulary Knowledge: A Comprehensive Model. *Studies in Second Language Acquisition*, 44, 164–184. https://doi.org/10.1017/S027226312100005X

Alamer, A. (2022b). Having a Single Language Interest Autonomously Predicts L2 Achievement: Addressing the Predictive Validity of L2 Grit. *System*, 108, 1–16. https://doi.org/10.1016/j.system.2022.102850

Alamer, A., & Alrabai, F. (2022). The Causal Relationship Between Learner Motivation and Language Achievement: New Dynamic Perspective. *Applied Linguistics*, 1–22. https://doi.org/10.1093/applin/amac035

Alamer, A., & Khateeb, A. (2021). Effects of Using the WhatsApp Application on Language Learners Motivation: A Controlled Investigation Using Structural Equation Modelling. *Computer Assisted Language Learning*, 1–27. https://doi.org/10.1080/09588221.2021.1903042

Alamer, A., Khateeb, A., & Jeno, L. (2022). Using WhatsApp Increases Language Students' Self-motivation and Achievement, and Decreases Learning Anxiety: A Self-Determination Theory Approach. *Journal of Computer Assisted Learning*, 1–15. https://doi.org/10.1111/jcal.12753

Alamer, A., Morin, A., Alrabai, F., & Alharfi, A. (2023). Introducing the Basic Psychological

Needs Frustration in Second Language Scale (BPNF-L2): Examining Its Factor Structure and Effect on L2 Motivation and Achievement. Acta Psychologica, 240, 1–12. https://doi.org/10.1016/j.actpsy.2023.104021

Alamri, H., Lowell, V., Watson, W., & Watson, S. (2020). Using Personalized Learning as an Instructional Approach to Motivate Learners in Online Higher Education: Learner Self-Determination and Intrinsic Motivation. Journal of Research on Technology in Education, 52(3), 322–352. https://doi.org/10.1080/15391523.2020.1728449

Alghazo, S. (2021). Pronunciation Learning Strategies Used by EFL University Students: A Classroom-Based Investigation. In M. Pawlak (Ed.), Second Language Learning and Teaching (pp. 151–171). Springer. https://doi.org/10.1007/978-3-030-75726-7_7

Barrett III, M. (2016). Student Perceptions of Type II Alternative School Experiences: A Phenomenological Investigation of Motivational Factors That Influence Persistence toward Graduation. Liberty University.

Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa Refereed:

Brown, M., Whiting, J., Haque, A., & Kahumoku-Fessler, E. (2020). A Summative Content Analysis of Stress and Coping among Parents of Children with Autism. American Journal of Family Therapy, 1–14. https://doi.org/10.1080/01926187.2020.1791764

Burnell, R., Peters, D., Ryan, R., & Calvo, R. (2023). Technology Evaluations are Associated with Psychological Need Satisfaction Across Different Spheres of Experience: An Application of the METUX Scales. Frontiers in Psychology, 1–12. https://doi.org/10.3389/fpsyg.2023.1092288

Champion, J., Collins, J., & Papermaster, A. (2019). Summative Content Analysis for Understanding of Romantic Relationships among Rural Mexican American Adolescent Women. Issues in Mental Health Nursing, 2–8. https://doi.org/10.1080/01612840.2018.1543741

Chapman, J., Kohler, T., Rich, P., & Trego, A. (2023). Maybe We've Got It Wrong: An Experimental Evaluation of Self-Determination and Flow Theory in Gamification. Journal of Research on Technology in Education, 1–20. https://doi.org/10.1080/15391523.2023.2242981

Chiu, T. (2021). Applying the Self-Determination Theory (SDT) to Explain Student Engagement in Online Learning during the COVID-19 Pandemic. Journal of Research on Technology in Education, 54(1), 1–17. https://doi.org/10.1080/15391523.2021.1891998

Chiu, T. (2024). A Classification Tool to Foster Self-Regulated Learning with Generative Artificial Intelligence by Applying Self Determination Theory: A Case of ChatGPT. Education Tech Research Development, 72, 2401–2416. https://doi.org/10.1007/s11423-024-10366-w CULTURAL

Chiu, T., Sun, J., & Ismailov, M. (2022). Investigating The Relationship of Technology Learning Support to Digital Literacy from the Perspective of Self-Determination Theory. In Educational Psychology (Vol. 42, Issue 10, pp. 1263–1282). https://doi.org/10.1080/01443410.2022.2074966

David, L., & Weinstein, N. (2023). Using Technology to Make Learning Fun: Technology Use is Best Made Fun and Challenging to Optimize Intrinsic Motivation and Engagement. European Journal of Psychology of Education, 39, 1441–1463.

https://doi.org/10.1007/s10212-023-00734-0

Davis, W. (2022). Autonomy, Competence, Relatedness, and Beneficence: Exploring the Interdependence of Basic Needs Satisfaction in Postsecondary World Language Education. Journal for the Psychology of Language Learning, 4(1), 1–19. https://doi.org/10.52598/jpll/4/1/2

Deci, E., & Ryan, R. (1985). Intrinsic Motivation and Self-Determination in Human Behavior. Springer. https://doi.org/10.1007/978-1-4899-2271-7

Deci, E., & Ryan, R. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. Psychological Inquiry, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Deci, E., & Ryan, R. (2012). Self-Determination Theory. In Handbook of Theories of Social Psychology (Vol. 1, pp. 416–437). SAGE Publications, Inc.

Dhiman, H., Ruiz, G., Ramakers, R., Leen, D., & Röcker, C. (2024). Designing Instructions Using Self-Determination Theory to Improve Motivation and Engagement for Learning Craf. Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24), 1–16. https://doi.org/10.1145/3613904.3642136

Donthu, N., Kumar, S., Ranaweera, C., Pattnaik, D., & Gustafsson, A. (2021). Mapping of Journal of Services Marketing Themes: A Retrospective Overview Using Bibliometric Analysis. Journal of Services Marketing, 36(3), 340–363. https://doi.org/https://doi.org/10.1108/JSM-04-2020-0122

Downe-Wamboldt, B. (1992). Content Analysis: Method, Applications, and Issues. Health Care for Women International, 13(3), 313–321. https://doi.org/10.1080/07399339209516006

Edling, S., Löfström, J., Sharp, H., & Ammert, N. (2022). Mapping Moral Consciousness in Research on Historical Consciousness and Education - A Summative Content Analysis of 512 Research Articles Published Between 1980 and 2020. Journal of Curriculum Studies, 54(2), 282–300. https://doi.org/10.1080/00220272.2021.1970817

Evans, P., Vansteenkiste, M., Parker, P., Kingsford-Smith, A., & Zhou, S. (2024). Cognitive Load Theory and Its Relationships with Motivation: a Self-Determination Theory Perspective. Educational Psychology Review (2024), 36(7), 1–25. https://doi.org/10.1007/s10648-023-09841-2

Gilakjani, A. P., Leong, L.-M., & Sabouri, N. B. (2012). A Study on the Role of Motivation in Foreign Language Learning and Teaching. In International Journal of Modern Education and Computer Science (Vol. 4, Issue 7, pp. 9–16). https://doi.org/10.5815/ijmecs.2012.07.02

Hendriks, R., de Jong, P., Admiraal, W., & Reinders, M. (2024). Motivation for Learning in Campus-Integrated MOOCs: Self-Determined Students, Grade Hunters and Teacher Trusters. Computers and Education Open, 6(100158 Contents), 1–13. https://doi.org/10.1016/j.caeo.2023.100158

Howard, J., Bureau, J., Guay, F., Chong, J., & Ryan, R. (2021). Student Motivation and Associated Outcomes: A Meta-Analysis From Self-Determination Theory. Perspectives on Psychological Science, 16(6), 1300–1323. https://doi.org/10.1177/1745691620966789

Hsieh, H.-F., & Shannon, S. (2005). Three Approaches to Qualitative Content Analysis.

Qualitative Health Research, 15(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Hu, P., & Zhang, J. (2017). A Pathway to Learner Autonomy: A Self-Determination Theory Perspective. Asia Pacific Education Review, 18(1), 147–157. https://doi.org/10.1007/s12564-016-9468-z

Jang, H., Reeve, J., & Deci, E. (2010). Engaging Students in Learning Activities: It Is Not Autonomy Support or Structure but Autonomy Support and Structure. Journal of Educational Psychology, 102(3), 588–600. https://doi.org/10.1037/a0019682

Jeon, J. (2022). Exploring a Self-Directed Interactive App for Informal EFL Learning: A Self-Determination Theory Perspective. Education and Information Technologies, 27(4), 5767–5787. https://doi.org/10.1007/s10639-021-10839-y

Kiptinness, E., & Kiwanuka-Tondo, A. (2019). The Prevalence of HIV/AIDS Frames in Kenya Newspapers: A Summative Content Analysis of the Daily Nation. Cogent Medicine, 6(1), 1–9. https://doi.org/10.1080/2331205X.2019.159604

Krippendorf, K. (2013). Content Analysis: An Introduction to its Methodology. In International Encyclopedia of Communication (3rd ed.). SAGE Publications, Inc.

Lasalle, M., & Hess, U. (2022). A Motivational Approach to Perfectionism and Striving for Excellence: Development of a New Continuum-based Scale for Post-secondary Students. Frontiers in Psychology, 13, 1–21. https://doi.org/10.3389/fpsyg.2022.1022462

Le, T. T. M. (2023). Students' Motivation in an EFL Reading Class. In ICTE Conference Proceedings (Vol. 3, pp. 127–136). https://doi.org/10.54855/ictep.23310

Lee, R., McDonagh, J., Connelly, M., Peters, S., & Cordingley, L. (2021). Identifying the Content and Context of Pain within Paediatric Rheumatology Healthcare Professional Curricula in the UK: A Summative Content Analysis. Pediatric Rheumatology, 19(129), 1–11. https://doi.org/10.1186/s12969-021-00614-1

Leeming, P., & Harris, J. (2022a). Measuring Foreign Language Students' Self-determination: A Rasch Validation Study. Language Learning, 72(3), 646–694. https://doi.org/10.1111/lang.12496

Leeming, P., & Harris, J. (2022b). Self-Determination Theory and Tasks: A Motivational Framework for TBLT Research. TASK. Journal on Task-Based Language Teaching and Learning, 2(2), 164–183. https://doi.org/10.1075/task.21024.lee

Lim, L., Lim, S., & Lim, W. (2022). A Rasch Analysis of Students' Academic Motivation toward Mathematics in an Adaptive Learning System. Behavioral Sciences, 12(7), 1–13. https://doi.org/10.3390/bs12070244

Liu, M., & Oga-Baldwin, Q. (2022). Motivational Profiles of Learners of Multiple Foreign Languages: A Self-Determination Theory Perspective. System, 106, 1–17. https://doi.org/10.1016/j.system.2022.102762

Loh, J., Robinson, K., & Muller-Townsend, K. (2021). Exploring the Motivators and Blockers in Second Year Undergraduate Students: An Ecological System Approach. Australian Educational Researcher, 48(1), 85–106. https://doi.org/10.1007/s13384-020-00385-w

Maguire, M., & Dundalk, B. (2014). Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. All Ireland Journal of Teaching and Leanrning in Higher Education, 8(3), 3135–3140. https://doi.org/10.1109/TIA.2014.2306979

Malmberg, L., Pakarinen, E., Vasalampi, K., & Nurmi, J. (2015). Students' School Performance, Task-Focus, and Situation-Specific Motivation. Learning and Instruction, 39, 158–167. https://doi.org/10.1016/j.learninstruc.2015.05.005

Mazov, N., Gureev, V., & Glinskikh, V. (2020). The Methodological Basis of Defining Research Trends and Fronts. In Scientific and Technical Information Processing (Vol. 47, Issue 4, pp. 221–231). https://doi.org/10.3103/S0147688220040036

Meristo, M. (2022). University Students' Motivation to Study the French Language: A Time Trend Study. Journal for the Psychology of Language Learning, 4(1), 1–14. https://doi.org/10.52598/jpll/4/1/4

Muñoz-Restrepo, A., Ramirez, M., & Gaviria, S. (2020). Strategies to Enhance or Maintain Motivation in Learning a Foreign Language. In Profile Issues in Teachers' Professional Development (Vol. 22, Issue 1, pp. 175–188). https://doi.org/10.15446/profile.v22n1.73733

Mynard, J., & Shelton-Strong, S. (2022a). Autonomy Support Beyond the Language Learning Classroom: A Self-Determination Theory Perspective. In Psychology of Language Learning and Teaching (pp. 1–9). Multilingual Matters. https://doi.org/10.21832/mynard9042

Mynard, J., & Shelton-Strong, S. (2022b). Self-Determination Theory: A Proposed Framework for Self-Access Language Learning. Journal for the Psychology of Language Learning, 4(1), 1–14. https://doi.org/10.52598/jpll/4/1/5

Neuendorf, K. (2002). The Content Analysis Guidebook. SAGE Publications, Inc.

Nishimura, T. (2024). A Unique Variance in Future Motivation for Observed Active Behaviors on Positive Class Participation Beyond the Effect of Current Motivation. Japanese Psychological Research, 66(2), 138–153. https://doi.org/10.1111/jpr.12497

Noels, K. et al. (2018). The Development of Self-Determination across the Language Course: Trajectories of Motivational Change and the Dynamic Interplay of Psychological Needs, Orientations, and Engagement. Studies in Second Language Acquisition, 41(4), 1–31. https://doi.org/10.1017/S0272263118000189

Noels, K., Lou, N., Lascano, D., Chaffee, K., Dincer, A., Zhang, Y., & Zhang, X. (2019). Self-determination and Motivativated Engagement in Language Learning. In The Palgrave Handbook of Motivation for Language Learning (pp. 95–115). Palgrave. https://doi.org/10.1007/978-3-030-28380-3_5

Noels, K., Pelletier, L., Clément, R., & Vallerand, R. (2003). Why are you learning a second language? Motivational orientations and self-determination theory. Language Learning, 53(1), 57–85. https://doi.org/10.1111/1467-9922.53223

Oga-Baldwin, L., Parrish, A., & Noels, K. (2022). Taking Root: Self-Determination in Language Education. Journal for the Psychology of Language Learning, 4(1), 1–7. https://doi.org/10.52598/jpll/4/1/9

Oga-Baldwin, Q., & Fryer, L. (2020). Profiles of Language Learning Motivation: Are new and Own Languages Different? Learning & Individual Differences, 79, 101852. https://doi.org/10.1016/j.lindif.2020.101852

Oga-Baldwin, Q., & Nakata, Y. (2020). How Teachers Promote Young Language Learners' Engagement: Lesson Form and Lesson Quality. Language Teaching for Young Learners,

2(1), 101–130. https://doi.org/10.1075/ltyl.19009.oga

Oga-Baldwin, W. (2022). The Quality of Our Connections Matters: Relationships Motivation Theory in Independent Language Learning. In Autonomy Support Beyond the Language Learning Classroom: A Self-Determination Theory Perspective (pp. 149–163). Multilingual Matters. https://doi.org/10.21832/mynard9042

Oga-Baldwin, W., & Hirosawa, E. (2022). Self-Determined Motivation and Engagement in Language: A Dialogic Process. In Researching Language Learning Motivation: A Concise Guide (pp. 71–80). Bloomsbury.

Oga-Baldwin, W., Nakata, Y., Parker, P., & Ryan, R. (2017). Motivating Young Language Learners: A Longitudinal Model of Self-Determined Motivation in Elementary School Foreign Language Classes. *Contemporary Educational Psychology*, 49, 140–150. https://doi.org/10.1016/j.cedpsych.2017.01.010

Papi, M., & Hiver, P. (2020). Language Learning Motivation as a Complex Dynamic System: A Global Perspective of Truth, Control, and Value. *Modern Language Journal*, 104(1), 209–232. https://doi.org/10.1111/modl.12624

Parrish, A., & Vernon, J. (2022). Measuring Motivation in English Schools: The Appeal of Self-Determination Theory. *Journal for the Psychology of Language Learning*, 4(1), 1–17. https://doi.org/10.52598/jpll/4/1/6

Phuong, T. T. H. (2022). Learning Motivation of Vietnamese EFL Learners in Fully Online Classes during Covid-19: A Mixed Methods Study. *Issues in Educational Research*, 32(2), 681–700.

Printer, L. (2021). Student Perceptions on the Motivational Pull of Teaching Proficiency Through Reading and Storytelling (TPRS): A Self-Determination Theory Perspective. *The Language Learning Journal*, 49(3), 288–301. https://doi.org/10.1080/09571736.2019.1566397

Printer, L. (2023). Positive Emotions and Intrinsic Motivation: A Self-Determination Theory Perspective on Using Co-Created Stories. *Language Teaching Research*, 1–29. https://doi.org/10.1177/13621688231204443

Raharja, E., & Ashadi, A. (2019). Motivating EFL Learners Comprehensively: Applying Dörnyei's Taxonomy of Classroom Motivational Strategies. *Journal of English Language Teaching and Linguistics*, 4(1), 117–128. https://doi.org/10.21462/jeltl.v4i1.213

Reeve, J. (2006). Teachers as Facilitators: What Autonomy-Supportive Teachers Do and Why Their Students Benefit. *The Elementary School Journal*, 106(3), 225–236. https://doi.org/10.1086/501484

Reeve, J. (2009). Understand Motivation and Emotion (5th ed.). John Wiley & Sons, Inc.

Robinson, C. (2022). A Framework for Motivating Teacher-Student Relationships. *Educational Psychology Review*, 34(4), 2061–2094. https://doi.org/10.1007/s10648-022-09706-0

Ryan, R. (2022). Self-Determination Theory and Second Language Research: A Match for Many Reasons. *Journal for the Psychology of Language Learning*, 4(1), 1–2. https://doi.org/10.52598/jpll/4/1/8

Ryan, R., & Deci, E. (2017). Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness. 1262.

Ryan, R., & Deci, E. (2020). Intrinsic and Extrinsic Motivation from a Self-Determination Theory Perspective: *Contemporary Educational Psychology*, 61, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Sazegar, Z., Ashraf, H., & Motallebzadeh, K. (2018). Validation of an EFL Learner's Self-efficacy Questionnaire Using the Rasch Model. Amazonia Investiga, 7(16), 23–36.

Schaaf, M., Boydell, V., Topp, S., Iyer, A., Sen, G., & Askew, I. (2022). A Summative Content Analysis of How Programmes to Improve the Right to Sexual and Reproductive Health Address Power. *BMJ Global Health*, 7, 1–15. https://doi.org/10. 1136/ bmjgh- 2022-008438

Schunk, D., Meece, J., & Pintrich, P. (2014). Motivation in Education: Theory, Research, and Applications (4th ed.). Pearson Education Limited.

Schürmann, L., Gaschler, R., & Quaiser-Pohl, C. (2020). Motivation Theory in the School Context: Differences in Preservice and Practicing Teachers' Experience, Opinion, and Knowledge. *European Journal of Psychology of Education*, 36(3), 739–757. https://doi.org/10.1007/s10212-020-00496-z

Shelton-Strong, S. (2020). Advising in Language Learning and the Support of Learners' Basic Psychological Needs: A Self-Determination Theory Perspective. *Language Teaching Research*, 1–23. https://doi.org/10.1177/1362168820912355

Shelton-Strong, S. (2022). Sustaining Language Learner Well-Being and Flourishing: A Mixed-Methods Study Exploring Advising in Language Learning and Basic Psychological Need Support. *Psychology of Language and Communication*, 26(1), 415–449. https://doi.org/10.2478/plc-2022-0020

Shelton-Strong, S., & Mynard, J. (2020). Promoting Positive Feelings and Motivation for Language Learning: The Role of a Confidence-Building Diary. Innovation in Language Learning and Teaching (pp. 1–16). https://doi.org/10.1080/17501229.2020.1825445

Someya, F., & Honda, K. (2020). A Motivation-Appraisal Model for Japanese EFL Learners: Meta-Analytic Path Analysis of Self-Determination Theory. *JACET Journal*, 64, 133–148.

Tanaka, M. (2017). Factors Affecting Motivation for Short in-Class Extensive Reading. *Journal of Asia TEFL*, 14(1), 98–113. https://doi.org/10.18823/asiatefl.2017.14.1.7.98

Tanaka, Y., & Kutsuki, A. (2023). Motivational Patterns of Emergent and Fully Bilingual Children Learning English and Japanese at an International School. *International Journal of Bilingualism*, 27(5), 618–633. https://doi.org/10.1177/13670069221113730

Tran, T. M. L. (2023). A Study on Motivation of Second-year Students Enrolling in Math-through-English Teacher Training at a University in Vietnam. *International Journal of TESOL & Education,* 3(3), 137–154. https://doi.org/10.54855/ijte.23338

Tran, T. M. L. (2024). Blended Learning in EFL Classrooms at a Vietnamese University from Students' Perspectives. *International Journal of TESOL & Education*, 4(2), 99–117. https://doi.org/https://doi.org/10.54855/ijte.24426

Urhahne, D., & Wijnia, L. (2023). Theories of Motivation in Education: An Integrative Framework. *Educational Psychology Review*, 35(2), 1–35. https://doi.org/10.1007/s10648-023-09767-9

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content Analysis and Thematic Analysis:

Implications for Conducting a Qualitative Descriptive Study. *Nursing and Health Sciences,* 15(3), 398–405. https://doi.org/10.1111/nhs.12048

Vandergrift, L. (2005). Relationships among Motivation Orientations, Metacognitive Awareness and Proficiency in L2 Listening. *Applied Linguistics*, 26(1), 70–89. https://doi.org/10.1093/applin/amh039

Vansteenkiste, M., Lens, W., & Deci, E. (2006). Intrinsic versus Extrinsic Goal Contents in Self-Determination. *Educational Psychologist*, 41(1), 19–31. https://doi.org/10.1207/s15326985ep4101_4

Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K., & Deci, E. (2004). Motivating Learning, Performance, and Persistence: The Synergistic Effects of Intrinsic Goal Contents and Autonomy-Supportive Contexts. *Journal of Personality and Social Psychology*, 87(2), 246–260. https://doi.org/10.1037/0022-3514.87.2.246

Vansteenkiste, M., Soenens, B., & Ryan, R. (2023). Basic Psychological Needs Theory: A Conceptual and Empirical Review of Key Criteria. In The Oxford Handbook of Self-Determination Theory (pp. 84–123). Oxford University Press. https://doi.org/10.1093/ oxfordhb/ 9780197600047.001.0001

Wang, X., & Zhang, W. (2022). Improvement of Students' Autonomous Learning Behavior by Optimizing Foreign Language Blended Learning Mode. *SAGE Open*, 1–10. https://doi.org/10.1177/21582440211071108

Wang, Y., & Wind, S. (2020). Psychometric Evaluation of a New Internalization of Learning Motivation. *Current Psychology*, 41, 3888–3905. https://doi.org/10.1007/s12144-020-00909-8

Wijaya, K. (2023). The Role of Autonomy-Supportive Teaching Method in EFL Learning Contexts Worldwide. *Journal of English Language Teaching and Applied Linguistics*, 4(2), 217–136. https://doi.org/10.21460/saga.2023.42.140

Xia, Q., Chiu, T., Lee, M., Sanusi, I., Dai, Y., & Chai, C. (2022). A Self-Determination Theory (SDT) Design Approach for Inclusive and Diverse Artificial Intelligence (AI) Education. *Computers and Education*, 189(104582). https://doi.org/10.1016/j.compedu.2022.104582

Yu, J. (2020). Existence of Integrated Regulation and Its Implication on Foreign Language Teaching: A Survey Study. In Innovation in Language Learning and Teaching (Vol. 14, Issue 1, pp. 67–82). https://doi.org/10.1080/17501229.2018.1488855

Zeng, C., & Fisher, L. (2023). Opening the Black Box: Duolingo and Students' Intrinsic Motivation. *ECNU Review of Education*, 1–25. https://doi.org/10.1177/20965311231171606

Zhang, Z., & Crawford, J. (2024). EFL Learners' Motivation in a Gamified Formative Assessment: *The Case of Quizizz*. *Education and Information Technologies*, 29(5), 6217–6239. https://doi.org/10.1007/s10639-023-12034-7

Biodata

Ha Thanh Bich Loan a teacher at School of Foreign Languages, University of Economics Ho Chi Minh City (UEH), Vietnam. She has been teaching English for over twenty years and is currently pursuing a PhD in TESOL at Can Tho University, Vietnam. Her research interests primarily lie in learner motivation, learner autonomy, curriculum development, and blended learning.

APPENDICES

Appendix 1: SDT's framework

Concepts	Explanations/Examples
BPNs	
autonomy	The need to feel in control of one's own choices.
competence	The need to feel capable and effective in learning.
relatedness	The need to feel connected to others in the class.
Self-determination	
self-determination (SD)	Students feeling they can make choices about their learning (sense of self-determination) are more engaged and committed.
self-determination continuum	A range of SD, from least SD to highest SD
self-determined	Students want to do extra reading because they love the topic, not because they are told or forced to.
Motivation	
motivation	The reasons why students join learning activities fully manifest on a continuum or spectrum.
intrinsic motivation	Students learn English for the fun of it, not for rewards or punishment avoidance.
extrinsic motivation	Motivation by external rewards or avoiding negative consequences
external regulation	Students study to get good grades or avoid being punished.
introjection	Students learn English as they feel they "should" to please their parents.
identification	Students learn English because they see it as important for their future careers.
integration	The highest level of extrinsic motivation, where students see the value of activities or tasks in the classroom
motivation continuum	A motivation spectrum, from amotivation to being fully intrinsically motivated, shows how people's motivation changes over time, depending on endogenous and exogenous factors .
Other concepts	
optimal functioning	Students feel energetic and focused in class, participating in tasks with enthusiasm.

performance	How well a student completes a task or test.
outcomes	After a course, students' learning outcomes manifest in grades and how improved their knowledge and skills are.
goals	Students set a goal to improve their scores on school subjects by 10 points.
persistence	Students continue working on a difficult project or task despite facing setbacks.
well-being	Sense of happiness and satisfaction
Sub-theories	
Cognitive Evaluation Theory	Foci are how external factors (rewards, praise, or positive feedback) can either support or hinder intrinsic motivation.
Organismic Integration Theory	Students at first do homework just to avoid punishment, but later, with their awareness, they do it as they see its long-term value for their future.
Causality Orientations Theory	Describing different personality types based on motivation: (i) *autonomous orientation* (personal interest), (ii) *controlled orientation* (external demands, (iii) *impersonal orientation* (students feel they have little control over their study). *Example:* Autonomous students are often curious and explore topics proactively. Controlled students might only focus on what is needed to pass exams.
Basic Psychological Needs Theory	When students' needs for *autonomy, competence, and relatedness* are satisfied, they are more motivated and mentally healthy since they help them to thrive. *Example:* A school environment giving students freedom of choice (autonomy), positive feedback from teachers (competence), and a sense of class or school community (relatedness) will help them succeed and lead to well-being.
Goal Contents Theory	Distinguishing *intrinsic goals* (personal growth, relationships) and *extrinsic goals* (money, fame) Intrinsic goals lead to better motivation and well-being.
Relationships Motivation Theory	Students feeling close to their teacher and classmates in terms of supportive relationships may be more engaged in schoolwork because these positive relationships help boost or foster their intrinsic motivation.

Appendix 2: *Table for summarizing the articles*

Article	Author(s) (Year)	Topic	Keywords	Methods	Results/ Findings	Limitations	Suggestions for further research
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
...							