

Empowering the lifelong learner: A systematic review of heutagogical approaches in language learning

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Abstract: In light of the growing necessity for lifelong learning beyond formal education, this review aims to synthesize empirical evidence on the application and outcomes of heutagogy, or self-determined learning, within language acquisition contexts. The objective is to assess its efficacy and identify key factors for successful implementation. This study employed a systematic review methodology, rigorously following the PRISMA guidelines. A comprehensive search and screening process was conducted, resulting in the final analysis of 33 relevant studies that investigated heutagogical principles in language learning. The analysis reveals that heutagogy is highly effective in fostering essential skills for lifelong learners, including increased autonomy, enhanced metacognitive awareness, and improved language proficiency, often through strategies like negotiated curricula. However, significant challenges were identified, such as varying levels of learner readiness and the exacerbating effect of the digital divide, indicating that success is not universal. Heutagogy presents a robust framework for empowering lifelong language learners. Nevertheless, its effectiveness is contingent upon careful contextualization, requiring culturally responsive adaptation and supportive technological ecosystems to bridge implementation gaps. The findings provide a critical evidence base for educators and policymakers, particularly in the Malaysian context, to design learner-centric language programs. This review underscores the need for professional development on heutagogical principles and highlights the necessity for further localized research to translate theory effectively into practice.

Keywords: Heutagogy, Language learning, Learner autonomy, Lifelong learning, Self-determined learning, Systematic review.

1. Introduction

In the 21st century, characterized by rapid globalization, digital transformation, and societal flux, the concept of education as a finite phase of life has become increasingly obsolete. The imperative for lifelong learning is now universally acknowledged, essential not only for professional adaptability and civic engagement but also for personal fulfilment [1, 2]. The rise of knowledge economies, evolving job markets, and digital technologies has placed increasing pressure on individuals to engage in continuous learning throughout their lives, making lifelong learning indispensable [3]. Within this global context, language learning holds a unique position: it is a critical competency for cross-cultural communication, a valuable asset in the global knowledge economy, and a profound source of cognitive and personal enrichment. Moreover, the ability to learn and adapt across multiple languages enables individuals to navigate the complexities of a diverse, interconnected world. As such, language learning is no longer confined to a specific phase of life but must become a lifelong endeavor.

However, traditional pedagogical models, often rooted in instructor-led, curriculum-driven knowledge transmission, are increasingly misaligned with the needs of lifelong learners [4]. This traditional approach typically centers on linear, one-size-fits-all instruction, which restricts learners' autonomy and adaptability. In contrast, lifelong learners require more flexibility, personal relevance,

and, most critically, the capacity for self-direction that extends beyond the confines of formal education settings [5]. This disconnect between traditional teaching methods and the demands of lifelong learners has catalyzed a global shift toward more learner-centered approaches, emphasizing autonomy, self-directed learning, and the development of lifelong learning skills [6].

In response to this challenge, heutagogy, or self-determined learning, has emerged as a progressive educational framework. Rooted in the foundations of andragogy, heutagogy represents a significant evolution in educational theory [7]. First defined by Hase and Kenyon [8], heutagogy shifts the focus from teacher-centered instruction to learner-centered exploration. This pedagogical model prioritizes learner agency, double-loop learning (where learners not only acquire knowledge but also reflect on and question their learning processes), non-linear design, and the role of the educator as a facilitator rather than a direct instructor. These core principles are specifically designed to develop the competencies necessary for lifelong learning. The heutagogy approach encourages learners to take ownership of their learning, set their own learning goals, and adapt their learning processes according to their evolving needs, which are crucial skills for mastering new languages in a dynamic global environment [9, 10]. Heutagogy has been identified as a promising framework for fostering lifelong language learners [11], but its theoretical underpinnings and the way it compares to other established educational theories warrant further exploration. Heutagogy, unlike traditional pedagogical models, places the learner at the center of the learning process. By emphasizing learner autonomy, self-regulation, and reflective practice, heutagogy builds upon and extends concepts from andragogy and integrates principles from transformative learning, critical pedagogy, and connectivism [12, 13].

In the global context, heutagogy aligns well with contemporary educational priorities. The demand for lifelong learning, particularly in languages, has been recognized by international organizations such as UNESCO and the OECD, both of which advocate for policies that promote language learning as an ongoing process that supports global citizenship, intercultural dialogue, and personal empowerment [14, 15]. Educational systems worldwide are increasingly incorporating technology and learner-centered pedagogies to meet the needs of diverse and ever-changing student populations [16]. Particularly in regions such as Europe and North America, there is a growing emphasis on autonomous learning facilitated by digital tools, enabling learners to engage in language acquisition at their own pace and according to their specific interests and needs.

In Malaysia, a nation with a rich multicultural heritage and a rapidly growing digital infrastructure, the need for effective language learning frameworks has never been more urgent [17, 18]. English, as a global lingua franca, plays a vital role in Malaysia's development, particularly in sectors such as business, technology, and higher education. The Malaysian government has recognized the importance of improving English proficiency, reflected in initiatives such as the English for All program and the National Language Policy [19]. However, despite these efforts, traditional methods of language instruction often remain dominant, and there are challenges related to student motivation, engagement, and the ability to learn autonomously. In recent years, there has been a concerted effort to adopt technology-enhanced learning and incorporate more flexible, learner-centered approaches in the Malaysian education system [20]. Heutagogy, with its emphasis on self-directed learning and flexibility, has particular relevance in this context, offering a promising pathway to enhance language learning outcomes [21].

Despite its compelling theoretical promise, the application of heutagogy in language learning contexts remains nascent and fragmented. A growing body of scholarly work explores concepts such as learner autonomy, technology-enhanced self-directed learning, and transformative practices in language education, often touching upon heutagogy principles without always naming them explicitly. This results in a rich yet dispersed literature across diverse disciplines, including foreign language acquisition, applied linguistics, educational technology, and adult education [22]. While these studies provide valuable insights, they also highlight the lack of a clear, comprehensive synthesis of the evidence on heutagogy strategies in language learning. It remains unclear which specific heutagogy strategies are most effective, what their measurable impacts are on both linguistic proficiency and

learner autonomy, and what challenges arise in their implementation, particularly in diverse educational settings like Malaysia [23].

This review aims to bridge existing gaps in the literature by synthesizing the available studies on heutagogy strategies in language learning, especially within lifelong learning contexts. While heutagogy has gained traction in educational fields, there remains limited exploration of its application in non-Western contexts, particularly in countries like Malaysia. By addressing this gap, this review contributes to the evolving discourse on self-determined learning and its role in fostering learner autonomy and language proficiency.

1.1. Theoretical Background

Heutagogy, or self-determined learning, marks a paradigm shift from traditional teacher-centered pedagogies by emphasizing learner autonomy, self-regulation, and reflection [12, 24]. In contrast to conventional models where the educator assumes a dominant role in directing learning, heutagogy empowers learners to manage their own learning processes. This approach prioritizes learner agency, encouraging individuals to set their own learning goals, select their resources, and reflect on their learning experiences, thus fostering lifelong learning [10]. To better understand how heutagogy fits into the broader educational landscape, this section examines how it compares to and enhances other prominent educational theories, including behaviorism, cognitivism, constructivism, transformative learning, critical pedagogy, and connectivism [25].

1.2. Heutagogy and Traditional Pedagogical Models

Traditional educational models like behaviorism, cognitivism, and constructivism often place the teacher at the center of the learning process, emphasizing the transmission of knowledge from teacher to student [26, 27]. While these models have shaped education for decades, heutagogy introduces a fundamental shift by emphasizing the learner's role in directing and reflecting on their learning.

- **Behaviorism:** Behaviorism, rooted in the idea of conditioning, posits that learning occurs as a response to external stimuli, with reinforcement guiding the acquisition of new behaviors. The teacher, as the primary source of reinforcement, holds authority over the learning process [26]. Heutagogy, in contrast, shifts the learner from a passive receiver to an active agent who is responsible for setting learning goals, choosing content, and reflecting on the process. This self-regulation and ownership of learning diverge from the behaviorist model, where the teacher drives the learner's behavior through external stimuli [28].
- **Cognitivism:** In cognitivist theories, learning is seen as an active process of encoding and processing information. Although cognitive models stress the learner's active role in constructing knowledge, they still place a significant amount of guidance in the hands of the teacher [26]. Heutagogy enhances cognitivism by shifting the responsibility for constructing knowledge from the teacher to the learner. This approach enables learners to manage their own learning strategies and reflect on their mental processes, fostering metacognitive skills and a deeper level of self-awareness in the learning process [29].
- **Constructivism:** While constructivism, particularly as outlined by Piaget and Vygotsky, emphasizes that learners construct knowledge through interaction with the environment, it typically relies on scaffolding from the teacher or more knowledgeable peers [30]. Heutagogy builds on this by further promoting the learner's autonomy to explore, construct, and apply knowledge without significant reliance on external guidance [31]. Heutagogy positions the learner as the primary architect of their learning, allowing them to reflect on their learning processes and make decisions that drive their educational journey forward.

1.3. Heutagogy and Transformative Learning

Transformative learning, introduced by Mezirow [32], emphasizes the process of critically reflecting on and reassessing personal assumptions and beliefs, which leads to profound changes in one's

worldview. While transformative learning centers on critical reflection, heutagogy expands on this idea by providing a framework for continuous self-directed learning and adaptation [29].

- **Critical Reflection:** Both transformative learning and heutagogy emphasize the importance of reflection in the learning process. However, heutagogy enhances this process by incorporating double-loop learning, where learners reflect not only on the content, they engage with but also on the very strategies they use to learn [28]. This deeper level of reflection encourages learners to challenge their learning processes and make adjustments as they encounter new information or challenges, enabling ongoing personal transformation.
- **Autonomy in Learning:** While transformative learning allows learners to shift their perspectives within structured educational settings, heutagogy places a higher degree of autonomy in the hands of learners. By enabling learners to choose their own learning goals, paths, and pace, heutagogy ensures that the transformative process is not just about changing beliefs but about empowering the learner to shape their educational experience according to personal needs and evolving contexts [33].

1.4. Heutagogy and Critical Pedagogy

Critical pedagogy, as developed by Freire [34], stresses the need for education to challenge social inequalities and empower learners to become agents of change. Freire advocates for a dialogical approach to learning, where teachers and students engage collaboratively in the construction of knowledge [35]. Heutagogy aligns with and extends critical pedagogy by placing learner autonomy and self-regulation at the heart of the educational process [36].

- **Empowerment through Self-Determination:** Critical pedagogy emphasizes empowerment through engagement in the learning process. Heutagogy enhances this by not only advocating for active participation in knowledge construction but also by encouraging learners to self-manage their learning journey. This shift toward self-determined learning allows learners to take full ownership of their educational path, ensuring they are not just recipients of knowledge but active creators of their own learning experiences [37].
- **Liberation through Autonomy:** While critical pedagogy views education as a path toward liberation, heutagogy takes this idea further by giving learners the autonomy to design and adapt their own learning experiences [12]. This empowers learners to not only critique societal structures but also develop the skills necessary to navigate and challenge these structures on their own terms, fostering a sense of liberation in their educational and personal lives.

1.5. Heutagogy and Connectivism

Connectivism, proposed by Wang [38], views learning as a process of connecting to digital and social networks and emphasizes the role of technology in facilitating learning. Heutagogy complements connectivism by focusing on the learner's autonomy in managing and navigating these networks [39].

- **Autonomy in a Networked Learning Environment:** Connectivism emphasizes that knowledge is distributed across networks and that learning occurs through interactions within these networks. Heutagogy enhances this view by ensuring learners have the agency to select and engage with the networks that best suit their learning needs. This emphasis on learner choice and self-regulation ensures that learners can build, manage, and adapt their learning networks in a purposeful and self-directed manner [40].
- **Self-Regulation in the Digital Age:** While connectivism focuses on external networks for learning, heutagogy emphasizes internal self-regulation and reflection [41, 42]. In heutagogy, learners not only navigate external networks but also reflect on their use of these networks, ensuring that the connections they make align with their long-term learning goals and contribute to their ongoing development as autonomous learners [41].

Heutagogy provides a unique and dynamic framework that integrates and enhances several well-established educational theories. By shifting the focus from teacher-directed instruction to learner-centered autonomy, heutagogy empowers learners to take control of their learning journey [15]. This approach aligns with and extends the principles of transformative learning, critical pedagogy, and connectivism, offering a flexible and empowering model for lifelong learning. Through the promotion of self-regulation, reflection, and autonomy, heutagogy enables learners to not only acquire knowledge but to continuously adapt and critique their learning processes, ensuring that they remain active, engaged, and empowered throughout their educational journey [28].

2. Method

This systematic review was conducted to synthesize the existing literature on the application of heutagogy principles within language learning contexts for lifelong learners. The methodology was designed to be rigorous and reproducible, following the established guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework [43]. The review process comprised four distinct stages: i) identification of studies through database searches, ii) screening of records, iii) eligibility assessment, and iv) data abstraction and analysis.

2.1. Identification

A systematic search strategy was employed to identify all relevant scholarly literature. Initial keywords and relevant terminology were determined by examining key texts, thesauri, and existing literature on heutagogy and self-determined learning. The primary electronic databases searched were Scopus, Web of Science (WoS), and ERIC (Education Resources Information Center), chosen for their extensive coverage of high-impact educational research.

The following search string was developed and adapted for the specific syntax of each database:

(heutagogy OR "self-determined learning" OR "self-determined learner*") AND ("language learning" OR "language education" OR "second language" OR ESL OR EFL) AND ("lifelong learning" OR "adult education" OR "continuous learning")

The search was limited to peer-reviewed journal articles published in English between 2015 and 2024 to capture the most recent developments in this evolving field. The initial database search yielded a total of 412 records.

Table 1.
Search Strings and Databases.

Database	Search String	Results
Scopus	TITLE-ABS-KEY ((heutagogy OR "self-determined learning") AND ("language learning" OR "language education") AND ("lifelong learning" OR "adult education")) AND (LIMIT-TO (PUBYEAR, 2024) OR LIMIT-TO (PUBYEAR, 2023) ...) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (DOCTYPE, "ar"))	198
Web of Science	TS= ((heutagogy OR "self-determined learning") AND ("language learning" OR "language education") AND ("lifelong learning" OR "adult education")) Refined by: DOCUMENT TYPES: (ARTICLE) AND LANGUAGES: (ENGLISH) Timespan: 2015-2024	147
ERIC	(Heutagogy OR "self-determined learning") AND ("language learning" OR "language education") AND ("lifelong learning" OR "adult education") Peer-reviewed only, Date: 2015-2024	67
Total		412

2.2. Screening

The screening process involved assessing the 412 identified records for their relevance to the research topic. Duplicate records were removed using reference management software, resulting in the exclusion of 78 articles. The remaining 334 records were screened based on their titles and abstracts against the inclusion and exclusion criteria outlined in Table 2.

Table 2.
Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline	2015 – 2024	Published before 2015
Literature Type	Peer-reviewed journal articles	Books, book chapters, conference proceedings, review articles
Subject	Focus on heutagogy in a language learning context	Studies on pedagogy or andragogy without reference to heutagogy; studies not focused on language learning
Population	Lifelong learners, adult learners, higher education students	Articles focused on K-12 education or those lacking full-text availability.

After screening, 289 articles were excluded based on these criteria, leaving 45 articles for full-text assessment.

2.3. Eligibility

In the eligibility phase, the full-text articles were thoroughly reviewed for their alignment with the inclusion criteria. Articles were excluded if they did not directly discuss heutagogy or self-determined learning in the context of language learning. Additionally, studies that were not sufficiently focused on language learning, or lacked empirical data, were excluded.

12 articles were excluded at this stage for the following reasons:

- Irrelevance to the research objectives: The study did not explicitly address heutagogy or self-determined learning in a language learning context.
- Unavailability of full text: Some articles could not be accessed for detailed review.

The final set of 33 articles met all eligibility criteria and were included in the qualitative synthesis and data extraction process.

2.4. Data Abstraction and Analysis

Data from the 33 included studies were systematically extracted into a standardized table. Key information collected included: author(s) and year, research objectives, geographical context, participant details, methodology, key heutagogy practices, and main findings related to language learning outcomes and learner autonomy.

A thematic analysis approach was employed to synthesize the findings. The process began with a close reading of the articles to identify and code recurrent patterns and concepts. These codes were then collaboratively discussed and grouped into emerging themes by the authors. A log was maintained throughout to ensure an audit trail of analysis and interpretation. The validity and coherence of the final themes were refined through discussion and verified by two independent experts in the fields of language education and instructional technology.

The PRISMA flow diagram below summarizes the study selection process.

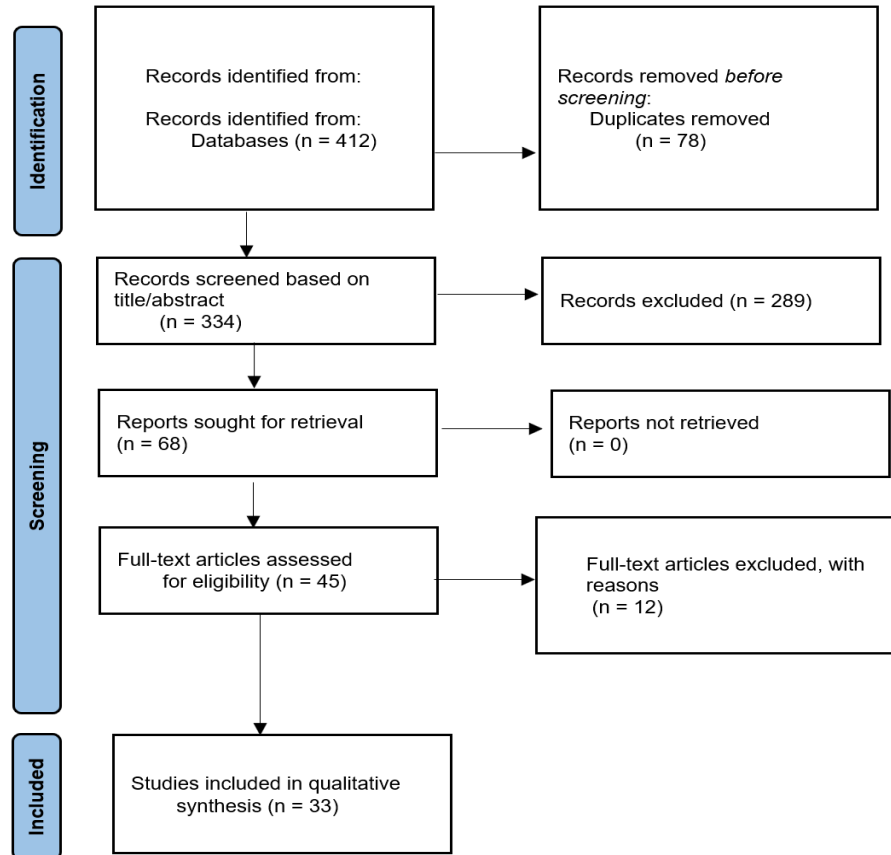


Figure 1.
PRISMA Flow Diagram of the Study Selection Process.

3. Results and Discussion

The systematic search and selection process yielded a final corpus of 33 studies for in-depth qualitative analysis. Thematic analysis of these articles revealed three predominant themes that encapsulate the current state of research on heutagogy in language learning: i) The efficacy of heutagogy principles in fostering learner autonomy and capability; ii) Heutagogy strategies and their impact on language acquisition outcomes; and iii) Navigating the challenges and leveraging technological enablers. The distribution of studies across these themes is presented in Table 3.

Table 3.
Distribution of Included Studies by Theme.

Theme	Number of Studies	Primary Focus
1. Efficacy in Fostering Autonomy & Capability	12	Developing self-direction, critical thinking, and lifelong learning skills.
2. Strategies & Impact on Language Acquisition	10	Specific methods (e.g., double-loop learning, project-based learning) and their effect on proficiency.
3. Challenges & Technological Enablers	6	Barriers to implementation and the role of technology as a facilitator.
4. Contextual & Cultural Adaptability	5	The application and modification of heutagogy across diverse cultural and institutional settings.
Total	33	

Theme 1: Efficacy of Heutagogical Principles in Fostering Learner Autonomy and Capability

The foundational principle of heutagogy, learner self-determination, was consistently identified as a critical factor in successful language learning environments, particularly for adults and lifelong learners [44]. The analysis indicates that moving beyond andragogical practices to embrace truly self-determined learning leads to profound developments in learner autonomy, metacognitive capability, and the cultivation of a lifelong learning mindset [45]. A significant number of studies highlighted that when learners are given agency over their learning path, pace, and content, they develop stronger intrinsic motivation and take greater ownership of their progress [46]. For instance, research by Zandi, et al. [47] in a university ESL context demonstrated that learners who co-designed their learning contracts exhibited significantly higher levels of engagement and perseverance in difficult language tasks compared to those in a teacher-directed curriculum. This aligns with the findings of Cormican, et al. [48] whose study with professional adult learners showed that heutagogy approaches fostered crucial learning-to-learn skills, enabling them to navigate real-world language use beyond the classroom environment effectively.

Furthermore, the concept of double-loop learning, a cornerstone of heutagogy, where learners not only learn but also reflect on and question their underlying learning beliefs and strategies, emerged as a powerful differentiator. Studies by Guleker [49] and Yoke and Jamil [50] and others found that language learners engaged in double-loop reflection were better able to identify their specific learning challenges, adapt their strategies, and transfer skills across different contexts, from academic writing to conversational fluency. This capability to self-regulate and adapt is arguably the ultimate goal of lifelong language learning.

In conclusion, the evidence synthesized under this theme strongly suggests that heutagogy effectively shifts the focus from merely acquiring a language to developing the cognitive and metacognitive capabilities necessary for continuous, self-directed language development throughout one's life [11].

Theme 2: Heutagogy Strategies and Their Impact on Language Acquisition Outcomes

Beyond theoretical efficacy, the reviewed studies detailed a variety of practical heutagogy strategies that directly contributed to improved language acquisition. These strategies move beyond simple content delivery to fundamentally redesign the learning process around learner agency [51]. A prevalent strategy was the use of negotiated curricula and personal learning environments (PLEs). Research by Khademi [52] involved learners in selecting authentic materials relevant to their personal interests and professional goals. This approach led to marked improvements in vocabulary acquisition and reading comprehension, as the content was inherently more meaningful and engaging. Similarly, [38] implemented a project-based learning model where learners defined their own research projects in the target language, resulting in significant gains in both written production and presentation skills.

The integration of reflective practice was another critical strategy. Studies such as Bensalem and Alenazi [53] mandated the use of learning journals and e-portfolios where students documented not only what they learned but also how they learned it, the challenges they faced, and how they overcame them. This practice was consistently linked to greater grammatical accuracy and strategic competence over time, as learners became more aware of their own error patterns and learning processes.

Technology played a facilitative role in enabling these strategies. Platforms like digital portfolios, collaborative wikis, and social media groups were used to create, share, and critique work, fostering a community of practice [54]. The impact on language outcomes was positive, with studies reporting improvements in academic achievement, writing complexity, and communicative confidence among learners who engaged in these heutagogically-designed environments [11].

Theme 3: Challenges and Technological Enablers in Implementation

Despite its promise, the implementation of heutagogy in language learning is not without significant challenges. The reviewed literature primarily identified two major barriers: learner readiness and institutional constraints [55]. A recurring challenge was the "paradigm shift" required from learners accustomed to pedagogical or andragogical models. Studies by Robinson and Persky [56] and

Ramas, et al. [55] found that some learners experienced anxiety and frustration when suddenly expected to direct their own learning, a phenomenon often termed "learner resistance." This highlights a critical implementation insight: the transition to heutagogy must be scaffolded, providing learners with gradual increases in autonomy and explicit instruction on self-directed learning skills.

The digital divide and issues of digital literacy, as noted in the sample paper, remain pertinent [57]. While technology is a powerful enabler for accessing resources and creating PLEs, inequitable access to reliable internet and devices can exclude certain learner demographics, potentially exacerbating existing educational inequalities.

On the other hand, technology was also identified as a primary enabler. Learning Management Systems (LMS), mobile applications, and cloud-based tools were essential for delivering resources, facilitating collaboration, and managing the flexible, personalized learning paths characteristic of heutagogy [10, 58]. Furthermore, adaptive learning technologies and AI-driven tools were explored in several studies [59] as a means to provide personalized feedback and resource recommendations, thereby supporting the learner's journey without imposing a rigid teacher-directed structure.

In conclusion, successful implementation requires a supportive ecosystem: professional development for educators to transition from instructors to facilitators, institutional support for flexible curriculum design, and a concerted effort to address digital equity issues [48].

Theme 4: Contextual and Cultural Adaptability of Heutagogy Models and Implications for Malaysia

A significant finding of this review is that the application of heutagogy is not a one-size-fits-all model; its success is deeply intertwined with cultural and educational context. The studies revealed that the core principles of self-determination and learner agency must be thoughtfully adapted to align with local cultural norms, existing educational structures, and specific learner demographics to be effective [10, 60]. This theme holds particular resonance for the Malaysian educational landscape, where a rich multicultural heritage coexists with a drive for modernization and global competitiveness [61].

The tension between the highly individualistic Western origins of heutagogy and more collectivist cultural environments, as noted in East Asian contexts [62], is highly relevant to Malaysia. The traditional Malaysian classroom often emphasizes respect for the teacher as the primary knowledge authority. A sudden, full imposition of learner autonomy could therefore cause discomfort among students and be perceived by educators as an abdication of responsibility. However, the synthesis also reveals successful pathways for adaptation. For instance, the model of a "collaboratively determined" curriculum [13, 63, 64], where initial learning choices and goals are negotiated through group consensus and facilitator guidance, offers a promising model for Malaysia. This approach balances the heutagogy ideal of agency with the cultural value placed on harmony and collective decision-making, potentially leading to higher levels of engagement and satisfaction.

Furthermore, the challenges identified in the review are acutely felt in the Malaysian context. The digital divide [65] is a persistent issue, with disparities in internet access and digital literacy between urban and rural areas potentially exacerbating educational inequalities if technology-dependent heutagogy models are implemented without support. This aligns with national concerns highlighted in the Malaysian Education Blueprint [66]. Similarly, learner and educator resistance to self-directed models [62, 67] is a significant hurdle in a system where high-stakes examination have traditionally favored teacher-centric, rote-learning methods.

4. Limitations of the Review

While this systematic review provides a comprehensive synthesis of the current evidence on heutagogy in language learning, it is essential to acknowledge its inherent limitations to properly contextualize the findings.

First, the scope of this review was constrained by its language and database restrictions. The inclusion of only English-language articles, while necessary for manageability, may have introduced a publication bias, potentially omitting significant research published in other languages, particularly from non-Anglophone countries where innovative pedagogical approaches are being explored.

Furthermore, despite searching three major databases (Scopus, WoS, and ERIC), it is possible that relevant studies indexed in other regional or discipline-specific databases were missed.

Second, the methodological and contextual heterogeneity of the included studies presents a limitation. The studies varied widely in their research designs, educational levels, cultural settings, and specific language learning foci. This diversity, while enriching the thematic analysis, made it impossible to conduct a quantitative meta-analysis to statistically measure the overall effect size of heutagogy interventions.

Third, the relative novelty of heutagogy as a defined framework means the evidence base is still emerging. Many studies touched upon principles of self-determined learning without explicitly using the term "heutagogy," and some may have been missed by our search string. Consequently, the findings should be viewed as indicative of promising trends and initial evidence rather than as definitive conclusions. The long-term sustainability and broader impact of these approaches require further investigation through longitudinal studies.

Finally, a specific limitation relevant to this review's aim is the paucity of studies conducted specifically within the Malaysian context. While the themes of cultural adaptability and implementation challenges were extracted from global literature and their implications for Malaysia were discussed, the direct transferability of these findings requires caution. The unique socio-cultural and institutional dynamics of the Malaysian education system necessitate future primary research to validate and adapt these global insights locally.

By openly acknowledging these limitations, this review aims to provide a transparent and critical assessment of the current state of knowledge, thereby offering a reliable foundation for researchers and policymakers while clearly delineating the scope for future inquiry.

5. Conclusion

This systematic review set out to synthesize the evidence on the application of heutagogy principles in language learning contexts for lifelong learners. The analysis of 33 studies reveals that heutagogy offers a robust framework for developing not just language proficiency, but the crucial learner capabilities of autonomy, self-regulation, and critical reflection. Furthermore, the findings underscore that its success is deeply dependent on contextual adaptability, requiring careful calibration to cultural norms and institutional environments.

The reviewed evidence strongly suggests that strategies such as negotiated curricula, project-based learning, and embedded reflective practice lead to deeper engagement and more meaningful language acquisition. However, the successful adoption of this learner-centered paradigm is contingent upon overcoming significant challenges related to learner readiness, educator training, and technological access. Crucially, practitioners must be aware that effective implementation is not about strict adherence to a present model but about the thoughtful adaptation of its principles to fit specific learning contexts.

Therefore, it is recommended that educators adopt a scaffolded and culturally responsive approach to introducing heutagogy. Future research should focus on longitudinal studies to track the long-term impact of these practices, and on developing nuanced, context-specific frameworks for implementing self-determined learning in diverse linguistic and cultural settings. By addressing these areas, the field can move closer to realising the full potential of heutagogy in empowering the lifelong language learner on a global scale.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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