

OPTIMISING LANGUAGE LEARNING WITH APTITUDE PROFILING

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Abstract: *This paper presents a narrative literature review on language aptitude profiling in the context of language learning. It explores the necessity of adapting classroom instruction to cater to individual learner needs, highlighting the importance of understanding learner profiles for effective teaching. Language aptitude, defined as the cognitive abilities enabling efficient second language acquisition, is a key factor in learner profiling. The review synthesizes existing research on language learning, profiling methods, and the relationship between language aptitude and learning success. Key challenges and future research directions are identified, emphasizing the need for reliable aptitude assessments and interventions for learners with lower aptitude. The review also notes the limited research on language aptitude in Malaysia, suggesting an urgent need for more extensive studies in this area. By addressing these gaps, the paper aims to enhance comprehension and application of language aptitude in language education, ultimately contributing to more effective and personalized teaching practices.*

Keywords: *Language Profiling, Language Aptitude, Language Learning*

Introduction

For years, educators have adopted a uniform method, applicable over the same class period and to learners. Over the time, there have been many new insights on the teaching and learning of classroom instructions. Scholars argue on the needs for adaptation of classroom instructions to cater the needs of different learners to ensure the lesson is meaningful. Nonetheless, there have been abundance of studies on recognising the importance of individuality in the classroom and how this taps into second language (L2) acquisition. The set of cognitive abilities that account for why certain individuals can learn a second or foreign language more effectively and efficiently than others, all else being equal, is known as language aptitude (Carroll, 1990; Doughty, 2019; Wen & Skehan, 2021).

Language aptitude—the cognitive ability to acquire a second language efficiently—plays a central role in this personalization process (Robinson, 2019). Language aptitude encompasses the mental capacities that allow some people to better understand, explain, assess, and predict the reasons behind varying levels of success in additional language acquisition among peers. Aptitude profiling helps identify learners’ strengths and weaknesses, benefiting both learners and teachers, particularly in language learning. For language educators, profiling is the process to gain “evidence of the results of learning and instruction, and hence feedback on the effectiveness of the teaching program” (Bachman & Palmer, 1996, p. 8). This can be done via many methods such as tests, interviews, or even observations. The results serve as a guideline for learners to understand their own self so that they make the best out of their strengths and weaknesses. On the other hand, it will also be an effective criterion for educators to consider when designing their teaching instruction in the classroom to ensure the success of language learning.

This paper presents a narrative literature review on language aptitude profiling. First, the paper presents a summary of existing research on language learning, aptitude profiling, and the relationship between language learning and aptitude profiling. Then, the study identified the challenges and considerations for future research on aptitude profiling in language learning. This approach would then enable the researchers to find major themes and trends within the literature.

Narrative Literature Review on Language Aptitude Profiling

This narrative literature review made use of the databases Scopus, JSTOR, Google Scholar, and Taylor & Francis. Search criteria included “language aptitude,” “language learning factors,” “learning styles and language learning,” “aptitude profiling in language learning,” and “motivation in language learning.” The criteria for inclusion in the narrative review consisted of peer-reviewed articles that have been published in the past 15 years. Both theoretical and empirical studies were analyzed.

Profiling Learners in Language Learning

When profiling learners for language learning, it is imperative to consider various factors that influence their language proficiency. Lightbown and Spada (2002) outlined five factors that are relevant to language learning. These factors encompass motivation, attitude, age, intelligence, aptitude, cognitive style, and personality. Some may be more dominant, while others are significantly equal. However, each factor distinctly contributes to either aiding or impeding the process of language learning. Tomlinson and Imbeau (2010) identified four elements that shape a learner’s learning profiles, which are learning styles, intelligence preferences, gender and culture. Maftoon and Sarem (2012) on the other hand believe that age,

aptitude and intelligence, cognitive style, attitudes, motivation and personality are the profiles reflecting learners' language acquisition. In another investigation by Zafar and Meenakshi (2012), seven intertwined profiles were identified as relevant in second language learning. These profiles are age, gender, aptitude, motivation, learning styles, learning strategies and personality.

From the four literatures above-mentioned, other factors that can be considered as relevant to language learning are age, sex, aptitude, motivation, intelligence, learning styles, learning strategies, personality, cognitive styles, and culture. It is important to note that profiling learners in language learning provides valuable information for educators to design the best teaching methods which are mostly suitable for the learners.

The notion of individualisation in educational practices was introduced by Freinet (1964). This notion believes that learners possess a variety of intellectual abilities and the education system should consider this to create harmonious development conditions. To cater to this, there is an urgency to profile learners in order to understand their needs, demands, strengths and weaknesses, especially in language learning. Although the theory of differentiated instruction is widely supported (McTighe & Brown, 2005; Noble, 2004; Tomlinson, 2001; Wormeli, 2007), there are concerns about its applicability as its implementation has posed challenges for many educators and school administrators (Horn, 2003). To add, Felder and Brent (2005) also expressed the idea that it's not practical or beneficial to completely ignore the needs of individual learners, nor is it effective to employ a rigid, one way of teaching approach that doesn't consider the diversity of different learners. Thus, it is important to understand learners' profiles before teaching instructions can be effectively designed to ensure meaningful learning of the target language.

One of the most researched profiling attributes contributing to a person's language learning is language aptitude. Language aptitude refers to the feasibility of people learning a language (Carroll, 1990; Wen, 2021) and the level of aptitude varies from one person to another. As a result, they may exhibit distinct responses to specific classroom environments and instructional approaches. Therefore, as educators thoroughly understand this diversity, they would be able to comprehend and accommodate the differences and learning needs of all learners. Understanding the classroom needs will allow educators to give more "freedom" for learners with high language aptitude to grasp what is taught and shift their attention more to learners with low language aptitude who may need additional support. This is because research has shown that learners with high aptitude have the ability to learn languages more easily than those who do not. With this information, educators can apply different teaching approaches, as well as develop intervention to meet the needs of the learners in order to achieve the lesson goals. Mohamed Salleh et al. (2020) conducted a study on the acquisition of English grammar among Malay-English bilingual primary school children. The result of the study showed that besides language input from school and domestic environments, language aptitude was also a contributing factor to achieving proficiency in English grammar. Similarly, recent findings confirm that aptitude significantly influences English grammar acquisition in second language learners, particularly when integrated into instruction (Ge, 2024).

Trends in Language Aptitude Research

The phrase "language aptitude" is typically defined as particular abilities that enable individuals to acquire a foreign or second language with greater ease, speed, and proficiency compared to their peers (Carroll, 1990; Wen, 2022). This attribute gained interest during the late 1950s and

has experienced cycles of academic attention until the present time. In a research review of 60 years (1959-2019) in second language aptitude, Chalmers et al. (2021) concluded that in recent years there has been an increase in the collection of literature for this variable, although experiencing a decline in research interest in the 1990s as researchers shifted their interest to other variables related to language learning and no new theories nor model of language aptitude was suggested. In their systematic quantitative literature review (SQLR), it can be seen that there is a trend of increment in the number of journal articles published in the 21st century. Wen and Skehan (2011) speculated stagnance in the language aptitude research was most probably due to its “perceived irrelevance to L2 acquisition in communication contexts” (p. 69). A new aptitude test, known as CANAL-FT was developed by Grigorenko et al. (2000). The foundation of this test rests upon the cognitive framework by Sternberg's (1997, 2002) which is the threefold of human intelligence- analytical, creative, and practical aspects.

There are some notable researchers who have made significant contributions to the understanding of individual differences in language learning aptitude:

1. John B. Carroll has been credited as the pioneer of language aptitude research. He introduced an in-depth four-component model of language aptitude, encompassing phonetic coding ability, grammatical sensitivity, rote learning ability, and inductive learning ability. He is also renowned for creating the most utilised test, Modern Language Aptitude Test (MLAT), which has been the reference in the development of newer
2. Peter Skehan, a distinguished researcher focusing on language aptitude, second language acquisition, and language teaching methodology. His work emphasises the role of aptitude across different instructional methods, such as explicit and implicit instructions.
3. David Singleton's main interests are into theoretical areas of linguistics, and practical and applied domains. Some of this work covers lexical semantics and semantic change, second language syllabus design, language aptitude, language interaction, and age of language learning.

To capture the features of language aptitude in a learner, various tests are suggested. There are a range of tests that can be utilised to gather information on language aptitude among learners. The traditional test is known as The Modern Language Aptitude Test (MLAT), designed by Carroll and Sapon (1959) to measure foreign language learning aptitude. This is followed by Pimsleur Language Aptitude Battery (PLAB) (Pimsleur, 1966), used to assess the language learning aptitude of learners in 7 to 12 grades. Meara (2005) on the other hand initiated the LLAMA test which is based on the MLAT. This test contains four sub-components: vocabulary acquisition, sound recognition, sound-symbol correspondence and grammatical inferencing. Another test was designed by Doughty et al. (2010), known as The High-Level Language Aptitude Battery (Hi-LAB), a tool to assess various aspects of L2 memory (particularly focusing on working memory), implicit learning, processing speed and auditory perceptual acuity. In the SQLR by Chalmers et al. (2021), it is concluded that the most used test to measure language aptitude among learners is MLAT, followed by LLAMA. This is to show that even after 60 years, MLAT is still seen as relevant in understanding language aptitude.

Geographically, language aptitude research is not popularly conducted in Malaysia. According to Chalmers et al. (2021), USA dominated 72.33% of the research in language aptitude (1959-2019) among the 16 countries stated in the data they obtained. However, only a handful of research are conducted in Malaysia and this is summarised in the following table.

Table 1: Research on Language Aptitude in Malaysia

Authors	Citation
Nikitina, S. & Furuoka, F. (2006).	Beliefs about Language Learning: A Comparison between Novice and Intermediate Level Students Learning Russian at a Malaysian University. <i>Electronic Journal of Foreign Language Teaching</i> 3 (2), 209-219.
Chew, F. P. & Chui, J. H. (2012)	Beliefs about ESL Learning among Secondary School Students in Terengganu, Malaysia. <i>International Journal of Research in Economics & Social Sciences</i> , 2(2), 44-63.
Krishnasamy, H. N., Veloo, A. & Lu, H. F. (2013)	Beliefs about Learning English as a Second Language Among Native Groups in Rural Sabah, Malaysia. <i>Advances in Language and Literary Studies</i> , 4(2), 39-47. Doi:10.7575/aiac.all.v.4n.2p.39

From Table 1, it is evident that the number of research conducted in the domain of language aptitude in Malaysia is relatively limited. Even though research in this area is on the rise in other parts of the world, in Malaysia this is not the case. This is supported by Dörnyei (2010) who mentioned that there is a lack of research of language aptitude in certain populations. It is important to note that research on this attribute provides valuable insights to many, yet the breadth and depth of exploration of it remain insufficient. Therefore, it is imperative to have more extensive research to unlock language aptitude intricacies fully. The research would be vital to enhance comprehension and application of language aptitude in language learning.

Challenges and Consideration for Future Research

Understanding language aptitude of language learners is a great way of profiling them. Scholars highlight a few challenges of language aptitude as one of the variables in profiling learners' language learning. Literature shown acknowledged that there are some challenges that need to be addressed in language aptitude research (Dörnyei, 2010; Skehan, 2012). Some of these challenges include:

1. Defining and developing a universally acceptable and reliable test to measure language aptitude.
2. Understanding the relationship between language aptitude and other factors influencing language learning.
3. Developing interventions to help learners with low language aptitude to support them grasp the lessons.

It is important to note that understanding a learner's language aptitude is a significant approach for profiling them effectively. In the literature, the integration of language aptitude as a factor in student profiling is important for language learning, although it comes with diverse challenges. Literature acknowledges these hurdles, which include establishing a language aptitude measurement which is universally accepted and reliable, understanding its interconnection with other factors influencing language learning, and devising proper interventions to assist learners with low language aptitude so that they will also be able to comprehend learning materials used. Overcoming these challenges is crucial for advancing research on language aptitude and enhancing approaches to language learning.

Despite the challenges in this area, future research in the domain of language aptitude needs to be given utmost importance. Scholars have highlighted some future research to be considered in the development of language aptitude. These are summarised in the following table:

Table 2: Future Research on Language Aptitude

Sub-Topic	Previous Studies	Summary of Findings	Suggestions for Future Research
Profiling learners in language learning	Dörnyei (2010)	The relationship between language aptitude and language learning motivation involves complex interactions that determine individual variances in language development.	Relate motivation as another variable to see its relationship with language aptitude.
	Singleton (2017)	Working memory and language aptitude are correlated and malleable, and through the right exposure and training, one's language proficiency in vocabulary acquisition, grammar learning, and the development of formulaic sequences can be improved.	Look into the relationship between working memory with socio-affective factors, language domains, and second language didactics.
	Derakshan & Malmir (2021)	The results suggest that L2 learning aptitude, as measured by the CANAL-FT, plays a significant role in the development of L2 pragmatic competence.	Investigate how language aptitude influences the process of acquiring foreign languages, particularly focusing on EFL learners' understanding of different implicatures, conversational patterns, communicative strategies, diverse speech act types, and other aspects related to L2 pragmatic proficiency.
Trends in language aptitude research	Liu, Jiao & Qiu (2022)	Language aptitude and Self-Regulated Learning (SRL) are both important inherent abilities and learning strategies in learning English.	Look into orthographic differences between Chinese and English languages in applying aptitude tests, and introduce new elements such as working memory into the test battery.

By addressing these topics, it will offer better understanding of how people learn languages and open more doors for more effective ways to cater learners' diverse needs, especially in the Malaysian context as not much research has been conducted in this area.

Conclusion

In conclusion, incorporating language aptitude into the broader context of learner profiling research is essential for gaining deeper insights into the complexities of language acquisition. Profiling learners based on their language aptitude provides educators with a valuable roadmap for personalised instruction, allowing for the adaptation of teaching methodologies to suit individual cognitive strengths and weaknesses. As research in learner profiling continues to progress, integrating a comprehensive understanding of language aptitude will undoubtedly play a significant role in shaping effective language education policies and practices, ultimately leading to better outcomes for learners.

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