

Conceptual Development of Erlando's Habitual Short Conversation Model (EHSC): Integration of AI and shadowing to support Elementary School Student's Communicative Learning In Merdeka Curriculum

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Abstract. This study formulates the Erlando Habitual Short Conversation (EHSC) Model, a systematic framework designed to mitigate the Skills Gap (cognitive-induced fluency deficits) and the Curriculum Gap (constrained instructional time) in primary English education. Adopting the initial R&D phases of Borg & Gall, the model integrates three innovative synergies: Methodological (shadowing techniques to enhance cognitive processing), Automated (predictive AI for curriculum-synchronised content), and Accountability (a multi-party validation system engaging teachers and parents as practice supervisors). Theoretical validation by experts in Curriculum, Design, and Linguistics confirms superior feasibility, with an average score of 4.56 and an Aiken's V of 0.90. Notably, the model achieved a perfect rating (5.00) for practical implementation and AI integration. These findings establish the EHSC framework as a robust, scalable foundation for subsequent empirical validation in resource-limited educational settings.

Keywords: *Habitual Speaking Practice, AI-assisted Learning, Curriculum Integration*

1. Introduction

Increasing global competence makes English language proficiency at the elementary school level an unavoidable national education priority. However, current curriculum implementation is hampered by significant performance disparities manifested in two systemic issues. First, the Skills Gap presents a chronic speaking fluency crisis rooted in both cognitive and behavioral dimensions. Cognitively, oral fluency relies on rapid processing speeds for the automatic transfer of language from thought to speech [1], as the over-involvement of working memory is heavily influenced by their language anxiety and enjoyment levels [2]. Behaviorally, this crisis is exacerbated by a lack of consistent daily practice habits outside the classroom, despite the fact that young learners require structurally engaging, technology-assisted materials to stimulate autonomous speaking practice beyond formal school hours [3]. Furthermore, empirical evidence under the Merdeka Curriculum confirms that elementary students' oral development is highly restricted by internal factors specifically fluctuating motivation and a lack of supportive

environmental structures [8], which inherently leads to a high neglect of out-of-class tasks and directly interferes with the acquisition of automatic speech skills.

Second, the Curriculum Gap arises from a misalignment between policy demands and the reality of implementation. While the Merdeka Curriculum (*Kurikulum Merdeka*) explicitly mandates communicative mastery and the use of spoken language functions [4], this demand is severely hampered by the limited amount of quality speaking practice available during formal classroom instruction [3]. Research reinforces that a high frequency of practice through a habit-based model has a much greater impact on fluency than long but sporadic practice durations [9]. Consequently, existing field solutions like weekly "English Day" programs are often incidental and unstructured, failing to develop the consistent oral habits theoretically required to achieve cognitive fluency and automaticity [1].

This situation demands a systematic and integrated intervention that transcends the boundaries of the formal classroom to ensure consistent practice. In response, this study proposes the formulation of the Erlando Habitual Short Conversation (EHSC) Model. Developed through a Conceptual Development Study approach adapting the initial stages of Borg & Gall's R&D, the EHSC Model focuses on the synthesis of fluency theory and architectural model design through three novel synergies. First, the Automated Synergy framework leverages generative AI technologies to expedite the development of daily short conversation tracks, alignment-ready with the subsequent week's curricular learning objectives [6]. To circumvent restricted learning schedules and a lack of specialist teachers, the application of AI is essential. Concurrently, Methodological Synergy introduces shadowing-inspired habitual speaking practice rather than pure mechanical shadowing. This approach adapts the structural principles of speech-tracking [5] into short daily conversations to address the cognitive barriers to fluency [1]. Third, Accountability Synergy applies Multi-Party Validation involving specialist teachers, classroom teachers, parents, and students to ensure the consistency of daily practice [7]. This mechanism is essential for transforming cognitive skills into sustainable oral habits, especially for early learners who require clear external accountability to maintain adequate practice frequency [10].

Ultimately, this study does not merely conceptualize a new pedagogical tool but establishes a scientifically validated framework to bridge the gap between curriculum demands and classroom reality. By synthesizing AI-driven content with habit formation theories, the EHSC Model provides a scalable solution for improving English fluency in resource-limited environments. The following sections will detail the conceptual development process, the rigorous expert validation results, and the architectural design that underpins the model's viability for elementary education.

2. Review Literature

2.1 Curriculum Foundation and Curriculum Gap

The EHSC Model is deeply rooted in both classical language acquisition theory and modern cognitive science. Oral language acquisition fundamentally begins with Comprehensible Input [7], requiring learners to comprehend material presented at a level slightly above their current competence. Once the requisite input is received, the main challenge shifts to achieving skill automation (fluency). This process demands high cognitive processing speed [1]. To effectively

accelerate this automation, the EHSC Model integrates shadowing-inspired repetition exercises rather than pure mechanical shadowing, adapting the structural principles of speech-tracking into daily short conversation sequences to optimize language processing and reduce working memory load for young learners [5]. This directly addresses the problem of slow cognitive processing, which is identified as a major obstacle to fluency [1]. Therefore, achieving this cognitive automation is established as an essential foundation before learners can successfully enter the phase of functional active oral production.

2.2 Active Production, Social Interaction, Monitoring

Shadowing practice should be capitalized on through active production. The Output Hypothesis [11] explains that active language production through Short Daily Conversations forces learners to notice linguistic gaps and test their hypotheses about language use. This process of output improvement is further enhanced through interactive learning environments. The Interaction Hypothesis [12] emphasizes that language development occurs through meaningful interaction and negotiation of meaning, while Vygotsky's Zone of Proximal Development (ZPD) [13] highlights the importance of scaffolding provided by more knowledgeable individuals during the learning process. Therefore, the EHSC Model implements Multi-Party Validation as a monitoring and scaffolding mechanism involving parents and teachers [10], consistent with Bandura's Social Learning Theory [14], to ensure consistent practice and provide ongoing corrective feedback

2.3 The Role of Technology (Automated Synergy) and Practice Consistency

To achieve consistent and integrated practice outside of class hours, the EHSC Model relies on Automated Synergy. This synergy utilizes AI, primarily focused on predictive content provision, which provides crucial methodological justification. Generative AI frameworks effectively foster personalized, adaptive, and interactive learning by dynamically generating contextualized dialogues and short conversational materials tailored to individual learners [15]. Specifically, the AI function in the EHSC Model is to generate daily short conversations relevant to the curriculum [4] and specific open-ended materials [6]. This use of generative AI tools ensures that daily practice is consistent, structured, and pedagogically aligned without overburdening teacher resources.

3. Method

This research utilizes a Conceptual Development Study approach, adapting the initial stages of the Research and Development (R&D) model based on the Borg & Gall framework [16]. The main objective is to develop and validate the conceptual framework of the Erlendo Habitual Short Conversation (EHSC) Model as an integrated intervention to enhance elementary-level students' speaking fluency by addressing the Skills Gaps and Curriculum Gap. The study phases included in-depth needs analysis, theory synthesis (involving shadowing-inspired habitual practices to optimize cognitive fluency [5], Social Learning [14], and the Interaction Hypothesis [12]), architectural model research (focusing on Automated Synergy, Methodology Synergy, and Accountability Synergy), and concluded with conceptual validation (expert judgment) [19]. This validation assessed the model's feasibility and internal consistency before empirical trials. The validation subjects were three (3) experts selected based on content-validity principles [17]: a curriculum expert (assessing relevance to the Merdeka Curriculum [4]), an applied-linguistics

expert (assessing the pedagogical adaptability of shadowing-inspired repetition [5]), and an Instructional-design and technology expert (assessing the pedagogical feasibility of generative AI integration [6] and daily implementation [18]).

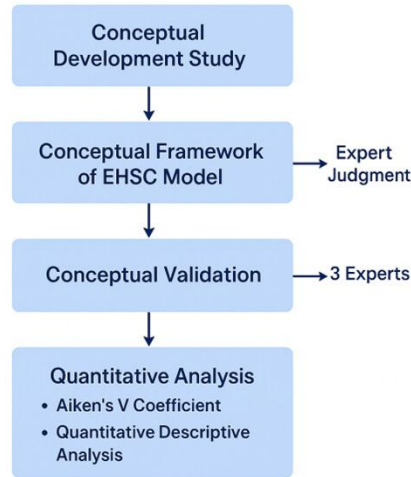


Fig. 1. Research Method

The Assessment was conducted using a Conceptual Model Validation Questionnaire structured on a 5-point Likert scale [19]. To analyze the data, Aiken's V Coefficient [20] was used. This statistical measure was used to formally confirm the content validity of the instrument and the model by measuring the level of consensus among the experts. Items are considered to have high content validity if the calculated coefficient value is $V \geq 0.80$. The V coefficient formula is :

$$V \text{ coefficient} = \frac{\sum s}{n(c-1)} \quad (1)$$

Determining Overall Feasibility and Validity Overall eligibility was determined by analyzing the aggregate mean score. The Aggregate Mean Score was calculated by summing the scores of all items from all experts and dividing by the total number of ratings, using the formula:

$$\text{Aggregate Mean Score} = \frac{\sum \text{Actual Expert Scores}}{\sum \text{Total Ratings}} \quad (2)$$

With an aggregate average score reaching 4.56/5.00 (classified as Very Good) and a perfect score of 5.00 on the AI-implementation aspect, the EHSC Model Conceptual Framework is declared Valid and Feasible to be used as a basis for further empirical research.

4. Result

4.1. The Composite Theoretical Validity

This section presents the quantitative findings from the theoretical validation of the EHSC Model, conducted by three experts. In summary, the composite assessment results show a Composite Mean Score of 4.56 and a Composite Aiken's V Coefficient of 0.90, which are both classified in the "Very Valid" category. The theoretical validation of the EHSC Model met the criteria for Very Valid based on the 4.21 - 5.00 range.

4.2. Analysis of Content Validity

The overall feasibility of the model was determined by analyzing the aggregate mean score. The calculation resulted in an Aggregate Mean Score of 4.56 ($164 / 36 = 4.56$), confirming the model's eligibility. To strengthen the content validity, the data were analyzed using the Aiken's V Coefficient to measure the level of expert agreement and item relevance. The calculation results show a Composite Mean V Coefficient of 0.90 (derived from $128/144 = 0.89$) lying well above the acceptance threshold of 0.80. This statistically confirms a Very High level of agreement among the experts. Detailed analysis per item shows that Item C2 (Feasibility of Daily Implementation in Elementary Schools) and item C3 (Relevance and Feasibility of AI-Integration) achieved perfect agreement with a Mean Score of 5.00 and an Aiken's V Coefficient of 1.00.

Table 1. Summary of EHSC Model Theoretical Validation Results

Aspect	Mean Score	Mean Aiken's V	Validity Category
A. (Theoretical Basis)	4.33	0.88	Very High
B. (Internal Coherence)	4.44	0.88	Very High
C (Practical Feasibility)	4.67	0.94	Very High
D (Potential & Novelty)	4.50	0.88	Very High
Composite	4.56	0.90	Very Valid

5. Discussion

5.1. Confirmation of Validity and Methodological Rigor

The validation findings, indicating an Aggregate Mean Score = 4.56 and Composite Aiken's V of 0.90, collectively demonstrate that the EHSC Model possesses Very High content and construct validity. The inclusion of the Aiken's V analysis reinforces this, proving that the expert consensus meets the rigorous methodological standards required for theoretical validation studies.

5.2. Practical Viability and AI integration

Regarding the model's strengths, Practical Feasibility (Aspect C) emerged as the most highly rated dimension. The unanimous agreement on its implementation ease and AI-alignment suggests that the EHSC Model is well-suited for the pragmatic needs of the *Kurikulum Merdeka*. This positions the model as a robust educational tool that effectively integrates systematic habit-forming exercises with predictive AI capabilities.

5.3. Conclusion of Discussion

In conclusion, the Model EHSC successfully meets the Very Valid theoretical criteria. This high level of validation 4.56 and Aiken's V of 0.90 confirms the model's strong conceptual foundation and high practical feasibility, making it ready to proceed to the empirical testing phases (practicality and effectiveness) to prove its impact in the elementary education environment.

Acknowledgments. Our special thanks go to our three esteemed expert validators for their valuable time, careful assessment, and constructive feedback, which ensured the theoretical validity of the EHSC Model. They are: Prof. Dr. Abdul Hasan Saragih, M.Pd. (Curriculum Expert); Prof. Dr. Sahat Siagian, M.Pd. (Learning Design and Technology Expert); Prof. Dr. Sumarsih, M.Pd (Applied Linguistics Expert). Their expertise and objectivity were crucial in validating the conceptual framework of the Erlendo's Habitual Short Conversation Model (EHSC).

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