Reading Literacy Training Curriculum Design using "The Empat-I" (4I) Literacy Framework For Parents

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Abstract: The important role of parents in building reading literacy can determine the direction of children's academic success, support personal growth, and lifelong learning. Literacy activities at home are able to create good interactions. Increasing parental involvement in supporting children's reading literacy is a key factor in improving learning outcomes. This study aims to design and develop a reading literacy training curriculum for parents using the Empat-I (4I) Literacy Activity Framework, which consists of initiation, identification, intervention and investigation. The curriculum is designed to equip parents with the skills and strategies that can be applied in guiding their children in reading effectively and sustainably. This research uses *the Design and Development Research* (DDR) method with six stages. Data was collected through interviews, questionnaires, and literature studies to ensure that the resulting curriculum was relevant to the needs of parents in building a literacy environment that supports children's reading development. The results of the study show that reading literacy training using the 4I literacy activity framework can increase parents' confidence in guiding their children, enrich the literacy environment at home, and strengthen the relationship between family and school in supporting children's reading skills.

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A. INTRODUCTION

Parental involvement as one of the important factors in children's academic success has been recognized by many parties for a long time, especially in the field of reading literacy (Çalışkan & Ulaş, 2022). The need for skills to recognize letters is the most basic thing to be fulfilled as one of the openers of children's insights in their daily lives until children are ready to be able to live in society later (Damaianti, 2021). Reading ability is considered a predictor of a child's academic success. This success certainly requires support from the child's closest environment, namely parents. A number of studies show that when parents are actively involved in the child's learning process, especially through literacy activities at home, this will not only encourage development in the cognitive aspect but more than that will be able to have a positive impact on children's emotional and social well-being (Fajriyah, 2018).

Parents as the first educator in children's lives have a very crucial role in shaping habits, attitudes and knowledge, especially in reading skills from an early age which is the beginning or basis for lifelong learning. A home environment that supports reading literacy activities has a scope ranging from the availability of reading materials, the allocation of time used, reading routines together and the interaction between parents and children around

books is considered to be able to affect children's reading ability (Al-Hail et al., 2021). A literate family environment needs to be built, because the family is the first and foremost place for children to learn about the world, values, and basic skills that will shape their lives. Reading literacy not only includes the recognition of letters and words, but also the understanding and application of information in daily life. Parental involvement in reading activities with children, such as reading books and discussing, plays an important role in improving children's literacy skills. Research shows that a rich literacy environment at home and active parental support contribute significantly to children's literacy achievement (Chan et al., 2016; Graham-Clay, 2005). The concept *of self-confidence* refers to an individual's belief in his or her ability to perform certain tasks. In the context of parenting, parents' *self-confidence* is related to their belief in supporting and guiding children's development. Studies show that parental *self-confidence* mediates the relationship between family socioeconomic status and children's academic achievement, where *high self-confidence* encourages greater involvement in the child's education(Bai & Wang, 2023; Bandura, 1977; Fang et al., 2021).

Currently in Indonesia, people's interest in reading is still a task that has not been completely completed. The level of reading demand for Indonesian people according to the OECD is still in the low category. Even so, the reading interest ranking shows that there is an increase but not as expected. Many people can read but they don't want to read. Not all parents have enough knowledge, skills, or confidence to optimally assist their children in developing their abilities (Goodall, 2018; Harris & Goodall, 2008). This condition causes a low quality of literacy interaction at home which has an impact on the lack of achievement of children's literacy competencies at school.

This situation shows the urgency of developing a reading literacy training program that is relevant, applicable, and easy to implement by parents. It requires a training model that not only touches on the cognitive aspect, but also builds self-confidence and practical skills of parents in creating a positive literacy environment at home. Training for parents needs to take into account the principles of adult learning or andragogy, which emphasizes that adults learn based on experience and the relevance of the material to their lives. Methods such as scaffolding, experiential learning, and Reading Together Simulation is effective in improving parents' literacy skills. Research shows that approaches that involve hands-on experience and active participation increase learning effectiveness in adults (Muhammad et al., 2022; Rusman, 2021).

The development of the training curriculum should be based on the analysis of the needs of participants to ensure that the materials and methods prepared are in accordance with the real conditions and competencies required. This approach ensures that the curriculum produced is systematic, applicative, and able to answer the challenges faced by parents in guiding children to read. The 4I (Initiation, Identification, Intervention, Investigation) framework is designed to guide parents in the stages of reading literacy practice. Each stage reflects the parent's learning process in recognizing the child's needs, choosing the right strategies, implementing appropriate interventions, and conducting evaluations or reflections for continuous improvement. This approach facilitates the development of

literacy in a contextual manner and is responsive to family dynamics (Bachtiar, 2021; Jundulloh & Ali Arifin, 2021).

This research aims to develop a reading literacy training curriculum for parents using the Empat-I (4I) literacy activity framework, namely *Initiation*, *Identification*, *Intervention*, and *Investigation*. This framework is designed to guide parents in accompanying their child's reading process gradually and continuously. By using *the Design and Development Research approach* (DDR)(Richey & Klein, 2007), This research designed a curriculum based on real needs and input from parents through interviews, questionnaires, and literature studies. Based on this background, the research questions asked in this study are: (1) What are the needs of parents in guiding children in reading literacy at home?; and (2) What is the process of developing a reading literacy training curriculum based on the 4I framework?.

B. METHOD

This research uses a qualitative approach with the type of Design and Development Research (DDR) developed by Richey and Klein (2007). This approach is used to design and develop educational products, in this case a reading literacy training curriculum for parents, which is based on the framework of Empat-I (4I) literacy activities. DDR was chosen because it is able to bridge the gap between theory and practice, and allows researchers to produce products that can be directly applied in the field through a systematic process involving needs analysis, design, development, and evaluation (J. Ellis & Levy, 2010). The following are the stages used in curriculum development with DDR.
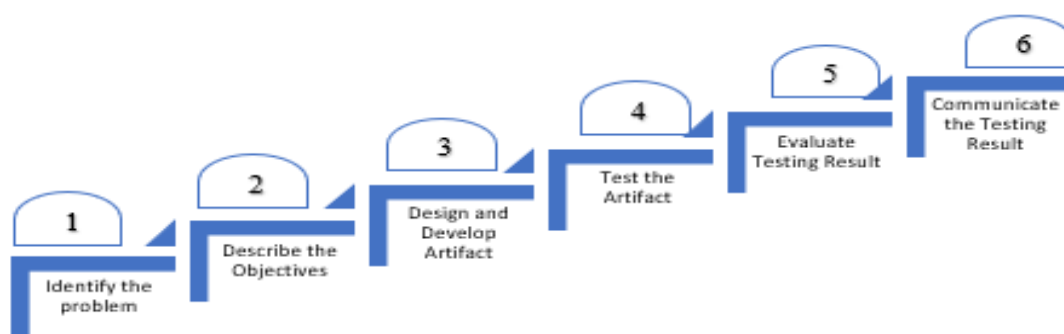

Figure 1. Stages DDR

The research process is carried out through six main stages according to the DDR model, which is visually depicted resembling a stepped staircase to the side, indicating that the process takes place systematically and gradually. The first stage begins with identifying relevant issues to be researched, usually stemming from real needs in the field or findings from literature studies. Once the problem has been formulated, the next step is to explain the goals of the development that you want to achieve. This goal is the basis for designing and developing artifacts or products as a solution to problems that have been identified previously. The initial product that has been developed is then tested to determine the extent of its effectiveness and feasibility in the context of actual use. The results of the tests are then thoroughly evaluated to see their strengths and weaknesses, as well as obtain feedback from

users. The final step in this process is to communicate the results of the test scientifically, either through publications, development reports, or academic presentations. All of these stages illustrate how DDR is a powerful approach in the development of educational products based on real needs, with a theoretical foundation and thorough empirical validation.

To ensure that the process of developing the reading literacy training curriculum can answer real needs in the field, data is collected through several techniques, namely (1) literature study, (2) in-depth interviews, (3) questionnaires Literature studies are conducted to explore theories in curriculum development, concepts, and models relevant to reading literacy and curriculum development approaches (El-Astal, 2023; Miller, 1985). In the interview technique, the actual needs in the field were thoroughly explored, with informants, namely parents, early grade teachers and the literacy community in the community.

C. RESULTS AND DISCUSSION
1. The Needs of Parents in Guiding Children in Reading Literacy at Home

The Process of Developing a Reading Literacy Training Curriculum with the Framework of Literacy Activities Empat-I (4I). The development of a reading literacy training curriculum for parents is systematically designed based on the results of needs analysis and refers to the Empat-I literacy activity framework (*Initiation, Identification, Intervention, and Investigation*). This approach emphasizes the formation of knowledge, skills, and transformation of parents' attitudes in assisting their children to develop literacy skills from an early age. The development of a reading literacy training curriculum for parents is systematically designed based on the results of needs analysis and refers to the Empat-I literacy activity framework (Initiation, Identification, Intervention, and Investigation). This approach emphasizes the formation of knowledge, skills, and transformation of parents' attitudes in assisting their children to develop literacy skills from an early age.

The initial needs analysis was conducted through surveys, interviews, and focus group discussions (FGDs) involving parents, teachers, and literacy facilitators. The findings revealed that most parents expressed uncertainty regarding how to create an engaging reading environment at home, lacked knowledge about age-appropriate books, and had limited strategies to motivate children to read consistently. Furthermore, many parents desired practical guidance that fits into their daily routines and addresses real-life challenges, such as managing screen time and balancing literacy activities with household responsibilities. In response to these needs, the curriculum development process followed a structured path aligned with the Empat-I framework:

a. Initiation this stage introduces parents to the importance of reading literacy and their pivotal role as the first educators at home. Modules in this phase include awareness-building on early childhood brain development, the benefits of early literacy, and how reading supports academic and emotional growth. Activities in this phase aim to cultivate intrinsic motivation and commitment among parents to become active literacy agents.

b. Identification, at this stage, parents are equipped with skills to recognize their children's reading habits, preferences, and challenges. They learn to observe

behaviors, identify early signs of reading difficulties, and assess the literacy environment at home. Tools such as literacy checklists, observation guides, and reflective journals are introduced to support this process.

c. Intervention, Based on the identification results, parents are guided to implement tailored literacy strategies. This includes setting up reading corners, selecting suitable books, engaging in shared reading, and using storytelling as a medium of interaction. Practical workshops and demonstrations are provided, allowing parents to practice and receive feedback from trainers and peers.

d. Investigation, the final stage encourages parents to reflect on and evaluate the impact of the implemented strategies. Parents are introduced to simple data collection methods, such as keeping reading logs, tracking progress, and documenting success stories. This stage also fosters a growth mindset, where parents continuously seek new knowledge, adjust their approaches, and actively participate in literacy networks or support groups.

By integrating the Empat-I framework, the curriculum not only delivers content but also transforms parental involvement into a sustainable, reflective, and empowered practice. The ultimate goal is to build a home literacy culture that nurtures children's love of reading and supports their long-term educational journey.

Table 1. Curriculum Framework for Parental Reading Literacy Training
Based on the Empat-I (4I) Model

Stage (4I)	Objectives	Core Materials	Learning Activities
Initiation	Build awareness of the importance of early literacy and the role of parents	- Importance of reading literacy - Brain development in early childhood - Reading and bonding	- Sharing session - Video screening - Group discussion
Identification	Recognize children's reading behaviors, habits, and potential challenges	- Identifying reading habits - Home literacy environment - Recognizing reading difficulties	- Observation exercises - Literacy environment mapping - Reflective journaling
Intervention	Apply appropriate literacy stimulation strategies at home	- Shared reading strategies - Storytelling techniques - Book selection for children	- Practice sessions - Role-play - Book review group

Stage (4I)	Objectives	Core Materials	Learning Activities
Investigation	Evaluate the effectiveness of parental literacy support	- Monitoring progress - Simple assessment tools - Reflective practices	- Reading log development - Case documentation - Peer mentoring

2. the process of developing a reading literacy training curriculum based on the 4I framework

The curriculum is prepared through four main components, namely objectives, materials, methods, and evaluation. Each component is developed to respond to the real needs faced by parents in the practice of accompanying children to read at home. The purpose of the training is focused on increasing parents' self-confidence, especially in providing emotional and cognitive support to children when reading, building regular reading habits, and choosing the right strategies in reading activities together. The training material includes a basic understanding of reading literacy, the selection of age-appropriate reading books, dialogical reading techniques, and how to create a home environment that supports literacy. This material is designed contextually, so that it is easy to apply by parents with diverse educational backgrounds. The training method applies a participatory approach through group discussions, simulations, and hands-on practice, to create a collaborative learning experience. The training also functions as a *shared learning space* for parents to share experiences, manage doubts, and build a literacy mentoring network. The evaluation is carried out in a formative and summative manner, which includes increasing knowledge, practical skills, and changing parental attitudes. The results of the evaluation are used as a basis for improving training design and to ensure the effectiveness of curriculum implementation in supporting the improvement of children's literacy through the active role of the family.

Once the curriculum is designed, the next step is validation by experts. This validation is carried out by experts in the fields of curriculum, literacy, and adult learning to assess the suitability of content, learning strategies, and evaluation instruments. Input from experts is used to revise and improve the curriculum to make it more relevant and applicable. After validation, the curriculum is tested on a limited and broad scale. The results of this trial are the basis for making final improvements. The last stage is dissemination, which is disseminating the curriculum that has been refined so that it can be used more widely, both by training institutions, literacy communities, and schools.

With a curriculum structure like this, reading literacy training is not only a technical intervention, but also a vehicle for empowering parents as strategic partners in creating a sustainable literacy culture at home. The following is a series of procedures for developing a reading literacy training curriculum for parents.
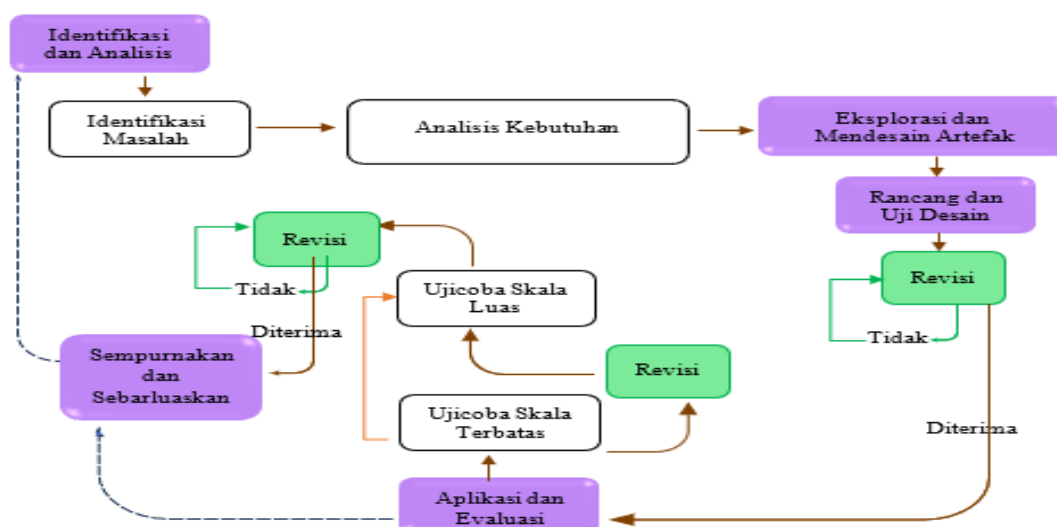
Figure 2. Curriculum Preparation Procedure

D. CONCLUSIONS AND SUGGESTIONS

Based on the results of the needs analysis and curriculum design, it can be concluded that reading literacy training for parents must be designed holistically by considering the dimensions of integrated objectives, materials, methods, and evaluation. The main findings show that there is a gap in family-based literacy support that needs to be bridged with systematic training programs. This shows the need to strengthen the role of parents as co-educators in the development of children's literacy. In addition, it shows the importance of training materials that include book curation, age-appropriate reading classification, and book selection techniques based on children's interests. The training curriculum developed is important to be able to answer these challenges through a design that is needs-based and oriented towards increasing parental self-confidence. The learning objectives are formulated to build parents' self-confidence in the practice of accompanying children to read. The material is focused on functional literacy, strategies for accompanying children and the formation of a literacy ecosystem at home. The training methods used include scaffolding, simulation, and experiential learning which have been proven to increase parental active participation. Evaluation is carried out formatively and summatively with a reflective approach to strengthen understanding and application of skills in an ongoing manner.

This research opens up opportunities for further exploration in several directions on the implementation of this curriculum on a broad scale by measuring the direct impact on increasing parental self-confidence and advancing children's literacy skills. Digital Adaptation, given the limited time and mobility of some parents, the development of online versions of training with a microlearning approach and interactive modules based on the 4I framework can be a strategic alternative that deserves to be studied for effectiveness. Further analysis also needs to be carried out to adapt the content of the curriculum to the local social and cultural context, so that the training materials are relevant and applicable in various diverse communities.

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