Example-engagement-motivation (E2M): Designing an early literacy learning model for elementary school

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Abstract. This study aims to design a model that is really needed by teachers in schools by taking four major steps. First, through the latest theoretical studies, we identified at least six models specifically developed by experts for the purpose of facilitating elementary school children in learning literacy. Second, those six models are then contrasted to see which main components are included in each model studied. Third, from the steps of comparing and contrasting of these learning models, a small number of mandatory components will be determined which basically represent three things: the role of the teacher, the task of the child, the support provided by the teacher. Fourth, the researchers made a prototype of a literacy learning model that is potentially suitable for elementary school students in early grades. This research is design-based research. The result of this research—in the form of the acronym of E2M—will be provide wide space for teachers of elementary schools to facilitate children’s literacy development and fulfill children’s needs for their literacy learning.

Keyword: Learning model, early literacy, early grade, elementary school.

1. Introduction
The importance of early literacy is revealed by several research results that show that early literacy has a central role in the success of subsequent literacy [1,2]. Literacy is closely related to reading, and reading is the key to learning all science. Reading can open horizons and knowledge horizons and reading is also the foundation for success in all lessons in school.

The ability to read well will lead to lifelong reading and pleasure. Good reading skills need to be instilled early. [3] has made clear that the ages of 3-8 years are an important period in developing reading skills. To achieve success in school and success in the world in general, children need to know how to read [4]. The initial success in reading can also estimate literacy achievement which later related to performance in various academic fields. Research shows that children who have successfully learned to read in the early years of elementary school will have the readiness to read for learning and for pleasure in the years to come. [5] maintained that a student who becomes a strong reader in the early grades of elementary school will be a strong reader in the following classes.

On the other hand, children who have low reading skills in grade 1 to grade 3 are in a very unfavorable position academically, they have more difficult time and will be increasingly left behind in other subjects. [6] found that weak readers in first grade had an 88% risk of being weak readers in grade 4.
Reading is an important factor in learning, so effective learning is important because how children learn and learn literacy will greatly affect children's literacy skills. [7] revealed that the scientific aspects of reading research are often overlooked when teachers take and choose learning strategies. This is in line with the preliminary studies that researchers conducted on a number of elementary schools and experiences in teaching teachers in Bandung (involving 28 low-grade elementary school teachers). The finding of a preliminary study of a number of elementary schools and teachers teaching at the elementary schools in Bandung clearly indicates that a specific and research-based, the learning model is needed to guide teachers in their daily actions in carrying out their duties. (manuscript not published)

2. Methods
This research adopted a Design Based Research (DBR). [8] define DBR “It is a series of approaches, with the intent of producing new theories, artifacts, and practices that account for and potentially impact learning and teaching in naturalistic settings.”

The development model used in this study is Reeves’s model, [9] which has four phases namely Phase 1: Problem identification and analysis Phase 2: Developing a solution prototype Phase 3. Iterative cycles Phase 4. Reflection. The four phase steps in this study are:

A. problem identification and analysis
Stages of collection and analysis of problems in the research conducted at the preliminary study. The researcher analyzes the problem so that the problem was found about the lack of a model research-based for promoting early literacy, the lack of research-based model is thought to lead to the of low children's literacy skills.

B. Developing a Prototype Solution
The prototype solution in this study designs the development of early literacy learning model through two stages, first stage the researchers made a prototype of a literacy learning model with syntax, social systems, reaction principles and supporting systems that is potentially suitable for elementary school students in early grades by Focus Group Discussion (FGD). The second stage is designing and formulating learning, teaching materials, Student Worksheets, Media, teacher's guidebook in managing learning and assessment. 3. Designing and formulating research instruments, these instruments are (1) observation instruments to measure student activity and teacher activities in literacy learning (2) test instruments to measure student literacy skills.

C. Iterative cycles
The purpose of doing an Iterative cycles is to solve and improve practical solutions. This activity was published (1). discuss the draft model, the initial design of the literacy learning model. (2) implementation (limited trial) draft model, testing the draft of the initial model in 1 class (3). The evaluation and revision of the results of the trial are limited through the design of the Validation model by experts and improving, (4). The draft revised model, Draft trial model 1, Revised Draft model 1, Draft trial model 2, Draft model revision 2, (5). Draft Fixed and expert Validation.

D. Reflection
The final stage of the development of this literacy learning model is to reflect on this to produce design principles and improve the application of practical solutions. This stage is part of the research that discusses and reflects on research results. The purpose of this discussion is also to get answers to the questions that arise in the process of research.

Of the 4 phases the researcher has implemented two phases, phase one is problem identification and analysis and phase two is developing a prototype solution. In this the researcher presents a prototype solution, formulated in the design of the learning model.

3. Discussion

3.1 The concept of learning models
The model is a conceptual framework that is used as a reference in conducting activities. In the term, the learning model is defined as a conceptual framework that elaborate a systematic procedure in
organizing learning experiences to achieve certain learning goals. Models can be interpreted as a pattern used in compiling curriculum, designing and delivering materials, organizing students, and choosing media and methods in a learning condition. The learning model also means how students learn by interacting with the components. [10] Learning models have a broader meaning than learning strategies or procedures. [11] The model serves as a guide for learners in planning and carrying out learning activities.

3.2. Learning Model Components

The learning model has four components as keys that need to be discussed to develop the model, namely: syntax, reaction principle, social system, and the supporting system as proposed [10b].

The syntax is steps, phases, or sequence of learning activities. The principle of reaction, is the reaction of learners to learner activities. This social system contains three main understandings, namely, a description of the type of learner and student roles, a description of the hierarchical/authority relationship of learners and students, a description of various types of rules to encourage students and support systems, this support system is a requirement needed by the model. The support system starts with the supporting questions needed by the model to create a special environment. In this connection, the support system is in accordance with the needs/assistance and technical facilities support systems originate from two sources, namely the specificities of the roles of learners and students.

The four components revealed above are similar to those revealed by [11b] that the learning model has four special characteristics that are not possessed by learning strategies or procedures, 1. Logical theoretical rationales compiled by educators, 2. The learning objectives will be achieved, 3. The teaching steps needed so that the learning model can be carried out optimally, 4. The learning environment needed so that learning objectives can be achieved.

While according to [12] the learning model is a pattern in learning that can also be determined as a learning step, and the device to achieve learning goals.

It can be concluded that the learning model is inseparable from the components that will support the expected learning goals, namely, the sequence of learning steps, a learning environment that supports positive interactions between teacher and students, learning support tools, and evaluation that will be learning feedback.

3.3. Early Literacy

In the development of the concept of literacy, the concept of basic literacy has emerged since Marie Clay had introduced the concept of emergent literacy, in which children imitate reading and writing. In this phase, many also referred to as early literacy, which illustrates that this ability is the initial ability that underlies the ability to read and write truly. Early literacy according to [13] is the initial development phase in literacy, that form the concept of reading and writing. According to Clay, 2001 in [14], early literacy is the ability to listen, understand spoken language, and communicate through images and oral forms of experience interacting with the environment. Early literacy period occurs in a child between birth and when a child can read and write at the conventional level (around third grade). [15]

3.4. Early Literacy learning models

3.4.1. Literacy Work Station (LWS). In this model Teachers first introduce reading or writing strategy with modeling. In LWS teachers can provide various activities or materials for particular children to enable them to meet their needs at a particular station, students take responsibility for their own learning. In literacy areas. The literacy component developed is word work, fluency, comprehension strategies, and writing lessons. Making literacy stations as activities that can be chosen by children based on their abilities. Teachers must be able to do activities and tasks clearly and can be completed in a certain time, help to decide and to change the material, and negotiate the ideas for students to practice at each station [16,17]
3.4.2. **Literacy Collaborative (LC).** Teachers use mini-lessons and sharing periods to strengthen the principle of reading and writing using conventions for individual help and guidance for students, LC centers on support for literacy support that focuses on helping students to read and write. The literacy component developed is vocabulary and word structure, efficient/fluent reading. The strategies used in this model are reading aloud interactively, guided reading, interactive writing, writing workshops, and word studies. [18]

3.4.3. **Collaborative Language and Literacy Instruction Project (CLLIP).** The teacher can divide students into groups based on levels to plan differentiated teaching. This is especially evident in literacy areas such as alphabetical principles, vocabulary, and fluency where students are paired, or emphasizes children's interactions with their peers to support one another, usually in small groups. So, the success of acquiring literacy depends not only on individual learning but also on team members. The literacy component developed is awareness of phonology, awareness of alphabet and phonics, fluency, vocabulary, reading comprehension, and writing. [19]

3.4.4. **Clik,Clak, Moo.** The role of teachers in this model is as an effective reader by incorporating effective reading elements. The components of literacy developed are fostering comprehension of text, developing rich vocabulary, building phonological and phonemic awareness. Strategies in this model: read aloud experiences, interactive read-aloud high-quality literature. [20]

3.4.5. **Reading Their Way (RTW).** Teacher read to children every day (sharing of high-quality literature) The components of literacy developed are Phonemic awareness and phonics, lower case letter recognition, spelling, contextual reading (building listening comprehension and vocabulary), writing comprehension. [21]

3.4.6. **Reading and Integrated Literacy Strategies (RAILS).** The teacher engages students in their practices, direct them toward in their initial knowledge of new instructions and give feedback as student need it. The teacher also initiates instructional activities by presenting new information to students (eg, introducing vocabulary words) and learns the material when the students respond incorrectly to weaknesses in students. their practice students developing skills in different contexts. Literacy components developed are word reading, alphabetic principle, word reading and phonemic analysis, vocabulary, comprehension (listening and reading comprehension), fluency reading. [22]

3.5. **Example- Engagement- Motivation (E2M) Early Literacy Learning Model.** In the context of this study, the important components that will be the main components in the discussion of the early learning literacy model based on the components in the literation learning models are analyzed and synthesized, the researcher found three main components of the first learning model: example, engagement, motivation.

Example, the teacher becomes an example/model not only of speech but attitude and consideration in speaking, writing, and reading. Children see and listen to the teacher starting from using grammar, intonation, and sentence patterns and using adults. Modeling is described as showing how to do that allows the behavior to be imitated [23]. carried out by teachers without students.

Engagement, Engagement refers to the quality of interactions that are present (for example, student attention and effort) and supports emotions (for example, positive logs) during learning activities. [24]

Motivation, in a motivational literacy program, has a very important role in developing positive motivation for literacy. There are several important aspects of motivation 1. Literacy environment 2. Reading aloud to children and 3. Teacher's attitudes and expectations [25].

The steps for implementing the learning model can be done as follows.
Explanation of the steps of the learning model as follows.

Syntax
Phase 1. Planning. Prepare a literate environment: 1) prepare and arrange the place for the story time; (read a load / Reading Story Book, shared reading). 2) prepare literacy areas such as word play, independent reading, 3) prepare a reading area in the classroom by storing various reading books that support literacy

Phase 2. Implementation,
A. Initial Activity: 1) Opening and apperception. 2) The teacher delivers the morning message, which contains activities to be carried out from opening to closing by writing it on the board, and pointing at the writing while reading it.

B. Core Activities: 1) Story time, the teacher makes a circular formation of children sitting on the carpet to listen to stories through big books in the order: (1). Condition students to gather and ensure comfortable seats and allow students to see the book clearly. (2). Show and discusses book cover by reading book titles and authors and book illustrations. (3). Invites children to predict the contents of the book from the title of the book that has been read. if children find difficulties, model predictions by "thinking aloud" to show the child how the teacher predicts. (4). The teacher conducts an interactive dialogue with the child about the contents of the book. (5). The teacher concludes the contents of the book. 2) Children choose literacy areas, literacy areas that teachers can provide which are tailored to the needs of the child, for example the area of independent reading, word study, poetry. 3) children who have low literacy skills are given individual literacy activities.

C. Closing Activity: reflection, inform the next activity and closing.

Principle of reaction
The teacher creates a conducive environment for children to interact with teachers, fellow students, and individual assignments.

Social System
The teacher becomes modeling in literacy learning, in the story activities when the teacher gives a model of how to read a good and correct book. Students actively involved in literacy activities and can answer questions from teachers about the stories being read, engage in small groups/literacy areas and collaborate with the other students, students can also do individual assignments.

Supporting System
1. Big Book for time activities tells story time. (Read aloud and shared Reading)
2. Literate physical environment; the classes that support literacy learning such as reading areas, the setting for literacy areas (small groups), and Whole group instruction.
3. Books that support children to interact with books, when reading independently.
4. Walls that are filled with literacy work.
5. Literacy reward board.

4. Conclusions
Early literacy plays a very important role in achieving the next literacy abilities. This rational was the reason for Example- Engagement- Motivation (E2M) Early Literacy Learning Model developed. The E2M Learning Model gives an opportunity for children to have a good early literacy skill to achieve the next literacy abilities. The role of the teacher in this learning model is as an exemplary model in which the teacher must possess good ability in understanding all components of literacy, interactions and environmental factors in supporting children to be literate and learn to be literate. Students are also actively engaged in learning and adjusted with their abilities. The support given by the teacher must enable to motivate the child to be literate and love to read.

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