

MULTIPLE INTELLIGENCE-BASED LEARNING IN KINDERGARTEN

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Abstract

The theory of multiple intelligences is derived from the hypothesis that there is no child who is lacking intelligence; hence, the thought that every child is potential to accomplish achievements should be possessed by every teacher. One of attempts to comprehend the theory of multiple intelligences is by recognizing child's intelligence potential in early stage, which will be used as the development framework of multiple intelligence-based learning. This current study aimed at constructing multiple intelligence indicator system in kindergarten. The first phase of data collection process was done through literature review and pre-survey to identify multiple intelligence indicator and inventory design. The data gained from the first phase were used as fieldwork instrument. The findings of this study were utilized to generate child's behavior developmental inventory in each intelligence type. The results of this study concluded the followings: (1) Teachers do not develop multiple intelligence-based learning in a specific way, but only several types of intelligence that are developed through certain themes, learning programmes, and activities; (2) There is no multiple intelligence that is found to have a significant progress in any kindergarten types; (3) the indicators that are generally characterized by all kinds of kindergarten are: linguistics intelligence/linguistics competence and intrapersonal intelligence/social intelligence; and (4) multicultural kindergartens have shown a higher score on logical-mathematical intellectual development and intrapersonal intelligence; while Islamic-based kindergartens have shown to predominate in naturalist and existential intelligences.

Key words: multiple intelligences, learning

INTRODUCTION

Human development is progressive and coherent. Progressive is as individual's transformation happens constantly and continuously; and cohesive is due to the correlation between previous transformation and the upcoming transformation. Transformation that happens in early phase will affect transformation that occurs in the next phase. Kindergarten, as an early education learning process, is aimed to optimize and direct child's development. Accordingly, kindergarten is then considered important to obtain more attentions.

Based upon the analysis regarding pre-school effectiveness, most experts believe pre-school educations growing in recent years seem to be oriented to achievement accomplishment (Santrock, 1994), that is a school's orientation emphasizes on maintaining school's good

impression which is burdened to children. Pre-school education is expected to focus their orientation on child's development and development tasks that are able to stimulate child's interest and curiosity, to involve child's emotion, intellectual and social aspects, and to uncover child's imaginations. By doing so, it enables Zone of Proximal Development (ZPD) theory introduced by Vigotsky to occur, where children are able to improve themselves beyond the potencies they may possess. This may happen if they are supported by conducive learning environment (Rizfyanti, 2002). Gardner then defines the potencies that are able to be improved as multiple intelligences.

Multiple intelligence theory (Gardner, 2003) is derived from the hypothesis that there is no child who is lacking intelligence; hence, the thought that

every child is potential to accomplish achievements should be possessed by every teacher. It becomes a duty for every teacher to construct positive suggestions and find several major child's potencies that could be improved. This theory enables teachers to detect child's innate gift, including one who faces difficulties in learning.

It has been proven in history over these four decades that the majority of learning process in school demands the students to be obedient and behave passively. Also, the measurement of success is determined from school's lesson achievement. Therefore, student who goes out from this way will be labeled as "underachiever" or "learning disability" (Amstrong, 2002). Moreover, during the learning process, students are induced to accomplish certain achievements. Parents often do not understand that the competition they have made in pursuing achievements will be an exhausting competition for children, not only in their childhood, but might burden them until they reach the next development stages (Guthrie, 2003).

Recognizing multiple intelligences is aimed to assess child's personal potency development. Consequently, definition, simple and natural assessments, procedure, clear validity, and actuality with proper instrument are of necessity in order to be sensitive towards individual's differences, development stages, and particular intelligence types. There have been various assessment types which are developed for adult learners; however, assessment or inventory particularly for children has not been much developed yet. Besides, recognizing and mapping child's potency in early years are considered substantial at serving optimal treatment for students' diversity, and useful to optimize child's potency towards future human resource development framework. Attempt at serving appropriate education service to improve child's potency comprehensively is done by recognizing their intelligence type propensity earlier which will be used as the development framework of multiple intelligence-based life-skill learning model.

Considering the issues discussed above, the main problem in this study is formulated as "How is multiple intelligence developed and has been developed currently in several types of kindergarten by developing suitable inventory to measure multiple intelligences in child's learning and multiple intelligence indicator system analysis in kindergarten?"

RESEARCH METHOD

In general term, this study aimed at constructing multiple intelligence indicator system in kindergarten. This study was a developmental research which used quantitative approach to investigate pre-school child's multiple intelligence potency propensity. The research procedures were organized into three major steps: 1) Preliminary study, aimed to determine multiple intelligence indicator analysis and discover kinds of kindergarten; 2) Indicator elaboration and inventory drafting were used as instruments to measure multiple intelligences, which had been validated by experts, research team, and fieldwork. The result generated eighty (80) inventory items categorized into eight (8) intelligence types as the followings: 1) interpersonal intelligence; people smart, 2) bodily-kinesthetic intelligence; body smart, 3) intrapersonal intelligence; self smart, 4) linguistics intelligence; word smart, 5) logical-mathematical intelligence; number smart; 6) musical intelligence; music smart; 7) spatial intelligence; picture smart, 8) biologist-naturalist intelligence; nature and existential smart.

While determining locations used in this study, purposive sample was employed by choosing area's characteristics that were in-line with the research purposes. Malang, which comprised five districts, was taken into consideration. School samples would determine the proportions in each area; 400 students coming from 10 different kindergartens were recruited as research samples. The selected kindergartens were obtained from Focused Group Discussion (FGD) result, also by considering recommendations from DIKNAS (Educational

Institution), equal school distribution, and school's quality. For that reason, the selected schools were expected to be able to represent;

1. Islamic-based kindergarten
2. Christian-based kindergarten
3. Multi-cultural kindergarten
4. National-based kindergarten
5. Traditional suburb kindergarten

Two major results were offered in this study: 1) Inventory/instrument for multiple intelligence tendency and 2) Analysis software model using PIVOT to arrange profiles based on the needs. The data processed in PIVOT, designed and analyzed specifically, were able to generate multiple intelligence development profiles (based on demands) in the form of profiles for each type of intelligence as a whole or per school. The analysis results also revealed some general indicators shown by all types of kindergarten, by some types of kindergarten, or by specifically one type of kindergarten.

RESULT AND DISCUSSIONS

Multiple intelligences that develop and are developed in kindergarten

According to the results obtained from FGD, it was found that teachers did not develop multiple intelligence-based learning in a specific way, but only several types of intelligence that are developed through certain themes, weekly programmes, and several activities. The lesson plan ran quite as planned in daily programmes, (conventional kindergartens also conducted lesson planning but working irregularly and seemed to be less-detailed). The results of FGD revealed the insufficiency of parent's encouragement and cooperation to improve the learning process and learning outcomes sustainably. Despite teachers did not map multiple intelligences specifically, they have been committed to improve students' multiple intelligence potency in several themes.

Major intelligence types in several kindergartens

There is no multiple intelligence that is found to have a significant progress in any

kindergarten types, nor to be less-developed in other kindergarten types. There is a less-significant difference that musical intelligence appears to have better improvement in Christian-based kindergarten. This might happen because multiple intelligences are students' potencies. Meanwhile, inventory is used to conduct further assessment over how far the students have utilized and improved their intelligences.

General indicators characterized by all kinds of kindergarten

Indicators generally characterized by all kinds of kindergarten included: linguistics intelligence/linguistics competence and intrapersonal intelligence/social intelligence. Further analysis is required in this issue, that child's behavior developmental inventory is being differently characterized by teachers. Therefore, no equal score criteria are made between kindergarten A and B.

Indicators characterized by several kinds of kindergarten

The analysis revealed several indicators which were characterized by certain kindergarten types as follows:

- a. Kindergartens will be labeled as "superior" from their learning quality and elite location (whether they are religion-based, nationalist, or multicultural kindergartens). A quite obvious distinction is shown on "less-developed" kindergarten classification in logical-mathematical and intrapersonal intelligence improvement compare to that of the "superior" ones.
- b. Islamic-based kindergartens (whether they are on "developed" or "less-developed" classification) are seen to have a bit higher tendency on naturalist/biologist and existential intelligence development.

Special indicators that constitute kindergarten's uniqueness

Neither do multiple intelligences show a significant progress in particular kindergarten types, nor to be less-developed in other kindergarten types. There is a less-significant difference on musical

intelligence, which appears to have better improvement in Christian-based kindergarten. This might happen because multiple intelligences are students' potencies. Meanwhile, inventory is used to conduct further assessment over how far the students have utilized and improved their intelligences. Accordingly, the distinctions may not be coming from kindergarten's visions, missions, or ideology, but is likely caused by kindergartens' facilities, learning models, the total number of students per class, and so forth.

CONCLUSION AND SUGGESTION

By examining research findings and conclusions elaborated above, the researcher offers several recommendations as followings:

1. Conducting a socialization concerning on multiple intelligence-based learning and detecting child's potency in early phase are required.
2. Multiple intelligence development should be wrapped uniquely in kindergarten's curriculum. Consequently, there will be definite competency standard, success indicator on child's learning activities, as well as its evaluation model.
3. Good collaboration between schools and parents or other third parties is necessary to support child's learning process.
4. Children's potency development given in early years is very crucial, as their behaviors will be patterned since they are in childhood. Therefore, special trainings for teachers are needed to design, develop, and implement suitable and authentic learning activities for students.

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