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A Research on the Department of Early Childhood Care in the teaching practice of the Interesting Reasoning Mathematics" course by Applying Bricolage Theory

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ABSTRACT

This research aimed to use innovative thinking in curriculum design, combined with the concept of Bricolage, to carry out the curriculum design and teaching practice of "Interesting Reasoning Mathematics", in the process of using readily available materials, following the outlines and indicators of preschool education curriculum, designing “Interesting Reasoning Mathematics" "Mathematics" course content, and conducting practical operations in the classroom, so that the students of the kindergarten department can make good use of the resources at hand (Resource at hand), improvise creation (Making do), and recombination of resources (Re-combination) to become the leading role in the field of early childhood education. in addition to product-oriented presentation of learning outcomes, more importantly was the process of stimulating and displaying students' creative thinking ability, as well as the arrangement and management of a creative classroom situation. All of this teaching practice research records and reflects on the practical aspect of this course from the framework of creativity 4P/6P.

The number of participants in this course is a total of 17 senior students from the Department of Early Childhood Care. With their consent, the audio and video data of the course were recorded. This study adopted qualitative research method. Use multi-angle verification to collect relevant records of text, images, processes, and products in the research process, and conduct content analysis. The creative materials used in the classroom include: newspapers, paper clip, advertising paper, colored pens, white paper, etc.

The research results are as follows:

The finished products are: 1. Classification and categorization of daily objects, ten items; 2. Seven interesting sequences; 3. Three pieces of story construction that create relationships; 4. Three

pieces of creative amusement parks; 5. One creative baseball field 6. Design space to have fun with two pieces, etc.

The forms of expression include written scrapbooking, writing, drawing, hand-crafting, oral sharing, drama performance, role-playing, etc.

During the process, they helped and cooperated with each other, brainstormed, exchanged and shared, and carried out consensus evaluation implementation, etc. Observations and qualitative data show that they have high participation and positive emotions in this course that combines the theory of innovation, and they also assess themselves that they can affirm their own creativity. 92% of students said that the course not only helped them gain mathematics knowledge. Out of the 92%, 90% of students said that they learned the skills of operating the creative design of children's mathematics learning, 89% of students said that their creative thinking ability seems to have improved; 90% of the students said that they learned to cooperate with other students; 100% of the students said that they liked the content and learning of this course.

This practical research combines the theory of innovation to show the possible appearance of the "Interesting Reasoning Mathematics" course, as well as the multiple operation types, and points out possible limitations after the researcher's reflective thinking. There are more research possibilities that need to be further developed and continuously co-created by the early childhood education practitioners.

Keywords: Bricolage Theory, Creative Teaching, Early Childhood Care, Early Childhood Mathematics, Teaching Practice