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Implementing Effective Mathematical-Discussion Programme for Mathematical Competences in Primary School Classroom in South Korea

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Abstract : As the enthusiasm for education in Korea is too much high, it is well known by others that children in Korea get good scores in Mathematics. However, behind of this good reputation, children in Korea are easy to get lose self-confidence, tend to complaint and rarely participate in the class because of too much competition which leads to lack of competences. In this regard, the main goals of this paper are, by applying the programme based on peer-communication on Mathematics education field, it would like to improve self-managemental competence to make children gain self-confidence, communicative competence to make them deal with complaint and communitive competence to make them participated in the class for the age of 10 children to solve this problem. 14 children the age of 10 in one primary school in Gangnam, Seoul, Korea had participated in the research from March 2018 to October 2018. They were under the programme based on peer-communication during the period. Every Mathematics class maintained the same way. Firstly a problem was given to children. Secondly, children were asked to find many ways to solve the problem as much as they could by themselves. Thirdly all ways to solve the problem by children were posted on the board and three of the children made a group to distinguish the ways from valid to invalid. Lastly, all children made a discuss to find one way which is the most efficient among valid ways. Pre-test was carried out by the questionnaire based on Likert scale before applying the programme. The result of the pre-test was 3.89 for self-managemental competence, 3.91 for communicative competence and 4.19 for communitive competence. Post-test was carried out by the same questionnaire after applying the programme. The result of the post-test was 3.93 for self-managemental competence, 4.23 for communicative competence and 4.20 for communitive competence. That means by applying the programme based on peer-communication on Mathematics education field, the age of 10 children in Korea could improve self-managemental, communicative and communitive competence. Especially it works very well on communicative competence by increasing 0.32 points as it marked. Considering this research, Korean Mathematics education based on competition which leads to lack of competences should be changed to cooperative structure to make students more competent rather than just getting good scores. In conclusion, innovative teaching methods which are focused on improving competences such as the programme based on peer-communication which was applied in this research are strongly required to be studied and widely used.

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