

School Based Inservice Improvement as an Effective Instrument to Change Mode of Mathematics Teaching

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The national mathematical curriculum of Taiwan stressed that the learner should actively construct and understand mathematical concepts from his own experience; that the learner should understand, evaluate and respect his classmates' ways of problem solving and his viewpoints and the viewpoints of others. In addition, the teaching should inspire each student to communicate, discuss and debate. Since the curriculum changed so greatly, the change of the teachers needs support. At present, the inservice improvement programs are mainly lectures and rely on experts. This is not effective. The school is responsible for the realization of the curriculum, so the school has to push and carry out the reform.

I raises my six years action research in National Taipei Teachers College (NTTC) laboratory school as a focal case of "school-based" inservice improvement program (Chung, 2000). What was done in NTTC lab school in the reform of mathematics teaching, though it is a unique case (Hsiau, 1998), it realize the resocialization preached. From the beginning, I made the pedagogic study meeting on mathematics into pedagogic discourse session (PDS) which was the nucleus of the model. A stable model appeared with four aspects: workshops, newly tranferred teachers, inter-grade growth group, daily interactions. This model carried several characteristics. The key word are culture "education" humanization "duality" momentum "spotlight.

Yet, from the success of the NTTC laboratory school with the new mathematical curriculum, I believe that setting up many school-based inservice improvement programs could be an effective measure to implement the new curriculum, but the following key points should be observed: 1.The functioning of the old pedagogic study meeting should contain reflective professional discourse to induce the teachers to participate actively. 2.The principal should be the action leader of the curriculum reform and teaching mode change. 3.The frequency and quality of the professional discourse should improve considerably as days going by. 4.The improvement activities should gain the consent of the teachers and be effective. 5.The administration staff should make wise planning so that the environment is supportive and safe. Competent expert or subject leader should be present when needed.

References

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