

Portfolio Assessment of Cooperative Learning Groups in Small Classes

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The emphasis of learning to learn in curriculum reform has signaled to teachers to adopt student-centered strategies of teaching and different modes of assessment. Cooperative learning, as an innovative instructional strategy, and portfolio assessment, as an alternative assessment, are increasingly being used in Hong Kong classrooms. The change from listening to teachers teach and answering examination questions to taking the initiative to learn and demonstrating competence with self-selected evidence is a great challenge to the students. This paper first discusses the various constraints and difficulties of using cooperative learning and portfolio assessment that Hong Kong teachers and students are encountering, such as the large class size, using social skills in group discussion, writing reflective statements, choosing evidence for inclusion in portfolios, marking portfolios and conducting self and peer assessment. Then examples are drawn from schools of small classes to investigate how the teachers attempt to tackle the problems and difficulties in implementing cooperative learning and portfolio assessment in their schools. The paper concludes with a discussion of the implications for successful use of portfolio assessment.

Cooperative learning is an instructional practice whereby students in small groups help each work together towards a common goal (Johnson & Johnson, 1999). Various co-operative learning methods have been developed over the years by different scholars and put into actual practice in the classroom. Some popular methods include for example, *STAD* and *TGT* by Robert Slavin, *Learning Together* by Johnson & Johnson, *Complex Instruction* by Elizabeth Cohen, *Think-Pair-Share* by Spencer Kagan and *Group Investigation* by Sharan & Sharan. Most of the research conducted on these cooperative learning methods suggests that cooperative learning develops students' higher-order thinking skills (Mathews, Cooper, Davidson & Hawkes, 1995), enhances motivation for learning and improves interpersonal relations (Nastasi & Clements, 1991) as well as peer relations (Slavin, 1995).

There is no unanimous agreement on the definition of portfolio assessment. It can refer to an individual collection of daily drawings, writings and other materials that provide documentation of a child's strengths (Schipper & Rossi, 1997). It can also be "a purposeful collection of student work that exhibits the learners' efforts,

progress, and achievements in one or more areas. The collection must include student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection” (Paulson, Paulson, & Meyer, 1991, pp. 60-61). Therefore, portfolio assessment may mean different things to different people according to what they want to achieve using portfolio though all kinds of portfolio assessment are characterized by their authenticity and ability to document a learner’s learning over a period of time.

Constraints and difficulties of using cooperative learning

Despite the many advantages of using cooperative learning in enhancing student performance, there are as many constraints and difficulties as advantages, if not more, in its implementation in Hong Kong primary schools. A couple of these constraints and difficulties will be discussed here. They are the large class size and the use of social skills in engaging in small group activities.

For groups to be effective, Abrami et al (1993) recommend a size from two to six. Vermette (1998) argues that a group larger than four is problematic because members tend to play a reduced role and it is difficult to account for everyone’s opinion during discussion. He further suggests that an ideal team size should be in the range of three to four as each group can have a balance of interests, personalities, strengths and talents for sparking creativity. In Hong Kong, the number of pupils per primary class is 37 in traditional schools and 32 in schools adopting the Activity Approach which is characterized by pupils learning in groups. Given such a class size, teachers tend to use rather large groups, consisting of 6 to 7 members per group (Chan, 2002). Group size of 6-7 may also be found in cooperative learning, but is not common, as the possibility of members becoming “free riders” is greater, and it is more difficult to come to a consensus during discussion. Abrami et al (1995, p.60) assert that “the larger the group, the more complex communication becomes, and the more difficult it is to promote equal participation, interpersonal skill development, and, possibly, learning”.

When pupils learn by listening to the teacher, there is little interaction between the pupils. However, when they learn as a group, it is inevitable that conflicts arise as they can have different opinions. Learning to respect others opinion while upholding one’s own view is a social skill which takes time to develop. Social skills are the key to the productivity of a group (Johnson & Johnson, 1997), as these skills reduce interpersonal conflict and facilitate interaction (Cohen, 1994). There are a variety of

social skills, including, for example, moving about quietly, monitoring time, interrupting appropriately, encouraging one another and resolving a conflict. These skills do not come automatically with cooperative learning (Barnes & Todd, 1995) but have to be explicitly taught in order for the groups to be productive (Johnson, Johnson, & Holubec, 1993). Chan (2004) found that teachers have different conceptions about the acquisition of social skills. Some felt their pupils could acquire social skills by listening to talks occasionally conducted by the principal, whereas some believed that their pupils could learn social skills incidentally. Such perceptions, contrary to what is found in the literature, imply that for co-operative group work to be successful, teachers must be convinced that social skills should be formally taught in the same way as any curriculum subject (Lew, Mesch, Johnson & Johnson, 1986).

Constraints and difficulties of using portfolio assessment

Like cooperative learning, portfolio assessment has its advantages as well as constraints and difficulties in its implementation in Hong Kong. Some of these constraints and difficulties will be discussed here. They include writing reflective statements, choosing evidence for demonstrating competence, marking portfolios and conducting self and peer assessment.

Portfolio, as an alternative assessment, was new to the teachers and students of Hong Kong ten years ago. A study was conducted in a teacher education institution and the result suggested that it had positive impact on both the lecturers and pre-service teachers, such as a change of pedagogy approach and style, taking greater responsibility for their learning and enhancing reflective practice (Klenowski, 2000). The study has also identified various difficulties in the use of portfolio assessment in teacher education, including writing self-reflective statements, selecting evidence to demonstrate competence and grading portfolios. Another local study investigated the extent to which principals and teachers in Hong Kong schools implemented portfolio assessment. The result showed that although portfolio assessment could enhance student learning and teacher professionalism, it was underutilized in Hong Kong (Bryant & Timmins, 2002). A possible reason was that teachers were not familiar with this kind of alternative assessment and they had received little training in this area.

If the pre-service teachers had difficulties with the use of portfolio in their study and the serving teachers were not competent in the use of portfolio assessment, it is not difficult to understand why their pupils have the same problems as them and encounter greater difficulties at their relatively early stage of cognitive development.

For generations, Hong Kong primary pupils have been accustomed to be assessed by summative assessment like tests and examinations. The shift from being assessed to self-assessing is a great challenge to the pupils. In the course of adapting to self assessment, some pupils might overrate themselves, while others might underrate themselves. The speculation is supported by a finding that individuals in the United States and Canada tend to inflate self-enhancement; whereas individuals in China, Japan and Korea tend to underestimate their abilities (Heine, Lehman, Markus & Kitayama, 1999). When pupils are weak in assessing their abilities, they will encounter difficulties in selecting evidence to demonstrate a certain competence. Confronting with a choice, they will either include too much evidence than is necessary or try their luck by choosing intuitively. Inaccurate self assessment and inappropriate choice for evidence can subsequently affect the reliability of their reflective statements. It will not be surprising to find that the evidence pupils include in their portfolio does not justify what they write in their reflection statements.

Teachers face two big constraints with marking portfolios. These are the lack of time and choice for the types of portfolio. As mentioned earlier in this paper, class size in Hong Kong primary classrooms is rather big. It is not feasible for a teacher to sit down with each pupil to discuss his/her portfolio regularly. In case of schools which operate in a bi-session mode, the situation of time constraint is even more severe. Moreover, teachers are put into a dilemma whether the portfolio should be graded for summative purposes. If portfolios are graded, there may be a tendency for the pupils to compose their reflective statements in such a way that it seems to demonstrate they have achieved the prescribed competence in order to be awarded a higher grade. Moreover, the pupils will only choose the best pieces of evidence for inclusion in their portfolios in order to get a maximum grade. Drafts of final products will tend not to be disclosed in order to leave the teacher a positive image of their competence. The portfolio will then become a 'show' portfolio which is a purposeful selection of a limited amount of the student's best work (Simon & Forgette-Giroux, 2000). However, this kind of portfolio for showcasing purposes is not as effective as a portfolio for formative purposes in helping pupils to reflect on their progress and set future goals for their learning.

How teachers tackle constraints and difficulties

Teachers use various ways to tackle the constraints and problems encountered in using cooperative learning and portfolio assessment. These include reducing class size, teaching pupils social skills, using pairs rather than small cooperative learning groups

and employing process portfolio instead of best works portfolio.

Reducing class size has financial implications and might not be always possible. Nevertheless, with the support of the principal, the one size for all classes can be re-structured so that there are some bigger classes and some smaller classes, without incurring additional resources. The optimal class size under such an arrangement is around 25. This enables teachers to form six groups of four for conducting cooperative learning effectively. In order to better prepare the pupils to minimize disruption and resolve conflicts while working in groups, social skills are explicitly taught. Pupils practice the use of social skills in their group work and monitor each other's performance with a checklist or rating scale. For pupils who are not yet confident in using a certain social skill, they are asked to form into pairs instead of four-member groups, as things are easier to settle between two than four members.

Given the many side effects of grading portfolio on the pupils, process portfolio is used instead. A process portfolio is effective in documenting the learning progress of a student, allowing him to recognize his strengths and weaknesses and to take charge of his learning (Johnson & Johnson, 2002). The process portfolio is used for formative assessment purposes to enhance pupils' learning. As the class size is smaller, teachers can find time to talk with each pupil to review his/her portfolio from time to time. During the review, the pupils have the opportunity to have face-to-face interaction with their teachers. Gradually, they will develop their assessment skill and can evaluate their own work. The pupils have further opportunities to improve their self assessment skills when they work together in cooperative learning groups as each member has the opportunity to assess each other's use of social skills in their group. This kind of peer assessment can help one to know about oneself from a third party's perspective which in turn enhances self assessment.

Implications for successful implementation of portfolio assessment

Research on portfolio assessment used in the schools of United States is abundant (Engel, 1994; Smith, Brewer & Heffner, 2003), but local studies are scarce. Having analyzed the current use of portfolio assessment in the Hong Kong context, some implications for its successful implementation are drawn. Firstly, it is of paramount importance that adequate professional training has to be provided for teachers to master the concepts and the use of various kinds of portfolios for different purposes. Secondly, a small class size can facilitate the implementation of portfolio assessment by allowing time for teachers to review portfolios together with individual

pupils. Lastly, cooperative learning can enhance students' ability of conducting self assessment which enables them to write reflective statements and make a wise choice for evidence for inclusion in their portfolios.

Appendices

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