USING GROUP ACTIVITIES TO CREATE UNITY, CO-OPERATION, AND MUTUAL REGARD

小组活动营造学生间的团结、合作和相互尊重

Unity is vital for all.

对于所有人来说, 团结是至关重要的。

Students should start with cultivating the spirit of mutual regard and harmony.

一开始就应该培养学生们相互尊重、相互协调的精神。

Unity of minds, natural love and co-operation, are the qualities we have to develop today.

团结意识、自然的爱以及相互合作是我们当今应大力发扬的品质。

By example and precept, in the classroom and the playground, the excellence of intelligent co-operation, of sacrifice for the team, of sympathy for the less gifted, of help...has to be emphasised.

比如,在教室里或在操场上,灵动的合作,对集体的奉献,对弱者的同情与帮助等优秀品质都是值得大力倡导的。

The quotations above refer to the values of unity, co-operation and mutual regard which are essential to a peaceful community, whether it be in the classroom or in society in general. One way to achieve these values is through the use of group activities in the classroom.

理念的一种途径。以上的引言说明无论在教室里还是在一个普通社区中,团结、合作和相互尊重都是一个和谐团体中的基本要素。在教室里采用小组活动的方法是实现这些价值

Group activities consists of two words: *Group* and *Activities*. The first word is *Group*. We live in a group. We are social beings who live in societies constantly interrelating to each other. Many of the problems we face in the world today are because we are not able to get on with our fellow human beings. National conflicts, social disorder, disharmony in the family, problems at school, most of these stem from an inability to agree or understand another 扭 point of view. We all have a tendency to think that our way of thinking is correct therefore everybody else who thinks differently is automatically wrong. What we want our children to grow up to understand is that although 扭?may be right, it does not mean that everybody else is wrong. There can be many ways of thinking and doing things.

小组活动由两个词组成,一个是小组,一个是活动。 第一个词是小组。我们都生活在一个小组中。因为我们具有社会性,就必然要与社会中的其他人发生各种各样的联系。当今世界中的许多问题都源于我们不能与同是人类的其他人和谐相处。民族冲突、社会无序、家庭不和、校园问题等等,其中绝大多数都是因为不能接受或理解他人的观点。我们习惯于用自己的方式去思考问题,所以与自己的意见不相符的观点便想当然地认为是错的。我们认为只要孩子长大了,他们自然会理解所有事情了。这种想法可能正确,因为每个人都由自己的思考和行为方式。

The second word is *Activities*. In traditional teaching methods, students spend a large part of their school day sitting behind a The only regular activity they have is during such lessons as physical education or sports periods. It is extremely difficult for children to sit still for such a long time. Young children need movement to help them in the learning process. They do not just learn with their heads but with their entire bodies. Putting more activities into the lesson helps break up the monotony of sitting in one place and brings a lot of fun and enjoyment value into the Most children have very short concentration spans. class as well. After a few minutes of listening to the teacher talking and explaining, their minds start to drift. They need to be involved in the learning process, not just to be passive listeners. (Burrows, 1997, PP. 144-146

第二词是活动。在传统教育方式中,学生常常在课桌后面度过大部分的学校学习时间。活动仅仅在体育课时间或者运动会期间。对于孩子们来说,一动不动地坐这样长的时间,是很困难的。在学习过程中,孩子们很需要活动去帮助他们更好地学习。他们并非只靠头脑学习,而是整个人都投入了学习过程。让活动参与到课堂学习中来,可以打破这种单调的坐着听课方式,让课堂学习有更多的乐趣。大多数孩子的注意力只能集中很短的时间。常常在听老师讲了一会儿课后,思想就开始飘忽了。因而他们不应成为被动的听课者,而应参与到学习过程中来。(Burrows, 1997, PP. 144-146)

Children are social beings. They need to cultivate SOCIAL SKILLS. They need to develop the art of attentive listening and appropriate questioning. Equally important is their ability and attitude to participate in discussions or activities; work in small groups and work for others. Young children are naturally inclined to want to help each other, and this tendency can be capitalised on to encourage pupils to practise new or difficult skills (Behounek, Rosenbaum, Brown and Burcalow, 1988). Pupils can supply background information that others do not have (Hart, 1993). As well as developing skills of co-operation, having the pupils working together for some of the time can free the teacher to devote more quality time to individual or groups of pupils, rather than being needed in many different places at once. Research has shown that these strategies can be used equally as effectively for older learners.

孩子们也是社会物种,需要培养他们的社会技能,需要发展注意听讲和恰当提问的艺术。在小组活动,或为他人服务时,他们在参与过程中与人交往的平等意识很重要。小孩子都倾向于彼此帮助,而这种行为有助于鼓励他们进行新的或更难的技能。(Behounek, Rosenbaum, Brown and Burcalow, 1988). 孩子们能提供给其他人可能没有的信息背景。(Hart, 1993) 开展这些合作技能,可以使孩子们在一块儿学习,使老师从应接不暇的各种学生学习需要中抽出给多的时间,更高质量地去指导个别或小组的同学学习。研究显示,这些策略对年龄偏大的学习者同样有效。

Behounek et al. (1988) reported that co-operative grouping can help pupils to feel more accepted by their peers, and to enhance their self-esteem, as well as increasing the quality and quantity of the time they spend on task. They report that the pupils, too, respond favourably to co-operative activities (p. 13):

Behounek et al. (1988)报告说:小组合作可以是小学生感觉自己更容易被同伴接纳。在开展任务时,不仅能提高任务完成的质量和效率,同时还提高孩子们的自尊。他们报告说,学生们普遍反映喜欢合作学习活动。(p. 13)

Kate: When I have trouble, somebody is always there to help me so that I can get done faster and do a better job on my work.

Lisa: I like it because I feel like I am sure of what I am doing when we get together and I can ask my team if I am not sure of something. Tracey: I like groups because I don't know all the words and others can help me.

Jamie: If we keep coming up to ask the teacher questions, she won't get done with her work and then she won't be able to do the really fun things with us.

凯特: 当我有困难时,总有人帮助我,所以我能很快很好地做好我得功课。 莉莎: 我喜欢它,因为我们一起学习时,我会更明确自己有把握地问题,而不太 有把握地问题我可以获得小组的帮助。

坦西: 我喜欢小组学习因为我的任何问题都有人帮助我。

杰米:假如我们不停地问老师问题,她就不能做她的工作了,也就不能帮我们做一些真正有意义地事情了。

As well as increasing awareness of their own abilities and the development of confidence in them, co-operative learning can encourage pupils to develop respect for their peers' abilities (Martin, 1987). "An atmosphere of mutual trust exists such that each child's opinion is respected by the others, and the teacher is necessarily sensitive to the possible potential mathematical constructions a child might make" (Wood, Cobb and Yackel, 1993, p. 58).

合作学习在提高学生对自己能力的意识和发展他们的自信之外,还能鼓励学生们发展对同伴能力的尊重。(Martin, 1987).在一种相互信任的氛围中,当每一个孩子的观点都被得到尊重时,老师就需要有意识地发展学生潜在的数学建模。

A Teacher's Thoughts About Co-operative Discussion 一位老师对合作学习 的看法

After experimenting with co-operative discussion in her mathematics classroom, Ms Cheung made the following comments:

在结束对陈老师的数学课的合作学习试验后,她做了如下的评价:

Listening to what children say during discussion offered me a continuous and detailed means of assessing their understanding and progress. Before this session I doubted whether talk/discussion could be obtained in working with

a class of thirty-six children. The class was formed into groups, which would discuss mainly on their own. I interacted with these groups by circulating. I controlled a second level of interaction between groups, by calling on spokespersons to report, and drawing in other children appropriately. I reinforce my belief that children need more opportunity to talk about their mathematics.

在听了孩子们讨论后的结果后,我很清楚、详尽地了解到孩子们的学习进步程度以及他们对问题的理解状况。在这次讨论会之前,我还在怀疑与一个人数多达 63 个同学的大班级里进行讨论的效果和可行性。当孩子们分成小组后,他们的讨论集中在小组中,而我则在巡回中参与各个小组中的讨论。我通过让小组的发言人报告,适当地引导其他孩子们,从而达到小组之间地二级交流水平。我坚信孩子们需要更多的机会去讨论他们的数学问题。

I learnt that children working together not only have the opportunity to listen and learn from each other, but also to try out some ideas in a non-threatening environment. Every member of a group has the chance of seeing the activity in more than one way than if they were working alone.

我也清楚了孩子们在一起学习时不仅仅时获得从彼此身上听到、学到知识的机会,还可以在一种没有风险的环境中尝试一些新的想法。小组中的每一个人明显比他们独自学习时要积极活跃。

Team work can lead to better development of mathematical understanding because of the communication that must occur for the group to function. These activities necessitate that children use all four components of language skills: speaking, listening, reading and writing. Interactions are indeed the heartbeat of the mathematics classroom. Mathematics is learned best when students are actively participating in that learning. One method of active participation is to interact with the teacher and peers about mathematics.

因为小组中的交流使小组功能得到发挥,所以小组学习能明显 地促进数学理解能力。这些活动训练了孩子们听、说、读、写等 四种语言表达能力。互动是数学课堂的动力。当学生们都能积极 参与到所学的知识中时,数学也学得最好的。其中一种积极参与

方式是老师和小组成员在一起交流。

The social skills of co-operating with others in a group have to be deliberately taught:

在小组中活动时,要特别传授一些人员交往社会技能

• • • • • • each group needs to have at least one member who can explain the topic to others,

每一个小组中需要至少一个同学能向其他人解释要讨论的主题,

• • • • • • all members of the group must be responsible for the welfare of every other member,

小组中的每一个人需要尊重其他人的权益,

老师需要示范怎样帮助那些不能给出答案的孩子,

••••• students need to be genuinely dependent on each other to be able to complete the task,

孩子们需要真诚地彼此协助,一齐去努力完成任务,

pupils should discuss what they did in the group.

孩子们应讨论自己在小组中应当地言行。

Discussion - between teacher and pupils, and between pupils themselves - is very important. The teacher can encourage the pupils to think, and to help each other, by asking questions like:

老师与孩子,孩子之间的讨论很重要。老师可以通过问如下的问题来鼓励孩子们思考、学会彼此帮助:

Tell me about this. What does this mean? How did you get that? What did you think about next? Can you explain...? What did you do to get this? What is the first/next thing you think of? How did you figure that out? Why is this step necessary? 给我说说 这是什么意思? 你怎样得到它的? 下一步你怎样想? 你能解释…… 你要得到什么样的结果?

你想到的第一步或下一步是什

么?

你怎样演算出来? 为什么这一步是必须的?

It is important for teachers to select groups which will be able to work effectively and constructively together, initially in pairs and later, as they become more accustomed to this, in groups of three or four (Behounek et al., 1988). One successful arrangement is to combine high-level thinkers with above-average and average thinkers, and low-level thinkers with average or above-average thinkers (Behounek et al., 1988).

在三人或四人小组中,在最初或稍后的时间里,老师对小组成员的组织很重要,这关系到小组是否能有效地运行和紧密地结合,并逐渐习惯于此(Behounek et al., 1988)。一个可行的做法是优生,中上生和中等生在一起,差生和中等生或中上生在一起。(Behounek et al., 1988)

Schoenfeld (1994, p. 63) described his role as facilitator in the discussion process:

Schoenfeld (1994, p. 63) 在讨论过程中这样描述自己作为组织者的角色:

Firstly, I rarely *certified* results, but turned points of controversy back to the class for resolution. Second, the class was to accept little on faith. That is, "we proved it in Math 127" was not considered adequate reason to accept a statement's validity.... Third, my role in class discussion would often be that of a Doubting Thomas. That is, I often asked, "Is that true? How do we know? Can you give me an example? A counterexample? A proof?", both when the students' suggestions were correct and when they were incorrect.

首先,我不公布结果,只是坚定地让学生们自己去讨论。其次,学生们很难接受这个现实,即"我们证明在数学 127 中所得的结果"并非是陈述中有效性的充分理由….第三,我的角色其实就是充当质疑者一汤姆森,即在学生们的建议正确与不正确时,我常常问:"那是真的么?我们怎么知道的?你能举一个例子么?一个相反的例子?一个证据?"

Lewis, Long and Mackay (1993) also advocated, like Schoenfeld, that the teacher should remain neutral when incorrect answers are given, and encourage students to react to each other's ideas.

Lewis, Long and Mackay (1993)也像 Schoenfeld 那样宣称,老师在学生给出错误答案时也要保持中立,并鼓励孩子们相互交换自己的意见。

Sutton (1992) believes it is important that co-operative activities are structured in such a way as to encourage "positive interdependence", with students being genuinely dependent on each other to be able to complete the task.

Sutton (1992)认为相互活动很重要,可以构建一种积极的方式去鼓励"有效积极的相互合作"。使学生们能真诚地互相帮助,共同完成任务。

Martin (1987) suggested the use of a check-list named "What Did I Do In the Group?", which can include such skills as listening, taking turns to speak, encouraging others, asking questions, explaining ideas and checking each others' understanding. She recommends that pupils complete these and discuss them, as part of their own self-assessment as group members. This analysis of the group's use of interpersonal skills and overall function as a group is essential if the pupils are to be aware that they are developing the desired qualities (Sutton, 1992). She also recommended that, particularly in the early stages of introducing a topic, the teacher should impose fairly rigid times for completion of various aspects of the task.

Martin (1987)建议用一张清单:"我在小组中做什么",其中包括四种技能,轮流发言,鼓励他人,提问,解释意见和检查彼此的理解程度。她推荐说,让孩子们做完这些事后,在小组中讨论,这可以作为小组成员自我评价的一部分。通过分析在小组中使用这些人与人交往的技能和以上小组运行的功能后,她说假如学生们都掌握了这些技能,他们可以意识到自己正在发展一种理想品质(Sutton, 1992)。她还推荐说,特别在介绍一个题目的起始阶段,老师一定要严格强调任务中的各个方面。

One critical decision is to decide at what stage of the teaching process the use of groupwork is most effective. Martin (1987) reported two models. The first of these was a four-week program based completely on small group work. The other used group work activities for problem solving and concept understanding, followed by individual practice and application of skills. Sutton (1992) reported the use of groups of three to five students for going over homework, reviewing and studying for tests, and groups of two for understanding or reinforcing concepts.

一个重要的决策事决定在教学的哪一个阶段使用小组活动最有效。Martin (1987)报告了两种模式。第一种是四周一个阶段的教学结束后进行小组学习。第二种是让小组伴随个人练习与运用技能时来解决问题,理解概念。Sutton (1992)报告说最好让 3-5 人小组进行家庭作业、复习和考前学习等工作,而两人小组则适合理解概念和加强对概念的理解。

References and Useful Reading

Behounek, K., Rosenbaum, L., Brown, L. & Burcalow, J. (1988). 'Our class has twenty-five teachers'. *Arithmetic Teacher* (December), pp. 10-13.

Burrows, L. (1997). *Discovering the Heart of Teaching.* Bangkok International Institute of Sathya Sai Education, pp. 144-146).:

- Clopton, E. (1992). 'Ask questions that build confidence'. *The Mathematics Teacher*, 85 (1), p. 30.
- Davidson, N. and Lambdin Kroll, D. (1991). 'An overview of research on cooperative learning related to mathematics'. *Journal for Research in Mathematics Education*, 22 (5), 362-265.
- Dyas, C. (1992). 'Volunteers to the board!'. *The Mathematics Teacher*, 85 (1), pp. 30-31.
- Hart, L.C. (1993). 'Some factors that impede or enhance performance in mathematical problem solving'. *Journal for Research in Mathematics Education*, 24(2), 167-171.
- Healy, C. (1993). 'Equity? We're just trying to survive here'. In G. Cuevas & M. Driscoll (Eds.). *Reaching All Students with Mathematics*. (pp. 233-244). Reston, Virginia: National Council of Teachers of Mathematics.
- Healy, L., Hoyles, C. & Pozzi, S. (1994). 'When groupwork with computers is more than rotating turns'. *Mathematics in School*. 23(1), 38-40.
- Kliman, M. & Richards, J. (1992). 'Writing, sharing, and discussing mathematics'. *Arithmetic Teacher*, 40 (2), 138-141.
- Lewis, B., Long, R. & Mackay, M. (1993). 'Fostering communication in mathematics using children's literature'. *Arithmetic Teacher*, 40 (8), 470-473.
- Martin, M. (1987). 'Co-operative Learning in Mathematics Not Just Group Work. Recreating Maths and Science for Girls', *Participation and Equity Program*, Special Programs Branch, Ministry of Education, Melbourne, Australia, 28-29.
- Papert, S. (1980). *Mindstorms: Children, Computers and Powerful Ideas*. New York: Basic Books Inc.
- Santiago, F. & Spanos, G. (1993). 'Meeting the NCTM Communication Standards for all students. In G. Cuevas & M. Driscoll (Eds.). *Reaching All Students with Mathematics*. (pp. 133-145). Reston, Virginia: National Council of Teachers of Mathematics.
- Schoenfeld, A. (1994). 'Reflections on doing and teaching mathematics'. In A. Schoenfeld (Ed.). *Mathematical Thinking and Problem Solving.* (pp.

53-69). Hillsdale, NJ: Lawrence Erlbaum Associates.

Simon, M. (1993). 'Focus on children's mathematical learning in classrooms: impact and issues'. *Journal for Research in Mathematics Education*, Monograph No. 6., 99-107

Sutton, G. (1992). 'Co-operative learning works in mathematics'. *The Mathematics Teacher*, 85(1), 63-66.

Taplin, M. & Kwok, L. Y. (1996). 'Critical moments in a teacher's attempts to introduce discussion-based teaching into a secondary mathematics programme'. In P. Clarkson (Ed.) <u>Technology in Mathematics Education</u> (pp. 542-548). Melbourne: The Mathematics Education Research Group of Australasia.

Wood, T., Cobb, P., & Yackel, E. (1993). 'The nature of whole-class discussion'. *Journal for Research in Mathematics Education*, Monograph No. 6., 33-54.

Yackel, E., Cobb, P. and Wood, T. (1993). 'Developing a basis for mathematical communication within small groups'. *Journal for Research in Mathematics Education*, Monograph No. 6., 33-54.