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by Siti Mina Tamah

IDEA SHARING:
ASSESSMENT IN A COOPERATIVE LEARNING CLASS

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Introduction

In Indonesia, it is common to see current classroom practices that incorporate the cooperative learning paradigm. In fact, there is a tendency to regard negatively a classroom without the label of 'cooperative learning' in which students are put into small groups. The current instructional practices then often make use of group work to encourage students to learn from one another in which they help and seek assistance from their fellow students besides from their teacher.

In spite of research evidence supporting the benefit of group work, many teachers and students have uncertainties and reservation with group work. Addressing this particular concern, Brown (2001) stresses the need of careful planning and management. What matters is the lack of additional effort or essential conditions that might be related to the characteristics that make cooperative learning different from traditional group work.

Group seating in classrooms requires a teacher to keep into consideration the essential components of cooperative learning. These components should not be ignored to support effective group working. The most widely reviewed components of cooperative learning are individual accountability and positive interdependence, which are claimed as two critical components in cooperative learning (Kagan & Kagan, 1994; Slavin, 1989; Davidson, 1985 and Johnson & Johnson,

1989, as cited in Tinzmann et al, 1990; Totten et al., 1991 who refer to Newmann & Thomson, 1987).

Kagan and Kagan (1994) point out that Individual Accountability is making each student in the group accountable for his or her own learning. The responsibility is on each student's shoulder. This individual accountability should be enforced to lessen the tendency of some students to 'hitchhike'. Claimed by Kagan and Kagan (1994) as "the most basic principle in cooperative learning", positive interdependence is created whenever an achievement of one group member means an achievement of another while a failure of one group member means a failure of another. The students realize that they are positively interdependent with one another in the learning group where everyone in the group sinks or swims together (Kagan & Kagan, 1994).

How are individual accountability and positive interdependence incorporated in classroom practices? Implicitly, the issue of assessment which is cooperative learning oriented needs discussing. This issue is, argued by Jacobs and Goh (2007, p. 34), 'one of the more controversial areas'. This controversy issue might then be the reason why cooperative learning oriented assessment is scarcely incorporated in a curriculum.

When students work together in a group, should only one score be considered for each group member – thus "Is a group score obligatory?" To this issue, high achievers commonly argue against it as the group score might decrease their 'original score' whereas low achievers ordinarily argue for it as they like the 'fortune' they will get from having (a) high-achiever(s) in the group. When the group score is obtained, there is still another consideration to take when it is time to give students grades or scores for their individual academic achievement report. Slavin (1994) suggests grading students based on the students' individual score, not the group scores which depend on the members' improvement points. Implicitly the group score is there in the teacher's hand but it then seems to be thrown away for the final assessment.

With the trend to incorporate cooperative learning in the classroom practices, another mode of assessing students is required. In other words, how can a teacher enforce Individual Accountability and Positive Interdependence in assessing his or her students? This paper is intended to provide a model of assessing students who are accustomed to having a non-cooperative learning class. It is in fact my attempt to share my classroom practice, especially what I have done to reduce the lock-step instruction by incorporating cooperative learning thus enforcing the cooperative learning oriented assessment and more specifically imposing the two essential components of cooperative learning.

Assessment

Assessment is an activity that yields comprehensive information that is used to analyse, discuss, and judge a student's performance of valued abilities and skills (Huba & Freed, 2000). In this paper, assessment is similarly meant to be an activity to get information on students who are involved in cooperative learning class to judge their performance in fulfilling positive interdependence and individual accountability.

Assessment is naturally a necessity to see the result of an instruction. Assessing students is inseparable from teaching. It is 'an integral part of teaching' (Huba & Freed, 2000, p.8). In a reading instruction for instance, teachers need to see the reading ability of their students after joining the class. Horwitz (2008, p. 188) points out that it is in fact impossible to really 'see' a student's language ability. What can be done is just to estimate it. There is no way to see the 'true' ability. Though this indicates pessimism, it does not mean assessment is to be ignored. Brown (2004, p.4) even puts it more obviously that "A good teacher never ceases to assess students whether those assessments are incidental or intended." This section is then presented to talk about assessment which is cooperative learning oriented.

Lie (2002) points out two ways to obtain group score. The first is to take the lowest score of the student in the group. The second is

to average the group members' scores. Lie further puts forward the strength and the weakness of both ways. They can encourage cooperation among the group members. They can also cause negative feeling as high-achieving students will feel disadvantaged meanwhile the low-achieving students will feel guilty. With regard to this sort of grading, Kagan (1995) as cited in O'Malley and Pierce (1996, p. 29) argues, "Group grades can undermine motivation because they do not reward individual work … ."

Jacobs and Goh (2007) suggest some alternatives. Group efforts should be graded. This first alternative indicates considering group scores. Everyone in the group receives the same grade or that grade is affected by the grades of the group mates. Some variations of group grades mentioned by Jacobs and Goh (2007) include: (1) grade averaging, (2) individual grade combined with group average – or 'dual grading of academic performance' (Jacobs, Lie & Ball, 1996, p. 105), and (3) bonus points. The second alternative is criterion-referenced grading. This is the opposite of group grades. The score that each student receives does not affect their group mates'. The last is peer assessment. This peer assessment is used in addition to NOT instead of teacher assessment. Underhill (1987) as cited in O'Malley and Pierce (1996) put forwards that peer assessment is an authentic assessment approach because the effectiveness of communication is rated by one another.

Cooperative Learning

As Coelho (1992) asserts, cooperative learning is an approach to education that is based on the philosophy that education should be learner-centered and learner-directed; that learners can be teachers; and that teachers are guides and facilitators rather than the source of all knowledge and direction. Olsen (1984) as cited in Kessler (1992) claims that cooperative learning offers ways to organize group work to enhance learning and increase academic achievement. It is structured and organized in such a way so that each learner interacts with others. Similarly defined, cooperative learning is a learning approach which emphasizes the use of small groups of students

working together so that learning condition is maximized (Nurhadi 2004).

Referring to Slavin (1990), Jacobs, Lee and Ball (1996) as cited in Tamah (2007) put forward that in a cooperative learning class, students are required to work together to learn and to be responsible for their fellow students' learning as well as their own. This particular nature of cooperation necessitates a new learning paradigm. The students have the right to ask for assistance from the other group members. Moreover, they have the duty to assist the other group members who ask for help (Cohen et al., 1994).

Constantly mentioned in cooperative learning literature is the five essential components of cooperative learning. They should be cautiously considered, so that the expected result (i.e. well-structured cooperative learning lesson) is obtained. Those five essential components are (1) face-to-face interaction, (2) interpersonal and small-group skills, (3) group processing, (4) individual accountability, and (5) positive interdependence. The last two components, i.e. individual accountability and positive interdependence, are the most widely reviewed. As these two components are strongly related to this paper, they will be elaborated while the other three components are not.

Individual accountability is, as asserted by Kagan and Kagan (1994), making each member who is involved in group work accountable for his or her own learning. This individual accountability should be imposed to minimize the tendency for some students to 'hitchhike' for it is not uncommon to have some students who work together in the group but who do not give their utmost contribution in group work. The idea of working together in small groups should not lead students to lose sights of another student's responsibility for his or her own learning. The lack of individual accountability results in the widespread situation which some group members do the bulk of the group task, thus group task is not distributed evenly among group members, others contribute little and understand little or nothing about the task, everyone gets the same grade, and group members dislike one another (Felder & Brent,

2007). In non-cooperative learning literature, the term 'mandatory participation' (Harmer, 2012, p. 151) – where every single student is required to take part in group work – can be paired with the idea of individual accountability.

This individual accountability can be achieved by giving an individual test to each student, by a whole-class discussion or a role play in which students are required to contribute their expertise individually. Each group member can be required to reveal they understand what they have previously learned or discussed in the group (Bejarano, 1994).

Claimed by Kagan and Kagan (1994) as "the most basic principle in cooperative learning", positive interdependence is formed whenever the achievement of one group member is allied to the one of other group members while a failure of one group member means a failure of all other group members. This particular cooperative learning principle being enforced, the students realize that they are positively interdependent from one another in the learning group – that everyone in the group sinks or swims together (Kagan & Kagan, 1994), and that "no one is successful unless everyone is successful" (Male, 1994, p. 270). Briefly, every student must see himself or herself as positively dependent on one another to enable him or her to take a personal responsibility for working to achieve group goals.

Cooperative Learning in a Reading Class

A common assessment to judge students' end performance for a course at a university involves the main constituents of tests, namely, mid-semester test and final-semester test. From these tests, the scoring system is, by and large, 40% mid-semester test score and 60% final-semester test score the one implemented by Widya Mandala Catholic University before 2010 (since 2010 onwards, it becomes 50% mid-semester test score and 50% final-semester test score). Other constituents with regard to the nature of the course are also taken into consideration. In a writing course, for example, the other constituent included is home assignments. In speaking and TEFL courses, individual class presentation and paper submission

respectively are included. In a reading course, the assessment includes mostly the main scores of the mid- and final-semester test and the reading quiz scores obtained as the formative assessment during the semester. Sometimes class participation is also included in the assessment. This is typical in a non-cooperative learning class.

In the class where 21 students of semester 3 were enrolled for Reading II course offered in the odd semester of 2008/2009 academic year at the English Department of a university in Surabaya, Indonesia, I implemented not only whole class teacher-directed or traditional approach but also cooperative learning techniques (in this paper the overall class scenario is depicted, for the details of the implementation, see Tamah, 2013).

The 28-meeting semester course was allocated as follows: one session for introduction (the very first session of the semester), one session for feedback and review (the first session after the two-week mid-term break), one session for feedback and closing (the very last session of the semester), four sessions for models of group work (before the group work sessions), seven sessions for conventional teacher-centered reading class, and 14 sessions for cooperative learning.

The cooperative learning was implemented in five sessions (on sessions 8-12) of the first half of the semester and nine sessions (on sessions 2-7 and 11-13) of the second half of the semester. The students worked in small groups of 4-5 members who were heterogeneously formed with regard to ability levels. The four-student groups were asked to determine their own roles of 'captain', 'secretary', 'time keeper' and 'speaker' in each group. The five-student groups were also asked similarly but one 'new' role was added: 'encourager'.

In the very first session of the semester the students were informed that they would be learning in a teacher-centered mode as well as student-centered mode of instruction. Some sessions were assigned for them to get traditional reading instruction, and some sessions were for them to learn in small groups. With regard to group work, the two essential components of cooperative learning,

individual accountability and positive interdependence, were introduced when the course outline was shared.

Generally, in the sessions where cooperative learning was implemented, I started by activating students' prior knowledge before they discussed the text in their groups. I asked, for example, "What comes to your mind when you hear INDOOR POLLUTION (the passage title)?" They were expected to write what they knew or what they thought they knew about indoor pollution. Besides, they also wrote what they thought they would know after reading the text later. After that a few answers from the students were randomly taken as a sort of feedback for this initial trigger. The lock-step section ended when the students continued working on their own cooperative learning groups.

Initially the students individually read the text twice. The first reading was performed without stopping. The second reading was done to write what they wanted to know or wanted to check later in the group discussion. They wrote the main idea and the implied information they found, and they also noted some factual information they thought was important to keep. They also took notes on questions they would ask and discuss with their friends. They wrote them in their individual worksheet. The students then carried out the group discussion (It was in this particular discussion section that the idea of cooperative learning was highlighted). The students learned from one another – assisting and getting assisted. They then individually completed the task of writing what they had learnt after the group discussion. They went on with the group worksheet completion which was intended to reveal the result of the group discussion. In their group worksheet they also formulated comprehension questions that they thought might appear on a quiz or that were important to keep as a group work report. The group work was terminated when the student assigned as the speaker of the group reported the result of the group discussion.

Throughout the cooperative learning sessions, the students were often reminded of the principles underlying cooperative learning. A typical encouraging reminder was "Well, each of you has your

contribution in the group work. When you ask questions, it means you help others explain thus indirectly help them learn more." Moreover, the students were reminded of positive interdependence and individual accountability.

Keeping in mind what Cohen et al. (1994) point out about the teacher's role in cooperative learning, I took the facilitator role when students were engaged in group work. I came to groups making sure they did the task and sometimes asked higher-order questions, and extended the group's thinking on the task. I avoided hovering over the groups and giving them detailed directions and extensive information while they were at work. In short I reduced my role as transmitter of information and I provide opportunities for groups to work maximally based on their capability.

Individual Accountability and Positive Interdependence Enforced

In order to enforce individual accountability I made use of individual achievement which was taken from three sorts of assessment. The first was the one of each member's taking a quiz – a ten-minute section allocated after the students worked in their group before the class session ended. The students did the quiz individually. Only certain sessions were used to look into individual achievement which was represented in their individual quiz score. Five out of the 14 sessions for cooperative learning implementation were taken for this purpose – implying that a quiz was administered not in every cooperative learning session.

The second was obtained from the students' individual worksheet they collected after their group work. After they worked in group, each group member completed the last section of the individual worksheet by writing in brief what they had learnt related to the reading text discussed (refer to the detailed explanation presented in [4] above). The third was the one of each student's taking the mid-term and final-term tests. On the whole this assessment was expected to impose the principle utilized in class, i.e. individual accountability.

In order to put the essential component of positive interdependence into effect, I initially considered group achievement which was represented in their average group score. Termed *group score*, it was the average score of individual quiz scores in the group. Eventually, there was another assessment taken. The group work was assessed for its cooperative learning achievement. Termed *cooperative learning score*, it was the average score of individual quiz score and group score. I also implemented 'special reward'. Each student was given three bonus points toward the cooperative learning score when it was indicated that the group members cooperated well – students helped one another and promoted each other's success by sharing resources and by helping, supporting, and encouraging one another. On the whole this assessment was expected to impose the principle of positive interdependence.

The following is provided to illustrate how individual accountability and positive interdependence are imposed in the assessment of a cooperative learning class. It eventually reveals assessment which is used to make decisions for grading – a component of assessment (Scanlan, n.d.). The FS (final score) exemplified, as it is from a reading instruction, indicates the *estimated* score of a student reading ability (I use the term *estimated* to follow Horwitz (2008)).

You will be assessed by considering your individual achievement and also your group achievement. Your individual achievement is judged from the results of your individual quiz, and your individual worksheet completed after you work in your group, and your individual mid- and final-semester tests.

Your group achievement is judged from the individual achievement of each member.

Your final achievement is represented by both the individual and group achievements.

Name	Scored GW1		Scored GW 2		CL Sc.	UTS Sc.	MSS	UAS Sc.	FS
	Ind. Sc.	Gr. Sc.	Ind. Sc.	Gr. Sc.					
AA	70	65	75	78	72 [(70+ 65+ 75+ 78):4]	70	71 [(72+ 70) :2]	80	76 B+
BB	60	65	80	78		70		75	
CC	60	65	75	78		60		65	
DD	70	65	80	78		80		80	

A) Examine the following table showing how a 4-student group is assessed.

Scored GW: Scored group work indicates that not every group work is scored.

Ind. Sc.: Individual score is taken from your individual quiz result and your completed task in individual worksheet.

Gr. Sc.: Group score is taken from the average score of individual scores in the group.

CL sc.: Cooperative learning score is the average score of individual score and group score.

UTS = mid semester test.

MSS = mid semester score (average score of Cooperative learning score and *UTS* score).

UAS = final semester test.

FS = final score (taken from 40% MSS + 60 % *UAS* score)

Special reward: Each student will be given 3 bonus points toward the cooperative learning score if it is indicated from the teacher's observation that the group members cooperate well – students help one another, promote each other's success by sharing resources and helping, supporting, encouraging and applauding each other's success.

B) What happens if student AA is absent when the group work is scored?*

When you are absent on the dates when group work is scored (meeting 10 of the first half of the semester and meetings 4-7 of the second half of the semester), you miss the cooperative learning score. That will automatically affect your MSS and FS.

Name	Scored GW 1		Scored GW 2		CL sc.	UTS sc.	MSS	UAS sc.	FS
	Ind. Sc.	Gr. Sc.	Ind. Sc.	Gr. Sc.					
AA	70	65	-	-	45 [(70+ 65):3]	70	58 [(45+70) :2]	80	71 B
BB	60	65	80	78		70		75	
CC	60	65	75	78		60		65	
DD	70	65	80	78		80		80	

* This part is revealed to discourage a group member to easily skip classes when their group work is scored.

The above scheme is adapted from the course outline I provided to the students in a Reading class where a research on cooperative learning was conducted (refer to Tamah, 2011). As implied in the scheme, the students' individual score of *UAS* (final semester test) takes greater percentage. The upset of high-achievers is then minimised and the 'hitch-hiking' of low-achievers is too.

The scheme was explained to them on the very first meeting of the course. This implies, and as previously indicated, individual accountability and positive interdependence were introduced to the students as early as the beginning of the semester. They were more essentially enforced on the cooperative learning sessions. The first enforcement was revealed on session 11 – the one following the cooperative learning session when a quiz was administered for the first time in the first half of the semester. The result of the initial

assessment was revealed to the students as early as possible so that they realized the two essential components were really emphasized.

Conclusion

Cautious preparation is required when a teacher seats students in cooperative learning groups. He/she needs to keep into consideration the essential components of cooperative learning to support effective group working. This paper has revealed how the two critical components in cooperative learning are imposed in the assessment of a cooperative learning class. As this paper is an exemplification, teachers are encouraged to adapt it to their own classroom. They can, for instance, consider the alternative of peer assessment.

Having reviewed the underlying theory of assessment and cooperative learning, the paper goes on with the discussion on its essential components: individual accountability and positive interdependence. The paper then comes to its main focus by illustrating the two essential components which are imposed in a reading class. The main focus of this paper is actually the result of my attempt to enforce the cooperative learning oriented assessment – more particularly to make the students put maximum endeavor in their own learning as well as their peer learning. Although this paper has exemplified what I did some years ago, I still apply the concept until now as it has proved to be useful. In fact, I am now conducting research to strengthen further implementation of the essential components in cooperative learning.

The Author

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References

Bejarano, Y. (1994). An integrated group work model for the second language classroom. In S. Sharan (Ed.) *Handbook of cooperative learning methods* (pp.193-212). Westport: Greenwood Press.

Brown, D. H. (2004). *Language assessment: Principles and classroom practices*. New York: Longman.

Cohen, E. G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research, 64*(1), 1-35.

Cohen, E. G., Lotan, R. A., Whitcomb, J. A., Balderrama, M. V., Cossey R., & Swanson. P. E. (1994). Complex instruction: Higher-order thinking in heterogeneous classrooms. In S. Sharan (Ed.) *Handbook of cooperative learning methods* (pp.82-96). Westport: Greenwood Press.

Felder, R. M. & Brent, R. (2007). Cooperative learning. In P.A. Mabrouk (Ed.) *Active learning: Models from the analytical sciences* (pp.34–53). Washington, DC: American Chemical Society.

Harmer, J. (2012). *Essential teacher knowledge: Core concepts in English language teaching.* Essex CM20 2JE: Pearson Education Limited.

Horwitz, E. K. (2008). *Becoming a language teacher: A practical guide to second language learning*. Boston: Pearson Education Inc.

Huba, M. E. & Freed, J. E. (2000). *Learner-centered assessment on college campuses.* Boston: Allyn and Bacon.

Jacobs, G. M., Lee, G. S. & Ball, J. (1996). *Learning cooperative learning via cooperative learning.* Singapore: SEAMEO Regional Language Center.

Kagan, S., & Kagan, M. (1994). The structural approach: Six keys to cooperative learning. In S. Sharan (Ed.) *Handbook of cooperative learning methods* (pp.115-133). Westport: Greenwood Press.

Lie, A. (2002). *Cooperative learning: Mempraktikkan cooperative learning di ruang-ruang kelas.* Jakarta: Grasindo.

Male, M. (1994). Cooperative learning and computers. In S. Sharan (Ed.) *Handbook of cooperative learning methods* (pp.267-280). Westport: Greenwood Press.

Nurhadi. (2004). *Kurikulum 2004: Pertanyaan dan jawaban.* Jakarta: Grasindo.

O'Malley, J.M. and Pierce, L.V. (1996). *Authentic assessment for English language learners: Practical approaches for teachers.* Longman.

Scanlan, C. L. (n.d.). *Assessment, evaluation, testing and grading.* Retrieved on 25 September 2011 from http://www.umdnj.edu/idsweb/idst5350/assess_eval_test_gra de.htm

Tamah, S. M. (2007). Jigsaw technique in reading class of young learners: Revealing students' interaction. *English Edu: Journal of Language Teaching and Research, 7*(2), 187-198.

Tamah, S. M. (2013). Multi-structural class: What and how it is perceived. *TEFLIN Journal, 24*(2), 201-219

Tamah, S. M. (2011). *Student interaction in the implementation of the Jigsaw technique in language teaching.* Published thesis, the University of Groningen, Groningen, the Netherlands.

Tinzmann, M. B., Jones, B. F., Fennimore, T. F., Bakker, J., Fine C., & Pierce, J. (1990). *What is the collaborative classroom?* Oak Brook: NCREL.

Totten, S., Sills, T., Digby, A., & Russ, P. (1991). *Cooperative learning: A guide to research.* New York: Garland Publishing, Inc.

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