

Individual feedback in connection with cooperative learning – a possible way to support individual accountability

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Previous research shows that very few studies concerning assessment in connection with cooperative learning (CL) has been conducted (van Aalst, 2013; Forsell et al., 2020). Accordingly, very little theoretical knowledge or useful tools have been provided to assist teachers in this significant but difficult task. Besides, teachers often express feelings of uncertainty about how to make group work assessments (Ross & Rolheiser, 2003) and a special challenge seems to be how to disentangle the individual from the joint work when assessing (Forsell et., al 2020). Consequently, there is a need to develop theoretical knowledge and instruments for assessing in connection with CL (van Aalst, 2013; Johnson & Johnson, 2004). However, research is making progress and some promising findings, as well as practical tools, are beginning to emerge (e.g. Bookhart, 2013; Johnson & Johnson, 2004). Recent research also indicates that teachers' feedback to the students may support students ability to work more independently in CL and thereby gain more equal opportunities in the their work (Forslund Frykedal & Hammar Chiriac, 2018). Assessment in connection with CL can also be about the quest for equitability providing students with equal educational opportunity, as students tend to find assessment in connection with CL unjust (Forslund Frykedal & Hammar Chiriac, 2016).

One way for teachers to assess students during CL is to provide the students with formative assessment, by employing feedback. The objective in this paper is to explore and problematize if teachers' formative assessment, by way of written feedback, on students' individual work during CL supports or impedes student's further work with the task, hence guiding or hampering the students' possibility for individual accountability.

Perspective and theoretical framework

According to The Social Interdependence Theory (SIT), (Johnson & Johnson 2002, 2007) group members develop a degree of interdependence when it occurs to members that working together on an assignment will enhance the probability that they will achieve their joint goals. SIT proposes five elements as being necessary to maximize the cooperative potential in CL: (1) positive interdependence, (2) individual accountability (3) promotive interaction, (4) interpersonal and small group skills and (5) group processing. In this paper, we focus on the second element, individual accountability, in which each group member is responsible for his/her share of the work and displays a willingness to help other group members. Therefore, an individual and a group feature are included.

The working mode adopted and the task structure used is influenced by the CL Jigsaw strategy (Aronson, 1978; Kagan & Stenlev, 2013), since it encompasses both individual and joint parts. Hence, creating a setting where group members can learn both from and with each other, while at the same time they can develop an understanding of their own responsibilities, i.e., in line with individual accountability. The students are expected to work both individually and collaboratively and thereby present teachers with opportunities to assess on a) individual b) group level or c) both, as well as the possibilities for using formative assessment (Forslund Frykedal & Hammar Chiriatic, 2018).

In formative assessment, the purpose is to establish students' knowledge and abilities and to give feedback for further development during the working process (Bennett, 2011; Black et al., 2003; Wiliam et al., 2004). One way for teachers to support students in their learning and to give them opportunities to gain accountability could be by employing written feedback. Feedback is here defined as "Information communicated to the learner that is intended to modify his or her thinking or behavior to improve learning" (Shute, 2008, p. 153). When using feedback, a teacher's proficiency of the students' knowledge and abilities is important, and the conveyed feedback must be formulated so that the students understand how it accords with individual learning goals. Feedback can be used both at an individual and group level with the intent to convey constructive comments and thereby providing information on how well the task has been completed and what needs to be improved (Hattie & Timperley, 2007). In the review on research on feedback Shute (2008) asserts that good feedback can improve students learning if the feedback is "delivered correctly" (p. 154). Shute (2008) argues that useful feedback depends on a) motive, b) opportunity and c) means (p. 175) i.e. that the student needs the assessment, which is given at an appropriate time for a student who is prepared to use it. Consequently, there are numerous types of feedback possible to deliver as well as large variability of the effects on the received feedback. Shute (2008) concludes by synthesizing

recommendations guidelines. Following Shute's (2008) guidelines, effective written feedback enhancing learning should a) focus on the task (not on the student), b) provide elaborated feedback in c) manageable units, be d) specific, clear and e) simple (p. 177-178). Further Shute (2008) also points to some pitfalls and what to be avoided when giving feedback, such as a) being normative b) providing overall grades, c) discourages or decrease the students self esteem, d) but also be carefully about use praise (p. 178-179).

Method

Data were obtained through the written feedback from experienced teachers. The feedback was given during a CL assignment (Jigsaw), when 130 students were working on the individual part of the common task. The teachers were asked to use their own words in the written response to each student individually. The informants were six teachers working in years five and eight in five Swedish compulsory schools in different social and geographical areas.

The raw data in this paper consisted of 149 written documents, about a half to one page each and the vast majority were handwritten. Some of the students received written feedback two times that accounts for the discrepancy between numbers of students and number of document. The analysis was accomplished using an inductive approach (Braun & Clarke, 2006, 2013) using MAXQDA12 and Shute's (2008) synthesized recommendations and guidelines to interpret and understand the teachers' written feedback.

Results

The results show that the teachers' written feedback includes comments providing the students with various messages on *individual* ("you"), *group* ("your group") and "*not distinct*" (i.e. not possible to gather the intended level from the text in the document) *levels*. Table 1 - 5 summaries the results found in this study and illustrates that the teachers use five modes when providing written feedback to the students; Request, questioning, assessment, illustrations and instructions, all but one, focusing on different aspects. Further table 1- 5 illustrates that the feedback is given on several levels, thus illustrating a complex web of teachers written feedback given to students. To further elucidate the results the five modes (i.e., request, questioning, assessment, illustrations and instructions) for providing feedback on individual, group or "not distinct" level with illustrative excerpts are presented below.

Request	Focus on	Examples on excerpt on specific levels		
		<i>Individual</i>	<i>Group</i>	<i>Not distinct</i>
	Quality of the work	Please, tonight, think about how <i>your</i> results can contribute to the group's analysis tomorrow	Think it would be interesting for <i>your group</i> to analyze	Think about what kind of chart fits best to report the results
	Specific parts	Try to get a spread regarding the people <i>you</i> ask and feel free to ask people outside the school	Does not exist	Please count them as well
	Generally directed	Can <i>you</i> do a bit of thinking until tomorrow and it will certainly be fine	Does not exist	Also consider how recycling affects the environment

Table 1. Written feedback provided as requests on individual, group or “not distinct” level with illustrative excerpts.

Request is feedback formulated as a suggestion for the student to do something, often displayed as an imperative. Depending on focus of the feedback three aspects emerge (a) focusing on quality of the work (b) focusing on specific parts or (c) generally directed.

Questioning	Focus on	Examples on excerpt on specific levels		
		<i>Individual</i>	<i>Group</i>	<i>Not distinct</i>
	Content	Is it part of <i>your</i> plan to ask students from other schools, so as to see if the transportation to school differ from others?	Will <i>your group</i> merely ask students at the school, or will your group's investigation also include people outside?	Does not exist
	Generally directed	Does not exist	How can <i>we</i> reduce the amount of food being thrown?	How is the environment <i>affected</i> by meat consumption?

Table 2. Written feedback provided as questioning on individual, group or “not distinct” level with illustrative excerpts.

Questioning includes feedback formulated as a question and consists of questions (a) focusing on content or (b) generally directed.

Assessment	Focus on	Examples on excerpt on specific levels		
		<i>Individual</i>	<i>Group</i>	<i>Not distinct</i>
	Specific assessment	Good that <i>you</i> have a reflection on <i>your own</i> choice of survey instruments	<i>The group</i> have done a nice <i>charts</i>	A good <i>questionnaire</i> , with clear questions
	Vague assessment	<i>You</i> have started <i>well</i> with your work	Does not exist	A <i>good</i> and clear questionnaire, with thoughtful colors

Table 3. Written feedback provided as assessment on individual, group or “not distinct” level with illustrative excerpts.

Assessment consists of feedback including some kind of value, estimation or assessment regarding student’s work so far. The feedback includes positive value judgments and/or words such as good, decent, well, etc. while no negative value words has been found. Assessments can be (a) specific or (b) vague.

Illustration	Focus on	Examples on excerpt on specific levels		
		<i>Individual</i>	<i>Group</i>	<i>Not distinct</i>
		Headline? Fish Meat Chicken Veggie Others	The following article may be of interest for <i>your group</i> www.dn.se/nyheter/sverige/aldre-/elever-slangar-mest-mat/	Does not exist

Table 4. Written feedback provided as illustrations on individual, group or “not distinct” level with illustrative excerpts.

Illustrations are feedback including some kind of clarification with the help of a short text, table or figure. The assessment on individual level does not specific say “you” on the individual level but is illustrations that elucidate the specific students table or chart. This mode has no aspects.

Instruction	Focus on	Examples on excerpt on specific levels		
		<i>Individual</i>	<i>Group</i>	<i>Not distinct</i>
	Descriptive	Interesting observation <i>you</i> have made already	Does not exist	A clear questionnaire that will provide a reportable result
	Forward aiming	<i>You</i> should now proceed and make an appropriate chart for <i>your</i> survey	It will be interesting to hear what analysis you can do in <i>the group</i> based on your investigation.	Now proceed with ...
	Teaching	In <i>your</i> table you should have headings, clear markings (cross) and summing, (counting the cross). In <i>your</i> chart you should have headings (units on <i>your axis</i> summing (counting the cross)).	Does not exist	The axes should have headings (units)

Table 5. Written feedback provided as instructions on individual, group or “not distinct” level with illustrative excerpts.

Instructions entail feedback formulated as a narrative or telling. Depending on the intention with the feedback three aspects emerge; Instructions being (a) descriptive (b) forward aiming or (c) teaching. Additionally Table 1 -5 elucidate that all five modes of feedback is solely provided on an individual level, unlike group level and “not distinct” level.

Conclusion

Following Shute’s (2008) guidelines the result displays that teachers convey feedback in manageable units focusing on the task and/or aspects connected to the task, in order to enhance quality of the work or promote further work or/and learning. Feedback is given both in specific and in more general terms based on respective individual students submitted work so far. Notwithstanding, there are examples of both clear and simple feedback as well as more vague and pretentious formulation. Nevertheless, the result is more in line with Shute’s guidelines for good feedback delivered correctly and thereby supporting student’s possibility for individual accountability.

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