Student collaboration in group work – Inclusion as participation

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Abstract

Group work is an educational mode that promotes learning and socialization among students. In this study, we focused on the inclusive processes when students work in small groups. The aim was to investigate and describe students' inclusive and collaborative processes in group work and how the teacher supported or impeded these transactions. Social Interdependence Theory was utilized as the theoretical perspective overarching the study. The observational data employed were collected by videorecording group work. A part of Black-Hawkins (2010, 2013) *framework of participation* was used to define inclusion and for the analysis of inclusive and collaborative processes. The results suggest that students' active participation in the discussions around the group work structures and analytical discussions, together with the teacher's more defined feedback and avoidance of the traditional authoritative role, are examples of prerequisites for group work to be enacted in an inclusive manner.

Introduction

Group work is an educational mode that promotes learning and socialization among students (e.g., Baines, Blatchford & Chowne, 2007; Hammar Chiriac, 2014; Johnson & Johnson, 2002; Roseth, Johnson & Johnson, 2008; Serrano & Pons, 2007; Sharan, 2010). The effects of learning in groups are considerably improved when students receive well-structured group work experiences or when they are instructed in group work strategies (Hattie, 2009). Mercer (2008) and Wells (2007) also demonstrate the importance of social collaboration to promote learning. Additionally, the students' engagement and contribution in the group work has proven to be important, which Webb et al. (2013) showed could be promoted through teachers' supporting students' communication. Based on a social psychological perspective, the comprehensive focus in this article is to describe aspects of students' inclusive processes when working with a group task.

There is no single definition of inclusion to encapsulate the goals of various societies and how it is expressed in various societal contexts. Moreover, the concept has been applied differently in various pedagogical contexts. Above all, inclusion is related to equality of opportunity,

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equity, human rights and democracy (Nilholm, 2006). Inherent in these overarching aims, certain values are held to be central (Booth & Ainscow, 2002); these include student differences being valued positively, accompanied by the belief that all students value the possibility and desire to learn and achieve. According to Skidmore (2004), inclusion is the process by which schools, through reconsidering curricular organization, endeavour to adapt to all students as individuals. Skidmore's definition connects with Booth's (1996), which suggests that inclusion aims to increase each student's social and pedagogical participation in the school and, conversely, to minimize exclusions.

Inclusion in education is most often described through the lenses of ideology and policy and not as an empirical issue. The phenomenon is sometimes used at the macro level by studying school structures, while at other times the phenomenon is used at the micro level as the basis for studying classroom education and learning processes (Haug, 2010). So, while inclusion is investigated at different levels in the school system, Haug argues that, because inclusion is relational in its application, it therefore "must be understood in the context and process in which it appears" (Haug, 2010, p. 207). Throughout this article, we foremost study inclusion at the micro level through students' inclusive processes in group work.

Swedish legislation promotes the inclusion of all students at all educational levels. Moreover, the Swedish Education Act (SFS 2010:800) clarifies the school's responsibility to modify pedagogical practice to meet students' different abilities and needs. This means that Sweden has assumed an inclusive ideology and policy for most of the students in the school system. Nevertheless, there is no clear and obvious definition of what it means to implement inclusive education in the classroom. Nilholm and Göransson (2013) present a perspective of inclusion – *community-oriented inclusion* – emphasizing student differences as part of the variance in the human condition, thus removing the judgement that some students are less able to benefit from education. As such, education needs to be adapted to students' different abilities, incorporating methods where students interact with one another, such as group work. Furthermore, employing democratic structures, which allow for greater student participation, is an important contribution in fostering community-oriented inclusion. Additionally, Nilholm and Göransson (2013) emphasize that students' situations must be considered from both the social and the pedagogical dimensions of inclusion. Nilholm and Göransson's description of community-oriented inclusion is an attempt to suggest how inclusion might be constructed, but it does not provide clarity about how inclusive processes might be prosecuted through the interactions of teacher and students, as well as between students.

Empirical research on inclusive processes in the classroom is sparse, and indeed several researchers (Emanuelsson, Haug & Persson, 2005; Flem, Moen & Gudmundsdottir, 2004; Florian, 2008; Göransson, Nilholm & Karlsson, 2011; Haug, 2010) have highlighted the need for empirical studies, exploring inclusion manifested in pedagogical practice, to be conducted. Moreover, Nilholm and Göransson (2013) emphasize that research on students' perspectives of inclusion is vital.

Framework of participation

In this study, we will focus on students' interactions and collaborative processes while working on a group task and the inclusive processes they are constructing through their work undertaken in common. In order to study inclusive processes, we first need to define the concept. Black-Hawkins (2010, 2013) has, over a period of more than 10 years, developed a framework for participation to identify pedagogical practices that include all learners; we have utilized this framework in this study. The following five principles underpin Black-Hawkins conceptualization of participation: (a) participation concerns all members of a class and all aspects of classroom life; (b) participation and barriers to participation are inter-connected and continual; (c) participation is concerned with responses to diversity; (d) participation is based on relationships of mutual recognition and acceptance; (e) participation requires learning to be active and collaborative (Black-Hawkins, 2010, 2013). The principles are closely interrelated, and Black-Hawkins states that, from a researcher's point of view, it is important to identify and scrutinize these connections. Booth's (2002) definition of participation has enabled Black-Hawkins to encapsulate the meaning of the principles and their relations succinctly.

> Participation in education involves going beyond access. It implies learning alongside others and collaborating with them in shared lessons. It involves active engagement with what is learnt and taught, and having a say in how education is experienced (Booth, 2002, p. 2).

The framework contains different sections with each relating to a feature of what it means to participate or not to participate in interactions with others. Black-Hawkins focused foremost on inclusive and exclusive processes in both the classroom and the broader school context, unlike our study, which only focuses on the inclusive processes constructed when students are working together on a common group task in the classroom. The concept of participation is hard to pinpoint, since it is about on-going processes and, as Black-Hawkins (2013) concludes, "It is not a state that can somehow be achieved but a series of ever-shifting processes that require careful attention" (p. 396). To be able to use the framework of participation as an analysis tool in our study, we need to define more accurately the different principles in a way that they are applicable to our study. These issues are articulated in the methodological section of this article.

The aim of this study is to investigate and describe students' inclusive and collaborative processes in group work and how the teacher supports or impedes these transactions.

Methodology

Social Interdependence Theory

Social Interdependence Theory, one of the dominant influences on Cooperative learning, is utilized here as the theoretical perspective overarching the study (Deutsch, 1994; Johnson & Johnson, 2002, 2013; Lewin, 1948). Moreover, the structural design of assignments undertaken by students has been created with this theory as the guiding influence. According to this theory, group members develop a degree of interdependence when it occurs to members that working together on an assignment will enhance the probability of their achieving their joint goals.

Social Interdependence Theory, as developed by Johnson and Johnson (2002, 2013), proposes five elements as being necessary to maximize the collaborative potential of groups. These are:

- *Positive interdependence* – the perception of being linked to other group members and the psychological realization that is achieved through the pursuit of common goals and joint rewards;
- *Individual accountability* – in which each group member is responsible for his/her share of the work and has a willingness to help other group members;
- *Face-to-face promotive interaction* – where group members encourage each other's efforts through discussions and explanations and in general show a willingness to throw in their lot with their peers;
- *Interpersonal and small group skills* – which enhance the degree of trust among group members and improve their communication skills and their ability to resolve conflicts when differences occur;
- *Group processing* – which involves group members discussing and evaluating their work; this is crucial for promoting, affirming and maintaining effective working relationships among members.

The study is part of a larger research project
This study is part of a larger research project concerning "Assessment of knowledge and skills in group work – an intervention study in the classroom everyday practice" (see Hammar Chiriac & Forslund Frykedal, 2016). The overall aim with the research project was to increase knowledge about teachers' and students' assessment in the context of group work in education. Together, the researchers and teachers constructed an educational plan for group work comprising the group task, introduction of the group work, four group work lessons and the presentations of students' work undertaken in common. In keeping with the overall aim, different types of assessment tools were also created and tested during the intervention.

The adopted group work mode and the task structure are influenced by the cooperative learning Jigsaw strategy (Aronson, 1978). Since the students work in groups in line with the Jigsaw strategy, they are expected to work both individually and collaboratively. The group assignment requires students to survey and analyse "how you live and act" in the following four areas: (1) recycling at home of plastic, paper, glass, metal, cardboard, batteries, etc., (2) travel to and from school, (3) meat consumption and (4) leftover food thrown away during a week in the school canteen. Each area was investigated individually by one of the group members. The students were engaged in the task for six lessons; these lessons also included some teacher instruction, which meant that the students were exposed to individual work, group work and teacher instruction.

However, in this article, we focus on students' inclusive and collaborative processes to provide some clarity about how inclusive processes might be prosecuted through the interactions of teacher and students, as well between students' instruction.

Data collection

The data in this study were obtained through observations made from videorecording 500 minutes of group work undertaken in one year-five classroom at a municipal school in a provincial small town with a heterogeneous class of students. The class consisted of 23 students, 10 boys and 13 girls, divided into six small groups. Each small group consisted of students with different gender and intellectual abilities and with Swedish as their first or second language. The researchers video recorded the students' interactions with one camera. Our goal was to record both the students, when they collaborated in their groups, and the teacher, when she/he interacted with the students. Since we used only one camera, we had to focus at any one time either on the teacher or a group. All groups were video taped at different points in the recording process.

The four ethical principles of the British Psychology Society (2014), based on (a) respect, (b) competence, (c) responsibility and (d) integrity, have been practised throughout the study. We have sought and received oral and written informed consent from the participants from principals, teachers, parents and students. Further, the regional Research and Ethics Committee at Linköping University, Sweden approved the research project.

Analysis

As mentioned in the introduction, there is no single definition of the concept inclusion, as it operates in the pedagogical context. The concept is complex and has different meanings. Just as the concept is multi-faceted, so is the phenomenon equally elusive and difficult to grasp. To manage the analysis of inclusive and collaborative processes among the students as they work in groups and also how the teacher supports or impedes these processes, we have chosen to use parts of Black-Hawkins (2010, 2013) *framework of participation* with the purpose to define inclusion and for the analysis of interactions indicating inclusive processes. Based on the aim of the study, we chose to use two of Black-Hawkins (2010; 2013) principles of participation, namely: (a) participation is based on the relationship of mutual recognition and acceptance, and (b) participation requires learning to be active and collaborative.

Black-Hawkins first principle reveals that in order to grasp inclusive processes transacted in student groups, and how the teacher supports or impedes these transactions, the analysis needs to focus on the parts of the video recording where students' participation exhibited mutual, respectful interactions and discussions and the teacher acts appropriately in responding to these. Black-Hawkins second principle suggests that the analysis needs to focus on students' activities and collaboration in the groups. To define collaboration, we use Bruffe's definition of the concept. According to Bruffe (1993), collaboration occurs when students work together in groups to create knowledge but also work together with the teacher and shift the nature of authority to the group. One condition for collaboration is therefore the teacher's ability to delegate authority and the students' ability to empower authority to one another for their own learning processes. This is an interactive process where it is primarily the teacher's responsibility to delegate the authority to the group and promote effective interaction among group members.

The analysis was accomplished in two phases. To be able to analyse students' inclusive processes, four "main codes" were initially constructed to capture the group work parts of the video, where Black-Hawkins principles of participation were in evidence. The four main codes were: (a) the students act jointly; (b) the students discuss; (c) the students help each other; and (d) the source of authority is shifted. According to Braun and Clarke (2006), data can be identified in an inductive way or in a deductive way. In this first phase, we undertook a deductive approach through coding the 500 minutes of video using the four main codes. In the second phase of the analysis, we employed an inductive approach by constructing many sub-codes under the "umbrella" of the first four main codes. These codes were clustered in categories, which will be described in the results.

Since we supported Black-Hawkins principle that participation is based on the relationship of mutual recognition and acceptance, and, as such requires learning to be active and collaborative, we focused on these features indicative of the principle in action in coding the data in the second phase. To define the codes used in the deductive analysis, we applied Davidson and Major's (2014) descriptions of the definition of collaborative learning. Based on this definition, we coded for the following features in the data: (a) students discussing and collaborating with each other in the group and (b) the teacher delegating authority to the group, that is, empowering students to collaborate and to be active in the construction of knowledge.

In the second phase of the analysis, we used Bruffe's (1993) definition when constructing several sub-codes (under a and b) with a more inductive approach (Braun & Clarke, 2006).

Results

The results are presented in two sections. The first section, *Students' discussions*, responds to the first part of the aim, which was to investigate and describe students' inclusive processes when doing group work. The second section, *Balance authority*, responds to the last part of the aim, which was to investigate and describe how the teacher supports or impedes these transactions.

Student discussions

A prerequisite for students' collaboration and inclusive processes in their groups is their joint discussions, which include mutual recognition and acceptance. The discussions sometimes involved the entire group, but more commonly, these occurred when two students were involved in discussion with each other. If the group contained four members, they often broke into pairs.

Discussing working structure

The content of the discussions in the group were concerned with structuring the task and the division of labour. These discussions were comprised of the students' interactive questioning and informing processes to clarify the group's joint work, each member's own individual work and that of the other group members' work as well. These group discussions occurred periodically during the group work sessions. The discussion was more intensive initially, when the students negotiated the individual responsibilities of members, and in the latter part, when

they discerned collectively how the work would be presented. Furthermore, at this point in the process, they needed to decide on the "running" arrangement of the group's presentation.

The conversation of the group below demonstrates how their order of presentation was reached.

> William: Who will be first?
> Ebba: Not me!
> Linnea: I can be!
> Ebba: Okay [Nods towards Linnea].
> William: I can be after you!
> Linnea: Who is last?
> Ebba: But I can be … or no.
> Liam: Yes, I am the third …
> Ebba: I am the last and you are second last! [Nods towards Liam].

The students in this situation rapidly agreed. Their discussions included both mutual recognition and acceptance of each other's statements. Admittedly, it was not universal for the discussions about their approach to structuring the task to occur as smoothly as illustrated in the example above. On several occasions, the students failed to have this discussion. Instead, they just continued working until they realised that something was missing, or had gone off the "track", suddenly realising that they needed to discuss the structure of their joint work to succeed.

Discussing the task
The groups also discussed the task and how to perform it; both the individual and the co-jointly constructed parts are discussed. The discussions related to (a) the students' understanding of the task and its different parts, (b) how they could carry it out and implement their investigations, (c) their experiences from having conducted the investigation and (d) their implementation of the task. Additionally, the students discussed (e) their analysis of the results of their investigations to deduce the active and positive choices of a more environmentally friendly way of life.

In the vignette below, three boys are involved in an analysis.

> Teo: What could be done with yours? Some might have gone lesser by car. It's many by car, it's more car than walk. [Pointing at one of the bars in the chart for travel to and from school].
> John: [Nods and raises the eyebrows as he looks at the chart].
> Hugo: You should try to cut down so that travel by car will be lesser and so they could go by bus instead.
> John: Were there 70 who went by bike? It was really good, it was the most! [The discussion ceased and the boys began to look at the recycling chart].
> Teo: It was good that there were quite a few who threw. Plastic and cardboard were most but perhaps it would have been a little more paper. [Swipe with finger across the chart for recycling].
> John: It would have been good with a little more metal. It's still ...
> John: … good!
> […]
> John: It would have been good if they had been able to make anything of the things that are thrown.

Teo: I mean it's just thrown in a garbage can!

Based on their investigation, all three boys engaged and participated actively in the discussion about ways to become more environmentally friendly. Although they did not reach a conclusion on the subject, all three boys were included in the discussion, each giving the others the opportunity to express their own analysis as well listening to one another.

Giving feedback

Additionally, giving and receiving feedback enhanced the content shared in the students' discussions. One or several members in a group gave feedback for one student's individual work, or alternatively, it might have entailed a discussion including feedback on the group's joint work on the task. The feedback was also sometimes directed at group members' participation, for example, the degree students stayed on task and also in relation to members' behaviours during the group work session.

In the following context, Victor gives feedback to Jesper on his diagram, which he will present to his peers from the front of the class. Jesper accepts the feedback with minor resistance.

Victor: Can I see yours?
Jesper: Hm. [Turns his picture against Jesper].
Victor: Ehh, you know it should be huge?
Jesper: Aye, I know [Faces towards Victor].
Victor: Maybe you should do two, three there [Points with the pen on the x-axis on Jesper's chart], because otherwise it looks very strange.
Jesper: Yes it does.
Victor: And then I actually think that if you shouldn't draw very long distances so that the [bar] was much bigger for think about that you should show this [chart] on the board [Points to Jesper's chart].
Jesper: Hm, I know, but I can explain a little more too.
Sofia: But I think what you [Victor] said was ok, but otherwise I thought it was good.
Victor: Yes it's accurate and so.

Victor's feedback was accurate and, at the same time, delivered humbly, thus communicating in a manner that was both constructive and intelligible. Jesper seemed to comprehend the feedback but was also trying to defend his approach by explaining that he could as well give some oral explanation when presenting the diagram. To be able to give and to receive constructive feedback in a group implies the necessity of group members to have respectful interactions with each other.

Asking for and giving help

Students asked for and gave one another help, both for individual and for joint constructions. They asked for help in relation to various issues, such as posing questions to enlist help in conducting the individual investigation or for constructing a diagram. Moreover, they gave help to fellow group members when they ascertained that the group member's work or parts of the joint work needed to be improved. If one of the students, for some reason, had been absent in the previous work, the other group members helped him/her by providing task instructions.

Offering help to others having completed their own task was an additional practice observed in the group work sessions.

Victor, having just finished his work with the diagram, illuminates this practice.

> Sofia: What will you do with the time, Victor? You can of course help …
> Victor: I was going to help you ... but I have helped Molly and no one more needs help**…**
> Sofia: You can do the [Inaudible].
> Victor: … or I'll help you to paint [Gets up and goes to Sofia] ... because you make so many [bars]…
> Sofia: ... then you have to paint different patterns.
> Victor: ... tell me what to paint then?
> Sofia: ... I don't know … type dots or something [Points to the chart].
> Victor: ... I can do dots in it [Takes the pencil and starts painting on one of the bars].
> Sofia: okay ... and then paint the little narrow with a pen around the bar.

Victor was eager to offer help to his peers, so he suggested that he might help Sofia with her painting of the bar graphs. Sofia accepted Victor's offer, allowed him to paint dots in her bars and then invited him to draw lines around them. Sofia indicated confidence in Victor's ability to help, which she demonstrated by asking him to do some more work on her diagram. In response to her invitation, he listened carefully to her instructions.

Summary

Participation as inclusion requires respectful, mutual relationships in the groups and active listening to each other's statements. In this first part of the results, we have described how students actively discussed (a) their work structures, (b) the task, (c) giving feedback and (d) asking for and giving help. Participation as inclusion also requires that the students invite and were invited into the group discussions. The discussions indicated that the students practised inclusion in their groups, as they perceived that their active participation and collaboration were possible. The students also needed to be active in managing the group task. This they carried out through accomplishing the investigation and presenting the results in a diagrammatic representation. Further, their active involvement was promoted by their communicating the results for the group, analysing all group members' results of their investigations and presenting these to the rest of the class.

Balancing authority

One way to capture how the balance of authority in the classroom was constructed between the teacher and the students was to identify whom the students asked for help or support in their group's working. Did they ask the teacher, or did they ask fellow group members? Another way to determine how the balance of authority was determined was by examining how the teacher returned the question or responsibility to the group. In this study, we have focused on both. Even though the students worked in groups and had peers to ask for help or support, they often turned to the teacher if they had any queries or thoughts about an issue. To attract the teacher's attention in their quest for assistance, students acted in several ways. Some, for example, sat quietly and raised one arm, while others called out the teacher's name while also raising their arm. Moreover, they may have reached out to the teacher by just walking up to

him or joined the queue formed by waiting students. As evidenced by the queries asked by the students, these related to various aspects of the content and processes. Unsurprisingly, the teacher responded to the students differently.

Teacher as authority figure

One area of concern was the students' feeling of anxiety associated with the task. In one of the groups, two of the student's, Anna and Per, wanted to conduct their investigation in the same area, "recycling at home". The group tried to help their group members with the decision by "casting lots". The following dialogue unfolded:

Sandra: I would probably like to be that transport thing…

Per: And I would like recycling.

Sandra: Recycling? But what do you want? [Pointing at Anna].

Per: I want that [Recycling].

Anna: I want to have that [Recycling].

[…]

Sandra: But we can ask what you do on the food waste.

Per: [Raises his hand] But eh Marcus [the teacher] … How are you supposed to know about that with food waste?

Teacher: How do you find out about that?

Per: I don't know, suppose… ask "the food"?

Teacher: "The food" … then who may have those data? If "the food" doesn't have them?

Per: The students?

Teacher: The students can have it. But it is not sure that the students at the school know. Who can you ask then for that kind of information?

Oscar: Marcus [the teacher].

Teacher: [Points to himself with the pen] I might have this information! Can it be so?

[…]

Per: [Calls for the teacher once more, who then arrives at the group].

Teacher: [Turns to Oscar] You're a little worried about the task but ask the group for help.

Per: [Nods a little].

Sandra: We support you [Puts her hand on Per's hand].

Both Per and Anna wanted to conduct the investigation on recycling. They were not able to reach an agreement by themselves. Per called for the teacher twice. The first time the teacher approached the group, he implied that he had an answer for how much food was thrown away during a week at the school, thus potentially setting himself up to be the major resource for them to draw upon. Another way to handle this facilitative role could have been to encourage the students to undertake the investigation more independently, thereby delegating students the authority to manage the task. In examining the group's communication, it appears that they managed their queries quite well and, in the process, promised to give their peers support. The group and its members thereby accepted accountability for each other's work, thereby consolidating the level of interdependence that was already evident amongst members. The second time the teacher was called to the group, he/she asked Per if he felt anxiety associated with how he should carry out the investigation.

Teacher confirming versus asking questions

To ensure that their content and procedure when working with the task and the tasks product – in this case, the presentation of the group's analysis of their investigations – were correct, the students sought the teacher's approval before they continued. The vignette below shows the students practising their presentations in front of each other, but they experienced difficulties and were concerned how they might manage. Their worries related primarily to the best way to present their investigation; how to remember what to say when presenting in front of the class was also of some concern. One of the girls suggested that they write down what they intended to say, and in response, all group members started writing. However, Per still expressed uncertainty about how to present his investigation.

> Per: Eeh Marcus [The teacher] … should I say like, how I did it, that I got a piece of paper from you, and so out of it, ah I made chart … so much thrown in kilograms of in the food… Should I say that?
> Teacher: Yep.
> Anna: Can you check like this and then read? Or if I write it down and then I stand there and read [Pointing to the backboard].
> Oscar: Thus, write how you did and so?
> Teacher: Yes, you can!

The teacher confirmed that the group did the task correctly and thereby alleviated the group's anxiety about their presentation. However, by merely approving the group's questioning, he maintained authority rather than supporting the group by devolving the question to them and helping them to be accountable for the group's approach to planning and implementing the presentation.

Students seeking clarification of teacher feedback

The students frequently asked questions at the beginning of each of the six group work sessions, but the questions declined as the task unfolded, with one notable exception. When the students received written feedback on their individual work from the teacher in the third session, the number of questions to the teacher increased significantly, with students forming a long queue to access the teacher, who was sitting at his desk. When the students received their documents with written individual feedback, one of the boys discovered that he did not receive any feedback, because he had forgotten to submit his work. Consequently, the teacher had to review and provide a response to his work while the queue of students wanting to ask questions of the teacher grew. In this moment, the following dialogue unfolds:

> Teacher: Now I have to …
> Jessica: But I didn't understand?
> Teacher: Johan needs to get started too. Can I help you then?
> Jessica: But how should I do if I don't understand?
> Teacher: What didn't you understand?
> Jessica: You use too many adult words!

The teacher was under duress, as he was busy with the written feedback to Johan, while a lot of students were seeking his help, since they did not understand their received feedback. To

continue with her work, Jessica needed to understand the feedback the teacher had provided. The teacher understood that, so he interrupted his writing of feedback for Johan. However, Jessica was unable to describe what she does not understand, due to the teacher's use of difficult, "adult" words. In this situation, where the students had received their individual written feedback, because of the difficult language used by the teacher, the teacher retained the authority for learning, which meant in some cases, as for Jessica, that they were stranded and unable to proceed. This teacher dependence could be explained in other ways; that is, they did not take the time to understand the written feedback, nor did they ask their group members first for assistance. Nevertheless, at this point in their working collaboratively, their strategy for coping with uncertainty in comprehending the feedback provided was to seek reassurance from the teacher. Their need for affirmation and clarification might have been due to their lack of regular exposure to the use of written feedback strategies in this cooperative context, causing the students to feel unsure of what to do. In this specific situation, it became clear that the students have little opportunity, being individually accountable for their learning, thus the teacher retained authority.

Teacher delegation of accountability to the groups
In some occasions, during the group work sessions, the teacher explicitly tried to delegate the authority to the group or group members, giving them the opportunity to be accountable for their own learning processes. A couple of times, he reiterated their responsibility by providing general feedback to the whole class.

> Teacher: If I should be honest, I don't think that your job works. You have forgotten the group contracts, to take responsibility of your work and what you should do.

The teacher informed the students that he was displeased with their not taking responsibility for their work, and he further reminded them of the earlier discussion and agreements about the group's common work, resulting in a group contract for each group. This feedback to the students was general, in comparison with the feedback provided in the next situation, where the teacher more precisely defined the students' responsibilities.

> Teacher: Then you should help each other now and give feedback on your charts, what to improve and what can you do differently to make it clearer. Then you should find questions, do some analysis based on the chart. What could you do now that will be better for the environment? That was what you were going to do in the groups, right? Now you do other stuff. We have no more time. So do it now. Take your views on the chart in the group. Help each other. Then you should also do some analysis on your charts too. What can you do to make it better?

In providing this information, the teacher created the conditions for the delegation of authority to the group members. This more specific feedback urged the students to be more accountable for the group's joint working on the task and also for their learning processes.

On other occasions, the teacher tried to delegate the authority to a group by informing and advising a student to consult the group with her/his questions instead of asking him.

Teacher: You can take help from Erika.
Safak: How do I do this? [Turns to Erika] I'm supposed to write down this chart [Points with the pen towards his paper].
Erika: I wrote … but you had 53 units? [Points with the pen towards Safak's paper].
Safak: No, 64, 65 with Per.
Erika: [Counts silently and points at the same time with the pen]. You might have to do half squares to not to get so long bars.

Prior to the interaction above, Safak raised her hand, asking for help, and the teacher went to her. Instead of answering her question, however, the teacher proposed to Safak that she seek help from Erika, one of her group members. By taking this approach, the teacher delegated authority to the group, thereby giving the students the opportunity to become more accountable for both her individual and the group's collective work. Safak and Erika started a discussion in response to Safak's question, thereby becoming more accountable for the group's work.

Summary
Working to *balance authority* in the classroom is one stance for giving students the possibility for constructive collaboration. A prerequisite for student collaboration in their groups is the shifting of authority from the teacher to the group, which gives the students the chance to take responsibility for their own learning processes. It seems that *anxiety, lack of knowledge, needs for confirmation* and *"unsympathetic" teacher textual feedback* could explain why students asked the teacher for guidance instead of turning to their group members for support in discussing and resolving difficulties being experienced. The teacher commonly answered queries and provided feedback, thus taking on the traditional authoritative role of being the arbiter of difficulties, but on numerous occasions, the teacher referred students to their groups for support. This gave the students permission to be accountable, both at the individual and group level, thereby enabling students to take greater responsibility for the group's collective work. The teacher also promoted this agenda when he reminded them about their responsibilities, either generally or through specifically defined feedback on their contribution to the task and in relation to their classroom behaviour. In particular, precise feedback seemed to give the groups the clear permission they needed to become more accountable.

Discussion
Based on social psychological perspective, the study contributes with empirical research on inclusive and collaborative processes in group work and how the teacher supported and impeded these transactions. For the analysis of the inclusive processes, we assumed, with the support of Black-Hawkins (2010, 2013) framework, that participation and inclusiveness were mutually dependent elements, requiring learning to be active and collaborative. Collaboration, in turn, is when students actively work together and with the teacher, shifting the nature of authority to the group (Bruffe, 1993).

Working structure and different aspects in their group task are examples of content in the discussions that indicate positive interdependence between the students (Johnson & Johnson, 2002, 2013). If the students perceive positive interdependence, it will give the group increased opportunities for developing inclusive and collaborative processes. Furthermore, the

investigative and analytical parts of the discussions on the task are examples of students' promotive interactions, where they show willingness to throw in their lot with their peers (Johnson & Johnson, 2002, 2013). Giving feedback and asking for and giving help on both individual and group joint work on the task are examples of how the students take individual accountability (Johnson & Johnson, 2002, 2013). Additionally, to give feedback directed at group members' participation in the group work is also an example of students' accountability. Positive interdependence, promotive interactions and individual accountability are three necessary elements to maximize the collaborative potential of groups, according to Social Interdependence Theory. To implement the three elements into group work requires active participation from the students. The elements will give arguments that there is, according to Black-Hawkins (2010, 2013) framework, examples of inclusive processes we have witnessed in the groups.

We have observed the balance of authority by attending to both student-student and teacher-student interactions. Our focus has been on how the teacher works on equity and "allows" the groups to collaborate constructively (Davidson & Major, 2014), which Webb et al. (2013) showed could be promoted through teachers' support of students' communication. A recurring event was when the teacher advised a student to ask a member of the group for help or assistance and/or reminded the groups to take responsibility for their work. The teacher communicated this generally or more prescriptively. Precise communication provided the students with clear feedback, granting them the authority to collaborate in their groups. Other observed teacher responses confirmed student responses rather than questioning (Davidson & Major, 2014) the students' queries about the task, hence, giving the students fewer opportunities to gain authority and accountability for the task (Johnson & Johnson, 2002, 2013). Balancing authority is an interactive process, where the students need to collaborate actively rather than choosing the option of asking the teacher for help instead of solving a problem themselves. Perhaps unsurprisingly, both types of teacher behaviours were evident in this classroom. Consequently, the results verify that the teacher both supported and impeded the inclusive processes inherent in delegating authority to the groups. According to Cohen (1994), learning to delegate authority to groups, allowing students to work more independently, is difficult; however, the greatest learning gains are made, according to Cohen (1994), when teachers successfully undertake this process. Balancing authority in this context is an interactive classroom process, where it is within the teacher's complex facilitative role to carry out the delegation of authority and promote effective interaction among group members. Additionally, the students in this study have possibilities in the group work, with Booth's (2002) definitions, to learn and collaborate in groups. This allows the students to have the possibilities to be part of inclusive processes.

Conclusion

Group work is an educational mode that considers both students' academic and social outcomes. This is in line with the aim of inclusion, thus increasing each student's social and pedagogical participation. In this study, we have elucidated inclusive processes manifested in students' collaborations when working in groups and the teacher's support and impeding of these processes. Students' active participation in the discussions around working structure and

the task, as well as the investigative and analytical parts of the discussions, promotes their inclusive and collaborative processes. Additionally, teachers' more defined feedback and questioning of the students' queries about the task give the students opportunities to be accountable, both at the individual and group level, thereby enabling them to take greater responsibility for the group's collective work. However, when the teacher takes the traditional authoritative role of being the arbiter of difficulties, it impedes students' opportunities to, in collaboration, analyse and find their own solutions of their queries. A conclusion from the study is that core work for teachers resides in the delegation of authority to make it possible for the students to work independently and become more accountable for their own learning and socialization. Additionally, to develop conditions that support mutually respectful interactions seems to be another essential aspect of actualizing inclusion in group work processes.

Disclosure statement
The authors reported no potential conflict of interest.

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