Criteria for selecting preferred and avoided partners for teamwork in the classroom and their contextual variability: an adolescent perspective

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Abstract

In real life, people do not always choose who they work with and the size of the working group. However, when placed in a group or pair, they do not always function successfully as a team. This paper reveals the preferences and criteria for selecting group work partners from the perspective of 7th and 8th grade students, attempting to capture behaviours perceived as critical to the development of trust (trustworthiness). In addition, the attributes of the preferred and avoided partner were compared in a wide range of team situations in classrooms (team task, a sports game, sharing a desk, peer tutoring). It was found that while friendship commitments are a factor in the selection of peers for a joint task, the matching criteria and expectations of partners change depending on the requirements of the task itself. These findings should be relevant to researchers and educators who are looking for an optimal classroom seating arrangement or team formation method to promote learning based on a group format that students find rewarding and valuable.

Keywords: teamwork management, team formation methods, dysfunctional work groups, reliability of cooperation partner, social choices

Introduction

Group work is widely incorporated into education programmes at all levels because of the supposed numerous potential cognitive, social, and motivational benefits of promoting productive peer interaction and collaboration (e.g., Kamińska, 2021; Shimazoe & Aldrich, 2010). According to the constructivist assumption that knowledge is co-created socially, this educational format of working in small groups uniquely provides opportunities for social comparisons and social learning (Bandura, 2000). Students can gain significantly through the process of negotiation and consensus-building with peers, which is an integral part of the experience of social interdependence (Johnson & Johnson, 2009). Some researchers even suggest that group work is an element of the developing of democracy and citizenship, as it not only equips young people with skills that are valuable in the job market, but also allows them to explore what makes them desirable members of a group (Rees, 2009).

While literature confirms the associated benefits of the group work format for students at various levels of performance, other findings indicate that students and teachers report numerous challenges and barriers to implementing group work and frustrations with dysfunctional groups (e.g., Chiriac & Granström, 2012; Krawczyk-Bryłka & Nowicki, 2020; Rees, 2009).

However, differences were also discovered between teachers and students in their perceptions of key issues related to group work (Chiriac & Granström, 2012). Accordingly, researchers suggest using a participatory process to evaluate various aspects of group work (Florez & McCaslin, 2008; Fredrick, 2008; Kanevsky et al., 2022; Rees, 2009). The researchers emphasise that students must be free to express their concerns, the encountered problems, opinions, and complaints about various types of group dysfunctionality during teamwork (Shimazoe & Aldrich, 2010). At the same time, they point out that examining students' preferences for selecting peers for small teams can

provide insight into critical features of group work and students' perceived barriers to effective group participation (Neu, 2018; Rees, 2009).

This work shows the preferences and criteria for selection of groups from the perspective of 7th and 8th grade students. The focus was on students' qualitative accounts of reasons for inclusion in and exclusion from groups, characteristics required for group participation, and priorities and perceived barriers to valued group membership.

Group assignment methods

Group work requires identifying group participants and choosing the size of the group (Chapman et al., 2006; Kamińska, 2021). The question of who should form the team and how peers should be matched into pairs or groups is an important practical issue facing teachers (Ciani et al., 2008). At the same time, it has been a highly controversial and divisive issue for many years (e.g., Matta et al., 2011).

There are three well-established ways of forming teams described in literature: (1) random selection, (2) (independent) student selection, and (3) instructor's selection (e.g., Neu, 2018). Importantly, each has advantages and disadvantages (Matta et al., 2011). "Random" selection is very easy and quick to implement, and in addition it excludes potential negotiations and gives all teams an equal chance of success or failure. However, it can lead to unintended consequences, such as inequality in academic skills between teams, and lack of diversity within teams (Blowers, 2003). "Self-selection" allows students to decide on their team members and form teams based on friendships or knowledge of their strengths and weaknesses. However, this often leads to teams that are homogeneous in terms of skills, specialisation, gender or ethnicity (Chapman et al., 2006). In contrast, assigning students to groups ("instructor's selection") makes it possible to create heterogeneous and balanced teams according to predetermined criteria (Chen & Gong, 2018). However, collecting data on students to identify personality type, strengths, and learning styles has proven to be time-consuming and complicated, and therefore it has proven easier to create teams formed based on academic performance, and this is more common (Matta et al., 2011).

While it is not obvious which method of forming effective teams is better, various experiences and evidence supporting specific selection options can be found in literature (e.g., Chapman et al., 2006; Matta et al., 2011). The results of the study suggest that heterogeneous groups assigned by teachers are more productive and more task-oriented compared to groups that chose their members themselves. There is also evidence in favour of self-selection as a method of team formation, as teams formed by students score more highly (as measured by higher final grades) than teams formed by teachers (Chen & Gong, 2018; Rusticus & Justus, 2019). In addition, in self-selected groups, students reported greater input from team members, greater satisfaction with the team experience and with the team, satisfaction with the group's overall performance, higher levels of commitment, and trust and relationship satisfaction (Chapman et al., 2006; Hilton & Phillips, 2010; Myers, 2012).

Therefore, some researchers, highlighting the strengths as well as the weaknesses of team formation methods, suggest that hybrid approaches that combine students' preferences for group composition with some degree of teacher control may be a better way of promoting student achievement and satisfaction (Matta et al., 2011). However, there are still no determinations as to how to help students regain comfort or overcome the many different types of group dysfunctionality.

Students' preferences regarding the method of group formation and composition

From the students' perspective, connecting with partners they did not choose is a challenge to comfortable and satisfying teamwork (Hilton & Phillips, 2010; Myers, 2012; Rusticus & Justus, 2019). More students prefer to work when more autonomy is provided and when they have the opportunity to choose their group members (Chapman et al., 2006; Koutrouba et al., 2012; Rees, 2009).

Given a choice, students prefer to work with their friends, with whom they feel more comfortable (Chapman et al., 2006; Hilton & Phillips, 2010; Konieczna, 2020; Koutrouba et al., 2012; Neu, 2018). It has also been shown that the opportunity to work with friends is one of the reasons why students prefer and enjoy working in a group more than working alone (Myers, 2012). Students also pointed out the risk of including partners in their teams without access to knowledge about whether they can be effective partners (Rusticus & Justus, 2019).

In addition, evidence has been gathered that shows that most students preferred working in a group to working alone, if it was with the "right" colleagues (Kanevsky et al., 2022). Students preferred to work independently rather than as part of a team if members did not contribute equally, did not work at the same pace as them, or collaboration could result in potential conflict or a poor grade (Kanevsky et al., 2022). If safe, supportive and equitable collaborative conditions were not available, students preferred to work alone, showing that it is desirable for them to choose partners based on weighing risks and benefits (Koutrouba et al., 2012).

Perceived credibility of the cooperation partner

A positive expectation that others will perform certain actions that are important to the success of the team, or at least act in a benign manner, are critical elements that define trust (Breuer et al., 2020; Costa,

2003; Mayer et al., 1995). Violations of trust expectations mean that team members may not achieve the grade to which they aspire or are forced to devote more time and effort to make up for a team member's poor performance (Neu, 2018). Disappointment may influence team members' decisions to continue working with their current team or, in cases of low trust, to attempt to leave the team (Breuer et al., 2020).

The results indicate that classmates who have proven to be reliable in the past are considered more trustworthy (Neu, 2018). Thus, at the core of trust is knowledge of the trustworthiness of the person in question, which develops from the perception and direct experience of team members (Breuer et al., 2020). This knowledge develops over time, as students interact and learn about each other. Mayer et al. (1995) explain that trustworthiness is related to beliefs about the qualities of the person in question, as trustworthiness is defined as a belief in the person's abilities, benevolence and honesty (Breuer et al., 2020; Costa, 2003).

Research suggests that people use available cues or direct information to assess reliability. For example, they observe how assessed team members share information, and whether they discuss conflicts within the team or form coalitions (Breuer et al., 2020). However, judgments, trust, and decisions are not always rational, based on first-hand knowledge of the other party, insights or cool reasoning (Neu, 2018). Trust is clearly shaped by various heuristics and emotional feelings, especially when emotional ties and concern for the well-being of partners become the basis of trust. Trust can come from group membership, reputation, and stereotypes. Therefore, trust is sometimes very easy to develop and other times almost impossible to develop, maintain or repair (Breuer et al., 2020).

The current study

The theoretical frameworks of social interdependence (Johnson & Johnson, 2009) and social learning (Bandura, 2000) suggest that students learn a great deal from overcoming peer conflicts and difficult situations. At the same time, the inherent social dimension of group work makes the formation of small groups a highly stressful situation, especially since the creation of a dysfunctional team can lead to escalating conflicts, hostility among group members, unfair work distribution, and deactivation of other members, formation of cliques, or group disintegration (e.g., Chapman et al., 2006; Konieczna, 2020; Krawczyk-Bryłka & Nowicki, 2020; Rusticus & Justus, 2019).

Researchers have long sought to discover which key social behaviours influence comfort in groups and are perceived as beneficial (Neu, 2018; Rees, 2009). However, studies on teamwork in the upper elementary school years are scarce (Ladd et al., 2014). Insights from students at this age may be unique, because teenage students, more than younger and older students, might focus on relational aspects rather than task outcomes (Chapman et al., 2006; Kanevsky et

al., 2022; Konieczna, 2020; Matta et al., 2011; Myers, 2012). Insights from these 14-15-year-old students on the reasons for inclusion and exclusion from groups, traits required for group participation, and priorities and perceived barriers to valued group membership can provide valuable information for developing appropriate interventions for this population.

Furthermore, previous research focusing on the development of tools to measure team effectiveness suggests that different behaviours contributing to a team's success correspond to different types of teams (Breuer et al., 2020). The attractiveness of collaboration versus preferences for individual work has been found to depend on the nature of the task (Kanevsky et al., 2022). Thus, the factors critical for the effective functioning of a project team may differ from those for a sports team. However, there is currently no information available on this topic. Focussing on specific types of tasks when investigating students' preferences for selecting peers for teams can provide additional insight into critical features of group work and students' perceived contextual barriers to effective group participation.

Methods

Participants

The participants were students from the last years of elementary school. The study involved 15 women and 15 men, aged 13 to 15, who were students of public schools located in an agglomeration in the central part of the country. The 7th-grade participants were all from the same school and class, while the 8th-grade participants attended two different schools, with each school represented by a single class.

Data collection

Individual semi-structured interviews were conducted. In the first stage, participants classified their classmates according to the principles of sociometric technique. A simple peer nomination technique (Zwierzyńska, 2008) was used to categorise class members. Participants sequentially filled out four separate diagrams according to the four categories of cooperative situations: "teamwork," "sports game," "sharing a desk," and "peer tutoring". The instructions were that participants should classify their classmates by filling in concentric circles on the diagrams. The assistants stipulated that the class members listed in these circles be called using nicknames or by a symbol.

The assistants instructed participants to place in the innermost circle classmates they would be "very happy" to select as cooperation partners and classmates they would be "less happy" to select as cooperation partners in the next circle; in the outer circle, they were instructed to place classmates they would "prefer not" to select as cooperation partners, given the opportunity to choose the team members themselves. The assistants pointed out that the circles could be empty, full or anywhere in between, and the

placement could be amended. Placement in circles 1, 2 or 3 served as an indication of the degree of avoidance or preference for a particular partner.

After completing each diagram, a brief conversation was held, during which participants gave subjective reasons for their choices. As each diagram contained all classmates distributed across three circles, the participants commented on their placement within each circle. The purpose of the interview was to gather rich responses on the matching criteria based on which students select peers for a joint task. In total, 30 participants provided information on their perceptions of classmates within their class group, resulting in over 650 descriptions of class members as potential partners for cooperation, considering classes of approximately 20 students each. Across the four types of collaborative situations, this yielded over 2500 comments regarding characteristics of peers identified as highly preferred, less preferred, or avoided.

All interviews were held in a closed room to ensure participants confidentiality, and lasted about 30 minutes. They were conducted by trained research assistants. All participants were asked a basic set of questions which were adjusted as necessary. The interviews were conducted in Polish. All interviews were recorded in audio format with the permission of the participants and transcribed verbatim. Anonymous citations are linked to gender (e.g., F), class (e.g., 7).

Ethical considerations

The guidelines of the principles of the Declaration of Helsinki were followed, with respect for the interests of adolescents. The testing process was explained to the participants verbally. Written informed consent was required from parents and informed consent was required from the participants before participation (including consent for recording interviews).

Data analysis

Qualitative analysis was based on the principles of thematic analysis (Braun & Clarke, 2006). The procedure was as follows. First, the transcriptions and data on the diagrams were read several times to familiarise oneself with the data and gain a sense of the overall picture. Next, initial codes were created and grouped thematically, allocated to criteria for selecting preferred versus less preferred and avoided partners in each type of collaboration. Through continuous comparison, independent categories were condensed into distinct themes, and codes were assigned to transcript segments based on emerging themes. Topics were reviewed for coded excerpts and the entire dataset and were refined. Based on repeated reading, reviewing and interpreting students' comments, recurring patterns were established. Statements that best reflected the topics were used as illustrative quotes.

Credibility and validity of the analysis

To render the data more reliable, the three interviews were analysed independently by the researcher and a research assistant. All discrepancies were discussed and modified several times through discussions until a consensus was reached. The final topics and interpretations were presented and confirmed through discussion with a team of two experts who were active teachers working daily with students from grades 7 and 8, to prevent bias.

In this way, experts provided feedback and confirmed that the results reflected their experiences.

Results: Partner preferred and avoided: selection criteria in selected areas of cooperation

This analysis focuses on students' statements concerning their preferences and experiences in selecting partners for four types of collaborative activities. These will be discussed separately.

Desk partner

Participants report trying to find a balance between learning efficiency and enjoying learning with a partner. They prefer partners who will facilitate the best results and at the same time want to feel comfortable working with them. They are most likely to choose those peers with whom they feel close and can talk freely in class. They have interesting topics to talk about in class with them and are not bored in their company.

While participants point out that social activities make learning together more fun, it is important that desk partners are able to work together and not disturb each other during lessons when they have something to do. Preferred as partners, therefore, are colleagues who initiate social chit-chat, "but when you have to be quiet, they let you focus" (M, 8). Desirable partners usually do not cause undue disruption. On the other hand, partners who constantly talk or cause a distraction, and hinder benefiting from the lesson, are less preferred: "I think she would talk to me a lot and we would just do less in the lesson and I would get little out of the lesson" (F, 8). With that said, a complete lack of social interaction in the classroom is also undesirable. Quiet people and loners are the least preferred partners.

Respondents reported that they appreciated cooperative people and preferred working together. Particularly valued is the willingness to share solutions or materials, exchange notes, give hints on a test, and provide help in understanding the material if needed, as one respondent points out in her extensive statement:

> I know that Julka would always help me, in a test, during a task, she would always give me a hint if I had a problem, or I could copy something from her. I could count on her to explain to me how to solve a problem, to talk about some task in mathematics, for example. I can ask her if we have the same results, or we can do it faster together. (F, 8)

In general, participants consider parasitism (using someone else's work without contributing) to be unfair and expect partners to work together in a mutually beneficial way, as highlighted by several statements: "I think that if we were to do some small things, he would just demand more from me than from himself" (M, 7); "he wouldn't do anything himself and would copy everything from me" (F, 8). Partners who violate the principle of fairness and sharing (they want to copy someone's work), and in addition do not respect the principle of focusing on work, are the source of the greatest frustration. Many respondents do not hide their irritation: "I used to sit with [him] and he annoyed me terribly, because he kept asking for something, kept wanting something from me"; "that's the worst thing, that he doesn't want to ask me, he just wants to copy from me. He won't ask why it worked out that way, he just wants to write it down"; "[he] plays jokes on me, and I just sometimes need to focus on the task at hand, rather than him talking to me about some nonsense" (F, 8).

An avoidant partner can also contribute to conflicts when he or she does not respect personal space, one statement explained:

> I sat down with him at maths just once; he took my pencil case and started rummaging through it, and that irritated me. Also, when I was doing a task and concentrating, he started poking me, started asking me about something, tried to talk to me. (F, 8)

In addition, participants indicated that they try to avoid partners who may need constant supervision and help in solving tasks: "I would have to constantly watch him do tasks" (F, 7).

Teamwork during classes

Participants reported that group work with friends guaranteed them comfortable communication, reliability and a positive atmosphere. Repeated arguments include "it's easy to decide who does what," "we're in sync," "it's always fun." One respondent emphatically suggests that valuable partnerships are based on relationships of friendship and affection:

> If I had to work with people outside my group, it would definitely be harder for me and I would find it less enjoyable, because it would already be like more tiring work, rather than team-building with people from my group. I would have to force myself. (F, 8)

Participants' statements indicate that agreeableness and the ability to create harmonious interactions are highly valued: "We wouldn't have any of those kinds of spats and problems" (M, 8); "they're the kind of people that I just get along with and I know that I can do this with them, I know that I won't argue with them" (F, 7); "he's such an amicable person, so it's easy to get along with him that «okay, I'll do this

and you do that»" (F, 8). Many value humour in their partners and their ability to provide a comfortable working atmosphere: "he always jokes around when we're in a group with him" (M, 8); "he always adds such laughter, is easy-going, and it's fun, and even if he doesn't do too much, at least it's funny" (F, 8).

Many of the statements were about being dutiful and committed to work. A desirable partner "always knows what to do"; he always has input, "and it's not like one is doing something and the other sits around and does nothing" (F, 8). Among colleagues less likely to be chosen were those judged to do little, deliberately avoid work, or do things unrelated to the group task, and who need to be told specifically what to do and how to do it. Although they ultimately do the work, it requires investment from other members in the form of managing their efforts, monitoring, and giving additional instructions, and this slows down the work. The performance of such partners is perceived as incomplete:

> [he] does very little and he doesn't feel like doing much. He's the kind of person that doesn't quite know what to do. If I don't point it out to him, he won't figure it out by himself. But if he's told to, well, he'll start doing something. (F, 8)

"[he] likes to add a lot of meaningless stuff that's not connected with the work we're supposed to do" (M, 7).

Participants expect their partners to be responsible, to contribute fairly: "he thinks that the group will do everything and it will be fine" (F, 8); "well he just sits and does nothing. He doesn't do anything, he usually just gets in the way" (F, 8). Lack of commitment is a common argument against working with someone:

> She doesn't always [take] these things seriously, because she thinks that the other person will do more and that she will get a grade just like the other person, even though she did very little. I would prefer not to work with her. (F, 8)

Sports games

While athletic ability is important for students, a combination of skills, including sportsmanship, cooperation during the game and the ability to self-regulate, has proven to be important when selecting playing partners. Participants appreciate partners who are involved in the game, behave cooperatively, and don't break the rules of the game: "[she] wouldn't coast, so it wouldn't be a problem" (F, 7); "when played, she was also so involved, she complies with the rules of the sport, it's fun to work as a team" (M, 8); "he often doesn't feel like doing something, but once he gets into a sport, it's great fun to be with him in a team" (M, 8).

Participants reported being troubled by partners who, although they have athletic abilities that are

useful in the context of a group task, "don't understand" what it means to "play as a team". They are particularly annoyed and repelled by dominators, with whom they play poorly through their bossy behaviour, favouritism or "seizing" the game: "[she] plays by herself, thinks she is the only one and is terribly bossy"; "[he] is so often not very team-oriented"; "[they] are convinced that they are the best at everything"; "she likes to lead" (F, 8). Participants often describe how, in key game situations on the field, colleagues ignore the other players and don't pass the ball to others: "terribly annoying, he prefers to play by himself the most, he puts more on himself" (F, 7).

Participants also say they do not want to play with a colleague who is disruptive and does not invest effort, as highlighted by one statement, "he's fooling around, standing around, doing nothing, or walking around, talking to someone" (F, 8). They emphasise the inadequacy of such behaviour when a partner is expected to engage in the game: "we can fool around, but when we play, we need to focus on what we are doing" (M, 8).

Participants report that they value balanced players capable of dealing with difficulties. Therefore, classmates who do not control their emotions and aggressive behaviour, e.g., complain, often take offence, give up easily, get angry, are indicated as less likely to be chosen and are often described as being childish: "whenever something doesn't work out for him, he gets upset quickly, and then blames the rest of the group for the failure" (F, 7); "when there is no one good on the team, he sits down on the bench upset and says he won't play anymore, saying they will surely lose, that's the kind of trouble he often causes" (M, 8). Another respondent emphasises unpredictability: "he often gets angry, and I'd rather not have him on the team, because that's the kind of person that gets angry simply during sports, and such fury erupts in him, and he goes away somewhere" (M, 8).

Peer tutoring

The informal after-school meetings referred to in this work as *peer tutoring* function as a form of learning in which one student helps another understand and master the material. This could be catching up on work, helping with homework, or preparing for a test together.

Respondents emphasise that they trust partners who demonstrate a high level of skill in the field in which they tutor. If the "tutor" is competent and knows the material well, he is a reliable source of knowledge. One participant says, "I could ask him to explain some sections of maths to me, because I just noticed that these sections come easily to him" (M, 7). A person without the right knowledge cannot help effectively with learning: "I wouldn't count on much here, because he's not interested in education" (F, 8). However, only a communicative person is rated as helpful: "She's pretty good at maths, although she doesn't know how to explain it" (M, 8); "I don't know

if she would help me. She gives me her assignments to copy, but whether she would explain anything to me is doubtful. He's a total bear and it would be hard to get anything out of him" (M, 8). A kind-hearted person is also preferred: "[he] is eager to help, and he doesn't need to be specially persuaded to do so" (F, 7); "I don't think anyone likes him a lot. Well, maybe I would have asked for help, but this tutoring would probably have ended quickly, and I think I would leave with a bad taste in my mouth" (M, 7).

In tutoring, the availability of a partner is also important. Tutoring often requires a significant time commitment, so a partner who is willing to devote time without procrastination is desirable: "whenever someone asks him for help with some tasks, he never leaves them to deal with it on their own. Even if he was very busy, he would find time to meet in the locker room in the morning" (M, 8).

Patience is also key, as different students need different amounts of time to understand the material: "[she] tends to be the kind of person who wants to teach you something at all costs, and she'll keep explaining it to you until you finally understand it" (M, 8). In addition, according to participants, it is important to appreciate the student's efforts and respect their unique needs. Participants also indicate that they expect discretion from the person to whom they would turn for help:

> I would be afraid to say anything to them. They seemingly don't want to do badly, but they are chattering left and right. I wouldn't want to trust them with any of my secrets. In this field I would sooner turn to Igor than to them. (F, 7)

They also stress that kindness is important to create a positive atmosphere in which they can ask questions freely and express their difficulties: "I never know if he is serious or making fun of me. I don't want to wonder at every turn if he is listening to me seriously and if he will make fun of me later" (F, 8).

Discussion

Listening to students talk about their preferences, standards and criteria that influenced their choices of partners to work together on learning tasks revealed both a set of desirable partner behaviours, and the types of collaborative situations that appear to differentiate perceptions of the attractiveness of those behaviours.

They captured which attributes of the cooperation partner the students consider important and which attributes they report as critical to trust. In addition, it was documented that certain partner behaviours were valued differently depending on the circumstances of the collaboration, and the attractiveness of specific classmates as collaboration partners may have increased or decreased. This captures the set of attributes of the desired and avoided partner is more diverse and task specific.

A priority in this study was to give students a voice in the matter in order to better understand what students in the final years of elementary schools consider to be the conditions for successful group work, according to their experiences in small groups (Chiriac & Granström, 2012; Florez & McCaslin, 2008; Krawczyk-Bryłka & Nowicki, 2020). Alternatively, the attributes of team members needed to be a desirable collaborative partner could have been assessed using a survey instrument, a ready-made taxonomy of theoretically postulated skills. Many studies to date have used such predetermined criteria to assess group skills and team member performance (e.g., Dommeyer, 2007; Ladd et al., 2014).

However, many benefits can be gained from discovering preferences, standards and criteria based on student reports. As shown earlier, the students' opinions provide a "window into the team's process" (Fredrick, 2008, p. 450). The students' statements can be enlightening, and in addition, they provide a simple way to discover the sources of resistance and challenges that young people face on a daily basis when managing conflicts in teamwork (Rees, 2009; Shimazoe & Aldrich, 2010; Zwierzyńska, 2008).

Student reports indicate that a barrier to valued group membership is "social loafing". Consistent with previous research (e.g., Chen & Gong, 2018; Hilton & Phillips, 2010; Neu, 2018), students in this study reported a preference for collaborating with friends and with trusted peers, as well as self-selected teams, and put a lot of effort into connecting with preferred partners and avoiding undesirable social partners and contexts. This reported resistance on the part of participants (to the imposition of group composition and the inclusion in teams of people considered to be low in credibility) demonstrates the fears and challenges that exhaustive confrontation with the tensions and clashes that result from mismatches can cause.

In addition, from the students' perspective, teams formed using the self-selection method compared to teams with top-down assignments differed significantly in several key aspects. Above all, teams that students did not choose had more difficulty developing trust due to sometimes conflicting goals and motivation levels (e.g., not everyone wants to get good grades or perform well on a given task), as previous studies have shown (Aggarwal & O'Brien, 2008; Chiriac & Granström, 2012). Alternatively, in self-selected teams based on social ties and trust, partners share a common vision of tasks and have similar expectations, minimise disruptions and conflicts, and quickly reach a consensus on core issues (principles, inputs).

The findings concerning student dissatisfaction with collaborative partners who do not engage during a team project are partly consistent with the growing body of research on "social vanity" (e.g., Aggarwal & O'Brien, 2008; Krawczyk-Bryłka & Nowicki, 2020; Rusticus & Justus 2019). Potential "nonslackers" in "groups with slackers" (Dommeyer, 2007, p. 175) complain that some members fail to fulfil their responsibilities by creating a greater workload for other group members, and report unilateral or unequal investment of effort as a central challenge of group work formats. Partners who violate the rules and prevent other members from benefiting instead of facilitating were also rated particularly low in this survey. Participants described problematic and avoidant members as those who "often" or "always" fail to perform assigned duties (correctly, on time or not at all), fail to show commitment, start off-task conversations at inappropriate times, react in an inflexible, uncoordinated manner, and exhibit difficulties in self-regulation. This suggests that these behaviours pose a threat to being seen as an "equal partner" and are considered by students to be particularly detrimental to productive participation in joint tasks.

Researchers have already documented that trust in groups is based on reliability (Konieczna, 2020; Rees, 2009). In this study, we extend this understanding because participants' reports in which they share their experiences of problematic decisions regarding partner choice provide important evidence that central to trust from the students' perspective is whether partners knew how to make others feel comfortable. From the students' point of view, doing their own part of the work is important, and represents some minimum contribution by virtue of "partnering" and evidence of proving themselves as a partner. But participants' comments also pointed to their partner's highly rated agreeableness and skills, which are described in literature as a willingness to resolve disagreements and offer support, or kindness (Breuer et al., 2020; Ladd et al., 2014; Rees, 2009). Students reported that in groups balanced in terms of caring, reciprocity, and efforts to maintain a good atmosphere, they bypassed stormy pre-negotiations and efforts to correct, monitor, support, and plan. Qualitative descriptions of partner behaviour confirm that comfortable interactions, avoidance of wasting time, and the cost of friction associated with conflict management can compensate for the low-quality input of a friend-partner or a well-liked friend-partner. Social preferences may therefore reflect the undervalued role of teachers in providing comfort and a pleasant atmosphere when working together with others (Rees, 2009). In addition, from the students' perspective, selectively choosing classmates who are highly trusted fosters cooperative behaviour and allows them to act competently within their social comfort zones (Chapman et al., 2006; Chiriac & Granström, 2012; Hilton & Phillips, 2010; Konieczna, 2020).

The findings also suggest that there is no "universal" set of attributes of a desirable partner which are critical to trust. This is because this study has shown that these four collaborative situations (teamwork in class, sports games, sharing a desk, and peer tutoring) create different challenges for students working in teams, and each situation has its pitfalls. It has already been suggested that cooperation can be more effective and rewarding when partners understand these differences, are flexible, and can adapt their behaviour

to the specific requirements in the situation at hand (Ladd et al., 2014). However, through this small exploratory study, the variability and situational nature of expectations, priorities, selection criteria, and rank of individual attributes was recognised. There is reason to believe that students are aware that the attributes they have identified as desirable in partners in a particular context are not always applicable to a different collaboration situation. This confirms that students' preferences are reached by considering the risks and benefits of the context (Kanevsky et al., 2022; Koutrouba et al., 2012).

This study has various practical implications significant for promoting effective teamwork in the classroom. Educational interventions that prepare for teamwork or support partner readiness, as well as developed teamwork assessments, can be better tailored if we identify what students perceive as problematic elements and barriers to working together in a given context (Breuer et al., 2020; Dommeyer, 2007). Students and teachers who are involved in implementing group work in different roles reveal a varied understanding of the conditions for successful group work, productivity, the benefits of group work, and what happens during group work (Chiriac & Granström, 2012). Therefore, some sources of resistance and obstacles faced by students may be overlooked by teachers because they may not be considered significant, go unnoticed, or are not disclosed.

This research can not only clarify how students think about effective teamwork and why some classmates are perceived as poor partners in some tasks and more attractive in others. It also provides teachers with a better mechanism for identifying and resolving group-related issues. Monitoring each team member's contribution is recommended as a way to promote individual accountability, reflection, and group cohesion. According to the social interdependence theory (Johnson & Johnson, 2009), groups that discuss expectations before starting group work, consider each member's contribution and group dynamics, have opportunities to give feedback to group members, and inform the instructor about group problems, have a greater sense of security and satisfaction, and encourage students to engage in group activities (Aggarwal & O'Brien, 2008; Dommeyer, 2007).

Limitations

There are limitations in the current study that may affect the results obtained, which should be interpreted with caution. First, it is possible that assessment bias and perception biases in classmates may have affected the types of identified attributes of collaborative partners. Student reports (perceptions) were the main source of data, and for this reason, the identified behaviours may not fully represent those emerging from other methodologies (e.g., independent observers, teacher reports, etc.). Second, the way students evaluate the involvement of cooperation partners may differ from their actual

beliefs, which have not been disclosed, and this may interfere with the reliability of evaluations. Third, participant demographics were not included in the analysis, so it is not known whether teams may have differed in important baseline characteristics (such as gender, diversity, classroom seniority). This may have influenced participants' preferences or perceptions of collaboration partners. Fourth, the sample was small, which may have affected the generalisability of these results.

Despite the shortcomings, the themes emerging in the students' comments were relatively independent of theoretical preconceptions and offered some nuanced insights that inspire continued research.

Conclusions

Drawing on insights from students in the final years of elementary school, this work focuses on various aspects of the perceived trustworthiness of classmates and identifies a set of critical attributes that help find and filter partners with whom they collaborate, would collaborate, or would prefer to avoid collaborating. In addition, the research uncovered how the key characteristics of a preferred and avoided team member for trust change depending on the situation (a team task in class, a sports game, sharing a desk, peer tutoring). Preferences proved to be variable and varied depending on the type of cooperation and the nature of the joint task to be performed.

The findings indicate that preparing students to work together harmoniously and productively can be important for designing effective and friendly collaborative environments. However, there should be more recognition of how students themselves define "partnering," and how they perceive the barriers to valued group membership in a given context. The analyses also encourage more reflective use of the method of assigning students to dyads and small working groups.

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