Learning Collaboration in the School Context in Serbia: Student Perceptions

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The increasing interest in collaboration as an educational competence important for successful schooling and a productive adult professional and civic life can be seen in the expanding literature and research evidence (e.g. Rychen & Salganik, 2003; National Research Council, 2011). Collaboration is marked as one of the social and emotional skills on the 2030 education development agenda, defined by the intergovernmental Organisation for Economic Co-operation and Development (OECD, 2019).

Collaborative problem solving (CPS) is an umbrella term for a variety of pedagogical models that enable students to learn by engaging in joint activities, relying on each other, integrating individual knowledge, skills, and efforts (Lai, 2011). With appropriate support and scaffolding, CPS could have a greater positive effect on student achievement, and peer social relationships than competitive and individual learning (e.g. Gillies, 2016; Johnson & Johnson, 2002).

The focus of this study is on students experience with CPS as simetric peer interaction during the regular school classes. These perceptions and experiences represented a base for examining how CPS is applying in context of secondary schools in Serbia. The research suggests that a productive collaboration requires both cognitive skills (e.g. Campbell, 2021; Shi et al, 2021), as well as social and emotional skills (e.g. Newman, 2016; Rogat & Adams-Wiggins, 2015). That is why we paid attention how students have reported about cognitive (e.g, argumentation, consideration and evaluation of various perspectives...) and social and emotional aspects (group cohesion, tolerance, atmosphere…) of collaborative work.

Analysing student responses to semi-structured interviews showed that, with certain inconsistencies and overlaps, two models of cooperation are clearly differentiated, presented here by key features.

Model 1 is oriented towards an efficient use of resources, including time, with a dominant utilitarian goal - getting the job done. It is characterized by a strict division of responsibilities, usually mechanical. The roles are defined, including the leader who can be self-proclaimed. The product is a collection of individual works: either loosely bound or bound by one group member. Solution/product quality is judged on the basis of external indicators. Cognitive aspect of CPS includes prior knowledge seen as a key success factor. Social and emotional aspect: a strict division of roles and the leader's assumption of responsibility often excludes democratic patterns of behaviour such as negotiation and agreement; the atmosphere in the group depends on the degree of closeness of the members, any disagreement during group work can grow into a conflict.

This model can be termed parallel or utilitarian and quasi-cooperation, as the key cooperation determinants cannot be easily identified, except for work arrangements. According to our respondents' experiences, this model dominates.

Model 2 is oriented primarily towards product quality; sometimes learning cooperation as a competence is cited as an explicit cooperation goal. Cooperation primarily has a cognitive goal, reflected in the usage of search strategies for task solving. There is a loose division of responsibilities and roles, usually according to participant competencies and interests; deadlines are on the back burner. The product is based on group consensus. Cognitive aspect includes awareness of the importance of argumentation and discussion Social and emotional aspect: an atmosphere of mutual trust and equality between team members remove barriers and allow freedom in presenting and considering different solutions and/or ways of solving tasks. There is mutual knowledge and respect. Cognitive and social and emotional aspects are interconnected, manifesting itself as solidarity with others and connecting as a form of strengthening personal capacities.

This model can be called collaborative or constructive due to its orientation towards the joint construction of knowledge. Unfortunately, according to student experiences, it is rarely represented in school practice.

Method

The study was conducted at the end of the 2021/2022 school year and included six secondary schools in Belgrade (3 vocational and 3 general/gymnasium schools). The sample consisted of 31 second grade students (17 female), 15-17 years old. All students involved in research had a formal parental consent and their assent. Students were examined with a semi-structured interview which lasted approximately 60 minutes. The adolescent answered the questions related to their perceptions of cooperation in everyday school work. The interview guide consists of five indicators, i.e. thematic units. The first indicator referred to the general impression of cooperation in the school context, whereupon the students were asked about the frequency and quality of peer cooperation in and outside school. The second theme was peer cooperation in the school context - what the organization of group work looks like in and outside class, and what are the advantages and disadvantages of group work concerning individual school work. The third indicator included questions related to the recognition of successful and unsuccessful peer cooperation factors, where they discussed the roles of different actors in group work and described the experiences of successful and unsuccessful group works in which they had participated. The fourth topic was cooperation as a competence, where the accent was on how competence is acquired and manifested, its importance, as well as whether and to what extent young people possess it. Finally, the fifth topic covered personal perspective, i.e. an assessment of personal competences for cooperation. Following the coding of interview transcripts, 612 coded segments were analyzed using MaxQDA according to thematic analysis.

Expected Outcomes

Several conclusions can be drawn from these findings, with significant implications for the organization of regular classes in the Serbian educational system. During joint work at school, important aspects of CPS (argument, sharing ideas...) are often missing. Research shows that the successful development of collaborative skills requires the support of adults (eg, Gonzalez-Howard & McNeill, 2019; Rojas-Drummond & Mercer, 2003). Our results indicate that this support is often lacking. It is necessary to think about how to organize teaching that would go in the direction of encouraging the development of these skills. The parallel model, although more present in school practice, is a model that supports quasi-cooperation, as it only has the form of cooperative work, but lacks the features of the processes that define cooperation. Student learning of quasi-cooperation can have lasting implications for student competencies, and thus it is recommended that the system recognize this organizational form of work as not effective. Time, restricted on 45 minutes what is the duration of school hours, could be an obstacle to organize the cooperation in the school context. We perceive time management as a particularly sensitive point in collaborative learning and/or learning through collaboration. A strategy that is often applied in these cases is to transfer a task to an extracurricular environment (such as homework), which has both good and bad sides. Finally, the two models presented are not developmental stages in the learning of cooperation in the school context but rather, two qualitatively different approaches. In fact, practicing the first one will not enable a transition to the second, constructive model.

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