



Journal of the Institute for Educational Research
Volume 56 • Number 1 • June 2024 • 53–78
UDC 37.091.312(497.11)

ISSN 0579-6431
ISSN 1820-9270 (Online)
<https://doi.org/10.2298/ZIPI2401053B>
Original research paper

SERBIAN TEACHERS' CONCEPTIONS OF DIFFERENT ASPECTS OF PLANNING COOPERATIVE LEARNING IN THE CLASSROOM*

Marija M. Bulatović* ➤ ORCID: 0009-0000-8296-7036
University of Belgrade, Faculty of Philosophy, Serbia

Jelena S. Medar Zlatković ➤ ORCID: 0000-0001-9509-6655
Institute for Educational Research in Belgrade, Serbia

A B S T R A C T

Having in mind the significance of students' mutual cooperation in the learning process, we conducted a study with the aim of understanding teachers' perspectives on different aspects of planning cooperative learning in the classroom. The sample comprised 19 teachers employed at primary and secondary schools in Belgrade, Pančevo, and the municipality of Obrenovac. The data was collected using the interview technique and processed via thematic content analysis. The findings suggest that although teachers shaped cooperative learning by creating different assignments for students, they most often equated this form of learning with one-dimensional peer tutoring. Teachers' contemplations about planning cooperative learning were shaped by numerous stereotypes and misconceptions, whose origin can be linked to deeply rooted elements of the traditional (instructional) method of class organization. We conclude that despite certain teachers' initiatives to implement cooperative learning in our midst, there is a conspicuous lack of understanding of the intertwining dimensions of cooperative learning. Teachers require support that surpasses the usual forms of professional development and encompasses large-scale educational projects connecting schools and

* *Note.* This research was funded by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (Contract No. 451-03-66/2024-03/ 200018).

The findings presented in this paper constitute a part of a larger research entitled *The Relationship Between the Preparation and Implementation of Cooperative Learning* approved by the Ethics Committee of the Institute for Educational Research (Decision No. 374/1, October 7, 2022).

** E-mail: marijabulatovich@gmail.com

scientific institutions and offering teachers longitudinal facilitation in cooperative learning class preparation. ‘

Key words:

cooperation in teaching and learning, cooperative learning, instructional planning, teacher perspectives, teacher misconceptions.

■ INTRODUCTION

In the scientific literature, cooperative learning is recognized as an important mechanism for students’ cognitive, social, and affective development (Cohen, 1994; Duque 2014; Hertz-Lazarowitz, 1992; Ilić, 2016a; Johnson & Johnson, 1999; Jolliffe, 2007; Slavin, 1995). R. Johnson and D. Johnson believe that cooperative learning is characterized by a situation in which students learn in small groups and, intertwined in their learning process are: positive interdependence; promotive face-to-face interaction; social skill development; individual accountability, and group process evaluation (Johnson & Johnson, 1999), all of which are necessary for this form of learning to take place (Johnson & Johnson, 1994). Different researchers in this field have focused on different aspects of cooperative learning. Slavin and colleagues recognize four theoretical perspectives, namely, motivationalist, social cohesion (affective), cognitive-developmental, and cognitive elaboration perspectives (Slavin et al., 2003). In this paper, the empirical research of Johnson and Johnson is positioned within the motivationalist perspective – the interdependence of group members based on extrinsic motivation – while the understandings found in their theoretical work are positioned within the social cohesive perspective, which emphasizes social interdependence reflected in students’ belief that the group can achieve success only by working together. The cognitive-developmental perspective is rooted in the idea that progress in learning and thinking occurs in the interaction between peers because they are in the zone of proximal development in relation to one another. This perspective is implicitly embedded in the theoretical and empirical research of the remaining three perspectives. Slavin and colleagues recognize Cohen as a representative of the social cohesion perspective and Hertz-Lazarowitz as a representative of the cognitive elaboration perspective (Slavin et al., 2003).

We primarily base our work on the understandings of Cohen and Hertz-Lazarowitz. Cohen emphasizes the significance of positive interdependence among students, which is based on group member interactions in which students view one another as a learning resource and see the group work process as cognitively stimulating, intrinsically rewarding, and affectively oriented towards concern for group members, while viewing group success as a team goal (Cohen, 1992). Entwining the social-affective aspect with learning, Cohen’s research has shown that teachers

most often employ two group learning models – peer tutoring and peer learning. According to Cohen, *peer tutoring* involves high-achieving students explaining the essential information and characteristics of the key concepts and task-solving algorithms to students with lower academic achievement, while *peer learning* refers to more complex interdependence among students, e.g., argument articulation, active listening, and mutual respect during discussions (Cohen, 1992). Hertz-Lazarowitz grades academic and social cooperation within cooperative learning, emphasizing that the difference between these two types of cooperation is conspicuous in situations in which students are only beginning to master these skills. The line between social and academic cooperation gradually fades over time, with an increase in practical experience with this form of learning. The optimal level of cooperation is reached when students use dialogue to restructure learning contents and materials and engage in complex discussions that encompass analyzing and summing up different opinions without quarreling and outvoicing one another, which the author refers to as higher-order social cooperation, although the emphasis remains on academic exchange (Hertz-Lazarowitz, 1992). In line with the understandings of Slavin and colleagues, we believe that the four perspectives are not mutually exclusive. Hence, in this paper, the results are interpreted by relying on the motivationalist perspective as well as the cognitive-developmental perspective (Slavin et al., 2003).

When planning a lesson, it is necessary to coordinate four elements – deciding on learning goals, choosing the learning content, contemplating suitable methods to be used, and devising a way to monitor and evaluate student progress – while keeping in mind that all of these activities do not have to exclusively take place immediately before the class itself (Pešić, 1991). In the scientific literature, planning cooperative learning is described as encompassing deliberations on the alignment between educational, pedagogical, and cooperative learning goals within a specific teaching unit, the creation and segmentation of tasks, contemplations of ways of grouping students, the structuring of positive interdependence, individual responsibility, and intra-group cooperation, thoughts about arranging the space in which learning takes place, monitoring group interaction, supporting students during the learning process, evaluating their work, and so forth (Johnson, Johnson & Smith, 1991). Learning goals can be divided into educational and pedagogical goals (Kyriacou, 1998). Both groups can be organized in three different modalities: competitive, individual, and cooperative (Ševkušić, 1993). This means that in the early phases of planning, teachers can make the decision to organize cooperative learning. After making this decision, general lesson planning recommendations aid the selection of the teaching method (Pešić, 1991) and the teacher chooses the cooperative learning model within which decisions about the model, task segmentation, interaction type, and division of students into groups need to be embedded.

Research Subject and Aim. Guided by the finding that cooperative learning is not common in our midst (Kovačević et al., 2021; Semiz, 2020), we found it important to research the initial contemplations and efforts of teachers in the domain of planning cooperative learning. In the implementation of cooperative learning in the classroom, the focus is on purposefully designed and executed interaction between students during the learning process, which is why teachers face the challenge of adequately planning classes to support this interaction and enable learning. This research sought to provide a more profound insight into what teachers contemplate and face when planning cooperative learning. The aim of the research was to gain an understanding of teachers' perspectives on different aspects of planning cooperative learning in the classroom. The exploration of teachers' perspectives on planning cooperative learning is crucial for further contemplations about the necessary systemic support in the improvement of the cooperative learning practice.

■ METHOD

Research Participants. The sample was purposive and comprised 19 teachers employed at primary and secondary schools in Belgrade, Pančevo, and the municipality of Obrenovac. Our collaboration with these schools' pedagogists allowed us to interview *key informants* (Cossham & Johanson, 2019) – teachers who positively valued different forms of cooperation in the classroom and had experience with the implementation of cooperative learning. The selected teachers had 8-33 years of teaching experience and the structure of the sample in relation to the level and cycle of education is shown in Table 1.

Table 1. Research participant structure ($\Sigma=19$ teachers)

Education Level and Cycle		Teachers	Number	Sum by Cycle	Total
The First Level	The First Cycle of Primary Education	Class Teaching (natural science, social science, and art subjects)	6	6	
	The Second Cycle of Primary Education	Subject Teaching (natural and social science subjects)	6	6	
The Second Level	Secondary Education	Vocational Subjects (fields: economy and technology and chemistry)	2		19
		General Subjects at Vocational Schools (natural and social science subjects)	2	7	
		General Subjects at Grammar Schools (natural science, social science, and art subjects)	3		

Research Approach and Data Gathering and Processing Methods. We conducted a qualitative analysis of the data collected by interviewing teachers with the application of a preprepared semi-structured guide to teacher interviews. The questions in the guide were grouped based on the four key aspects of planning cooperative learning highlighted in the theoretical segment of this paper (Johnson et al., 1991): 1) task creation – what to keep in mind when creating cooperative learning tasks; 2) cooperation development – the teacher’s engagement in preparing students for mutual cooperation within the group, among groups, and with the teacher during the cooperative learning class; 3) the division into groups – the way the teacher contemplates division of students into groups and group functioning modes when planning cooperative learning; 4) monitoring and evaluation – the way the teacher plans to evaluate students’/groups’ work and the products of students’ group work. Additional questions for each participating teacher were based on the initial responses pertaining to each of the abovementioned aspects. The interviews lasted between 40 and 45 minutes and were conducted between classes, during a break, in different spaces within the schools (the teachers’ lounge, classrooms, and the school counselor’s office) that provided a pleasant environment for conducting conversations. All teachers signed informed consent forms, agreeing to participation in the research and the recording of conversations using a voice recorder.

After transcribing the recorded interviews, we conducted a thematic content analysis guided by a hybrid deductive-inductive analysis process (Fereday & Muir-Cohrane, 2006) with preformed categories stemming from theoretical postulates about cooperative learning (Johnson et al., 1991), listed in Table 1 in the Subcategory column. Subsequently, we analytically read the transcripts multiple times in search for codes, which were grouped into themes that had not been preprepared. The formation of codes and themes was the result of analytical scrutiny of the data in accordance with the principles of inductive thematic content analysis. The process of theme formation involved reexamining the suggested categories, referring back to the research material, and changing codes and themes, which is a common practice in this kind of research (Saldaña, 2009). The final list of codes was defined with satisfactory intersubjective agreement (kappa value 0,74) and the same procedure was applied to classifying thematically similar codes into broader groups – themes.

■ RESULTS AND DISCUSSION

The main category, the subcategories based on cooperative learning research, and the themes formed by grouping codes identified by analytically reading the teachers' statements multiple times are shown in Table 2.

Table 2. Qualitative data structure

Main Category	Subcategory	Themes
I. Aligning Learning Content, Goals, and/or Outcomes	a. Task Creation	a.1 The Nature of Inter-Student Interaction
		a.2 Cooperative Task Structure
		a.3 Cooperative Task Model
		a.4 Temporal Dynamics
	b. Cooperative Skill Development	b.1 The Basic Level of Social Cooperation
		b.2 Academic Cooperation
		b.3 The Optimal Level of Cooperation
	c. Planning the Division into Groups	c.1 Previous Experience with the Class
		c.2 The Number of Group Members
		c.3 The Division of Roles within the Group

The interview guide also included a fourth group of questions (monitoring and evaluating students'/groups' work and the products of students' group work), but after coding the interview transcripts, this group did not end up in the list of subcategories. The teachers provided responses to this question after taking a long pause to think and the responses were insubstantial and immediately redirected from *planning* cooperative learning to the *experience of implementing* cooperative learning. This seems to indicate that the teachers did not contemplate evaluation when planning cooperative learning. This finding is in line with the results of previous research suggesting that in cooperative learning, teachers enter the evaluation process unprepared and concordantly admit that their evaluations are often imprecise and unsystematic (Ross et al. 1998). In the same vein, certain authors believe that the existing student grading practices are not adequate in the context of planning and implementing cooperative learning (Cohen, 1992).

Aligning Learning Content, Goals, and/or Outcomes

The main category was formed after discussing with the teachers what they first thought about when planning cooperative learning. All teachers (19/19) responded that their first thought pertained to aligning learning content, goals, and outcomes with all the aspects of planning cooperative learning, which are here represented by three subcategories. However, although they stated that this was their first step in planning lessons, the teachers' deliberations about contents, goals, and/or outcomes when planning cooperative learning were intertwined with all the subcategories and themes shown in Table 2. Hence, this was identified as the main category. What follows is a selection of the teachers' statements that pertain to learning contents, goals, and outcomes, which will not be repeated in the subcategories and themes in the remainder of this paper.

When I select the content, I know how to create the task. [the content is intertwined with task creation] (st. GS, sim. 19/19)¹

Choosing the topic is the hardest part. After that, I know who is well-versed in this topic and who will be the leader of the group. [the content is intertwined with planning the division into groups] (st. GS, sim. 14/19)

¹ Designations in parentheses: abbreviations before the comma: ct. (class teacher), st. PS/VSS/GS (subject teacher employed at a primary school, vocational secondary school, grammar school); after the comma: the number of participants that gave similar answers.

I prepare cooperative classes² when they need to revise the contents from all grades before the entrance exam in my subject. [the goal intertwined with task creation] (st. VSS, sim. 5/19)

I first choose a suitable topic from the textbook that is convenient for revising through cooperative learning. It is not suitable for learning new content because the starting point is not the same for all students when adopting new content. [the content and the goal intertwined with task creation] (st. PS, sim. 15/19)

I have to work hard on the topic. I make sure that they can draw everything, put it in a table, so that even the weakest member of the group can participate in group work. [the content intertwined with cooperative skill development and planning the division into groups] (ct. PS, sim. 10/19)

When planning the implementation of cooperative learning, the teachers primarily adhered to the current educational recommendations pertaining to the use of learning outcomes as the starting point when planning lessons and learning activities. Accordingly, they prioritized the content to be learned (19/19) and focused on learning outcomes (12/19), even though this form of learning is based on different properties and requires a multidimensional approach. Research has shown that cooperative learning can be applied to the contents of all subjects in all three education cycles (Ilić, 2016b). However, we observed a noticeable lack of deliberation about the general goals of education, including the development of critical thinking, creativity, metacognition, and environmental awareness.

a. Task Creation

Analytical readings of the interview transcripts within the Task Creation subcategory led to the identification of the 4 themes presented in the following sections, namely, The Nature of Inter-Student Interaction, Cooperative Task Structure, Cooperative Task Model, and Temporal Dynamics. The introduction to each theme is followed by corresponding teacher statements and a discussion and interpretation of the findings.

a.1 The Nature of Inter-Student Interaction. When choosing cooperative forms of learning in the classroom, the teachers stated that they primarily relied on planning either peer tutoring or a competition.

In the curriculum, there are contents that are more suitable for group work and with others, it's more important to cover them individually. (st. PS, sim. 17/19)

² At the beginning of the conversation, we reached an understanding with the teachers regarding the subject of the research, i.e., cooperative learning, but in their responses, they used the terms belonging to their idiolect (e.g., cooperative classes, collaborative learning, and group work).

Good cooperation means that the good students have transferred knowledge to the weaker learners. (ct., sim. 18/19)

I organize cooperative work when they need to receive important grades at the end of the trimester and that's when the good students help the weaker students with their revision. (st. PS, sim. 11/19)

Kids love competitions. They are motivated by being more successful and that's when they get along best. (st. PS, sim. 14/19)

They can even compete within the group with the mandatory rule that the quicker learners explain to the slower learners all the parts that are troubling them, and competitions between groups are commonplace. (st. PS, sim. 6/19)

The teachers' responses reveal that they understood interactions between students during cooperative learning only at the basic level of peer tutoring and/or competition. This understanding is incongruous with researchers' interpretations of the nature of interactions within different learning modalities and indicates that these were the dominant practices among the interviewed teachers, who only seemed to recognize these forms of interaction. In the competitive modality, learning consists of the accumulation of knowledge that other students do not possess, with the encouragement of rivalry between students, while cooperative learning involves the acquisition of knowledge through cooperation among students (Semiz, 2020; Ševkušić, 1993). There were noticeable discrepancies between the teachers' insights and researchers' interpretations along two dimensions: cooperation was only understood at the basic level of cooperative learning – as peer tutoring (Cohen, 1994); the teachers compounded two opposing learning modalities – competition and cooperation (Semiz, 2020; Ševkušić, 1993).

The teachers (14/19) recognized competition as a powerful form of extrinsic motivation for participation in cooperative learning. They associated competition with students' desire to get a good grade in a simpler and more interesting way. To achieve this goal, they chose competition as a learning modality based on which they created cooperative learning tasks. As emphasized by the teachers themselves, competition is an extrinsic motivation factor. However, strong extrinsic motivation clashes with researchers' belief that factors that support cooperative learning include students' interdependence, intrinsic motivation, and the absence of competition (Johnson & Johnson, 1999; Ševkušić, 1993). According to the teachers' statements, the competitive nature of the group activities they planned was reflected in giving rewards to the students who reached the correct solution most quickly. The teachers did not notice the contradictoriness in relation to the ways they spoke about the long process of cooperation development that culminates in complex constructive discussion skills and independence in solving the same task in a variety of ways (for the interpretation, see the Cooperative Skill Development section). On the other

hand, in the competition described by the teachers, the goal was to provide only one correct answer as quickly as possible, which implies the absence of the process of discussion (6/19) and opens up room for social loafing among group members, who become “cheerleaders” rooting for high-achieving students who solve the task on their own (10/19).

a.2 Cooperative Task Structure. Teachers at all education levels emphasized the necessity of dividing tasks according to the knowledge levels adapted to the preplanned, academically heterogeneous groups, which they saw as a prerequisite to high-quality cooperative learning.

My subject is such that it involves phases in data discovery and analysis, so I design such problem tasks. (st. VSS, sim. 10/13)

The groups are heterogeneous and the tasks are divided into levels. Some parts can only be completed by the best students because they require both previously acquired knowledge and linking it to the new content. Weaker learners can copy some simpler information from the materials I prepare and thus learn what they missed. (st. PS, sim. 18/19)

I do prepare easier tasks as well, so everyone can participate. It is all prepared, they just need to do it. Weaker students are surprised when they see that they can contribute, too. (st. VSS, sim. 13/19)

Group members differ in terms of academic achievement. For each student, I prepare a task from the workbook that suits their level and everybody does their own task. Since the better students also know how to solve easier tasks, they occasionally help the weaker students. The groups complete their work once the slowest members solve their tasks. (st. PS, sim. 3/19)

Every year, I reconstruct a great task according to the generation. In every group, they all do their own parts marvelously, and as for the other parts, it's as if they don't exist (st. PS, sim. 10/19)

At first, I take, from a book I bought myself, digested group work tasks, all the materials and question are prepared. Later, I independently create tasks that do not contain all the information, so they need to search the internet and complement one another's work. They engage in a lot of decent conversations and often change initial positions [...] I have to check the availability of information, the time necessary to critically select data from the sea of information posted online. (st. GS, sim. 1/19)

Subject teachers placed an emphasis on understanding the ways of transposing the methodology of the discipline at the foundation of their subject into the methodic discourse of the subject, which is in line with research suggesting that due to the existence of different symbolic and methodological systems, there are differences in planning cooperation in language and chemistry classes (Cohen, 1994). The teachers highlighted their efforts to ensure that all group members had a sense of success,

which is an important pedagogical and academic goal. However, most teachers (13/19) ensured this success by assigning easier tasks that low-achieving students could learn from high-achieving students. This means that when contemplating tasks, the interaction they expected was, in fact, peer tutoring.

All teachers considered knowledge levels, but several teachers (3/19) segmented tasks by level so that students who differed in achievement received tasks that differed in difficulty level, which they later merged into the final product by virtue of simple linear collaging, which the academic literature interprets as individual tasks in a cooperative milieu (Cohen, 1994). In such situations, two approaches were observed: 1) teachers who expected each student to work independently, with students engaging in interactions either at their own initiative, with weaker learners asking for help, or due to the demands of the task, with higher-achieving students helping lower-achieving students; 2) in accordance with the demands of the task, weaker learners completed technical tasks, while high achievers worked on higher-level tasks and later presented their group work. On the other hand, the teachers (12/19) most often created strict task structures with preplanned materials containing all the information necessary for task solving. Hence, when contemplating the structure of the task, the teachers planned a low level of interdependence among students, which Herz-Lazarowitz (1989) refers to as low-cooperation group work. Based on familiarity with students' academic achievement, most teachers lowered criteria when determining the difficulty of tasks instead of planning coordination of efforts at the horizontal level by virtue of phase-based interdependence of task elements, which ensures that the solution cannot be reached independently or by simply merging individual solutions. The teachers expressed dissatisfaction with the absence of integration of the learned content and the fact that all students would only learn their own segments of the task before going home. However, they did not link this insight to the structure of the task, but rather to students' lack of interest in their own learning. This points to the teachers' frail understanding of the division of tasks into rigidly understood levels of knowledge, which excludes both the horizontal and vertical interdependence of task segments and peer cooperation in the learning process described in the theoretical literature (Herz-Lazarowitz, 1989).

Only one teacher differentiated between high-structure tasks planned for students enrolled in artisanal programs at a vocational secondary school, which contained detailed instructions and guidelines, which, if consistently followed, allowed students to complete the tasks without any major effort, and low-structure tasks planned for higher grades of grammar school, which required searching for information not available in the materials provided, summing up different opinions, using argumentation in discussions leading to the redefinition of the flow of the task-solving process, and other complex academic skills. This teacher recognized both the differences and intertwined links between higher academic and complex social skills, such as active listening, following order in a discussion, criticizing

attitudes and arguments and not the person, connecting with the contributions of other group members, and reflecting on one's own contribution. The same teacher stated that, for her, an important part of planning was personally verifying the quality of the information available online, as an additional effort ensuring that she had the information needed for setting realistic segmented tasks, which is in line with attitudes expressed in the literature regarding the need for tasks to be in the zone of proximal development, but such that students can complete them through interaction (Newman et al, 1989).

In the teachers' contemplations about task creation, the only direct evidence of misunderstanding the conception of cooperative learning was the teachers' belief that once the content has been selected "it is easy to decide on the task", whether they devise it themselves or use a task from an existing source. In both cases, the teachers were guided by their experience in mastering certain content. The teachers exhibited surprising certainty when expressing this attitude, which can be linked to the teachers' sense of competence in the classroom, which we do not necessarily interpret as bad. Still, this attitude points to a lack of understanding of the key differences between the processes of individual, competitive, and cooperative learning (Ševkušić, 1993) as well as the need for group cooperation to be primarily learned through participation in high-structure cooperative learning activities, followed by the phase of participation in low-structure activities (Antić, 2010).

a.3 Cooperative Task Model. The teachers listed different models of tasks, techniques, and/or methods that can be conceived as cooperative tasks, from play-based tasks to problem and project tasks, which can be organized in the classroom or some other real and/or digital space.

Games are a good way for them to get to know one another and learn how to support one another in a group. (st. PS, sim. 13/19)

For cooperation, it is convenient for them to conduct multi-phase laboratory analyses like the ones they'll conduct when they start working as technicians. (st. VSS, sim. 4/19)

I create group work assignments that they can actually link to real life. (st. GS, sim. 3/19)

Without going to the library, they couldn't complete the task. (st. VSS, sim. 3/19)

At the big school club, we organized the cooperation of students enrolled in different programs at our vocational school (st. VSS, sim. 4/19)

The teachers had diverse ideas in terms of tasks that could be shaped or restructured into cooperative tasks. Of particular value are the direct insights of two teachers, which were indirectly observed in all other teachers, that play-based learning is the best way to introduce students to the "world" of collaboration in lower grades at all three levels of education, while in higher grades at all education levels, more

complex, “fully cooperative” task can be introduced. At vocational secondary schools, the teachers more often created problem tasks aligned with the need to introduce students to expert behavior in their field, due to the expectation to enter the world of work after graduation, which some authors refer to as situated learning (Perkins, 1992). At grammar schools, the teachers strived to create tasks related to real-life situations and strategies for solving real-life problems. In the academic literature, the significance of such efforts is interpreted as giving students an opportunity to observe the phenomena encountered within different subjects in an out-of-school situation and recognize ways to apply certain knowledge to real-life situations (Anderson et al, 1996). Several teachers created tasks purposefully organized in other spaces, allowing for the recognition of links between the learning process and other sources of information or learning and research procedures.

a.4 Temporal Dynamics. The teachers had different perspectives on structuring time during cooperative learning.

When I plan only one lesson, I'd like them to work for 20 minutes and have 15 minutes left for them to present the results. (st. PS, sim. 19/19)

It can't be said that all groups can finish their presentations in 15 minutes. The students should comment on them as well and sometimes even a joke is useful in such situations. (st. VSS, sim. 19/19)

Double periods are more suitable for regular classes and when we have block classes, we have the time to come up with cooperative inter-subject tasks. (st. VSS, sim. 4/19)

It is important to me to finish the presentation during the first class. Then the following day, during the first 15 minutes, we engage in reflection – what they liked, what flaws they identified, and above all, what learning content they mastered. (st. PS, sim. 12/19)

I never let it spill into the following class. I have to stick to the plan. Anyway, it only serves to get them out of the rut for a bit. (st. PS, sim. 7/19)

The length of the reading material doesn't matter, they have to read it at home. For group work, I plan to give brief materials to read at home. (st. PS, sim. 4/19)

During the pandemic, we had an assignment they worked on from November until May with bimonthly control points. (st. VSS, sim. 3/19)

Considering the time constraints of a 45-minute class emphasized by all participants in this research, the most common in our midst is the strict 5–20–15–5 division as the most economical for achieving learning goals during one class, which is why it was also the division of choice among the teachers in our study (15/19). Simultaneously, deliberations on time and task structure point to the fact that the teachers who participated in this research had extensive pedagogical experience and contemplated the teaching process in an admirable and meticulous manner. Student preparation,

inter alia, included certain learning materials students received before the class. In relation to this, the teachers were particularly careful not to set unrealistic tasks for independent learning at home, keeping in mind both the academic demands and the time to be devoted to learning before the class itself.

The teachers had different opinions about a backup plan in case the planned task was not completed within the pre-determined timeframe. A group of teachers (7/19) stated that in the following class, they would follow the monthly plan regardless of the unfinished process from the previous class, with the most common excuse being that cooperative learning only served enable students to step out of the everyday routine. The second group (12/19) was willing to change the monthly plan and finish the task during the following class, since they considered the process unfinished without an exchange or self-evaluation of one's own contribution to group work. The teachers who taught vocational subjects at secondary schools stated that they shaped cooperative learning during double periods or six-period blocks and recognized this as a facilitating factor. All teachers emphasized that a 45-minute class provides insufficient room to organize high-quality cooperative learning, which is an important finding when considering all the changes necessary for this form of learning to become commonplace in formal education in our midst.

Only two second foreign language teachers, one employed at a primary school and one at a grammar school, emphasized that they planned the completion of group tasks within 45 minutes, but devoted 15 minutes or a third of the following class to oral reflection on the processes of learning and cooperation. We interpret this plan as particularly valuable in terms of an in-depth understanding of group learning processes and academic and social aspects of cooperation, which should be developed in students, as endeavored by these two teachers. We highlighted the positive example of three teachers employed at a technical secondary school who organized a longitudinal assignment during online learning, with temporally structured monitoring points and the date of the presentation of the assignment determined in advance, but we believe that this is more of a happy coincidence in the context of this research than a rule applied in our midst.

b. Cooperative Skill Development

After several cycles of analytical readings of the interview transcripts, 3 themes emerged within the Cooperative Skill Development subcategory, namely, The Basic Level of Social Cooperation, Academic Cooperation, and The Optimal Level of Cooperation, which are presented in the remainder of this section. The introduction to each theme is followed by corresponding teacher statements.

b.1 The Basic Level of Social Cooperation. Analytical readings of the interview transcripts revealed that class teachers took responsibility for students' socialization and the achievement of social cohesion in the class, which they understood as a

longitudinal and systematic task, while subject teachers expected the basic level of behavior at school as a special social context internalized at previous levels of formal education.

There's a big difference between the young ones and the fourth graders. The former need to realize that they're not the center of the classroom, third graders need to look at the rules of behavior on the wall, and older students wait their turn without any reminders. (ct. sim. 6/19)

I know exactly who their class teacher was and whether they'll be ready for group work in the fifth grade. (st. PS, sim. 6/19)

These classes didn't go to the theater and museums because of the pandemic. They don't even know how to behave in the classroom. (st. PS, sim. 6/19)

I often have fifth graders compete against me. This teaches them to be happy about someone else's, that is, joint success. Later, they are better at group work, when I'm the teacher again. (st. PS, sim. 1/19)

Grammar school students are initially better because of higher academic achievement in primary school. But later they become egocentric again. In the final years, children attending vocational schools start to cooperate better than they do. (st. VSS and GS, sim. 4/19)

Among first-grade students, class teachers strove to develop the basic forms encompassing “the little ones” awareness that they were no longer the center of the family setting, but a part of a group governed by new social rules. Class teachers noted that they could only work on the rules of behavior with third graders and fourth graders, with the rules including the likes of “we do not interrupt others when they speak” and “we wait our turn”, which constitute a mandatory part of the teaching material found on the walls of every primary school classroom in our midst. However, according to our understanding, these rules do not ensure active listening but represent a foundation for the further development of collaboration skills.

Fifth-grade and sixth-grade teachers differentiated between classes with which “you can work”, that is, the ones characterized by the social cohesion established by the class teacher at the previous level of education. Problems tended to arise in situations in which fifth- and sixth-grade subject teachers started to rely on the general rules of functioning in the school community as the norm of highly developed cooperation competencies and believed that their only job was to give academic tasks and that a well-prepared class would easily engage in cooperation during task solving, which reveals a lack of understanding of the nuances of cooperation during group work, which are described in greater detail in the Academic Cooperation section. Still, what was admirable was the perseverance of subject teachers in efforts to introduce students into “entangled cooperative relations” and their ingenuity in devising activities that would ensure this, one of which was organizing “them

versus me” play-based activities. It is likewise important to emphasize that the teachers understood their role in aiding students’ adoption of cooperative etiquette through activities including visits to different institutions (museums, theaters), regardless of their apparent failure to realize that beyond these technical habits, there is a higher level of cooperation that can ensure constructive cooperative learning in the classroom. Later, in the seventh and eighth grades, subject teachers noticed that it was easy for students to engage in cooperation during the learning process and listed resources including student maturity and fear of the entrance exam, while interpreting social loafing based on disinterested students’ personality traits, without taking responsibility for negative phenomena. Researchers in the field of cooperative learning believe that shaping cooperative learning cannot depend on *insecure elements of the teaching situation*, such as inspiration for learning and student character (Slavin, 1995).

Teachers employed at grammar schools and vocational secondary schools similarly described the differences in working with the first two grades compared to the final two years of secondary education. In the first and second grades, they saw their task as consisting of the creation of class cohesion, whose non-existence they associated with the situation of selecting students “from different backgrounds” in the process of enrolment in secondary education, while they described third graders and fourth graders as “students who know the rules [of cooperation] they need to adhere to in the school social setting”. Furthermore, subject teachers who taught general subjects at both grammar schools and vocational secondary schools noticed a conspicuous difference between these two types of schools. According to their insights, at first, it is easier to shape cooperative learning modes at grammar schools, “because the kids have higher academic achievements”, but later, it is easier to work with students attending vocational secondary schools “because they recognize the purpose of it due to the cooperative nature of the jobs they’ll do, most often immediately after they finish secondary school, which they discover in vocational subjects and transfer to ours”, while among grammar school students, it is more common to encounter “strong individuals who would rather find the solution on their own and show it to others”.

b.2 Academic Cooperation. All teachers who participated in the research shared the belief that in cooperative learning among students, academic cooperation develops gradually and as a result of long-term practice of cooperation in learning, with the greatest challenge being overcoming the naïve idea of cooperation between two groups of students: the dominant and the reticent.

The little ones need to learn to share the materials, while with third graders, they all get a part of the task and then share information among themselves. (ct. sim. 3/19)

I hush the dominant ones and support the shy ones. Sometimes there’s an evolution from dominance to cooperation and from reticence to openness (ct. sim. 6/19)

To me, it's important that nobody's opinion gets rejected. (st. GS, sim. 16/19)

There are always students who don't want to participate, sometimes because they are reticent, sometimes because they are disinterested. Their habits match their character. (st. GS, sim. 10/19)

They get into arguments. Some of them think that they did more while others were slacking. (st. VSS, sim. 15/19)

Fourth graders know that it's easier to solve the problem together, they listen to one another, they help one another. On top of that, they cover large amounts of content more quickly when they work in groups. (st. VSS, sim. 4/19)

To me, it's important to see whether they can maintain the focus of the conversation and whether they refer to one another's statements in conversation or have incoherent discussions. (st. GS, sim. 3/19)

We always use the following class to reflect on the cooperation. It's a long process, a couple of years, there's no progress if we don't talk about it. (st. PS, sim. 13/119)

As the first step in the development of academic cooperation, class teachers cited the development of curiosity for the deskmate's mode of work among "the young ones". In the third and fourth grades, the teachers believed that their task was to develop students' consciousness about their emotional status in relation to group work as well as to moderate the behavior of dominant students and encourage reticent learners. It is interesting to note that class teachers were aware of the need to somehow work with the *insecure elements of the context* (Slavin, 1995), at the level of competencies related to interpersonal dialogue within the group (but, as shown in the interpretation within the Task Creation section, not at the level of the structure of the task and the accompanying materials), while this awareness was not observed in subject teachers who participated in our research. We assume that the reason for this can be found in one class teacher's statement: „*We inherently talk to our little ones all the time, and even later, there are no long lectures; the kids have amazing ideas and we constantly deviate from the plan*”, while subject teachers had longer sequences of the frontal, transmissive modality of work and individual student questioning. Furthermore, with young learners, class teachers worked on sharing school supplies, and with the eldest learners, they worked on sharing materials as sources of necessary information and sharing the information itself. In the literature, the latter form of sharing is referred to as the basic form of cognitive cooperation consisting of sharing inputs within low-cooperation group work (Hertz-Lazarowitz, 1989).

Fifth-grade and sixth-grade teachers saw their role in developing students' academic cooperation as consisting of encouraging students to express their opinions systematically and avoid straying from the topic, which is a step up in the progression towards highly cooperative group work, according to the model of

cooperation development proposed by Hertz-Lazarowitz (1989). Seventh-grade and eighth-grade subject teachers strove to help their students develop active listening skills and, as they emphasized, another, even more important aspect – devoting attention to the suggestions and/or opinions of all members of the group, which is another step towards more advanced academic cooperation. Furthermore, subject teachers complained about social loafing, which they did not interpret as the effect of the *insecure element of the teaching situation* (Slavin 1995), but as certain students' established attitude towards learning. Primary school subject teachers insisted that academic cooperation skills were cognitive and completely separate from social cooperation skills as well as that conflicts between students were the effects of intolerance for different characters or a lack of social cooperation skills only, which they considered to be separate from cognitive processes.

In the first grade of secondary school, subject teachers strived to “renew” cooperative competencies that “seem to be lost in the new milieu” but emphasized that they observed visible progress in the second grade. They stated that at this stage, they saw their role in developing more complex interactions when creating tasks, such as responding to a previously expressed opinion and summing up different opinions, which they recognized as the basis for engaging in more complex discussions expected in the final two years of secondary education. As the peak of academic cooperation in the fourth grade of secondary school, the teachers planned for their students to reach conclusions that would lead to the reconstruction of the process of working on the final solution of the task and/or the final product of group work. These descriptions largely overlap with the higher-level academic cooperation discussed in the literature (Herz-Lazarowitz, 1989).

After the interpretations provided within the Academic Cooperation theme, we would like to emphasize that all teachers who participated in this research were highly aware of the fact that cooperation is a skill that develops over many years and needs to be nurtured from the first moment the student enters the school context. Likewise, they had a clear idea about the purpose of nurturing cooperation – paving the path to participation in school life and society. Hence, this raises the question of the cause of the absence of deliberation about developing students' sensibility for personal responsibility and contribution to group cooperation.

b.3 The Optimal Level of Cooperation. Out of all the teachers who participated in the research, only one teacher emphasized that a higher level of cooperation was reached only after mastering the basic and higher levels of academic cooperation.

Real cooperation is a complicated task for students. First, they need to know some of the content. Then they need to detect the missing information and do the harder part that you also cannot learn in one class and that's critically searching for information. What follows is learning the rules of discussion and debate and practicing these forms in front of the whole class. This encompasses argumentation skills that reflect a profound knowledge of the content as well as analytical and critical thinking. Then we come

to cooperative learning using my tasks before they reach the level at which they can independently choose the topic. When they choose the topic, it is up to me to learn about it and connect it to my subject so I can monitor them. Then, after a while, I introduce student reflection on personal contributions to group work and group success (st. GS, sim. 1/19)

Students' competencies in the domains of both social and academic cooperation constitute prerequisites to *higher-order social cooperation*, since there is no clear line dividing the spheres of social and academic cooperation (Hertz-Lazarowitz, 1989). The optimal degree of cooperation in school and life generally requires the integration of social and academic skills, such as engagement and regular participation, connecting with the contributions of other group members, the ability to reflect on the content and form of one's own interactions in the group and evaluate other group members' interactions, and transferring to other spheres of life, which are effects that one subject teacher thoroughly elaborated and observed in „exceptional, not so common classes” of which she was rightfully proud. It should be emphasized that this teacher reported that her colleagues did not show understanding for her excessive dedication to reinforcing student reflection. Such a deep understanding of cooperative learning, due to its uncommonness, constitutes a serious warning sign that points to the need to urgently consider potential encouragements and forms of support necessary for teachers to adopt a contemporary perspective on the education process.

c. Planning the Division into Groups

Multiple analytical readings of the interview transcripts within the Planning the Division into Groups subcategory led to the recognition of three themes: Previous Experience with the Class, The Number of Group Members, and The Division of Roles within the Group, to which the following sections are dedicated. The introduction to each theme is followed by corresponding teacher statements and a discussion of the findings.

c.1 Previous Experience with the Class. The teachers (19/19) primarily highlighted their own experience with a certain class upon which they relied when organizing cooperative learning.

It's not easy to find the right formula for group formation, but I get the hang of it after two years. (ct. sim. 16/19)

The division into groups depends on the content, some are better at some things, others are more curious about other things. (st. PS, sim. 10/19)

I experiment with younger students [fifth graders, authors' remark]; we learn about good groups together. With eighth graders, it's easy, I know them like the back of my hand, groups function without any issues. (st. PS, sim. 5/19)

In the first grade, we're just getting to know the students and there is no group work and then we gradually introduce it in the second grade. In the fourth grade, I rarely make a mistake when dividing them into groups. (st. VSS, sim. 4/19)

Fourth graders divide into groups on their own, they know what kind of students they are, they know that friendship is not a criterion. (st. VSS, sim. 3/19)

The importance of effective group formation is a point of convergence between the conclusions of researchers in the field of cooperative learning (Cohen, 1994; Felder & Brent, 2007) and the statements of the teachers who participated in the present study. However, deliberations leading to this belief differ. In the literature, the main reason provided is the interdependence between the task, group roles, and student interaction (Johnson & Johnson, 1999), while the teachers cited concerns about pre-existing relations between students and the awareness of the need for the division into groups to be planned separately for each class and based on considerations regarding the students' academic achievement and mutual relations, that is, friendship ties and divisions, as interpreted in the Cooperative Skill Development section. The teachers had certain beliefs about the makings of a successful lesson and they were ready to experiment to achieve this success, which speaks in favor of them being competent professionals. The belief that the success of cooperative learning hinges solely on a constructive division into groups, which the teachers saw as their responsibility, opens up room for problematization, as it diverts attention from this theme's links with task creation and the preparation of students for high-quality cognitive and interpersonal cooperation.

c.2 The Number of Group Members. All teachers (19/19) gave preference to heterogeneous groups and most of them favored four-member groups.

Everyone knows that it's better when groups are heterogeneous. (ct. sim. 19/19)

Everyone knows that four-member groups are the best. (st. PS, sim. 17/19)

I like it when they work in pairs, add a third member and the arguing begins. (ct. 2/19)

Four-member groups are the best, students in the front row just rotate towards the desk of the pair behind them. A fifth member would be in my way when I walk and wouldn't have any legroom. (st. VSS, sim. 15/19)

The fifth one is usually the slacker. (st. PS, sim. 10/19)

It's inhumane... Having 32 or 36 students in a class, 6 groups of 4 students would be ideal for supervising group work over the course of 40 minutes. (st. GS, sim. 19/19)

The teachers' statements about the most suitable number of group members aligned with theoreticians' belief that the most favorable solution for young learners is working in pairs or groups of three, while older learners tend to be more efficient

when working in groups of four to seven (Cohen, 1994; Johnson & Johnson, 1999). However, the teachers did not exhibit a critical attitude towards this recommendation. Instead of varying the number of group members in accordance with meaningful segments of different tasks, they showed the tendency to start with a set number of group members and then adapt tasks to the predetermined four-member team by customarily dividing them into four segments. Hence, the teachers' claims that social loafing was the consequence of large groups of five or more members should be taken with a grain of salt. Future studies should examine the contextual conditions that lead to teachers favoring four-member groups. This paper does not aim to harshly criticize teachers for viewing four-member teams as the "gold standard" when forming cooperative learning groups. Support for understanding the decision about four-member groups could be found in the teachers' statements (19/19) suggesting that the most suitable way of grouping students is having "*students in the front row just rotate towards the desk of the pair behind them*", with teachers noting that a lack of time and understanding among the colleagues teaching subsequent classes preclude the arrangement of desks in a specific way immediately before the cooperative learning class.

c.3 The Division of Roles Within the Group. Teachers at different levels of education had different perspectives on the division of roles within the group.

They are too young. I have to keep explaining their duties until the beginning of the fourth grade. (ct. sim. 6/19)

I participate in the division into groups. Once that's done, they divide the roles among themselves. High achievers tend to be researchers and presenters and low achievers deal with technical processing. I usually know how they'll divide the roles, I'm surprised if I don't guess right. (st. PS, sim. 12/19)

The teacher chooses the leader; the one with the best knowledge of the content. I'd like for the leader to inform me about the content learned or challenges during group work. That doesn't always happen. (st. PS, sim. 1/19)

The role of the leader is the most important; the leader does the most research and needs to present the work to other groups in the end. That's the best student in the group. (st. GS, sim. 18/19)

The low achiever does the easiest tasks, fills out the table [class teachers mentioned: colors the drawing for the presentation, authors' remark]. That's how this student learns from better students what they mastered during the class. (st. VSS, sim 19/19)

Sometimes low achievers even give up on an undemanding role; there is always a slacker. I include this in the plan as well; I know I'll spend more time hovering over that desk. (st. VSS, 10/19)

They choose roles independently, but I've taken it upon myself to engage reticent students, we work on public performance, I insist that a different person takes the role of the presenter each class [the teacher organized cooperative learning classes in a social science class twice a month, authors' remark]. The presenter only presents the main points; I engage other members by asking additional questions. (st. GS, sim. 1/19)

There were discrepancies between theoretical suggestions regarding group role division criteria and teachers' perspectives on this issue. Researchers have highlighted the interdependence of complementary roles (more specifically: controller, researcher, notary, monitor), which makes it impossible to successfully complete the task if a group member shuns personal responsibility and/or engages in social loafing (Cohen, 1994; Johnson & Johnson, 1999). The teachers' statements highlighted two main roles: 1) *the leader*, the most commonly mentioned role in scientific deliberations on the functioning of teams in work environments (Hackman & Wageman, 2004; Kolarić, 2022), whose equivalent in cooperative learning is the controller (Ševkušić, 2003), usually the best student and the presenter of group work (only one teacher saw this group member as the reporter of group work progress); 2) *the technical assistant*, who does all the manual work regarding the visualization of learning results (notes, panels, illustrations, tables), usually the weakest member of the group in terms of academic achievement. The remaining group members (2 or 3 students) would need to independently choose roles not specified in the repertoire of roles identified in the analysis of the transcripts of interviews with the 19 teachers who implemented cooperative learning. Consequentially, the teachers did not explain any of the roles to the students, which left them in the gray zone of cooperative activities. In spite of concerns about slacking present during the planning process, in cases of social loafing and abandonment of the chosen role, none of the teachers recognized their own responsibility for such student behavior and the need to more thoroughly explain group functioning and the duties associated with different roles.

A voice that stood out was that of a grammar school teacher who planned cooperative learning by more deeply relying on personal workshop experiences and planned to engage more reticent students in the presentation of group work with the aim of building students' self-confidence in public performance, which is an integral part of a variety of professions and occasions in life. This teacher approached the presentation in different ways: she let the students independently choose the presenter, who presented only the main argument, and used additional questions to engage other students during the presentation of group work, thus ensuring that the presentation itself took the form of a group process. It is important to emphasize that this is the same teacher whose statement was highlighted within the Cooperative Task Structure theme as the only one emphasizing the difference between high-structure and low-structure cooperative tasks.

■ CONCLUDING REMARKS

When planning cooperative learning, all interviewed teachers contemplated several different aspects of this conception of learning in class. However, within these different aspects, the teachers' contemplations often conformed to uncritically adopted "norms" (e.g., four-member groups and the use of the jigsaw method in a 45-minute class), which led to the absence of harmony in understanding the complex and interdependent dimensions of cooperative learning. In addition to these disharmonious results, our research yielded the following findings.

- The teachers who valued cooperative learning had numerous ideas for reshaping techniques and methods from their entire previous teaching experience (such as play-based learning activities, different forms of competition, and project assignments) into cooperative learning models.
- Crucially, one school period in a class of more than thirty students and the efforts of a single teacher teaching one subject at one school constitute insufficient resources for shaping student cooperation, which makes the introduction of a highly cooperative form of learning in our midst borderline unfeasible.
- Our research revealed stereotypes and/or misconceptions about different aspects of this form of learning, some of which include: the ideal number of group members, task segmentation, the duality of academic and social cooperation, and the non-existence of interdependence between task segments and group roles. The differences between theoretical postulates and what happens in practice are not generally negative but can constitute a barrier to successful planning of cooperative learning if they are based on preformed beliefs rooted in experiences with the traditional conception of teaching and not contextual teaching conditions.
- For the teachers in our study, when contemplating cooperative learning, the main principle was planning peer tutoring (with high-achieving students directly explaining the content to low-achieving students), which leads to the most common misconception – equating cooperative learning with one-dimensional peer tutoring, which constitutes the basis for degrading a conception of learning to a teaching method/technique.
- When planning cooperative learning, the teachers who participated in this research did not contemplate specific process evaluation methods in such classes that would suit the characteristics of this form of learning.

In efforts to make cooperative learning more commonplace in our midst, it is necessary to provide support to teachers. We believe that accredited seminars are only significant as a form of initial sensitization. It would be beneficial to implement large-scale educational projects offering teachers longitudinal facilitation in

cooperative learning class preparation provided by researchers in this field, primarily through collaborations between scientific institutions and schools. The present research was conceived as a starting point for the deliberation of the relationship between the theory of cooperative learning and the practice of its implementation in our midst. In addition to a small sample, another methodological limitation is found in the exclusive orientation towards teachers' contemplations, without any insight into the materials, assignments, products of students' work, and students' perspective on the subject. Our future research on cooperative learning will examine the abovementioned limitations as well as the contextual dimensions of the shaping of cooperative learning (e.g., resources for teachers' theoretical familiarization with this conception, systemic support for its shaping in practice, the possibility of horizontal correlations between different school subjects, and cooperative and/or innovative ethos at the school level as a milieu for cooperative learning).

REFERENCES

- Anderson, J., Reder, L., & Simon, H. (1996). Situated learning and education. *Educational Researcher*, 25 (4), 5–11. <https://doi.org/10.3102/0013189X025004005>
- Antić, S. (2010). *Kooperativno učenje: modeli, potencijali, ograničenja* [Cooperative learning: models, potentials, limitations]. Institut za psihologiju Filozofskog fakulteta Univerziteta u Beogradu.
- Cohen, E. (1992). Restructuring the classroom: Conditions for productive small groups. *Issues in Restructuring Schools*, 2, 4–7.
- Cohen, E. (1994). Restructuring the classroom: Conditions for productive small groups, *Review of Educational Research*, 64(1), 1–35.
- Cossham, A., & Johanson, G. (2019). The benefits and limitations of using key informants in library and information studies research. *Information Research*, 24(3). <http://InformationR.net/ir/24-3/rails/rails1805.html>
- Duque, L. C. (2014). A framework for analysing higher education performance: Students' satisfaction, perceived learning outcomes, and dropout intentions. *Total Quality Management & Business Excellence*, 25(1–2), 1–21. DOI: 10.1080/14783363.2013.807677
- Felder, R. M., & Brent, R. (2007). Cooperative learning. In P. A. Mabrouk (Ed.), *Active learning: Models from the analytical sciences*, ACS Symposium Series 970, Chapter 4, (pp. 34–53). American Chemical Society.
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor during thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 1–11.
- Hackman, J. R., & Wageman, R. (2004). When and how team leaders matter. *Research in Organizational Behavior*, 26, 37–74. DOI: 10.1016/s0191-3085(04)26002-6
- Hertz-Lazarowitz, R. (1989). Cooperation and helping in the classroom: A contextual approach. *International Journal of Educational Research*, 13(1), 113–119. DOI: 10.1016/0883-0355(89)90020-7
- Hertz-Lazarowitz, R. (1992). Understanding interactive behaviors: Looking at six mirrors of the classroom. In R. Hertz-Lazarowitz & N. Miller (Eds.), *Interaction in cooperative groups: The theoretical anatomy of group learning* (pp. 71–101). Cambridge University Press.
- Ilić, Ž. M. (2016a). Značaj i teškoće u primeni kooperativnog učenja u razrednoj nastavi iz perspektive učitelja [Importance and difficulties of cooperative learning application in class teaching from teachers' perspective]. *Nastava i vaspitanje*, 65(1), 167–180. DOI: 10.5937/nasvas16011671
- Ilić, Ž. M. (2016b). Učestalost i mogućnosti primene kooperativnog učenja u razrednoj nastavi [Frequency and possibilities of application of cooperative teaching in lower grades of the primary school]. *Inovacije u nastavi – časopis za savremenu nastavu*, 29(2), 25–37. DOI: 10.5937/inovacije16020251
- Johnson D. W., & Johnson, R. T. (1999). Making cooperative learning work. *Theory Into Practice*, 38(2), 67–73. DOI: 10.1080/00405849909543834
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). *Active learning: Cooperation in the college classroom*. Interaction Book Company.
- Johnson, R. T., & Johnson, D. W. (1994). An overview of cooperative learning. *Creativity and Collaborative Learning*, 1–21.
- Jolliffe, W. (2007). *Cooperative learning in the classroom: Putting it into practice*. Paul Chapman Publishing.

- 📖 Kolarić, B. (2022). Uloga visokoproduktivnih timova u savremenim organizacionim strukturama [The role of development of high-performance teams in modern organizational structures]. *Ekonomski izazovi*, 11(22), 35–48. <https://doi.org/10.5937/Ekolzazov2221035K>
- 📖 Kovačević, Z., Blagdanić, S. i Stojanović, A. (2021). Kooperativno učenje u oblasti upoznavanja i razumevanja sveta i u nastavi prirode i društva [Cooperative Learning in the Field of Learning and Understanding the World and in the Primary School Subject Nature and Society] *Inovacije u nastavi – časopis za savremenu nastavu*, 34(1), 14–29. DOI: 10.5937/inovacije2101014K
- 📖 Kyriacou, C. (1998). *Essential teaching skills*. Nelson Thornes Ltd.
- 📖 Newman, D., Griffin, P., & Cole, M. (1989). *The construction zone: Working for cognitive change in school*. Cambridge University Press.
- 📖 Perkins, D. (1992). *Smart schools: From training memories to educating minds*. The Free Press.
- 📖 Pešić, M. (1991). Planiranje, praćenje i evaluacija sopstvenog rada [Planning, monitoring, and self-evaluation of teachers' activities in the classroom]. U J. Šefer (ur.), *Učitelj u praksi* (str. 227–245). Republički zavod za unapređivanje vaspitanja i obrazovanja.
- 📖 Ross, J. A., Rolheiser, C., & Hogaboam-Gray, A. (1998). Student evaluation in cooperative learning: Teacher cognitions. *Teachers and Teaching: Theory and Practice*, 4(2), 299–316.
- 📖 Saldaña, J. (2009). *The coding manual for qualitative researchers*. Sage Publications.
- 📖 Semiz, M. Ž. (2020). *Primena kooperativnog učenja i kvalitet znanja učenika* [Application of cooperative learning and the quality of students' knowledge [objavljena doktorska disertacija, Univerzitet u Beogradu – Filozofski fakultet]. Nacionalni repozitorijum disertacija u Srbiji. <https://uvidok.rcub.bg.ac.rs/handle/123456789/3787>
- 📖 Slavin, R. E., Hurley, E. A., & Chamberlain, A. (2003). Cooperative learning and achievement: Theory and research. In W. M. Reynolds & G. E. Miller (Eds.), *Handbook of psychology: Educational psychology*, (pp. 177–198). John Wiley & Sons, Inc. <https://doi.org/10.1002/0471264385.wei0709>
- 📖 Slavin, R. E. (1995). *Cooperative learning: Theory, research and practice*. Allyn & Bacon.
- 📖 Ševkušić, S. (1993). Kooperativno učenje u razredu [Cooperative learning in the classroom]. *Zbornik Instituta za peagoška istraživanja*, 25, 73–86.
- 📖 Ševkušić, S. (2003). Kreiranje uslova za kooperativno učenje: osnovni elementi [Creating conditions for cooperative learning: basic elements]. *Zbornik Instituta za pedagoška istraživanja*, 35(1), 94–110.

Received 24.9.2023; accepted for publishing 03.03.2024.