Izvorni znanstveni članak /
Original scientific paper
Prihvaćeno: 25.5.2016.

Assoc. prof. dr. Vlasta Hus
University of Maribor
vlasta.hus@um.si

Polona Legvart
Primary School Bratov Polančičev, Maribor
polona.legvart@osbp.si

USING QUESTIONS AS A TOOL FOR ENCOURAGING HIGHER THINKING PROCESSES IN A SOCIAL SCIENCE CLASS

Abstract: *Questioning is a key element of the teaching and learning process. The aim of this research was to develop an instrument for monitoring the quality and quantity of teachers' questions in social science classes and with the help of this instrument, to find out the number and type of questions teachers use in their social science classes in the fourth grade of primary school. For our survey, we used a descriptive causal non-experimental method. We collected data with protocol on a non-random sample of fourth-grade teachers (age of students: nine years) in different compulsory schools in the Republic of Slovenia. A total of 75 protocols were included in the data processing. Our results show that fourth-grade social science class teachers ask more low-level than high-level questions. Teachers' questions in the social science classes do not reach sufficient levels of quality to be used as a mediation tool for developing higher-order thinking levels by their students.*

Keywords: *primary school, social science subject, questions*

1. Introduction

Research into the questions that teachers ask during their lessons is primarily focused on the effect these questions have on students' learning, with a special focus on their cognition development and ability to learn about the world and solve problems that occur in the learning process and in life. There is a great consensus in the scientific field that questions and the thinking process are strongly connected, and that – consequently – questions and cognition development are strongly connected too.

Such a standpoint results from the almost general rejection of the Piagetian constructivist thesis, which believes universal cognitive developmental changes are a consequence of a general cognitive mechanism for processing information. Piaget understood the course of cognitive development as a sequence of stage-like changes into higher cognitive structures. Differently from him, Vygotsky (1987) assumed a child's cognitive growth to be a result of education. This means that a child will get support at sensitive stages – zones of proximal development – from engagement with more experienced others. In social situations, parents and siblings, and later peers and other adults – in school, mainly teachers – will take responsibility for the child's developing mind. This theory was accepted by the sociocultural constructivist school. Rogoff, meanwhile, pointed out the social context in which cognition occurs. In her research, she observed the "generic individual as the basic unit of analysis and adds social factors as external influences" (Rogoff 1998, 680).

"Social factors as external influences" are not just children and their interactions with each other and the learning environment, but also mediation by other cultural tools, such as the teacher (O'Loughlin 1992). In other words: the constructivist model of teaching is based on cognitive conflict between a child's existing scientific concept and problems in the learning environment. In the social cognitive model a teacher, through his mediation of the learning situation, draws the child's attention to the facts which generate a cognitive conflict and the facts which can generate a possible solution to the problem. From this point of view, it seems very important to discover which kinds of questions are used as a tool of teachers' mediation in the cognitive process, because not every question asked by a teacher generates students' cognitive processes.

2. Research background

Studies have demonstrated that teachers whose students reach higher levels of knowledge stress higher-level thinking and use questions of a higher cognitive level than other teachers (Taylor et al. 2003). Higher-order questioning

should require students to "think at a deeper level" (Peterson and Taylor 2012, 297). In the same article, these authors pointed out that teachers may fear asking higher-order questions: "When teachers ask higher-order questions, they may find that the questions are difficult for students to answer or that students give only one- or two-word answers" (Peterson and Taylor 2012, 297).

Other research connects teachers' questions with the problem of developing metacognitive skills in their students. Metacognitive teaching has been a topic of great scientific research in the past decades (Flavell 1979, Annevirta and Vaurus 2001, Efklides 2001; Downing et al. 2007; Michalsky et al. 2009). A major part of this interest has been directed at finding a way and asking the right questions to develop a metacognitive level of students' comprehension process while reading different kind of texts. Other research (White and Frederickson 1998) has demonstrated that metacognitive activities must be integrated into subject matter to increase the degree to which students will transfer their new learning to other settings. Even less attention has been directed at the problem of how to develop metacognitive thinking with students before their cognitive development reaches the level of abstract thinking, at the primary and lower secondary levels (Georghiades 2000; Michalsky et al. 2009).

The research shows the connection between teachers' (and students') questions and reflective intelligence (Perkins 1995). Reflective intelligence is increased through instruction and questions that encourage development of cognition and develop strategies and attitudes that result in thoughtful thinking. The difficulty of this process is that cognition occurs in one's head. When teaching young children on the concrete level of cognitive development (in the case of our study, at the age of nine), a teacher must employ techniques to make thinking visible. Which techniques can a teacher use for making thinking visible (audible)? Kelley and Clausen-Grace (2007) suggest, in a book with the clear title *Comprehension shouldn't be silent*, five techniques: predicting, making connections, visualising, summarising and questioning.

On the other hand, some studies point out a lack of attention from teachers toward their own questions and those asked by their students. Harrop and Swinson's (2003) research shows a very small difference in quality between the questions they observed in junior and in secondary school. Current literature on the topic of questions almost "exclusively reports the lack of student initiated, content related questioning in the classrooms" (Whittaker 2012, 587).

3. How to Improve the Quality of Questions Teachers use in the Social Science Class?

Questioning is a key element of the teaching and learning process. There is evidence that teachers can improve their use of questions by focusing on types of questions and strategies for using them. There are two ways to motivate teachers to improve their questioning strategies. The first is to draw their attention to the importance of adequate questioning for the cognitive progress and learning achievement of their students, and the second is to create the possibility to (self) evaluate their present practice and, on this basis, to reconsider ways in which they may improve their question strategy (Marentič Požarnik and Plut 2009).

In the frame of the first step the purpose of questions in the social science class should be explained to the teachers. Teachers should be aware that questions can give them insight into how effectively students are learning, assist the teacher in forward planning, be used to involve students in ongoing class work, and give students opportunities to articulate their understanding. Questions can contribute to improvements in students' communication and social skills. Questions can provoke students to ask questions themselves, which can generate more sophisticated discussions. Questions give children the opportunity to connect what they know with what they need to examine and reflect upon their own thinking. The second way to improve teachers' question strategy is, as mentioned, (self) evaluation of their present practice – and, on this basis, reconsidering the strategy for improving their question strategy. For this process, we must decide which questions are a proper means for which goals in the learning process, and we must decide which questions are more adequate than others (Marentič Požarnik and Plut 2009).

On this basis we can create a tool for observing and evaluating teachers' questions and, in the same way, develop a tool which teachers can later use as a self-evaluation tool for observing their question strategies. The results of such self-evaluation can later be used to plan improvements in the teacher's question strategies. Teachers could use one of existing taxonomies: Pearson and Johnson's (1978), Raphael's (1986) or Bloom taxonomy (1956). All mentioned taxonomies give us an excellent insight into the quality of questions and could serve as instrument for monitoring teachers' questions if our interest focused only on those teachers' questions which are used as a mediation tool between students' existing schema of the teaching topic and curricular goals in students' zone of proximal development. But we know teachers do not ask only those questions in their classes. Many of the questions they ask are used to manage class interaction, to provide discipline, to organise the learning process, to

motivate students; in short, many questions are used as a social mediation tool and not a cognitive mediation tool. To also include social mediation questions in the observing protocol – an instrument for observing and evaluating the quantity and quality of teachers' questions for the purpose of the presented study – we adopted the *taxonomy of teachers' questions in the classroom communication process* (Marentič Požarnik and Plut 2009). This taxonomy is divided into two basic levels of questions: lower-level questions and higher-level questions. Both levels are then further divided, the lower-level questions into eight types and the higher-level questions into five. We chose such taxonomy for the educative purpose: teachers, who shall use this taxonomy, should get the message, the lower-level questions are useful and needed, but their number should be limited. And higher-level questions are those, which should be used in an extended number, to reach a higher quality of thinking and higher level of teaching results.

4. Research Aim

The aim of the research was to develop an instrument for monitoring the quality and quantity of teachers' questions in the social science class and then, with the help of this instrument, to discover the number and type of questions teachers use in fourth-grade social science classes. We were particularly interested in finding how many questions used are lower-level and how many are higher-level, and which type of question was most commonly used. The research also focused on differences in the question strategies, which could be connected with length of teaching experience.

5. Methodology

For our survey we used a descriptive causal non-experimental method. We collected data on a non-random sample of fourth-grade teachers (age of students: nine years) in different compulsory schools in the Republic of Slovenia. A total of 75 social science teaching lessons were observed, with the focus on the quality and quantity of questions that occurred during those teaching lessons. The observed teaching lessons differ according to *teaching content*, *type of the lesson* and the *teaching practice* of the teacher. Considering the length of teaching experiences, the majority of teachers included in our investigation had less than 19 years of teaching experience (58.7%); 41.3% of teachers had more than 20 years of teaching experience.

Data were collected by using the quantitative standardised technique, with a coding protocol of observation which we developed for the purpose of

this study – observing and monitoring the quality and quantity of teachers' and students' questions in fourth-grade social science classes. The protocol was structured into two tables:

- In the first table, the name of the class was indicated, in addition to teaching content according to curriculum and information about the length of teachers' experience.

- In the second table, the appearance of each question asked by the teacher during the lesson was noted and classified according to the protocol *designed taxonomy of teachers' questions in classroom communication process.* The protocol included two groups of questions: lower-level and higher-level questions (Marentič Požarnik and Plut 2009).

The lower-level questions were divided into eight groups: memory questions, additional questions, alternative questions, suggestive questions, misleading questions, organisational questions, fictive questions and rhetorical questions. *Memory questions* were questions a student could answer only by recalling a piece of his memory (*textually explicit*, according to Pearson and Johnson (1978) *Right There*, according to Raphael (1986); *knowledge question*, according to Bloom (1956)). *Additional questions* were questions the teacher was using to encourage students to think harder, to add something to their previous answer, in most cases to recall another piece of his memory. *Alternative questions* those questions to which a student could answer simply yes or no. *Suggestive questions* were questions which could be answered even with very limited knowledge, because the question partly included the answer. *Misleading questions* were those questions, which suggested obvious wrong answers, with the aim that the student would be motivated to recall the correct information.

Organisational questions were those questions a teacher was using to manage teaching interaction. *Fictive questions* (non-questions) were teachers' orders, commands or statements expressed in question form, such as "*are you listening?*" addressed to a student who is obviously not listening). *Rhetorical questions* were those questions which did not expect any answer. They were used for the purpose of link students' attention to particular information.

The higher-level questions in the protocol for observing teachers questions were divided into five groups of questions according to Bloom's (1986) taxonomy. Higher-level questions were classified as questions a student can answer if he understands the recalled information *(comprehension)*, questions a student can answer if he is able to consider the practical relevance of information *(application),* questions a student can answer if he has the ability to investigate the elements of the information *(analysis),* questions a student can answer if he is able to use information to move forward in a creative way (*synthesis)* and

questions a student can answer if he is able to make judgements about the nature of information *(evaluation*).

Data was collected in April 2011 as part of students' obligatory pedagogical practice weeks in the eighth semester of the elementary education study programme. Each student monitored and audio-taped one teaching unit, after which they transcribed the communication during lessons and drew special attention to questions asked by the teachers. They then labelled teachers' questions according to the protocol. In the case that they could not confirm the type of question, they consulted the research team, the authors of this paper.

The following procedures were used for statistical analysis of the data:
- frequency distribution (f, f%) of lower-and higher-level questions;
- descriptive statistics (Minimum, Maximum, Mean, Standard Deviation, Skewness, Kurtosis) for number of lower- and higher-level questions;
- *t*-test for independent samples for the analysis of differences concerning lower- and higher-level questions by teachers with different amounts of pedagogical experience.

Results

Lower-level Questions

Table 1: Frequency (f) percentage (f%) of lower-level questions.

TYPE OF QUESTON		*f*	*f %*
LOWER-LEVEL	MEMORY	1003	36.8
	ADDITIONAL	588	21.6
	ALTERNATIVE	314	11.5
	SUGGESTIVE	276	10.1
	MISLEADING	115	4.2
	ORGANISATIONAL	202	7.4
	FICTIVE	129	4.7
	RHETORICAL	98	3.6
	Total	2725	100

In 75 teaching units, teachers asked 2725 (69.1%) lower-level questions (Table 1 near here). In the frame of that, the majority of questions (36.8%) were memory questions, followed by additional questions (21.6%), alternative questions (11.5%), suggestive questions (10.1%) and organisational questions (7.4%). The lowest frequency of asked questions was observed in relation to fictive questions (4.7%), misleading questions (4.2%) and rhetorical questions (3.6%).

The next table presents descriptive statistics of each type of lower-level question asked in the teaching unit.

Table 2: Minimum (x_{min}), Maximum (x_{max}), Mean (x̄), Standard Deviation (s), Skewniss (Skew), Kurtosis (Kurt) of lower-level questions asked in *n* number of teaching units.

Type of questions	*n*	x_{min}	x_{max}	x̄	*s*	**Skew**	**Kurt**
SUGGESTIVE	75	0.00	40.00	3.680	5.307	4.598	29.494
MISLEADING	75	0.00	12.00	1.533	2.559	2.567	7.028
FICTIVE	75	0.00	13.00	1.720	2.709	2.425	6.905
ADDITIONAL	75	0.00	31.00	7.840	6.690	1.481	2.884
ALTERNATIVE	75	0.00	31.00	4.187	5.387	2.929	10.703
RHETORICAL	75	0.00	13.00	1.307	2.260	2.703	9.546
MEMORY	75	0.00	60.00	13.373	13.236	1.628	2.417
ORGANISATIONAL	75	0.00	21.00	2.693	3.377	2.796	11.603
TOTAL	75	4.00	131.00	36.333	23.233	1.513	3.229

The average number of lower-level questions was 36 per teaching unit. Among them, memory questions predominated (average 13 questions per teaching unit), followed by additional questions (average 7–8 per didactic unit) and alternative questions (average 4 per unit). The average number of organisational questions, fictive questions, misleading questions and rhetorical questions was less than 3 per didactic unit. The table shows the existence of high variability (s=23.233) of asked lower-level questions (from 4 to 131 per teaching unit). Skewness (Skew=1.513) shows the distribution of total number of lower-level questions skewed to the right (positive skew), and Kurtosis (Kurt=3.229) that the distribution is more peaked then the normal curve (positive kurtosis – leptokurtic). Consequently, teaching units with lower-level questions predominate.

The following table presents the results of analysis of the number of different types of lower-level questions asked by teachers with varying durations of pedagogical experience.

Table 3: The results of *t*-tests of different types of lower-level questions asked by teachers with varying durations of pedagogical experience.

Type of question	*Years of TEACHING PRACTICE*	n	*mean*	*Std. Deviation*	*Test of homogeneity of variances*		*Test of differences between means*	
			x̄	s	F	P	t	P
SUGGESTIVE	Less than 19	44	4.250	6.343	0.556	0.458	1.110	0.271
	More than 20	31	2.871	3.263				
MISLEADING	Less than 19	44	1.727	2.798	1.986	0.163	0.780	0.438
	More than 20	31	1.258	2.190				
FICTIVE	Less than 19	44	1.909	3.056	1.878	0.175	0.718	0.475
	More than 20	31	1.452	2.142				
ADDITIONAL	Less than 19	44	7.386	6.679	0.359	0.551	-0.697	0.488
	More than 20	31	8.484	6.762				
ALTERNATIVE	Less than 19	44	4.364	5.641	0.249	0.619	0.337	0.737
	More than 20	31	3.936	5.086				

RHETORICAL	Less than 19	44	1.296	2.436	0.004	0.948	-0.051	0.960
	More than 20	31	1.323	2.023				
MEMORY	Less than 19	44	12.523	13.608	0.146	0.704	-0.661	0.511
	More than 20	31	14.581	12.811				
ORGANISATIONAL	Less than 19	44	2.477	3.461	0.601	0.441	-0.658	0.513
	More than 20	31	3.000	3.286				
TOTAL	Less than 19	44	35.932	25.749	1.448	0.233	-0.177	0.860
	More than 20	31	36.903	19.508				

The assumption of homogeneity variances is confirmed (P >0,05). The results of *t*-tests show no statistical significant differences in the frequency of different types of lower-level questions between teachers with different durations of pedagogical experience.

Higher-level questions

Table 4: Frequency (f) and percentage (f %) of higher-level questions.

Type of question		*f*	*f%*
HIGHER LEVEL	*COMPREHENSION*	670	55.0
	APPLICATION	195	16.0
	ANALYSIS	143	11.7
	SYNTHESIS	113	9.3
	EVALUATION	97	8.0
	TOTAL	1218	100.0

In 75 teaching units, teachers asked 1218 (30.9%) higher-level questions. Comprehension questions predominated, followed by application and analysis questions. Synthesis and evaluation questions were asked very rarely.

In continuation we present the average of different type of higher-level questions asked in social science teaching unit.

Table 5: Minimum (x_{min}), Maximum (x_{max}), Mean ($\bar{x}$), Standard Deviation (s), Skewness (Skew), Kurtosis (Kurt) of higher-level questions asked in *n* number of teaching units.

Type of question	*N*	x_{min}	x_{max}	$\bar{x}$	*s*	**Skew**	**Kurt**
COMPREHENSION	75	1.00	36.00	8.933	6.950	1.913	4.456
APPLICATION	75	0.00	10.00	2.600	2.895	0.965	-0.293
ANALYSIS	75	0.00	8.00	1.907	2.194	1.029	0.147
SYNTHESIS	75	0.00	7.00	1.507	2.043	1.285	0.785
EVALUATION	75	0.00	10.00	1.293	2.173	2.183	4.943
TOTAL	75	1.00	42.00	16.240	10.461	0.880	-0.270

The mean of higher-level questions per didactic unit was 16. Among higher-level questions, comprehension questions were asked most frequently (mean 8–9 per didactic unit). The application questions (mean 2–3 per unit), followed by analysis and synthesis and evaluation questions (average: 2 questions, 1 question and 1 question per didactic unit).

The table shows the existence of high variability (s=10.461) in higher-level questions asked. The lower variability (s=10.461) of higher-level questions in comparison with variability (s=23.233) of asked lower-level question exists. Teaching units with only one high-level question were observed and also such with 42.

Skewness (Skew=0.880) of total higher-level questions asked shows asymmetry toward the right (positive skew). Kurtosis (Kurt=-0.270) shows relatively normal distribution.

The teaching units with less number of higher-level questions predominated.

In the following we present the results of analysis of higher-level questions asked by teachers with different durations of pedagogical experience.

Table 6: The results of *t*-test of different types of higher-level questions asked by teachers with different duration of pedagogical experience.

Type of question	***Years of TEACHING PRACTICE***	n	***mean***	***Std. Deviation***	***Test of homogeneity of variances***		***Test of differences between means***	
			x̄	**s**	**F**	**P**	**t**	**P**
COMPREHENSION	Less than 19	44	8,727	7,435	0,005	0,943	0,304	0,762
	More than 20	31	9,226	6,307				
APPLICATION	Less than 19	44	2,386	2,855	0,016	0,899	-0,759	0,450
	More than 20	31	2,903	2,970				
ANALYSIS	Less than 19	44	1,977	2,173	0,013	0,910	0,330	0,742
	More than 20	31	1,807	2,257				
SYNTHESIS	Less than 19	44	1,546	2,151	0,429	0,515	0,195	0,846
	More than 20	31	1,452	1,912				
EVALUATION	Less than 19	44	1,318	2,300	0,149	0,701	0,117	0,907
	More than 20	31	1,258	2,016				
TOTAL	Less than 19	44	15,955	10,653	0,109	0,742	-0,280	0,780
	More than 20	31	16,645	10,343				

In all type of higher-level questions, the assumption of homogeneity variances is not violated. The results of *t*-tests show that differences in frequency of different types of higher-level questions between teachers with varying durations of pedagogical experience are not statistically significant.

Discusion

The *instrument for monitoring the quality and quantity of teacher's questions* was used as a protocol for observing the practice of 75 teachers in 75 units of fourth-grade social science classes. The results show that teachers ask more low-level than high-level questions. On average, they asked 36 low-level and 16 high-level questions.

Among low-level questions, memory questions predominated (mean 13 questions per teaching unit), followed by additional questions (mean 7–8 per didactic unit) and alternative questions (mean 4 per unit). Averages for organisational questions, fictive questions, misleading questions and rhetorical questions were less than 3 per didactic unit.

Among high-level questions, comprehension questions were asked most frequently (mean: 8–9 per didactic unit). The application questions (mean 2–3 per unit), followed by analysis and synthesis and evaluation questions (mean: 2 questions, 1 question and 1 question per didactic unit). The t-test results show no statistical significant differences in the frequency of different types of questions between teachers with different durations of pedagogical experience.

These results reflect a similar picture to previous research focused on the teachers' questions (Marentič Požarnik and Plut 1980; Hus and Kordigel Aberšek 2011; Marinič 2012; Lee and Kinzie 2012) and confirms the importance of in-service teacher training to focus their attention on the importance, role and quality of their questioning in social science classes. Scientific literature (Forbes and Davis 2010) and observations of in-school reality draw our attention to the fact that the didactical knowledge about the importance of higher-level questions in social science classes gained by students during their university education does not influence their teaching practice: in the classroom reality, teachers tend to ask more and more lower-level questions.

Teachers seem to forget that questions serve five purposes: they assess, they focus attention, they guide thinking, they follow up on students' responses and they facilitate participation. A good understanding of these purposes is the first step to asking good questions (Parker 2009). Sunal and Hass (2008) highlight that effective social studies teaching involves helping students to ask more questions and providing them with fewer answers. To accomplish the provision of more effective questions, the teacher must be aware of and plan for higher-level thought questions, questions that ask for evidence to support responses and questions that require students to become aware of their own thinking. Good questions lead to exploration, research, discovery and activity (Ellis 2007).

Conclusion

On the basis of the results of our research, we conclude the following:

- Teachers' questions in social science classes are not of sufficient quality to be used as a mediation tool for developing higher-order thinking levels on the part of their students. The majority of questions asked in social science didactic units are memory questions or those belonging to the group of social mediation (organisational questions, rhetorical questions, misleading questions). Among the so-called cognitive questions, the majority of questions asked do not encourage higher thinking processes and consequently the development of cognition.
- The duration of teaching experience does not influence this the quality and quantity of questioning.

Both discoveries lead to the conclusion that teachers need additional training in their questioning selection and their questioning strategies. Teachers should confront themselves with the reality of the questioning in their classroom; that is, why and how they could use the protocol developed and tested in our project for observing the quantity and quality of questions. The teachers involved in our investigation were curious about their questioning performance and, after seeing their results, were surprised: they had much higher opinions of the quality of their questioning skills, since the majority of them had received at university, from contemporary scientific literature or in their curricula didactic recommendations about the importance of high-level questions in the process of students' cognition development. On this basis, we can assume the implementation of our (or a similar) *protocol for self-evaluation of teachers' questioning practice* could be a useful generator of motivation for teachers to work on the improvement of their questioning skills.

References

1. Annevirta, T., Vauras,M. (2001). Metacognitive knowledge in primary grades: A longitudinal study. European Journal of Psychology of Education, 16, 257–282.
2. Bloom, B. S. (1956). Taxonomy of educational objectives: the classification of educational goals. Cognitive Domain. New York: David McKay Company.
3. Downing, K.,Ho, R.,Shin, K., Vrijmoed, L., Wong,E. (2007). Metacognitive development and moving away. Educational Studies, 33 (1), 1–13.
4. Efklides, A. (2001). Metacognitive Experiences in Problem Solving: Metacognition, Motivation, and Self-Regulation. In A. Efklides, J. Kuhl and R. M. Sorrentino (Eds.), Trends and Prospects in Motivation Research, pp. 297–323. Dordrecht: Kluwer.
5. Ellis, A. K. (2007). Teaching and Learning Elementary Social Studies. USA: Pearson Education.
6. Flavell, J. H. (1976). Metacognitive Aspects of Problem Solving. In L. B. Resnick (Eds.), The Nature of Intelligence, pp. 231–235. Hillsdale: Erlbaum.
7. Forbes, C. T., Davis, A.E. (2010). Beginning Elementary Teachers' Beliefs About the Use of Anchoring Questions in Science: A Longitudinal Study. Science Education 94 (2), 365–387.
8. Georghiades, P. (2000). Beyond Conceptual Change Learning in Science Education: Focusing on Transfer, Durability and Metacognition. Educational Research, 42 (2), 119–139.
9. Harrop, A., Swinson, J. (2003). Teachers' Questions in the Infant, Junior and Secondary School. Educational Studies 29 (1), 49–57.
10. Hus, V., Kordigel Aberšek, M. (2011). Questioning as a Mediation Tool for Cognitive Development in Early Science Teaching. Journal of Baltic Science Education 10 (1), 6–16.
11. Kelley, M. J., Clausen, G.,N. (2007). Comprehension Shouldn't Be Silent. Newark, DE: International Reading Association.
12. Youngju, L. and Kinzie, B. M. (2012). Teacher Question and Student Response with Regard to Cognition and Language Use. Instructional Science 40 (6), 857–874.
13. Marentič Požarnik, B., Plut. L. (1980). Kakršno vprašanje takšen odgovor: priročnik o pedagoško-psiholoških osnovah zastavljanja kvalitetnih vprašanj pri pouku. Ljubljana: Zavod Republike Slovenije za šolstvo.
14. Marentič Požarnik, B., Plut Pregelj, L. (2009). Moč učnega pogovora: poti do znanja z razumevanjem. Ljubljana: DZS.

15. Marinič, T. (2012). Vprašanja pri pouku družbe v 4. razredu devetletne osnovne šole: diplomsko delo. Maribor: Pedagoška fakulteta.
16. Michalsky, T., Mevarech, M.Z., Haibi, L. (2009). Elementary School Children Reading Scientific Texts: Effects of Metacognitive Instruction. Journal of Educational Research 102 (5), 363–376.
17. O'Loughlin, M. (1992). Rethinking Science Education: Beyond Piagetian Constructivism Toward a Sociocultural Model of Teaching and Learning. Journal of Research in Science Teaching 8 (29), 791–820.
18. Parker, C. W. (2009). Social Studies in Elementary Education. Thirteenth Edition. Boston: Allyn & Bacon.
19. Pearson, P. D., Johnson, D. D. (1978). Teaching Reading Comprehension. New York: Holt.
20. Perkins, D. (1995). Outsmarting IQ: The Emerging Science of Learnable Intelligence. New York: Simon & Schuster.
21. Peterson, D. S., Taylor, M. B. (2012). Using Higher Order Questioning to Accelerate Students' Growth in Reading. The Reading Teacher 65 (5), 295–304.
22. Piaget, J. (1954). The Construction of Reality in the Child. New York: Basic Books.
23. Raphael, T. E. (1986). Teaching Question-and-Answer Relationships, Revisited. The Reading Teacher 6 (39), 516–522.
24. Rogoff, B. (1998). Cognition as Collaborative Process. In W. Damon, D. Kuhn and R. S. Siegler (Eds). Handbook of Child Psychology: Cognition, Perception, and Language, pp. 679–744. Cambridge: University Press.
25. Sunal, C. S., Haas, E. M. (2008). Social Studies for the Elementary and Middle Grades. A Constructivist Approach. Third Edition. USA: Pearson Education.
26. Taylor, B. M., Peardon, P.D., Peterson, D.S., Rodriguez, M.C. (2003). Reading Growth in High- Poverty Classrooms. The Influence of Teacher Practices that Encourage Cognitive Engagement in Literacy Learning. The Elementary School Journal 104 (1), 3–28.
27. Whittaker, A. (2012). Should We Be Encouraging Pupils to Ask More Questions? Educational Studies 38 (5), 587–591.
28. White, B. Y., Frederickson, J.R. (1998). Inquiry, Modelling, and Metacognition: Making Science Accessible to All Students. Cognition and Instruction 16 (1), 3–118.
29. Vygotski, L. S. (1987). The Collected Works of L. S. Vygotskij, Problems of General Psychology. New York: Plenum.

PITANJA KAO SREDSTVO ZA PROMICANJE VIŠIH OBLIKA RAZMIŠLJANJA KOD PREDMETA DRUŠTVO

Sažetak: *Postavljanje pitanja je ključni element u procesu učenja i poučavanja. Cilj ovog rada bio je razviti instrument za praćenje kvalitete i kvantitete pitanja nastavnika kod predmeta Društvo i uz pomoć ovog instrumenta otkriti broj i vrsto pitanja koje nastavnik koristi kod predmeta Društvo u četvrtom razredu osnovne škole. U ovom istraživanju koristili smo opisne uzročne ne-eksperimentalne metode. Podaci su prikupljeni s protokolom za ne-slučajni uzorak nastavnika u četvrtom razredu (raspon dobi učenika-devet godina) u raznim osnovnim školama u Republici Sloveniji. U obradi podataka u potpunosti je pokriveno 75 protokola. Dobiveni rezultati pokazuju, da nastavnici kod predmeta Društvo u četvrtom razredu više koriste pitanja niže razine od više razine. Pitanja učitelja ne dostižu zadovoljavajući nivo kvalitete, da bi jih mogli koristiti kao alat za razvoj viših nivoa razmišljanja u školi kod učenika.*

Ključne riječi: *osnovna škola, predmet Društvo, pitanja.*