

Frequency of Applying Different Teaching Strategies and Social Teaching Methods in Primary Schools

Sonja Ivić

Osnovna škola Vladimir Gortan, Prilaz Vladimira Gortana, 51000 Rijeka, Croatia

Abstract

The question that every modern teacher raises in their daily work is the reflection on selecting teaching strategies and social forms of teaching. Unlike traditional teaching strategies in which knowledge transfer is mainly done by the teacher while the students are passive listeners and recipients of such knowledge, modern teaching strategies enable active student involvement in the teaching process. Thus, student creativity comes first, which is the goal of modern teaching anyway. The main objective of this analysis is to examine which approach the Croatian primary school teachers prefer in order to determine how frequently their classroom methods include traditional or modern teaching strategies. Results of this analysis indicate that traditional teaching strategies still dominate Croatian classrooms, especially primary school ones and they can be seen as an additional motivation to study this problem with the aim of modernizing the teaching process.

1. Introduction

1.1 Traditional vs. modern teaching approaches

The traditional teaching approach in schools is oriented towards the teacher who transfers verbal information which is specific for each lesson, while students are passive observers who sit, listen, copy, memorize and repeat everything the teacher says. The focus is on the teaching content, that is, on transfer of knowledge from the teacher to the student. During the process cognitive processing of lower order, such as remembering, identification and defining. On the contrary, modern student-oriented teaching implies that the students work together with the teachers in order to select teaching objectives and teaching tasks based on authentic problems and previous student knowledge, experience and interests. The focus of modern approach is directed towards the development of skills and competences. Modern teaching strategies encourage cognitive strategies of higher level such as problem solving, gathering, classifying, interpreting and passing on information. The teacher considers students as partners and therefore determines teaching strategies, ensures different approaches to information and provides help in acquiring new teaching contents. In such environment students take over the responsibility for learning, actively seek knowledge, construct it and give it meaning.

According to Bognar and Matijević (2005), the traditional teaching hinders development of students and their abilities. Such teaching is limited only to text books and frontal (lecturing) method. Therefore, student skills, critical thinking, problem solving and preparation for lifelong learning cannot be developed. Unlike the traditional teaching, modern teaching aims to create conditions for preparing the students for an active life and performance within the society.

1.2 Teaching, learning and knowledge

It is human nature to explore and thereby gain new experience and knowledge. Already at a very early age, children are curious about the world surrounding them, explore it and learn at the same time. Therefore, the schooling period, when children learn with their full potential, is the time when the implemented teaching strategies should satisfy children's need for not only curiosity but also active participation, cooperation, exchange of experiences and affirmation. (*Tankersley i sur., 2012*)

One of the core tasks of teaching is knowledge acquirement which the teachers encourage by implementing teaching strategies. Knowledge is the result of learning, a personal inventory of skills and information which an individual has acquired, adopted and stored for application in their life practice (Antić, 1999, 655). Jelavić (2008, 16) defines knowledge as a developmental achievement, that is, a personal experience of an individual:

- ... which is the result of learning (primarily cognitive and psychomotor learning),
- ... and is manifested as a meaningful system of appropriate (or more appropriate) answers (reactions) of thoughtful-verbal and psychomotor character,
- ... in situations (real or assumed ones) an individual could not react to (with the required quality and level) without learning.

Teachers direct their planned activities towards encouraging and helping children in their quest for knowledge (Jelavić, 2008). Teaching merely makes learning easier but it cannot replace it (Pastuović, 1999). A humanistic approach to the teaching process explains teaching and learning strategies as two interrelated concepts which influence all the aspects of child development. Grgin (2004) explains learning as a change in behavior which was conditioned by new activities driven by their own needs or external influence. Learning is

always an active process and it is the responsibility of the teachers to encourage such activity pursuant to education goals.

Slatina (2006) points out the importance and the role of the teacher in the teaching process. A careful selection of teaching strategies which turn the learning into an active process is closely related with individual abilities of students and their emotional state. Students should be offered as many choices and activities as possible which would lead them to the opportunity of exploring, thinking, combining, processing and linking knowledge freely. During the learning process, the teacher should be an assistant to students, the one who believes in their success, carefully deliberating and selecting words when addressing them and thus providing a working atmosphere full of relaxation and trust. As Bratanić points out (1996), the trust and affection which the teachers show towards their students are reciprocated thus opening the way for a successful teaching and making the teaching process easier.

During the teaching process the teachers should orient their teaching towards the child's social and emotional development and language exchange in form of a dialogue (Tankersley et al. 2012). Students must be provided with learning conditions which would enable them to freely communicate when interacting with teachers and other students, to oppose viewpoints, to talk and to exchange experience.

1.3 Teaching strategies and social teaching forms

Teaching strategies are closely related to social teaching forms. With their structure, social teaching forms determine the communication relationships in the teaching process (Terhart, 2001). Didactics distinguishes the following: frontal teaching method, group work, pair work and individual work. Frontal teaching method implies the teacher addressing all the students in the classroom. Pair work is determined by work of two students, group work is when three to six students work together and individual work is independent work of a student.

Frontal teaching method is applied in teaching situations when the teacher plans common teaching of all students in a class. The advantage of frontal teaching method is the efficiency; all students simultaneously observe and perceive information which is delivered by the teacher (Jurčić, 2012). Students are focused on the teacher who has an overview of the whole class and an insight into the activity of students. Neglecting individual characteristics of students is most often considered a disadvantage of frontal teaching method. The work is tailored to the average student. All students must start and finish doing the planned tasks at the same time; therefore, students who fall behind the average cannot follow the activity, while students who solve average tasks with ease often remain idle. However, an experienced teacher will foresee the disadvantages of frontal teaching method and will start differentiating the teaching process at a certain point.

Individual work is work done independently by a student. The student solves the given tasks in the direct relationship with the content. The fulfillment and success of learning process depend solely on the student. Individual work is completely individualized when students are offered different tasks which each student solves at their own pace and with work method of their own choice (Bognar, Matijević, 2005). Students work individually, under teacher's supervision, and report about their work after it has been completed. In the end of the class there is a test to check the efficiency of work.

Group work is based on a partnership among a group of students who solve the given tasks together. These tasks should be explained and rules of working in a group must be set in advance. At the beginning of group work students agree on ways of carrying out tasks, gather ideas, distribute roles, gather information, take notes and prepare the task presentation. At the end of the class students report about the fulfillment of given tasks and relations within the group. At class level the teacher will connect and consolidate the results of all groups. According to Mattess (2007), a disadvantage of group work is the problem of its monitoring and assessment which requires setting specific assessment criteria in regard to the process and the fulfillment of set goals.

Pair work is a social form of work which includes two students working directly with each other in order to establish a partnership. During the teaching process students have a natural inclination to talk and comment on what is happening in the classroom. Therefore, pair work is considered as a constructive solution of directing the student natural inclination towards a valuable pedagogical work (Jurčić, 2012). Students communicate with each other more intensively, take part in a didactic game, repeat teaching contents, listen closely to each other, make comparisons, supplement and correct pieces of work and similar (Poljak, 1990).

2. Goals

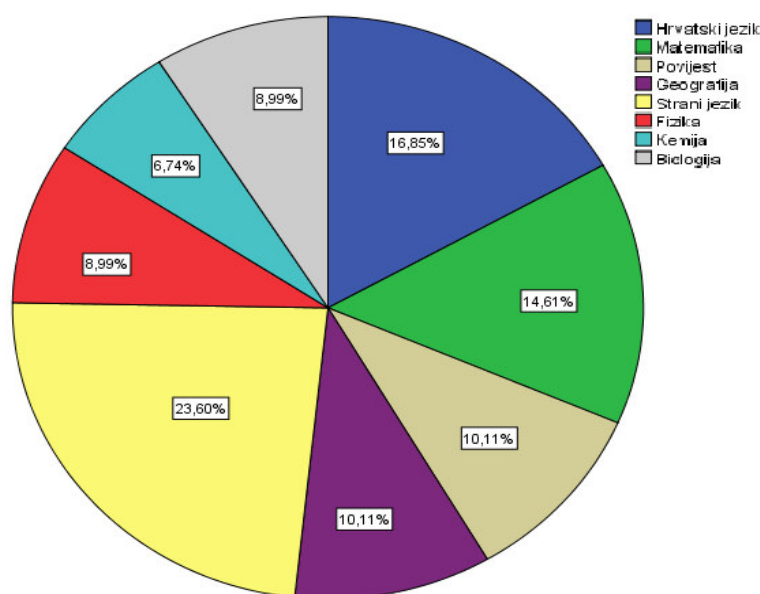
1. To determine the frequency of applying different teaching strategies and work methods in primary schools;
2. To examine is there a difference in frequency of applying different teaching strategies and work methods among primary junior grade teachers and intermediate and senior grade teachers.

3. Method

For the purpose of this research we decided to apply the research method of a survey and data gathering. 156 primary junior grade and intermediate and senior grade teachers from different parts of the Republic of Croatia were included in the research. The research was conducted in a total of 13 primary schools located in Zagreb, Rijeka, Osijek, Šibenik, Dubrovnik, Ogulin, Vukovar, Novigrad, Novska, Mali Lošinj, Ozalj and Ivanić-Grad respectively.

The research included 20 male examinees (12.8%) and 136 female examinees (87.2%). Of them, 35 (22.4%) were primary junior grade teachers and 121 (77.6%) intermediate and senior grade teachers. The share of particular subjects which intermediate and senior grade teachers teach is shown in the following chart. It shows that the majority of teachers who were included in our research teach foreign language (23.60%), Croatian (16.56%) and mathematics (14.61%). The lowest percentage refers to teachers who teach chemistry (6.74%) and physics and biology (8.99%).

Chart 1: Percentage of subjects taught by intermediate and senior grade teachers



*Croatian
 Mathematics
 History
 Geography
 Foreign language
 Physics
 Chemistry
 Biology*

As far as the examinee's level of education is concerned, the largest percentage has the university level (64.7%), 30.1% has a college degree and 2% are masters of Science.

The largest percentage of teachers has more than 16 years of teaching experience (45.7%), while 35.9% have between 6 and 15 years of teaching experience. Finally, 18.3% of teachers have 5 years or less teaching experience.

3.1 Measuring instrument

The research was based on a survey for teachers which was received anonymously. The survey has had seven questions relating to the social and demographic data about the examinees, while the eighth question consists of 17 sub-questions relating to establishing the frequency of applying different teaching strategies and work methods. The stated questions were presented in form of Likert scale from 1 to 5 where 1 is "Never", 2 is "Rarely", 3 is "Occasionally", 4 is "Often" and 5 "Always".

The reliability of the survey was tested with a coefficient of internal consistency, Cronbach's alpha, which points to an acceptable reliability level and is 0.75.

4. Results

Result processing was conducted by applying the Statistical Program for Social Scientists 20 (SPSS20).

The first issue that was addressed by this research was establishing the frequency of applying different teaching strategies and work methods which primary junior grade teachers use in their work. For the purpose of description, measure of the mean value, range and standard deviation were applied.

Kolmogorov-Smirnov test was used to examine the normality of distribution in order to determine which sort of tests (parametric or non-parametric) will be used in further inferential result processing. Due to asymmetric result distributions in all survey variables relating to establishing the frequency of applying different teaching strategies and work methods, non-parametric tests will be applied below. The obtained results are shown in Table 1.

Table 1. Descriptive indicators of teacher estimation about the frequency of applying different teaching strategies and work methods as well as Smirnov-Kolmogorov test results

Teaching strategies and work forms	Min.	Max.	Arithmetic mean	Standard deviation	Smirnov-Kolmogorov test	Assessment of K-S test relevance
<i>Presentation (lecture-based teaching)</i>	1	5	3.62	0.919	3.067	.000
<i>Debate (discussion)</i>	1	5	3.04	0.922	2.835	.000
<i>Games</i>	1	5	3.09	0.894	3.020	.000
<i>Brainstorming</i>	1	5	3.15	0.968	2.682	.000
<i>FT (museum, nature, trip...)</i>	1	5	2.41	0.857	3.182	.000
<i>Learning by discovery (problem teaching)</i>	1	5	3.33	0.861	2.829	.000
<i>Project teaching</i>	1	5	2.84	0.910	3.009	.000
<i>Homework</i>	1	5	4.00	1.003	2.839	.000
<i>Integrated teaching</i>	1	5	3.05	0.927	2.882	.000
<i>Planning and designing a teaching class with students</i>	1	5	2.74	1.034	2.359	.000
<i>Computer PP presentation</i>	1	5	3.15	1.170	2.096	.000
<i>Teacher and student comments on student assignments (critical thinking)</i>	1	5	3.59	0.983	2.989	.000
<i>Frontal teaching method</i>	2	5	3.68	0.872	3.122	.000
<i>Group work</i>	1	5	3.41	0.804	3.125	.000
<i>Pair work</i>	2	5	3.58	0.741	3.277	.000
<i>Individual work</i>	1	5	3.80	0.863	3.269	.000

The results in Table 1 show that the most often applied teaching strategies are homework (M=4.00), presentation, that is, lecture-based teaching (M=3.62) and teacher and student comments on student assignments, that is, critical thinking (M=3.80). Regarding the teaching methods, teachers mostly apply individual work (M=3.80) and frontal teaching method (M=3.68). Shown results are consistent with the previously described results about teaching strategies.

It was also pointed that the least used teaching strategies were field teaching (museum, nature, trip) (M=2.41), planning and designing a teaching class with students (M=2.74) and project teaching (M=2.84). The least applied work methods were group work (M=3.41) and pair work (M=3.58). Even in the least applied teaching strategies there is an overlap between the teaching strategy and work method.

Regarding the response range in relation to frequency of applying different teaching strategies, the Table shows that all teaching strategies and work methods are within the range of 1 to 5 (which is consistent with the result scale), with the exception of frontal teaching method and pair work where the response range is from 2 to 5. That means that none of the teachers answered that they never applied these two teaching strategies.

What follows are the results with which we wanted to establish if there are any differences between the primary junior grade teachers and intermediate and senior grade teachers in frequency of applying different teaching strategies and work methods. The results of this examination can be seen in Table 2 and Table 3. They show that there are some statistically significant differences in frequency of applying different teaching strategies and work methods between the primary junior grade teachers and intermediate and senior grade teachers. The table shows that there is a statistically significant difference in frequency of using games in the teaching process, where primary junior grade teachers use games as a teaching strategy significantly more than intermediate and senior grade teachers ($p < 0.01$). There is also a difference in frequency of applying brainstorming ($p < 0.05$), where also primary junior grade teachers apply brainstorming statistically more often than intermediate and senior grade teachers. The results have further shown that there is a difference in frequency of applying field teaching (visits to a museum, trips and other) as a teaching strategy, again in favor of primary junior grade teachers who apply this teaching strategy significantly more than intermediate and senior grade teachers. The same applies to integrated teaching ($p < 0.01$), planning and designing a teaching class with

students ($p < 0.05$) and teacher and student comments on student assignments (critical thinking) ($p < 0.05$). It can be concluded that primary junior grade teachers apply all above mentioned strategies in their work statistically significantly more than intermediate and senior grade teachers. Other teaching strategies and work methods have shown no significant difference in frequency of application.

Table 2. Results of examining the differences in frequency of applying different teaching strategies and work methods between primary junior grade teachers and intermediate and senior grade teachers

	Mann-Whitney U	Wilcoxon W	Assessment of relevance
Presentation (lecture-based teaching)	1998.000	2628.000	.591
Debate (discussion)	2064.500	9445.500	.811
Games	1144.000	8165.000	.000
Brainstorming	1583.000	8486.000	.033
FT (museum, nature, trips...)	1135.500	8156.500	.000
Learning by discovery (problem teaching)	2064.500	9324.500	.871
Project teaching	1889.000	8792.000	.634
Homework	1681.000	8821.000	.182
Integrated teaching	1295.500	7623.500	.001
Planning and designing a teaching class with students	1534.000	8674.000	.014
Computer, PP presentation	2019.000	2649.000	.778
Teacher and student comments on student assignments (critical thinking)	1511.000	8532.000	.011
Frontal teaching method	1985.000	9006.000	.921
Group work	2043.500	9303.500	.793
Pair work	1786.500	9046.500	.350
Individual work	1687.500	8947.500	.059

Table 3. Mean ranks of examining the differences in frequency of applying different teaching strategies and work methods between primary junior grade teachers and intermediate and senior grade teachers

	Classroom or subject teaching	N	Mean rank
Assessment of frequency by which the teacher applies presentation (lecture-based) teaching	Primary junior grade teacher	35	75.09
	Intermediate and senior grade teacher	121	79.49
Assessment of frequency by which the teacher applies debate (discussion)	Primary junior grade teacher	35	80.01
	Intermediate and senior grade teacher	121	78.06
Assessment of frequency by which the teacher applies games	Primary junior grade teacher	34	101.85
	Intermediate and senior grade teacher	118	69.19
Assessment of frequency by which the teacher applies brainstorming	Primary junior grade teacher	35	89.77
	Intermediate and senior grade teacher	117	72.53
Assessment of frequency by which the teacher applies FT (museum, nature, trips...)	Primary junior grade teacher	34	102.10
	Intermediate and senior grade teacher	118	69.12
Assessment of frequency by which the teacher applies learning by discovery (problem teaching)	Primary junior grade teacher	35	79.01
	Intermediate and senior grade teacher	120	77.70
Assessment of frequency by which the teacher applies project teaching	Primary junior grade teacher	34	78.94
	Intermediate and senior grade teacher	117	75.15
Assessment of frequency by which the teacher applies homework	Primary junior grade teacher	33	85.06
	Intermediate and senior grade teacher	119	74.13
Assessment of frequency by which the teacher applies integrated teaching	Primary junior grade teacher	35	92.99
	Intermediate and senior grade teacher	112	68.07
Assessment of frequency by which the teacher applies Planning and designing a teaching class with students	Primary junior grade teacher	35	93.17
	Intermediate and senior grade teacher	119	72.89
Assessment of frequency by which the teacher applies computer, PP presentation	Primary junior grade teacher	35	75.69
	Intermediate and senior grade teacher	119	78.03
Assessment of frequency by which the teacher applies teacher and student comments on student assignments (critical thinking)	Primary junior grade teacher	35	92.83
	Intermediate and senior grade teacher	118	72.31
Assessment of frequency by which the teacher applies frontal teaching method	Primary junior grade teacher	34	77.12
	Intermediate and senior grade teacher	118	76.32
Assessment of frequency by which the teacher applies group work	Primary junior grade teacher	35	79.61
	Intermediate and senior grade teacher	120	77.53
Assessment of frequency by which the teacher applies pair work	Primary junior grade teacher	33	82.86
	Intermediate and senior grade teacher	120	75.39
Assessment of frequency by which the teacher applies individual work	Primary junior grade teacher	35	89.79
	Intermediate and senior grade teacher	120	74.56

5. Conclusion

It can be concluded that the frontal and individual teaching methods prevail in primary schools and includes lecture-oriented teaching, critical reviews of student assignments and frequent homework assignments. Unfortunately, the research has also shown that the least applied teaching strategies are those related to child-oriented teaching such as project teaching, field teaching and common planning and design of a teaching class. Considering that both primary junior grade teachers (from 1. to 4 primary school grade) and intermediate and senior grade teachers (from 5. to 8 primary school grade) participated in the research, the frequency of applying different teaching strategies and work methods could be compared. The research has shown that primary junior grade teachers apply such teaching strategies and work methods which are not so common in practice much more often (games, field teaching, brainstorming, integrated teaching and other).

The question that imposes itself is why the traditional work method still prevails in Croatian schools. Although modern teaching strategies are often written about in didactic literature and in the media for the purpose of their promotion, this research has unfortunately proven that they are rarely applied in most schools. The reason may be a strictly written curriculum, inflexible time table, especially in subject teaching, methods of assessing teaching outcomes which are still adapted to traditional teaching style or insufficient education of teachers who may not know or may not want to do things differently and consciously resist to changes a modern society imposes. Future research should concentrate on answering these questions which are a key factor to necessary change in teaching approach in Croatian schools.

References

- Antić, S. (1999) „Pedagoški pojmovnik“ U: Vrgoč, H. (ur.) *Osnove suvremene pedagogije*, HPKZ, Zagreb, str. 641-655. [*“Pedagogical Glossary”, Basics of Modern Pedagogy, HPKZ, Zagreb, pages 641-655*]
- Bognar, L., Matijević, M. (2005) *Didaktika, Školska knjiga*, Zagreb. [*Didactics*]
- Bratanić, M. (1996) *Paradoks odgoja*, Hrvatska sveučilišna naklada, Zagreb. [*Paradox of Education*]
- Grgin, T. (2004) *Edukacijska psihologija*, Naklada Slap, Jastrebarsko. [*Educational Psychology*]
- Jelavić, F. (2008) *Didaktika*, Naklada Slap, Jastrebarsko. [*Didactics*]
- Jurčić, M. (2012) *Pedagoške kompetencije suvremenog učitelja*, Recedo, Zagreb. [*Pedagogical Competences of a Modern Teacher*]
- Kolić-Vehovec, S. (1998) *Edukacijska psihologija*, Filozofski fakultet, Rijeka. [*Educational Psychology*]
- Pastuović, N. (1999) *Edukologija- integrativna znanost o sustavu cjeloživotnog obrazovanja i odgoja*, Znamen, Zagreb. [*Educology - Integrative Science on the System of Lifelong Learning and Education*]
- Poljak, V. (1990) *Didaktika, Školska knjiga*, Zagreb. [*Didactics*]
- Mattes, W. (2007) *Nastavne metode: 75 kompaktnih pregleda za nastavnike i učenike*, Naklada Ljevak, Zagreb. [*Teaching Methods: 75 Compact Views for Teachers and Students*]
- Slatina, M. (2006) „Konfluentno učenje i/ili podučavanje“, *Odgovorne znanosti*, 8 (1/11), str. 111-130. [*“Confluent Learning and/or Teaching,” Educational Sciences*]
- Tankersley, D., Brajković, S., Handžar, S. (2012) *Koraci prema kvalitetnoj praksi*, priručnik za profesionalni razvoj odgajatelja, Pučko otvoreno učilište Korak po korak, Zagreb. [*Steps towards Quality Practice, Manual for Professional Development of Teachers*]
- Terhart, E. (2001) *Metode poučavanja i učenja*, Educa, Zagreb. [*Teaching and Learning Methods*]