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Teachers' appraisal of various aspects of the efficiency of homogeneous and heterogeneous learning groups

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ABSTRACT

In the present study, we were interested in the appraisal by teachers who have had experience with an individual form of differentiation of the efficiency of grouping learners into homogenous or heterogeneous groups. In the study, seven aspects were thus considered: (1) the learning performance and motivation of learners, (2) the learners' activity, (3) didactic ways of adapting teaching to diverse learners, (4) the impact on the formation of learners' personality, (5) cooperation among learners, (6) opportunities for professional development, and (7) cooperation with parents. The research has shown that there is a statistically significant difference between the teachers who teach in homogeneous groups and the teachers who teach in heterogeneous groups in all the seven aspects of the appraisal of the efficiency of grouping learners into homogenous or heterogeneous groups. Regarding most of the assertions, teachers belonging to both groups perceive the way of teaching they perform as having the most advantages.

Keywords: teacher, teaching mathematics, homogeneous groups, heterogeneous groups

INTRODUCTION

Due to the highly demanding goals of education (Blanco Diez, 2018) and increasing differences among individual learners and primarily due to the desire to help each individual acquire quality knowledge (cf. Dee & Jacob, 2011), learning and teaching must be adapted to the abilities of the learner (Kiryakova et al., 2018; Liu, 2007; Pozas et al., 2020). Grouping or streaming learners and performing learning differentiation and individualization allows teaching to be performed in smaller homogeneous and heterogeneous learning groups with different approaches to acquisition and consolidation of knowledge (cf. Oetzel, 1998; Pozas et al., 2020; Raftu, 2016). The question whether to group students in homogeneous or heterogeneous groups has not received a definitive answer yet, since the opinions of researchers diverge significantly (cf. Esposito, 1973; Pozas et al., 2020; Wyman & Watson, 2020). The most frequent argument in support of grouping is more rational use of time in organizing and managing the learning process or more direct teaching is quoted, which includes (cf. Schullery & Schullery, 2006):

- responding to learners' questions with a clear explanation,
- listening to learners and reacting to their responses,
- monitoring the progress of each individual learner within the group more easily, and
- responding to the needs of each individual learner.

Consequently, better performance of learners should be achieved (Strmčnik, 1993). In grouping learners, the following questions arise:

- in what ways grouping should be implemented in terms of organization,
- should learners be organized into homogeneous or heterogeneous groups,
- how long should they be grouped for, and
- is any of the smaller groups privileged or deprived.

It is about narrower professional issues that open up broader ethical reservations concerning the fairness and equity of each individual solution.

Literature has vastly explored the benefits of grouping students in homogeneous and heterogeneous groups, however, mixed results are reported (Askew & Wiliam, 1995; Hamilton & O'Hara, 2011; Kulik & Kilik, 1984; Marks, 2014; McGillicuddy, 2021; Slavin & Karweit, 1981). Some studies highlighted the role that the teachers have on the efficacy of grouping students according to the level of ability (i.e., homogeneous) groups and heterogeneous groups (Boaler, 1997; Aylett, 2000; Biehler & Snowman, 1993). These studies are coherent in stating that the commitment and expertise of the teachers (Askew & Wiliam, 1995), as well as the usage of appropriate learning material (Kulik & Kulik, 1984) are the key factors that need to be considered. Nevertheless, the literature on the topic of teachers' views of sorting students into homogeneous and heterogeneous groups is still scarce, especially their opinions about which grouping is more effective. The present work aims at answering the abovementioned research question. In particular, we were interested in investigating whether teachers' views differed significantly among teachers working in homogeneous or heterogeneous groups.

SORTING LEARNERS INTO HOMOGENEOUS AND HETEROGENEOUS GROUPS

Many researchers in the fields of pedagogy and didactics have explored what cognitive, as well as affective outcomes the different forms of grouping leave on the learners (Askew & Wiliam, 1995; Hamilton & O'Hara, 2011; Kulik & Kilik, 1984; Marks, 2014; McGillicuddy, 2021; Slavin & Karweit, 1981). Literature on the topic of grouping learners in homogeneous and heterogeneous groups presents mixed results.

Some authors (cf. Slavin & Karweit, 1981) found no positive effects of sorting learners into ability (i.e., homogeneous) groups at the level of primary school. In particular, some studies conducted at the primary school level (e.g., Dawson, 1987; Slavin, 1987, 1990; Žagar, 2004) indicate that grouping learners can be effective, provided the methods of teaching and resources for learning are adapted to the learners. Furthermore, based on the studies, which discuss grouping learners according to their abilities at the first and at the second level of basic school, i.e., learners from six to 16 years old (Dawson, 1987; Pozas et al., 2020; Slavin, 1987, 1990; Supena et al., 2021; Žagar, 2004), it might be concluded that no research supports sorting learners into separate classes according to their abilities. This conclusion is valid for talented learners, learners with average abilities, as well as for learners with weaker abilities. Similarly, Crahay (2000) concludes that grouping learners into homogeneous ability groups in some subjects does not always yield better performance. Studies (Dupriez, 2010; Hoffer, 1992; Kerckhoff, 1986; Rees et al., 1996) show that in groups of learners with lower achievement, the learning outcome does not improve, it even decreases, while in groups of learners with higher learning outcomes, only a slight trend of improvement can be noticed. Moreover, Mendolia et al. (2018) warn of the negative effect of grouping together learners with low abilities or peers with similarly low abilities. In reality, learners with low abilities achieve better outcomes in heterogeneous groups.

Furthermore, some studies (e.g., Boaler, 1997) found that the learners in the heterogeneous classes performed better and achieved higher ratings at national testing of knowledge than their peers in ability groups. Learners often feel the pace of learning in individual ability groups as an obstacle to good understanding of the learning matter, as it was either too fast or too slow (Boaler, 1997). As a possible cause of inefficiency of grouping learners into different ability groups, Boaler (1997) points to the belief of the teachers that when teaching a homogeneous group of learners, they do not need to individualize the work within individual ability groups, although there are differences that would need to be taken in consideration also within individual groups. The author emphasizes, however, that not all teachers start from this assumption, and that in their methods of teaching and in the learning matter they allow the learners to retain their pace of work.

On the contrary, some studies (e.g., Askew & Wiliam, 1995) found positive effects in the higher-level group of learners in mathematics, if the learning materials had been written and adapted for them. In analyzing the reasons leading to better results in homogeneous groups, it is not perfectly clear what contributes to the progress of the learners – the learning material or the commitment and expertise of the teacher (Askew & Wiliam, 1995). However, positive effects of grouping learners according to their performance cannot be expected if teachers do not use the appropriate learning material (Kulik & Kulik, 1984).

Based on the abovementioned literature, it might be concluded that teachers play a non-negligible role in determining the efficiency of learning in homogeneous and heterogeneous groups. In particular, qualitative research, which focused on monitoring the quality of teaching and the teacher's role in encouraging the learners, conclude that the appropriately trained teacher represents one of the more important factors of school space, on whom the performance of learners is contingent significantly (Gamoran & Berends, 1987; Gamoran et al., 1995; Opdenakker et al., 2006). For instance, Page (1992) concludes that experienced teachers who create more encouraging learning environment often teach and work in groups of learners with higher learning outcomes. Teachers in higher-level ability groups primarily apply teaching and learning methods and forms, which develop the learner's creativity and critical thinking, while in lower-level ability groups, the transmissional model of teaching and learning mostly takes place.

In Slovenia, Adamič (1996) empirically investigated the effects of successively combining the basic and higher level of teaching on learners' knowledge in mathematics. Pupils from the 4^{th} and 8^{th} grade participated in the experiment, divided into two comparison groups based on their achievement in the knowledge test. Pupils from three heterogeneous classes were assigned into three homogeneous sections (weaker, average, capable learners). At the end of the experiment, the 4^{th} grade pupils in the first comparison group, the ones who were divided into homogeneous sections upon basic teaching, performed slightly better in learning and achievements in mathematics, while the 8^{th} graders in both groups were fairly equal in their performance.

The outcomes of the study investigating the influence of external differentiation on learners' achievements (Žakelj, 2016) has shown that from the point of view of learning differentiation at external testing of knowledge, there are no statistically significant differences between the learners who were taught in heterogeneous or homogeneous learning groups.

According to the results of the study by Valenčič Zuljan et al. (2012) concerning the acquisition of knowledge for weaker learners, learning in heterogeneous learning groups is more appropriate than in homogeneous groups. These learners are taught simpler knowledge than their more successful peers, they more often solve general mathematical situations, they are not exposed to high demands. In the long run, they attain more basic knowledge. Regarding the acquisition of mathematical knowledge, learning in homogeneous learning groups is more appropriate for learners with higher learning achievements, as in the discussion of the learning matter, the teachers can dedicate more attention to more advanced learning objectives.

The findings of the research conducted by Žakelj (2003) indicate that in heterogeneous groups, learners acquire more basic mathematical knowledge, this being particularly true for weaker learners and for learners with average achievements. In homogeneous groups, particularly more successful and average learners acquire more advanced knowledge. From the point of view of the goals of acquiring quality knowledge of all learners, research (Valenčič Zuljan et al., 2012) draws attention to the need of developing appropriate approaches to teaching and learning for all learners. Cooperative learning, problem solving relating to real-life situations, guided discovery and discussions are perceivably more present in the higher level than in the medium and lower-level group. In advanced level homogeneous groups, the teaching is richer, more demanding than in medium and lower-level homogeneous groups. In heterogeneous learning groups, internal differentiation, which allows the inclusion of the above-mentioned approaches to learning and teaching is notably underexploited (Žakelj, 2003). The teaching is not sufficiently adapted to the abilities of the individual. The need for adaptation to the abilities of the individual learner persists regardless of whether the teaching takes place in an ability level (homogeneous) group or in a heterogeneous learning group. From the perspective of the goals of acquiring quality knowledge of all, approaches to learning and teaching must be developed, which shall provide opportunities to all learners and raise the level of knowledge. For the implementation of this goal, the role of a properly trained teacher is crucial (Kožuh, 2017; Marentič Požarnik, 2000; Valenčič Zuljan et al., 2012; Žakelj et al., 2018).

SOCIAL, PERSONALITY RELATED, AND BEHAVIORAL CHARACTERISTICS

There are rather fewer research investigating the effects of grouping learners according to their social, personality related, and behavioral characteristics than those which explored the correlation between grouping and the achievements of learners.

Among the rare cases of studies, the research by Harlen and Malcolm (1997) ought to be mentioned, as they found that less able learners often feel insecure if separated from more competent learners. On the other hand, the advantages of heterogeneous groups are revealed in the social area, compared to homogeneous groups that are formed according to the learners' abilities. Teaching a heterogeneous group of learners has a positive social impact both on the more and less able learners, without simultaneously impeding them in their learning achievements.

Suk Wai Wong and Watkins (2001) found few correlations between the learning efficiency of the learners belonging to different ability level groups; the correlations being greater when the relation between the learning achievements of learners in different ability level groups and self-image in learning was being identified. They also found that the learners in lower-level ability groups had higher learning self-image than could be expected according to their performance and higher than the learners in higher-level ability groups. These findings suggest that learners have a higher learning self-image when they compare themselves with less able peers and lower learning self-image when they compare themselves with abler peers.

Some studies (e.g., Aylett, 2000; Biehler & Snowman, 1993; Boaler, 1997) also investigate the views of learners and teachers toward the grouping of learners into ability level groups. Boaler (1997) states that many learners feel they have not been assigned to the right group, which fills them with anger and disappointment. Especially boys believe they are more often assigned to a group based on their conduct, rather than on the basis of their competitiveness in ability level groups. This is particularly true for girls and learners in higher level groups. However, the author points out that different learners respond differently to grouping and that their dissatisfaction with level groups cannot be generalized.

In her study, Aylett (2000) finds a great majority of the learners who were placed in ability level groups in mathematics and in mother tongue for the second year had a positive attitude toward this form of teaching and learning. The learners in the higher ability level group stated they could work faster and also perform more diverse tasks, and that they were all able to work at approximately the same pace. The learners in the lower ability group state, however, that the lessons did not embarrass them, that they felt more relaxed, and were able to obtain more assistance from the teacher. The learners also reported that they were more motivated for work, that the quality of work in the classroom had increased, and that their self-image had improved.

Based on the outcomes of diverse studies dealing with the grouping of learners, Biehler and Snowman (1993) propose three kinds of measures, namely that grouping into homogeneous classes according to abilities should be abandoned, since the outcomes of several studies show more than clearly that the assumptions on which this practice is based are wrong. In addition, the learners grouped into homogeneous classes do not learn better or think of themselves and the school more positively than the learners in heterogeneous classes. Only those forms of grouping ought to be applied, which yield positive outcomes, i.e., grouping within the class and the Joplin Plan (Wooten, 2019), which is a grouping plan that suggests putting students in heterogeneous classes for most of their day and then regrouping them for reading instruction (Vinkler, 2020). Biehler and Snowman (1993) believe that these forms of grouping increase the chances of more appropriate and more effective forms of teaching (e.g., greater flexibility in the transition of learners into a group and out of it, greater possibilities of the use of highly efficient learning models, greater teachers' effort in encouraging the learners in lower-level learning groups to progress into a higher-level group). The best way of forming homogeneous groups is grouping the learners on the basis of their achievements in the grade, based on standardized knowledge tests or both (Slavin, 1990). The worst way is merely considering the learners' IQ test (Cheung & Rudowicz, 2003). The third measure, which is nor the best nor the worst, is the interweaving of organizational and

learning forms of work that are linked to the performance of all the learners (e.g., clear presentation of the learning matter, a high level of enthusiasm, encouraging learners' correct answers, providing sufficient amount of time for the learners to formulate the answers to the questions, cooperative learning and the use of individual forms of work, such as work sheets, workbooks, etc.) (Gamoran et al., 1995).

Other authors (Aylett, 2000; Boaler, 1997; Maaz et al., 2008; Schofield, 2010; Sibieta, 2016) also frequently note that the learners' social affiliation or lower socio-economic status results in the assignment of the learners to a lower-level ability group or type of school (grammar school vs. comprehensive school).

Based on the outcomes on the mathematics knowledge test trends in international mathematics and science study (TIMSS) 1995, Vandenberghe et al. (2001) found that in the countries, which do not opt for early differentiation of learners, the achievements correlate less with the families' socio-economic status (SES) than in the countries with early differentiation. Similarly, also Hanushek and Wößmann (2006) come to the same conclusions. Based on the outcome in the area of reading literacy, the program for international student assessment (PISA) 2000, Duru-Bellat et al. (2004) found that early differentiation increases social inequality in the achievements, simultaneously pointing out that in the countries, which differentiate the learners average performance in reading literacy, the latter is not higher than the average performance in the rest of the countries. Based on the PISA 2000 data, Gorard and Smith (2004) establish a link between early differentiation and the increase in the differences in achievement according to the socio-economic status of the family. Based on several international studies, such as PISA and TIMSS, Crahay (2003) found that for the sake of achieving learning efficiency, early separation of children is not required. On the contrary, he believes that inclusive educational structure is by far the best way to support a great number of highly competent learners. In addition, the teacher, together with his professional expertise and his/her views and notions of inclusiveness is an extremely important factor.

Consequently, as presented in the abovementioned literature, several factors might influence the teachers' choice of grouping learners into homogeneous or heterogeneous groups. While some of them have been studied by certain researchers, other factors have not yet been explored extensively. For instance, teaching in different groups might have an impact on more or less able learners (Harlen & Malcom, 1997) and, consequently, on their motivation and their self-image (Suk Wai Wong & Watkins, 2001). As well, the learning efficiency of learners from different ability level groups might significantly vary (Suk Wai Wong & Watkins, 2001). Moreover, the learners' activity might also differ depending on the teachers who teach in different groups (Boaler, 1997), which would consequently guide the teachers to use different didactic ways of adapting their teaching to different learners (Aylett, 2000; Biehler & Snowman, 1993). Therefore, learners might start to cooperate among themselves and feel more motivated (Aylett, 2000). Moreover, knowing the students' social background might affect the teachers' decision to assign students to different groups (Aylett, 2000; Boaler, 1997; Maaz et al., 2008; Schofield, 2010; Sibieta, 2016), which consequently means that a tighter cooperation between teachers and parents might also influence the teachers' opinion regarding the efficiency of grouping students into homogeneous and heterogeneous groups. Much less is however known about the teachers' opinions regarding the impact such grouping of students has on the formation of the learners' personality and the opportunities for professional development. Thus, the aim of the present paper is to examine the teachers' views of the efficiency of grouping students into homogeneous and heterogeneous groups, covered by the seven abovementioned items, namely:

(1) the learning efficiency and motivation of learners,

(2) the learners' activity,

(3) the didactic ways of adapting teaching to different learners,

(4) the impact on the formation of learners' personality,

(5) the cooperation among learners,

(6) the opportunities for professional development, and

(7) the cooperation with parents.

In particular, teachers who already work with homogeneous or heterogeneous groups might have significantly different opinions about the efficiency of grouping learners in one or the other group; therefore, the present study aims at answering this research question as well.

DEFINITION OF THE PROBLEM AND METHODOLOGY

Research Question

The aim of this research is to establish how the teachers who are experienced in working with individual forms of differentiation (i.e., in homogeneous or homogeneous groups) assess the efficiency of various ways of grouping learners. The efficiency was covered by the abovementioned seven broader items formed by the researchers:

- learning efficiency and motivation of learners,
- learners' activity,
- didactic ways of adapting teaching to different learners,
- the impact on the formation of learners' personality,
- cooperation among learners,
- opportunities for professional development, and

- cooperation with parents.

Accordingly, the present study aims at answering the following research questions:

1. **RQ1:** How do teachers who have experience with an individual form of differentiation assess the efficiency of work in homogeneous and heterogeneous groups with regard to the seven broader sets of efficiency?
2. **RQ2:** Is there a statistically significant difference in the assessment of the efficiency of individual ways of grouping among the teachers who teach in homogeneous groups and those who teach in heterogeneous groups?

Research Method

To answer the abovementioned research questions, the causal non-experimental method of educational research was applied. In particular, a questionnaire was developed by the authors and administered to a group of randomly chosen basic schoolteachers. Since the aim of the study was to determine possible differences in attitudes and assessments of the efficiency of individual ways of grouping students, a Chi-square goodness of fit test was performed.

Instrument for Acquiring the Data/Data Acquiring Instrument

The data were acquired with the questionnaire, which included the teachers' general data (gender, education level, the form of differentiation in which they work, self-assessment of their qualification) and the seven scales of the efficiency of the form of grouping learners. They could choose from four options:

1. there is no difference between the two forms,
2. advantages of working in all homogeneous groups,
3. advantages of working in some homogeneous groups, and
4. advantages of working in heterogeneous groups.

A copy of the questionnaire is attached as **Appendix A**.

The questionnaire's content validity was assessed by a panel of five experts in the field of general pedagogy and mathematics education, with at least one publication in the field of mathematics education. The experts critically analyzed the content of each item and reviewed its suitability and relevancy. From the initial draft, no question was removed.

Sample

The sample was determined with the simple random sampling method: the questionnaire was sent to 50 randomly chosen elementary schools via email in Spring 2019. All participants were informed of the aims of the research, the anonymity of the collected data, and the possibility of withdrawing from the research at any time without any consequences. Consent was obtained from all participants.

The questionnaire was completed by 84 teachers from 37 elementary schools in Slovenia. The sample consisted of 85.7% female and 14.3% male respondents; 73.8% of the respondents held a university degree, 23.8% a degree from a teacher training college, and 2.4% a specialization or a master's degree.

Data Processing Procedures

The gathered data was processed at the level of descriptive and inference statistics. Statistical processing was performed by using the statistical package for the social sciences (SPSS) program. An χ^2 test was performed to determine whether the proportion of the answers was equal among the teachers working in homogeneous and heterogeneous groups. When a larger number of theoretical frequencies was less than five, the alternative Kullback's test was applied. Through this test, it was decided whether the teachers working in homogeneous or heterogeneous groups assessed the advantage and efficiency of teaching in these groups differently.

RESULTS

In the following section, the teachers' assessment of the efficiency of different forms of differentiation is analyzed. The teachers assessed two forms of differentiation, namely work in heterogeneous groups and work in homogeneous groups. We were interested in establishing whether any statistically significant differences occur in the assessment according to the experience of the teachers, namely whether they teach in homogeneous or in heterogeneous groups.

The data provides how many teachers who teach in heterogeneous groups (HET) and how many teachers who teach in homogeneous groups (HOM) selected an option (no differences, all homogeneous groups in advantage, some homogeneous groups in advantage, heterogeneous groups in advantage) for an individual item and the corresponding χ^2 test. For each item, the highest proportion of teachers is presented in bold; if the highest share appears for two options, both are presented in bold.

Learning Efficiency and Learners' Motivation

Firstly, the way teachers assess the impact of the form of differentiation on the efficiency of learning (weak learners, average learners, capable learners, learners from lower SES families, learners with learning difficulties) and motivation of learners (weak learners, average learners, capable learners) was examined. The data are gathered in **Table 1**.

Table 1. Assessment of efficiency & motivation of learners

			No difference		Advantage of working in groups						χ^2 (g=3)	p
					All HOM		Some HOM		HET			
			f	f%	f	f%	f	f%	f	f%		
Performance of learners	Weak learners	HET	2	4.8	3	7.1	11	26.2	26	**61.9**	51.466	0.00
		HOM	1	2.4	27	**64.3**	13	31.0	1	2.4		
	Average learners	HET	5	11.9	4	9.5	7	16.7	26	**61.9**	27.015	0.00
		HOM	14	33.3	15	**35.7**	9	21.4	4	9.5		
	Competent learners	HET	3	7.1	5	11.9	17	**40.5**	17	**40.5**	35.174	0.00
		HOM	1	2.4	29	**69.0**	10	23.8	2	4.8		
	Learners from lower SES families	HET	4	9.5	5	11.9	4	9.5	29	**69.1**	38.373	0.00
		HOM	14	33.3	19	**45.3**	8	19.0	1	2.4		
	Learners with learning difficulties	HET	6	14.3	5	11.9	12	28.6	19	**45.2**	35.973	0.00
		HOM	2	4.8	29	**69.0**	9	21.4	2	4.8		
Motivation for schoolwork	Weak learners	HET	4	9.5	3	7.1	6	14.3	29	**69.1**	36.771	0.00
		HOM	2	4.8	21	**50.0**	14	33.3	5	11.9		
	Average learners	HET	4	9.5	0	0.0	4	9.5	34	**81.0**	45.951	0.00
		HOM	11	26.2	15	**35.7**	12	28.6	4	9.5		
	Competent learners	HET	10	23.8	4	9.5	10	23.8	18	**42.9**	31.223	0.00
		HOM	3	7.1	26	**61.9**	11	26.2	2	4.8		

Table 2. Assessment of the work or the participation of learners

		No difference		Advantage of working in groups						χ^2 (g=3)	p
				All HOM		Some HOM		HET			
		f	f%	f	f%	f	f%	f	f%		
Establishing discipline within the group	HET	9	21.4	0	0.0	5	11.9	28	**66.7**	36.608	0.00
	HOM	10	23.8	15	**35.7**	13	31.0	4	9.5		
Participation of pupils in class	HET	4	9.5	4	9.5	7	16.7	27	**64.3**	36.315	0.00
	HOM	8	19.0	24	**57.2**	8	19.0	2	4.8		
Responsibility of pupils in the implementation of duties	HET	11	26.2	1	2.4	9	21.4	21	**50.0**	37.162	0.00
	HOM	18	**42.9**	17	40.5	7	16.7	0	0.0		

In all the performance and motivation assessment items, the teachers who teach in homogeneous groups differ at the level of statistical significance from the teachers who teach in heterogeneous groups (p=0.00).

The largest proportion of the teachers who teach in homogeneous groups believe that the learners are most successful and most motivated in all homogeneous groups, regardless of their abilities or learning difficulties. Also considering the teachers who teach in homogeneous groups and have selected that there is advantage in working in some homogeneous groups, it might be discerned that these teachers believe weak learners (95.3%), average learners (57.1%), capable learners (92.8%) and learners from lower SES families (64.3%) as well as learners with learning difficulties (90.4%) perform better in homogeneous than in heterogeneous groups. They also believe that weak learners (83.3%), average learners (64.3%) and capable learners (88.1%) in homogeneous groups are more motivated for schoolwork than those in heterogeneous ones. For average learners and for learners from families with lower SES, a third of these teachers believe learners perform as well in homogeneous as in heterogeneous groups, while more than a quarter of these teachers also believed that in both groups average learners are equally motivated for schoolwork.

The beliefs of teachers who teach in heterogeneous groups only differ in the case of the performance of capable learners: an equal proportion (40.5%) of them opted for heterogeneous groups and for some homogeneous groups, while 11.9% selected all homogeneous groups. At all other items (performance of weak learners and average learners, learners from lower SES families, learners with learning difficulties as well as motivation for schoolwork) the largest proportion of these teachers selected heterogeneous groups, where the share is only lower than a half when assessing the performance of learners with learning difficulties and in the assessment of the motivation of capable learners for schoolwork. More than a quarter of these teachers shared the opinion that for the performance of learners with learning difficulties some homogeneous forms are more appropriate. As for the motivation of capable learners nearly a quarter of these teachers assessed that some homogeneous forms are the most appropriate, while an equal proportion of them see no distinction between the two forms of differentiation.

Activity of Learners

Secondly, the analyzes about whether–according to the assessment by the teachers–establishing discipline within the group, the participation of learners in class and the responsibility of learners in performing their duties (e.g., writing their homework) depends on the selected form of differentiation were performed. The results are presented in **Table 2**.

There is a statistically significant difference (p=0.00) regarding the assessment of establishing discipline, participation of learners in class, and responsibility of learners between the teachers who teach in heterogeneous groups and those who teach in homogeneous groups.

Moreover, two thirds of the teachers who teach in heterogeneous groups believe that discipline gets more easily established in heterogeneous groups, while a good fifth believe there are no differences between heterogeneous and homogeneous groups in

this respect. In contrast, two thirds of the teachers who teach in homogenous groups share the opinion that discipline gets more easily established in homogeneous groups (35.7% in all, 31.0% in some), while nearly a quarter of these teachers believe there are no differences between heterogeneous and homogeneous groups.

Furthermore, the results show that more than three quarters of the teachers who teach in homogeneous groups believe that in the latter (57.2% all HOM, 19.0% some HOM) learners participate better in class, while nearly a fifth are convinced that there are no differences regarding the form of differentiation. In comparison, two thirds of the teachers who teach in heterogeneous groups are convinced that learners in heterogeneous groups participate better in class, while a sixth of these teachers believe that learners participate better in class in some homogeneous groups.

Results also show that half of the teachers who teach in heterogeneous groups believe that learners in heterogeneous groups are more responsible at performing their duties, while some believe that there is either no difference (26.2%) or that learners of certain homogeneous groups (21.4%) are more responsible. No teacher who teaches in a homogeneous group thought that learners of heterogeneous groups would be more responsible at the implementation of their obligations. The largest share of these teachers (42.9%) considers that there are no differences in responsibility regarding the form of differentiation. Almost as many teachers (40.5%) are convinced that learners in all homogeneous groups are more responsible and a sixth of these teachers think that learners in some homogeneous groups demonstrate the greatest responsibility in performing their obligations.

Didactic Ways of Adapting Teaching to Diverse Learners

Thirdly, considerable attention was paid to the didactic ways of adapting teaching to diverse learners. **Table 3** presents the analyzes regarding the ways teachers assess the possibilities of:

- taking account of differently capable learners and of adapting the learning matter to different abilities,
- adjusting the pace of dealing with new learning matter,
- explanation for the correction of errors,
- answering the learners' questions,
- providing assistance to learners,
- adjusting the teaching to the learners with special needs,
- encouraging learners, transmitting concrete real-life cases, and
- diverse opportunities to deliver learning matter in interesting ways.

In the assessment of all the approaches, there is a statistically significant difference (p=0.00) between the teachers who teach in heterogeneous groups and the teachers who teach in homogeneous groups.

More than two thirds of the teachers who teach in homogeneous groups believe that in all homogeneous groups it is easier to assign different tasks (73.8%), to adjust the learning matter to differently able learners (78.6%), to adjust the pace of dealing with new learning matter so that most learners can follow it (85.7%), to explain the learners how to correct mistakes and improve learning (76.1%), to provide assistance to each individual learner who has difficulties (69.1%), and to adjust the teaching for learners with special needs officially recognized by authorities. The proportion of these teachers increases further when adding those who see advantage for some homogeneous groups.

Majority of the teachers who teach in homogeneous groups also see advantage in all homogeneous groups when thinking about the teacher's answers to learners' questions (57,2%) and encouraging learners to achieve the best learning outcomes possible (54.8%), while they do not perceive any difference in relation to the form of differentiation (52.4%) and when assessing making the delivery of learning matter interesting. The largest share of these teachers (42.9%) believe that the teacher's delivery of concrete real-life cases, where the learners are expected to apply the acquired knowledge, is best performed in all homogeneous groups, while more than a third see no difference related to the form of differentiation.

The teachers who teach in heterogeneous groups were not so determined in selecting a particular form of differentiation that would be the most appropriate for the effectiveness of an approach. The largest proportion of these teachers exceeds half (59.5%) only in one item and decreases in rank down to 31.0%. More than a half of these teachers (59.5%) share the opinion that it is easier in heterogeneous groups than in homogeneous groups to encourage learners to achieve the best learning outcomes possible, while a half of these teachers are convinced that in heterogeneous groups, the learning matter can be delivered in more interesting ways than in homogeneous groups. About two fifths of these teachers do not see the forms of differentiation as having an impact on the degree of attraction of delivering the learning matter.

A third of the teachers who teach in heterogeneous groups agree that in some homogeneous groups, it is most possible to tailor the learning matter to differently able learners, while only a slightly smaller proportion of these teachers gave preference to heterogeneous groups or to all homogeneous groups. The largest proportion of these teachers (40.5%) assessed that in some homogeneous groups, it is most possible to adjust the pace of dealing with new learning matter so that most of the learners can follow it. A slightly lower proportion (28.6%) of them saw all homogeneous groups as having an advantage. As for the teacher's answering learners' questions and delivering concrete real-life cases where the learners are expected to apply the acquired knowledge, nearly all these teachers are divided between supporting the opinion that heterogeneous groups have an advantage and the opinion that there is no difference between work in heterogeneous and in homogeneous groups. The teachers who teach in heterogeneous groups agree the least in the assessment of providing assistance to each individual learner who has learning difficulties and of adjusting the teaching to learners with special needs officially recognized as such by authorities; none of the options were selected by more than 31% of these teachers.

Table 3. Teachers' assessment of didactic ways of adjusting teaching to learners

		No difference		Advantage of working in groups						χ^2 (g=3)	p
				All HOM		Some HOM		HET			
		f	f%	f	f%	f	f%	f	f%		
In consolidation phase of learning new matter, teacher assigns learners differently demanding tasks	HET	7	16.7	9	21.4	9	21.4	17	**40.5**	31.472	0.00
	HOM	1	2.4	31	**73.8**	8	19.0	2	4.8		
Adjustment of learning matter to differently capable learners	HET	4	9.5	12	28.6	14	**33.3**	12	28.6	25.744	0.00
	HOM	3	7.1	33	**78.6**	5	11.9	1	2.4		
Adjusting pace of dealing with new learning matter for most of learners to be able to follow	HET	4	9.5	12	28.6	17	**40.5**	9	21.4	29.544	0.00
	HOM	1	2.4	36	**85.7**	4	9.5	1	2.4		
Teacher explains how learners can correct mistakes thus improving their learning	HET	10	23.8	6	14.3	8	19.0	18	**42.9**	38.400	0.00
	HOM	2	4.8	32	**76.1**	7	16.7	1	2.4		
Teacher answers learners' questions	HET	17	**40.5**	3	7.1	5	11.9	17	**40.5**	35.460	0.00
	HOM	14	33.3	24	**57.2**	3	7.1	1	2.4		
Teacher's assistance to every individual who has difficulties	HET	10	23.8	9	21.4	10	23.8	13	**31.0**	23.606	0.00
	HOM	8	19.0	29	**69.1**	4	9.5	1	2.4		
Adjustment of teaching for learners with special needs officially recognized as such	HET	12	28.5	7	16.7	13	**31.0**	10	23.8	27.611	0.00
	HOM	8	19.0	29	**69.1**	4	9.5	1	2.4		
Encouraging learners to achieve the best possible learning outcomes	HET	9	21.4	1	2.4	7	16.7	25	**59.5**	36.509	0.00
	HOM	10	23.8	23	**54.8**	6	14.3	3	7.1		
Teacher's delivery of concrete real-life cases, where learners are expected to apply acquired knowledge	HET	16	38.1	2	4.8	5	11.9	19	**45.2**	24.560	0.00
	HOM	15	35.7	18	**42.9**	6	14.3	3	7.1		
Interesting ways of delivering learning matter	HET	17	40.5	0	0.0	4	9.5	21	**50.0**	39.875	0.00
	HOM	22	**52.4**	15	35.7	3	7.1	2	4.8		

Table 4. Assessment of the impact of the form of differentiation on learners

		No difference		Advantage of working in groups						χ^2 (g=3)	p
				All HOM		Some HOM		HET			
		f	f%	f	f%	f	f%	f	f%		
Autonomy of learners at schoolwork	HET	12	28.6	3	7.1	6	14.3	21	**50.0**	32.268	0.00
	HOM	9	21.4	17	**40.5**	15	35.7	1	2.4		
Development of learners' work habits	HET	11	26.2	1	2.4	6	14.3	24	**57.1**	34.823	0.00
	HOM	16	**38.1**	14	33.3	11	26.2	1	2.4		
Opportunities for consolidation of learners' knowledge	HET	11	26.2	6	14.3	8	19.0	17	**40.5**	30.708	0.00
	HOM	5	11.9	28	**66.7**	8	19.0	1	2.4		
Opportunities for taking account of learners' ideas	HET	13	31.0	2	4.8	7	16.7	20	**47.6**	31.561	0.00
	HOM	11	26.2	22	**52.4**	7	16.7	2	4.8		
Impact on learner's self-image	HET	3	7.1	4	9.5	5	11.9	30	**71.4**	41.734	0.00
	HOM	14	33.3	19	**45.2**	7	16.7	2	4.8		

Impact on the Formation of Learners' Personality

Moreover, the research was interested in investigating learners' autonomy in schoolwork and in developing work habits, and whether these learners are given opportunities for the consolidation of their knowledge, as well as to what extent their ideas are considered in the classroom. Moreover, the research aimed at verifying whether the form of differentiation has an impact on the learners' self-image. The results are shown in **Table 4**.

In each item concerning the impact of the form of differentiation on learners, there is a statistically significant (p=0.00) difference between the assessment of the teachers who teach in heterogeneous groups and the teachers who teach in homogeneous groups.

The teachers who teach in heterogeneous groups have assessed that learners in heterogeneous groups are the most autonomous at schoolwork (50.0%) and best develop learning habits (57.1%); likewise work in heterogeneous groups best allows them consolidation of knowledge (40.5%) and taking account of their ideas in the classroom (47.6%). For each of these four items, more than a quarter of these teachers assessed there are no differences regarding the form of differentiation. As many as 71.4% of these teachers share the opinion that the influence on learners' self-image is most strongly felt in heterogeneous groups.

The teachers who teach in homogeneous groups do not see any advantages in working in heterogeneous groups. According to the opinion of two thirds of these teachers, all homogeneous groups offer the most possibilities for the consolidation of the learners' knowledge. As for autonomy of learners at schoolwork, 40.5% of these teachers saw work in all homogeneous groups and 35.7% work in some homogeneous groups as having an advantage. More than a half of these teachers (52.4%) share the opinion that in all homogeneous groups, there are the most opportunities for taking account of the learners' ideas in the classroom, while more than a quarter of these teachers do not see any differences regarding the form of differentiation. Nearly a half of these teachers (45.2%) believe that the influence on the learner's self-image is greatest in all homogeneous groups, while a third of them (33.3%) believe there are no differences regarding the form of differentiation. Interestingly, the largest proportion of these teachers (38.1%) do not notice any differences when it is about developing the learner's learning habits, while a majority of them nevertheless see homogeneous groups as having an advantage (33.3% all homogeneous and 26.2% some homogeneous groups).

Table 5. Teachers' assessment of cooperation among learners

		No difference		Advantage of working in groups						χ^2 (g=3)	p
				All HOM		Some HOM		HET			
		f	f%	f	f%	f	f%	f	f%		
Organization of mutual assistance of learners in class	HET	3	7.1	1	2.4	1	2.4	37	**88.1**	31.401	0.00
	HOM	12	28.6	10	23.8	7	16.7	13	**31.0**		
Making learners accustomed to respecting differences among them	HET	5	11.9	0	0.0	0	0.0	37	**88.1**	29.884	0.00
	HOM	18	**42.9**	7	16.7	2	4.8	15	35.7		

Table 6. Assessment of opportunities for professional development

		No difference		Advantage of working in groups						χ^2 (g=3)	p
				All HOM		Some HOM		HET			
		f	f%	f	f%	f	f%	f	f%		
Encouraging professional cooperation among teachers	HET	26	**61.9**	0	0.0	2	4.8	14	33.3	29.205	0.00
	HOM	29	**69.0**	11	26.2	1	2.4	1	2.4		
Encouraging further professional development of each individual teacher	HET	32	**76.2**	0	0.0	3	7.1	7	16.7	12.357	0.00
	HOM	33	**78.5**	6	14.3	1	2.4	2	4.8		

Cooperation Among Learners

In addition, the question about how teachers perceive cooperation among learners, whether they organize or encourage mutual assistance of learners in the classroom and whether they make learners accustomed to respecting differences among them was investigated. The results are presented in **Table 5**.

Nearly 90% of the teachers who teach in heterogeneous groups believe that both organization of mutual assistance among learners and attuning learners to respecting differences among them are more present in heterogeneous groups.

Most of the teachers who teach in homogeneous groups (31.0%) believe that the organization of mutual assistance among learners in the classroom is more present in heterogeneous groups, 28.6% do not see any differences according to the form of differentiation, and the rest of them believe that organization of assistance is more present in all homogeneous or in some homogeneous groups. With regard to making the learners accustomed to respecting differences among them, most of these teachers do not see any differences according to the form of differentiation, somewhat fewer (35.7%) believe that accustoming is more present in heterogeneous groups, while the rest (about a fifth) of these teachers believe that accustoming learners to respecting differences among them is most present in all or in some homogeneous groups.

In the assessment of the organization of mutual assistance, as well as in the assessment of accustoming learners to respecting differences, there is a statistically significant difference (p=0.00) between the teachers who teach in heterogeneous groups and the teachers who teach in homogeneous groups.

Opportunities for Professional Development

Furthermore, the research aimed at determining the situation regarding professional cooperation among the teachers and further training of teachers–are the teachers who teach in homogeneous groups or those who teach in heterogeneous groups in advantage. The results are presented in **Table 6**.

Most of the teachers believe that regardless of whether they teach in homogeneous or in heterogeneous groups there is no difference either in encouraging professional cooperation among teachers or in encouraging their further professional training. Besides, a third of the teachers who teach in heterogeneous groups (33.3%) believe that promoting professional cooperation is more intense in heterogeneous groups, and a sixth of these teachers (16.7%) also believe that encouraging further professional training of each individual teacher is more present in heterogeneous groups. Among the teachers who teach in homogeneous groups, a good quarter (26.2%) think that encouragement of professional cooperation among teachers is greater in all homogeneous groups and 14.3% that encouraging further professional training is greater in all homogeneous groups.

In the assessment of the promotion of professional cooperation and further professional training, there is a statistically significant difference (p=0.00) between the teachers who teach in heterogeneous groups and those who teach in homogeneous groups.

Cooperation with Parents

Cooperation with parents is one of the most important broader aspects of efficiency. Therefore, it is important to determine how teachers assess cooperation with parents and the satisfaction of parents with the assignment of the learners into an ability group. The results are presented in **Table 7**.

A great majority of the teachers assessed that there is no difference in cooperation with school, regardless of the form of differentiation; 16.7% of the teachers who teach in heterogeneous groups did, however, believe that cooperation is better if learners are in heterogeneous groups, while 9.5% of the teachers who teach in homogeneous groups thought cooperation is better if learners are in homogeneous groups.

A majority of the teachers who teach in heterogeneous groups (61.9%) believe that parents are satisfied with the assignment of the learners into heterogeneous groups and 31.0% of these teachers believe parents are satisfied with the assignment of learners both to heterogeneous and homogeneous groups. Half of the teachers who teach in homogeneous groups assess that

Table 7. Assessment of cooperation with parents & parental satisfaction with the assignment of learners into ability groups

		No difference		Advantage of working in groups						χ^2 (g=3)	p
				All HOM		Some HOM		HET			
		f	f%	f	f%	f	f%	f	f%		
Cooperation of parents with school	HET	34	**80.9**	0	0.0	1	2.4	7	16.7	12.210	0.00
	HOM	37	**88.1**	4	9.5	0	0.0	1	2.4		
Satisfaction of parents with assigning learners to a group	HET	13	31.0	0	0.0	3	7.1	26	**61.9**	42.183	0.00
	HOM	21	**50,0**	10	23.8	9	21.4	2	4.8		

parents are satisfied with the assignment of learners both to heterogeneous and homogeneous groups, while nearly a quarter of these teachers (23.4%) perceive parental satisfaction with the assignment of learners to any homogenous group and 21.4 with the assignment of learners to some homogeneous groups.

In assessment of the cooperation of parents with school and of parental satisfaction with the assignment of the learner to a group, there is also a statistically significant ($p = 0.00$) difference between the teachers who teach in heterogeneous and those who teach in homogeneous groups.

DISCUSSION AND CONCLUSIONS

Due to the increasing interest to help individual learners to acquire quality knowledge (Dee & Jacob, 2011), there is a need to adapt the learning and teaching to the abilities of individuals (Kiryakova et al., 2018; Liu, 2007; Pozas et al., 2020). One way to achieve individualization and personalization of the learning and teaching is through the grouping of students into HOM and HET groups (Oetzel, 1998; Pozas et al., 2020; Raftu, 2016). Literature is coherent in stating that the commitment and expertise of the teachers (Askew & Wiliam, 1995), as well as the usage of appropriate learning material (Kulik & Kulik, 1984), are key factors influencing the efficiency of grouping students into HOM or HET groups. The teachers' competence of adjusting teaching represents a complex, yet from the point of view of efficient learning, a fundamental didactic skill that only develops in its entirety in later phases of a teacher's professional development (van der Lans et al., 2017; Pečar, 2018). Evaluation of the impact of one's own teaching contributes immensely to the development of a teacher's competence of adjusting the teaching (Hattie, 2018) and likewise also familiarization with research about the advantages and limitations of each individual form of differentiation. Considering the latter statement, it might be concluded that exploring teachers' views regarding, which grouping format (i.e., grouping students into HOM or HET groups) is most efficient and leads to higher learning achievements is an important research question. Therefore, the aim of the present study was to analyze the teachers' views on the efficiency of grouping students into HOM and HET groups and whether their opinions significantly differ between the teachers teaching in HOM or HET groups.

The study has shown that in all seven sets (i.e.,

1. learning performance and motivation of learners,
2. learners' activity,
3. didactic ways of adapting teaching to diverse learners,
4. the impact on the formation of learners' personality,
5. cooperation among learners,
6. opportunities for professional development, and
7. cooperation with parents),

or in the assessment of all 32 assertions, the teachers who teach in homogeneous groups statistically significantly differ from the teachers who teach in heterogeneous groups. In response to most of the assertions, the teachers (both the ones who teach in heterogeneous and those who teach in homogeneous groups) see the greatest advantage exactly in the form of teaching they perform themselves. From the perspective of equity, the teachers' appraisals particularly cause concern that in homogeneous groups certain groups of learners are exclusively at an advantage.

Specifically, regarding the first dimension, i.e., the evaluation of the learning performance and motivation of learners, teachers working in individual groups assessed their group as the most effective and the one where learners were more motivated. This means that the teachers working in specific groupings see their learners to be more motivated and the used grouping as the most effective. Therefore, the expertise of teachers and previous experiences (cf. Askew & Wiliam, 1995) might contribute to shaping the teachers' opinions about the efficiency of working in specific groupings. Despite the fact that some researchers found that working in homogeneous groups might not yield to better results than working in heterogeneous groups (Crahay, 2000, Dawson, 1987; Dupriez, 2010; Hoffer, 1992; Kerckhoff, 1986; Pozas et al., 2020; Rees et al., 1996; Slavin, 1987, 1990; Supena et al., 2021; Žagar, 2004), teachers working in homogeneous groups seem to see more advantages in working with this kind of grouping. As well, results show that teachers assessed the participation of learners to be higher inside their own groupings. Moreover, teachers' assessment of (1) didactic ways of adjusting teaching to learners' specific needs, and (2) the impact of the form of differentiation on learners tend to prefer their own grouping.

Although additional research are needed to fully understand these findings, also by triangulating the teachers' responses with interviews or other kind of qualitative research, results suggest that teachers working in specific groups are more used to their own grouping and see it as the most efficient. This might be the consequence of their experience of working in specific groupings and their education (cf. Kožuh, 2017; Marentič Požarnik, 2000; Valenčič Zuljan et al., 2012; Žakelj et al., 2018). Therefore, specific

education about the effects that grouping students into HOM or HET groupings is needed in order to give teachers a complete view and theoretical instruments to efficiently work in both kinds of groupings. At the individual level, the development of teacher's didactic competence for the adjustment of teaching is important. On the one hand, appropriate understanding of the didactic principle of learning differentiation and individualization is crucial.

On the other hand, teachers' assessment of cooperation among learners and, specifically, the organization of mutual assistance of learners in class tend to privilege grouping students into heterogeneous groups. These results are coherent with some previous research (Aylett, 2000; Biehler & Snowman, 1993; Boaler, 1997; Harlen & Malcolm, 1997; Suk Wai Wong & Watkins, 2001), which found that learners working in ability groups (i.e., HOM) might feel misplaced or develop lower self-esteem, because they are constantly compared to better-achieving students. Therefore, it might be concluded from the findings that teachers are aware that grouping learners into HET groups helps cooperation among them, especially with peer-tutoring or other kind of mutual assistance. Nevertheless, when specifically asked to assess the possibility of making learners accustomed to respecting differences among them, teachers from HET groupings stated that their way of grouping is the most suitable, however, teachers from HOM groupings stated that there were no significant differences between the two ways of groupings. Therefore, although additional research is needed, it might be speculated that teachers working in HET groups believe that working in mixed-groups might help students to respect the differences among them, especially among lower- and higher-achieving students. On the other hand, teachers working in HOM groupings believe that they are able to teach mutual respect regardless of working with ability level groups.

Related to the assessment of opportunities for professional development, teachers working in both groupings think that there are no differences. Similarly, teachers working in both groupings found no differences concerning the cooperation of parents with the school. Therefore, these factors are external to the fact that teachers work in specific groupings.

To an equal measure, didactic skills of deliberately combining a variety of didactic strategies of traditional and open teaching are important (Valenčič Zuljan & Kalin, 2020). Performing within-class ability grouping (Aydin & Tugal, 2005), and especially cooperative grouping is one of the forms, which provides more advantages for the learners' learning, where the quality of the planning and teaching is important.

The present research is not without limitations. Firstly, the used instrument was developed by the authors considering the abovementioned literature, however additional factors might be included, such as teachers' beliefs about the feasibility of covering the topics presented in the National curriculum. The latter might also have an important impact on the teachers' opinions on the effectiveness of grouping students into HOM or HET. Future studies might include this aspect as well. Secondly, the number of participants in the present study was limited, therefore future studies might consider bigger samples. Thirdly, findings rely on self-reported data, therefore future research might focus on developing a more standardized instrument and might triangulate our findings with interviews or focus groups.

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APPENDIX A

1. Gender: (a) Male (b) Female
2. Age:
3. Years of experience:
4. Education level: (a) University degree (b) Degree from a teacher training college (c) Specialisation or master's degree
5. Which form of differentiation do you work in?
   a. Homogeneous
   b. Heterogeneous
6. How well qualified do you feel for performing teaching in ability level groups? [5-points Likert scale]
7. In **Table A1**, indicate the efficiency of the form of grouping for the following items.

Table A1.

Item	TNDBTF	AWAHOMG	AWSHOMG	AWHETG
1. How would you assess the efficiency and motivation of learners?				
a. Performance of:				
Weak learners				
Average learners				
Competent learners				
Learners from lower SES families				
Learners with learning difficulties				
b. Motivation for schoolwork				
Weak learners				
Average learners				
Competent learners				
2. How would you assess the work or participation of the learners?				
Establishing discipline within the group				
Participation of learners in class				
Responsibility of learners in the implementation of duties				
3. How would you assess the didactic ways of adjusting teaching to learners?				
In consolidation phase of learning new matter, teacher assigns learner differently demanding tasks.				
Adjustment of learning matter to differently capable learners				
Adjusting pace of dealing with new learning matter for most of learners to be able to follow				
Teacher explains how learners can correct mistakes thus improving their learning.				
Teacher answers learners' questions.				
Teacher's assistance to every individual who has difficulties.				
Adjustment of teaching for the learners with special needs officially recognized as such.				
Encouraging learners to achieve the best possible learning outcomes.				
Teacher's delivery of concrete real-life cases, where learners are expected to apply the acquired knowledge.				
Interesting ways of delivering learning matter				
4. How would you assess the impact of the form of differentiation on learners?				
Autonomy of learners at schoolwork				
Development of learners' work habits				
Opportunities for the consolidation of learners' knowledge				
Opportunities for taking account of learners' ideas				
Impact on learners' self-image				
5. How would you assess cooperation among learners?				
Organization of mutual assistance of learners in class				
Making learners accustomed to respecting differences among them				
6. How would you assess the opportunities for professional development?				
Encouraging professional cooperation among teachers.				
Encouraging further professional development of each individual teacher.				
7. How would you assess the cooperation with parents and of parental satisfaction with the assignment of learners into ability groups?				
Cooperation of parents with school				
Satisfaction of parents with the assignment of learners to a group				

Note. TNDBTF: There is no difference between the two forms; AWAHOMG: Advantage of working in all homogeneous groups; AWSHOMG: Advantage of working in some homogeneous groups; & AWHETG: Advantage of working in heterogeneous groups