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Barriers of implementing the inclusive approach at mainstream schools in Hungary

AGNES N. TOTH1

Faculty of Education and Psychology Eötvös Loránd University, Szombathely, Hungary KATALIN SIMON²

Faculty of Education and Psychology Eötvös Loránd University, Szombathely, Hungary

Abstract

The framework for inclusion of students with special educational needs in education has been available in Hungary since the change of the political system. However, some uncertainty is still experienced between theory and practice (Réthy 2013; Schiffer 2013; Fónai 2017). Our research has aimed to explore the effects of inclusion as a form of study group formation on the pedagogical practice one and a half decades after it had been introduced in 2003. We wanted to find out how similar teachers' views on inclusion are and how they use pedagogical competencies essential for successful inclusion in their everyday teaching practice. Therefore, we analysed the opinion of 178 practising teachers on how they see the concept of inclusion for

 $^{^{\}rm 1}$ AGNES N. TOTH is an Associate Professor of Eötvös Loránd University, Institute of Educational Sciences and Psychology with having twenty years teaching experience in special education and teacher education as well. Her name connects to the curricula accreditation of teacher education at the Institute. She is a member of different professional bodies, such as: Doctorate School of University of Salerno (UNISA/Italy); Editorial Board of Alfredo Guide (Naples/Italy); Editorial Advisory Board of Research Journal of MDKG (India); Editorial Advisory Board of The Journal of International Education Science (Konya/Turkey); Public Body of Hungarian Scientific Academy; Association of Hungarian Public Education Experts. e-mail: toth.agnes@ppk.elte.hu

² KATALIN SIMON is an Associate Professor of Eötvös Loránd University, Institute of Educational Sciences and Psychology with having thirty years teaching experience in teacher education. Her name connects to the accreditation of curricula for teacher education at the Institute. Her research interests are focused on the learning process and learning guidance, and she also deals with initial and in-service teacher training. e-mail: simon.katalin@ppk.elte.hu

students with special educational needs (SEN), the methods used in their teaching practice, the strategies of evaluation and assessment and their cooperation with specially trained experts.

As for the context, we use 'inclusive classes' to include all types of learners in a classroom although the level of implementation (Réthy 2002) in the Hungarian schools is different.

Key words: inclusion; special educational needs; teaching methods; teachers' teamwork

INTRODUCTION

The inclusive approach that is widely acknowledged by the experts is broadly aimed at Hungarian schools, but pedagogical practice results in a variety of patterns. Many institutions implement the highest level of inclusion for pupils with SEN, while the others seem to look for excuses to explain their professional difficulties. Besides others, this phenomenon may have historical reasons.

Hungarian school system before 1993 functioned as parallel systems for mainstream schools and exclusive schools or classes for students with SEN. The parallel system was presented also at teacher education as special teachers and mainstream teachers were trained at different institutions. Educational Act of 1993 introduced a new possibility for every school which allowed students with SEN to attend mainstream classes. The Act of Education in 2003 changed the opportunity to an obligation.

As Réthy highlights (2002, 282) 'From a pedagogical point of view inclusion is understood as the realisation of integration at a high level'. Taking this widely accepted definition into consideration, we believe that due to the basic and internal differences of the two student groups, teaching students with no special educational needs and students with

SEN in one class requires a very complex approach both from the aspect of teachers' attitude and the methodology they use.

Even without having students with SEN, mainstream study groups cannot be considered as homogenous even though the principles of grouping students have been aiming at creating such groups. Concerning students' academic results, it is necessary to observe the most important differences between by taking a look at their bio-psycho-social students characteristics (Báthory 1997; Csapó 2003; Nádasi 2006). 'Effective, successful schools help students get over their initial problems, they have a compensatory effect, levelling them upwards. Ineffective, less successful schools and educational systems have almost no effect on students; therefore, the initial differences and problems coming from the home do not change for the better, they may even get worse.' (Tóth, Csapó & Székely 2010, 799)

We are certain that the detailed knowledge of the constructivist approach to education would positively influence great changes needed in pedagogical practice. According to those views one's individuality builds up and constructs itself by the influence of the education one receives (Nahalka 2013, 22; Réthy 2013, 59), and the role of the educator is to help and this process. Introducing the guidelines support 'development-focused didactics' (Schiffer 2013, p. n.) 'subjective didactics' (Réthy 2013, 59), would also be beneficial. It means the application of the analytic/reflective approach: teachers need to observe their methods and actions and reflect on their work taking the 'causes and consequences' of their methods and actions into consideration.

The primary didactic trait of inclusive pedagogy is that the classroom management is based on the development and self-development of students. This principle does not only determine the necessary pedagogical approach but widens the classic definition and methodology of teaching - alongside with the philosophy of 'open education'- to adaptivity, by permanently applying the principles of cooperation (Nádasi 2006, 7). Feuser's (1993, 8) definition tells us how to do this. 'All students are cooperating with each other at their level of competency; concerning their development level, perception, reflectiveness and how proactive they are and learning about, working and playing on/with the same 'thing' (project, plan, topic, theme)' (quoted by Schiffer 2013 p. n.). In our view, inclusive education can not be implemented without applying the adaptive pedagogical approach. 'The goal of responding to the needs of individual learners has received attention recently because of new demands on the educational system and new possibilities for providing personalised learning support.' (Natriello 2013, 7)

Due to the attitudes toward disabled students, which can hardly be changed, some of the mainstream teachers, and not only those who started teaching before 2003, show less tolerance to pupils' diversity (Papp 2002; N. Tóth 2009; Réthy 2013; Schiffer 2013).

The questions whether contemporary pedagogy can keep up with the individual needs of students or respond to the challenges of dealing with the ever so varied learning environment and strategies are unavoidable.

HYPOTHESES

Studies (Papp 2002; N. Tóth 2009; Réthy 2013; Csányi 2013; Tóth—Szerecz 2015) as well as research papers of qualified teachers point out the difficulty of the implementation of 'a school for all approach' at Hungarian schools. Barriers of the successful classroom management at teaching a diversity of pupils are highlighted: mainstream teachers' level of tolerance; their methodology in differentiation as well as professional cooperation of teachers and experts.

Considering the need for continuous curriculum development in teacher education, we formulated our

hypotheses based on the necessary pedagogical criteria of teaching multiple classes successfully.

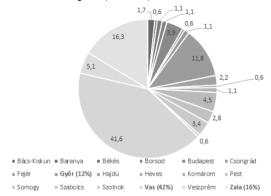
- H1. There is a significant difference between teachers' beliefs concerning inclusive education: teachers who teach classes where there are students with SEN as well have a much more positive opinion on inclusion compared to those who do not work with those students.
- H2. The respondents are familiar with the principles and methods of adaptive education, but the application of them in their teaching practice depends on the level of involvement in inclusion.
- H3. The methods of assessment of students' achievements differ based on whether the teacher teaches students with special educational needs or not.
- H4. The professional network of specially trained experts and teachers not teaching in heterogeneous groups is significantly weaker than that of teachers involved in inclusive education.

THE RESEARCH SAMPLE

Our department has a significant history of teacher education and training in Western Hungary. Participants of in-service teacher training courses organised by our institution come from schools of several regions who were invited via the electronic study system of the university to be involved in the present study, that is why we did not need to ask for permission from the school maintainers to authorize research data collection at schools.

We invited all our part-time students (258 people) to take part in the research voluntarily, and 178 people joined.

Figure 1 shows that the West Danubian region is significantly represented in the sample (79.8%).

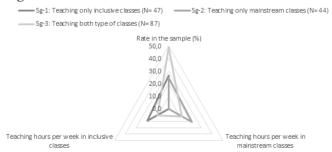


1. Figure Distribution of the sample among Hungarian regions

Regional distribution of participant teachers (N=178) is shown in Figure 1. Because of the uneven regional distribution of respondents, our survey data and findings can not be considered as representative.

Our responders (24.7% male and 75.3% female) are divided into three sub-groups (Sg) because of the number of teaching hours in the different type of classes. (See Figure 2.)

As Figure 2 shows, our responders in Sg-3, teach 10.3 hours a week in inclusive classes (s=9.02) and 11.10 hours a week in mainstream classes (s=9.78). Based on the responses gained we specified three sub-groups for proving our hypotheses. Sub-groups by rating and by teaching hours can be seen in Figure 2.



2. Figure The sub-groups of sample (N=178)

THE RESEARCH TOOLS AND METHODS

We collected data from an online questionnaire created by us, asking questions about school life, teaching practice, cooperation with parents and colleagues and in-service training needs. We did not include questions on demographic issues. As for the type of questions in the questionnaire, 1% free choice, 11% multiple choice and 88% 5-grade Likert scale type questions were included.

Considering the subgroups with a different number of sample, we needed to apply weighting techniques for the validity of our findings. The results currently presented are part of a larger volume of research, but the present paper focuses solely on the findings related to the pedagogical implementation of inclusion, the school management related to pupils' diversity, the methodological culture of teachers and the type of assessment of student achievement.

RESULTS

The beneficiary of inclusive education

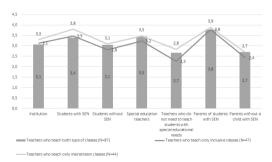
In our research, we used a 5-grade Likert scale to collect teachers' opinion on who they think is benefiting the most from the advantages of inclusive education. According to all (N=178) the answers (Figure 3) we can state that *inclusion is believed to be most beneficial for the parents of students with special educational needs* (\bar{x} =3.80; sd=0.97) and those students themselves (\bar{x} =3.51; sd=1.04). (See Figure 3.) Following them on the ranking are special education teachers who work on developing the skills of students with special educational needs (\bar{x} =3.40; sd=1.21). According to the respondents, the institution (\bar{x} =3.14; sd=1.15) and the students with no special educational needs (\bar{x} =2.99; sd=1.23) profit less from inclusion; parents without a child with special educational needs (\bar{x} =2.63;

sd=1.23), and teachers who do not teach students with SEN (\bar{x} =2.61; sd=1.31) see the benefits the least.



3. Figure Teachers' opinion (N=178) on advantages of inclusive education

Taking the level of educational activity in inclusive education into consideration (see Figure 4), we can detect a significant difference in two issues based on respondents' opinions. Teachers working with mainstream classes exclusively conceive inclusion as much more advantageous for their colleagues who therefore do not need to teach inclusive classes (\overline{x} =2.84; sd=1.32), than those who teach (\overline{x} =2.26; sd=1.17) only in this sort of study groups (t=-2.22; df=85.81; p=0.029). Their interpretation of inclusion is referred to as a kind of an 'extra burden'.



4. Figure The advantages of inclusive education in terms of involvement

As Figure 4 shows, teachers of mainstream classes think that inclusion is more effective for students with SEN (N=44; \overline{x} =3.80; sd=0.76) than those teachers (N=87; \overline{x} =3.39; sd=1.15 and N=47; \overline{x} =3.47; sd=1.04) who are much more involved.

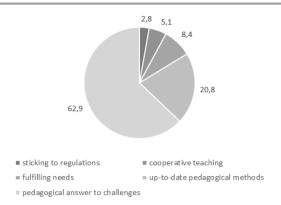
Significant difference (t=2.09; df=176; p=0.038) was statistically demonstrated only between the groups of teachers who teach only mainstream classes (N=44; \bar{x} =3.80; sd=0.76) and teachers who (N=134; \bar{x} =3.42; sd=1.11) teach students with SEN as well.

We assumed that there is a significant difference between teachers' beliefs concerning inclusive education: teachers who teach classes where there are students with SEN as well have a much more positive opinion on inclusion compared to those who are not involved in teaching them. We found that the number of lessons taught per week in different types of classes inflects the differences between the sub-groups (Sg-1; Sg-2; Sg-3) although this relation is not strong enough but reverse. So we can state, that the more lessons a teacher has in mainstream classes, the more effective they regard inclusion for both students with no special educational needs (r=0.195; p=0.009) and for those with SEN (r=0.66; p=0.026) as well as for the parents of the latter (r=0.147; p=0.050).

Teachers' attitudes toward adaptive education

The composition of study groups and the variety of academic results of students have proven to promote the application of adaptive methods by teachers. As for the question how to define 'adaptive education', our respondents indicated all the five possible definitions offered by us, in a highly dispersed proportion. The majority of them (62.9%) believes that adaptivity is 'a pedagogical answer to the challenges of the individual educational needs of the students'. (Figure 5)

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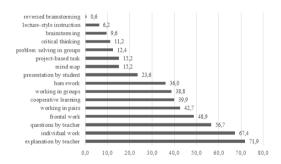
5. Figure Definition of adaptive education (%; N=178)

The type of study groups the respondent teaches (inclusive, mainstream) does not seem to be an essential factor in understanding this concept. Responding to our question on how typical it is to take students' individual needs into consideration in the lessons, the respondents unambiguously stated (on a five-grade scale) that using differentiation in class is indispensable (\bar{x} =4.22; sd=0.78). It is also evincible that teachers of inclusive (\bar{x} =3.44; sd=0.97) and mainstream (\bar{x} =3.43; sd=0.95) groups are committed to differentiation in lessons at almost the same rate. The frequency of applying particular methods also refers to this in practice.

Respondents could choose only five of the methods listed in the questionnaire: 4 classic participatory methods and 12 traditional and innovative methods of teaching. All of the methods were selected by the respondents as frequently used in their everyday practice, although not at the same rate. Most of the teachers apply individual work as the most favourite work form, but half of the respondents use the 'frontal method' as well. Pair-work and group-work tasks are represented also as favourite classroom activities (Figure 6). A significant relation between the way teachers define adaptive education and the popularity of different work forms is not detectable which suggests that the theoretical knowledge in practice is not fully actualized (Kárpáti 2008, 210).

The level of participation in inclusive education, however, is proven to be a factor influencing the preferences of the methods although the inverse of our assumption was met. Those who teach only inclusive classes (N=47) use group work less often than those who (N=44) teach only mainstream groups ($\chi^2(1)=10.99$; p=0.001). Frontal work is more popular among teachers of inclusive classes, while respondents teaching only mainstream classes apply frontal work very rarely ($\chi^2(1)=91.00$; p=0.000).

Among the methods listed in the survey (Figure 6), onethird of the respondents prefer explanation by the teacher, questions by the teacher, cooperative learning and homework. Reversed brainstorming, lecture-style instruction and brainstorming are the least favourite methods used by the respondents.



6. Figure How frequently the methods are used (%; N=178)

The choice of methods is influenced by the teacher's commitment to inclusive education in many ways. Teachers who teach exclusively mainstream classes (N=44) use cooperative methods more often than those (N=87) who teach both (inclusive and mainstream) type of study groups ($\chi^2(2)=11.41$; p=0.003). But creating mind maps is more typical for those ($\chi^2(2)=8.19$; p=0.017) who teach only inclusive classes (N=47).

Considering the number of hours of instruction in each class type it can be stated that those who teach more lessons in mainstream study groups prefer group work activities more (t(176)=2.083; p=0.039); however, they dislike explanation by the teacher (t(176)=-2.403; p=0.017). On the other hand, those who have more lessons with heterogeneous study groups use cooperative methods less (t(176)=2.300; p=0.023).

When responding the question 'to what extent do teachers use the same methods in inclusive and non-inclusive classes', the proportion of respondents' answers indicated on a five-grade scale (\bar{x} =3.17; sd=0.95) was broadly similar. Comparing the data of sub-groups, we could not demonstrate a significant difference. However, based on the number of lessons per week, it has become apparent that those with a higher number of lessons in an inclusive group are more likely to use the same methods in the mixed types of classes as well (F=5.466; df₁=1; df₂=176; p=0.021, R²=0.025).

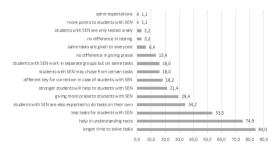
When starting our research, we supposed that the respondents were familiar with the principles and methods of adaptive learning, but the application of them in their teaching practice depended on the level of involvement in inclusion. Our data indicate that the theory of adaptive education is widely recognised in the sample even though the practice of educational differentiation is not universal yet. For example, group work is less used by teachers of inclusive classes than by those who have lessons with both mainstream and inclusive study groups. Moreover, teachers of mainstream classes apply cooperative methods more often than those who teach both types of groups.

Evaluation and assessment strategies

Based on our data collected on a five-grade scale we can claim that different methods are used by the respondents to assess the performance of students with and without SEN (\bar{x} =3.53; sd=1.11). Since the difference in this regard between the subgroups in our sample is not significant, it demonstrates that the

level of involvement in inclusion does not affect the assessment strategies significantly, which also outlines further research directions.

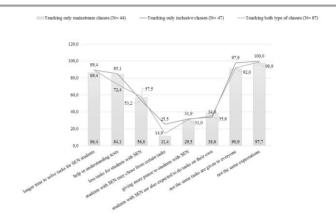
Offering 15 possible options in our research tool, we also asked about the different aspects of assessment strategies used between each student group type. The respondents (N=178) marked 3.9 answers on average (sd=1.62; minimum: 0, maximum: 9). Most of them (84%) would provide a longer timeperiod for students with SEN to solve the tasks or give them fewer tasks to solve and / or help with understanding their text. One-third of our respondents (34.2%), however, believe that even students with special educational needs can be expected to work on tasks individually (Figure 7).



7. Figure Similarities and differences in assessment (%; N=178)

The opinion of the respondents on checking and assessment is influenced by the composition of the study group in the case of oral testing. This method is not preferred by teachers who do not work with SEN students (χ^2 (1) = 3.91; p = 0.048). On the other hand, teachers who teach more lessons per week in inclusive classes use oral testing more frequently (t(176)=2.055, p=0.041).

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8. Figure Open learning strategies in assessment (%)

However, teachers who teach more lessons per week in mainstream groups (Figure 8) would be less likely to allow students with SEN to choose tasks (t(176)=-2.599; p=0.010). Consequently, they agree that students with special educational needs and students without special educational needs must be given the same tasks (t(176)=2.961; p=0.003). We can conclude from their responses that they have incomplete information on students with special educational needs.

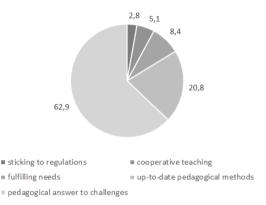
Despite our expectations, we could not justify that the methods of assessment of students' achievements differ based on whether the teacher is involved in inclusive education or not. We found that the number of lessons in an inclusive study group has not a significant influence on the preference of oral testing. Besides that, teachers who have more lessons in the mainstream groups would give less chance to choose a task for SEN students (Figure 8), and they also think that they would provide the same learning tasks to every pupil regardless their educational needs.

Professional networking

According to not less than 81.3% of the respondents, a special education teacher works in their school, therefore networking with experts can be implemented within the institution. Not

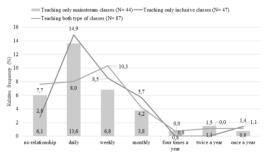
surprisingly, the frequency of contact is closely related to this rate ($\chi^2(6)=70.16$; p=0.000).

More than half of the respondents communicate with a special education teacher on a daily or weekly basis, which seems to be irrespective of the number of students with SEN they teach (Figure 9). The purpose of networking with experts is not to improve the quality of the school's approach to students with special educational needs.



9. Figure Networking with experts (%; N=178)

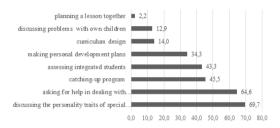
Nearly one-fifth of the respondents (18%) did not indicate any forms of networking (Figure 9) with the experts. The others reported three forms on average (\bar{x} =2.85; sd=1.875), and there was only one respondent who selected each of the predefined eight topics.



10. Figure Relative frequency of professional contacts in the subgroups (%)

Due to the disproportionate number of sample in sub-groups, our data needed to be weighed before comparison so that we counted the relative frequency of professional contacts in different sub-groups. Figure 10 shows that most of the daily cooperations (14.9%) are reported by teachers who teach only inclusive classes while the highest number of weekly contacts (10.3%) are reported by those teachers who teach both inclusive and mainstream classes.

Based on our data it can be stated that the assistance of a special education teacher is most requested by the teachers in the sample to understand the characteristics of students with special educational needs better in order to apply appropriate instructional methods for their development (Figure 11).



11. Figure Aims of professional networking (%; N=178)

It is interesting, however, that a strong demand to cooperate with experts referring to inclusive education is highly represented by teachers of mainstream study groups ($\chi^2(1)=5.969$; p=0.015). The aim of professional cooperation they find the most important is the evaluation of students with special educational needs. Considering the number of weekly lessons taught in each study group type we discovered that, evidently, those who teach more in mainstream classes less likely need to discuss the characteristics of students with special educational needs with a specially trained expert (t(176)=2.454; p=0.015).

Initially, we pretended that the teachers who had more lessons in inclusive classes had a dynamic professional relationship with specially trained experts because of their interest in special educational needs. Despite four-fifth of the responders having an expert in their school, our research proves that those teachers who work mainly in the mainstream study groups have a more prosperous professional relationship with the specialists.

CONCLUSION

The approach and principles of inclusion have been introduced to Hungarian teachers for less than 20 years, and many of them have met difficulties, according to researchers' reports (Papp 2002; N. Tóth 2009; Réthy 2013) Our research data have proven the same.

Our research aimed to explore whether the decade-long practice of inclusive education has influenced the approach of teachers towards inclusion and how they apply the pedagogical competencies needed for it in their day-to-day teaching practice. To prove our hypotheses, we analysed the opinion of 178 practising teachers in four areas: their attitude towards inclusive education, the methods they use in their teaching practice, strategies on student assessment and their cooperation with specially trained experts.

Our assumption (H1) about the attitude of teachers educating students with SEN that shows a significant positive difference compared to teachers who do not perform these tasks represent some features of pedagogical practice experienced in our investigation which were not fully in line with our preconceptions.

Those who do not teach an inclusive class at all consider the benefits of inclusion for SEN students solidly. Teachers who are not involved in this kind of management of diversity at all securely point out their positive feeling.

As a conclusion, we can state that even though integrating students with SEN is obliged for educational institutions for decades, teachers do not entirely identify the problem. Therefore, it could entail the risk that learning needs of students with SEN are not met. The primary task of teacher training of higher education institutions is to prepare students how to inquire more about the individual learning needs and how to improve learning abilities.

We assumed (H2) that respondents are familiar with the principles and methods of adaptive education, but their usage in their teaching practice depends on the level of involvement in inclusive teaching. The first part of our hypothesis related to the professional knowledge can be verified on sample, although the second part assuming that differentiation methods used in teaching practice depend on involvement in inclusive teaching was only detected in a few cases. It seems that the type of a study group has less impact on preferred methods applied by teachers. The only demonstrable effect of inclusion on applying adaptive methods currently indicates that the theory of social care must be followed by a new methodological paradigm.

An essential precondition for the successful implementation of inclusion is the development of an active learning environment: application of open learning strategies, learners' participation and accountability, the use of differentiation techniques and cooperative learning method.

Student assessment is the neuralgic point of the 3rd millennium education. Teachers need to use the most up-to-date assessment strategies consistently besides ongoing self-evaluation accompanied with various IT solutions. (Grob, Holmeier, and Labudde 2017) They should not forget about SEN students whose assessment requires even more careful professional consideration.

Before conducting our research, we assumed (H3) that strategies chosen will vary depending on whether or not participants teach students with special educational needs.

According to our study, teachers in exclusively inclusive classes mention varied forms of assessment, but the level of involvement does not significantly influence the usage of methods and techniques. Our hypothesis, therefore, could not be proven in our sample.

Inclusive teaching of SEN students is not a tradition in Hungarian education. Effective professional communities have a significant role in implementing innovative ideas and tackling barriers in teaching.

Professional relationships are proven to be helpful (H4.) in dissolving pedagogical dilemmas related to the education of students with special educational needs (Papp 2002, Réthy 2002, 2013, Schiffer 2013). Therefore, it was assumed that teachers who do not work in inclusive classes are less likely to have a strong contact with those who are specially trained than those who are involved in inclusive education.

However, our data proved precisely the opposite. The extent of interest in inclusive education represents a more significant demand for professional networking by the teachers of mainstream study groups. According to our data, the aim of cooperation, therefore, is not to improve the institutional quality of adaptation in the education of students with special educational needs.

Finally, there are some limitations of the research. A relatively *small sample* of our study (178 people) can not be compensated with the fact that it is based on a voluntary participation and with the number of focus areas, and it may distort reality, so it is mainly justified to conduct the subject in a much broader context and in a more in-depth way. Furthermore, the *small size of the sub-groups* and the distribution around the country do not allow us to extend the findings nation-wide.

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