Erasmus+

SHADOW

Research on skills that teachers and "shadows" need to fully cooperate

Empowering pre-primary schools to integrate "shadows" for children with special educational needs

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CHAPTER 1

Research methodology

1.1. Context

This research was carried out within the SHADOW project, an Erasmus + initiative that involves educational experts from four countries with the same interests in the development of higher quality early childhood education and care services by providing a reference framework for the collaboration between the pre-school and primary teachers and "shadows" / facilitators / support teachers, namely all adults that are involved in the educational activities as support for children with special educational needs.

The project is focusing especially on the situations where the kindergarten or primary school cannot provide shadows / support teachers for children with special educational needs (from various reasons, e.g. insufficient staff or funding, number of children with special education needs etc.) and involve adults with limited skills and expertise as shadows, and teachers need to adapt to collaborate with those adults as well as developing those adults' basic pedagogic and didactic skills.

The SHADOW project focuses on pre-primary and primary education as the partners strongly believe that an earlier intervention provides the best educational effects and starting the support services for children with special educational needs before school years is expected to have the best impact for ensuring equal access to education.

The main focus of this research was to facilitate a better understanding of the specific needs of teachers and shadows related to their collaboration in the benefit of children with special educational needs. Therefore, the partners focused their research efforts to identifying the

specific needs of teachers collaborating with shadows and of the shadows themselves, as a first phase of their efforts of creating training methodologies for teachers and for shadows to develop their skills of working together to provide better quality educational services for children with special educational needs.

1.2. Objectives

The main objective of this research was to accurately investigate the perceived skills needed for the pre-primary and primary teachers, on the one hand, and for the shadows, on the other hand, so that they could effectively work together to assist the children with special educational needs.

The operational objectives of the research are:

1. *analysing the perceived usefulness of shadows* for children with special educational needs, investigating the social perception regarding the main beneficiaries of shadows' work, the perceived necessary number of shadows in a classroom and the perceived collaboration skills needed for shadows;

2. *analysing the perceived necessary and useful involvement of shadows* in educational activities, investigating the main tasks that shadows should have according to the educational experts;

3. *analysing the required skills for teachers to collaborate with shadows* in the benefit of children with special educational needs;

4. *analysing the required skills for shadows to collaborate with teachers* in the benefit of children with special educational needs.

5. *analysing the evaluations done in different countries* (Romania, Italy, Spain, Turkey) regarding the role and skills of teachers and shadows.

1.3. Research design

The research was carried out in two different phases, combining the qualitative and quantitative methodology to provide reliable data:

a. **the qualitative phase** of the research included a desk-research analysis and focus-groups done in each country.

The desk analysis focused on identifying existing knowledge in each country regarding the needed skills for the teachers working with shadows and for the shadows themselves, as well as specific information regarding the integration of the children with special educational needs in mainstream education.

The focus groups, one in each country, had the main objective of identifying the most relevant skills needed for teachers and shadows; the subjects were mainly teachers, school counsellors, support teachers, trainers, other educational experts, and their input was harnessed into creating a list of the important skills necessary for teachers and shadows.

b. **the quantitative phase** of the research was questionnaire based.

1.3.1. Independent variables

The research analysed the specific differences in evaluation according to three independent variables, namely:

❑ **country**: Romania, Italy, Spain and Turkey;

❑ **educational status and expertise**: pre-primary teachers, primary teachers and school counsellors;

❑ **experience in educational activities**: less experienced experts (working for less than 5 years in education) and experienced trainers (with more than 5 years of relevant experience)

1.3.2. Dependent variables

The research analysed the impact of country and educational status on four dependent variables, namely:

❑ **perceived usefulness** of shadows for children with special educational needs, operationalized through three aspects: perceived main beneficiaries of shadows, perceived necessary number of shadows in a classroom, perceived collaboration skills needed for shadows;

❑ **perceived optimal involvement** of shadows in a classroom;

❑ **required skills for teachers** collaborating with shadows

❑ **required skills for shadows.**

1.4. Questionnaire

The questionnaire was developed based on the qualitative information from the desk analysis and focus-groups and included four different sections.

Section 1 included five questions related to the first two objectives:

❑ one question asked the respondents to mention who is the most important beneficiary of shadows activity, choosing between the children with SEN, the rest of the class, the class teacher; multiple choices were possible and respondent had the option of mentioning that shadows are not at all useful in a classroom;

❑ one question asked the respondents to mention what is the needed number of shadows in classes with more than one child with SEN, choosing between one shadow for the class, one shadow for each child with SEN and no shadow at all; single selection was possible;

❑ one question asked the respondents to mention what kind of collaboration skills is important for the shadows, choosing between the skills of collaborating with the class teacher and the skills of collaborating with children with SEN; selecting both answers was also possible;

❑ one question asked the respondents to establish the educational aspects that shadows should be involved, choosing among establishing the objectives for children with SEN, selecting the

educational activities, implementing the educational activities, selecting and applying the evaluation tools, facilitating the communication of children with SEN with the rest of the class; multiple choices were possible;

❑ one question asked the respondents to establish the role of the shadow in working with the class teacher, choosing between only assisting the class teacher, adapting the methodology established by the class teacher for the children with SEN, full collaboration into establishing the methodology; single answer was possible.

Section 3 asked the respondents to identify the most relevant skills needed for teachers to fully collaborate with shadows. A list of 21 skills was presented to the respondents (the list established by the experts in the focus-groups in the first phase of research) and they evaluated the relevance of each skill on a Likert-type scale from 1 (irrelevant) to 5 (very important).

While the construct validity of the scale was ensured by establishing the items by consulting educational experts within the focus-groups, the reliability was evaluated using the internal consistency coefficient, the value for Cronbach's alpha being 0,985 (21 items, 788 respondents), certifying an excellent reliability of this scale.

Section 3 asked the respondents to identify the most relevant skills needed for shadows to fully collaborate with teachers. The same list of 21 skills was presented to the respondents and they evaluated the relevance of each skill using the same Likert-type scale from 1 (irrelevant) to 5 (very important).

While the construct validity of the scale was ensured by establishing the items by consulting educational experts within the focus-groups, the reliability was evaluated using the internal consistency coefficient, the value for Cronbach's alpha being 0,986 (21 items, 788 respondents), certifying an excellent reliability of this scale.

Section 4 included two questions related to the educational status (pre-primary teacher, primary teachers, school counsellor, psychologist, pedagogue, social worker, other educational expert) and educational experience (number of years). Since the questionnaire was translated into national languages and respondents from Romania, Italy, Spain and Turkey answered the questionnaire in their native language, the information about respondents' country were already available without a specific question targeting this data.

The reliability of the entire questionnaire was also evaluated using the internal consistency coefficient, the value for Cronbach's alpha being 0,981 (55 items, 788 respondents), certifying an excellent reliability of the questionnaire and therefore ensuring adequate relevance of the data collected using this questionnaire.

The data was collected online, using a google form, between April and September 2021; the links to the questionnaires (in national languages) were not made public, but each partner sent the link to educational experts they worked with, in individual and more or less personalized emails. This method of contacting the respondents was more time consuming, but the answers are more trustworthy as the researchers had a better control regarding the respondents, while still maintaining the answers anonymous and not allowing not even the researchers to connect specific answers to a specific respondent.

1.5. Subjects

Data was collected from 788 respondents from Romania, Spain, Italy and Turkey, the number of respondents in each country being presented in figure 1:

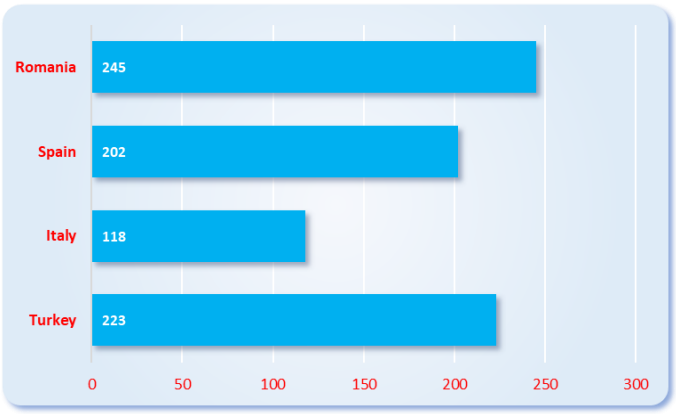

Figure 1. Distribution of respondents across countries

While the size of the sample was smaller in Italy (mainly due to smaller interest for the Italian respondents for the topic of this research, as Italy has probably the best system for assisting the children with SEN in mainstream education from the four investigated countries – for instance the largest number of assisting teachers / shadows, the highest qualification asked for the shadows as Italian support teachers are even more qualified as the class teachers etc.), the Italian sample is still large enough to make cross country analysis possible and relevant.

Figure 2 shows the distribution of respondents according to their educational status; as expected, the largest parts of the total sample are the pre-primary teachers and the primary teachers.

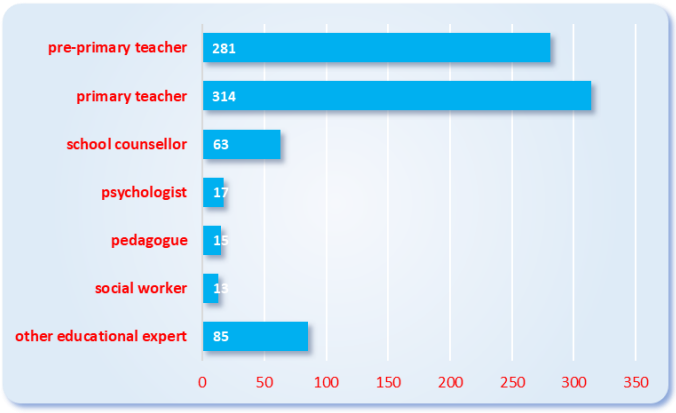

Figure 2. Distribution of respondents according to their expertise

Since the number of respondents in the rest of the categories (except pre-primary teachers and primary teachers) is relatively small and relevant comparisons are not possible, we chose to group them in one single category, named other specialists, therefore forming only three

categories of respondents according to their status; the number or respondents in each of those categories is presented in figure 3:

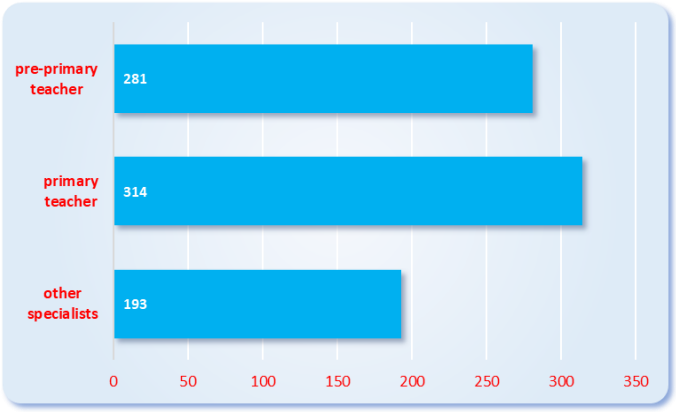

Figure 3. Distribution of respondents according to their educational status

According to this new distribution of subjects into only three categories, the number of respondents in each category is high enough to make comparisons possible and relevant.

Figure 4 presents the number of respondents for each country and category of respondents according to their status:

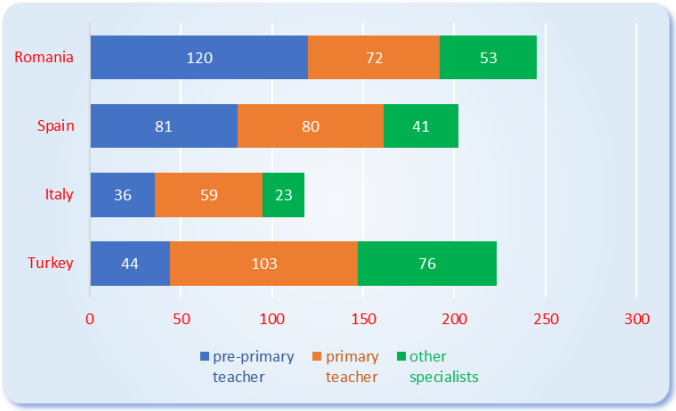

Figure 4. Distribution of respondents across countries according to their educational status

The only category of respondents that is smaller than the minimum required group according to the research methodology theoreticians (30 participants in a group) is the one including the other specialists in Italy; therefore, the comparative analysis done for this group of respondents need to be interpreted with more precaution.

The number of years of experience for our respondents (presented in table 1) varies a lot and taking this into consideration would generate 34 different categories, making comparisons very difficult and less relevant.

0 years	45		7 years	18		14 years	13		21 years	3		28 years	2
1 year	68		8 years	29		15 years	40		22 years	7		29 years	2
2 years	80		9 years	20		16 years	10		23 years	5		30 years	10
3 years	65		10 years	64		17 years	12		24 years	7		32 years	1
4 years	58		11 years	14		18 years	6		25 years	11		35 years	4
5 years	62		12 years	31		19 years	11		26 years	4		40 years	4
6 years	40		13 years	14		20 years	23		27 years	5		**Total**	**788**

Table 1. Number of respondents according to their number of years working in education

Considering the limited relevance of a potential analysis taking into consideration 34 groups of respondents, we chose to re-group the respondents into only two categories, taking into consideration the median of the distribution (which was 5); therefore, we considered our respondents to be less experienced specialists if they worked for less than 5 years in education (including 5) and experienced specialists if they worked in education for more than 5 years.

Figure 5 presents the number of respondents for each country and category of respondents according to their experience in education:

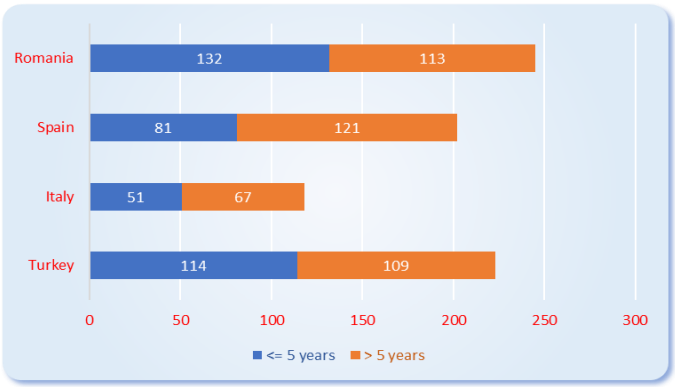

Figure 5. Distribution of respondent across countries according to their educational experience

The number of respondents in each category is high enough to make comparisons possible and relevant.

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To conclude on presenting the sample, we can synthetize and mention that a total sample of 788 respondents was questioned and the number of respondents can make several analyses possible:

- comparisons between responses from different countries;

- comparisons between responses from pre-primary teachers, primary teachers and other specialists (category that includes school counsellors, psychologists, pedagogues, social workers and persons describing themselves as "other experts in education");

- comparisons between less experienced specialists (working in education for a period less or equal to 5 years) and experienced trainers (working in education for more than 5 years);

- comparisons between different categories of respondents in each country, with some precautions into interpreting comparative analysis involving Italian other specialists due to their limited number.

CHAPTER 2

Research data and results

2.1. Perceived usefulness of shadows for children with special educational needs

This section presents the evaluations done by our respondents regarding the necessity of shadows in the classrooms, focusing on their beneficiaries, their adequate number in a classroom and their necessary collaboration skills.

2.1.1. Perceived main beneficiaries of shadows' work

Our respondents were asked to mention the persons that benefit from the activity of the shadow in the classroom, choosing one or more from the possible answers:

❑ the children with special educational needs, that have access to better educational services

❑ the class teacher, who has an "assistant" in working with the children with special educational needs

❑ the rest of the pupils, as the class teacher has more time to work with them since the "shadow" works closely with the children with special educational needs

❑ none of the above-mentioned, having a shadow in the classroom is not useful at all.

×

As visible in figure 6, that presents the percentages of subjects choosing (and not choosing) each option, the shadow is perceived as being most useful for the children with SEN, with almost 85% of the respondents agreeing with that. Still, the shadow is considered useful also to the class teacher and even for the rest of the pupils (about half of the respondents agreeing with this last-mentioned option).

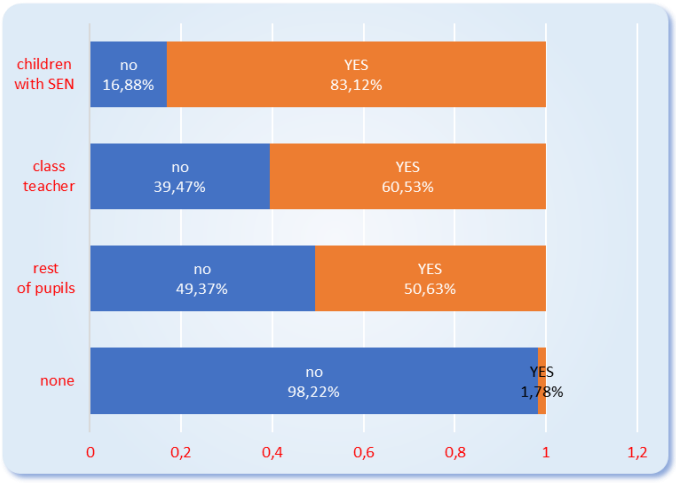

Figure 6. Distribution of answers regarding the main beneficiaries of shadows' work

At a more general level, we can emphasize that almost all respondents consider the activity of the shadows useful at least to one educational actor, with less than 2% of the respondents mentioning that having a shadow in the classroom is not useful at all.

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Transforming NO in 0 and YES in 1 we can calculate a specific score for each of the response option, the average scores being presented in figure 7:

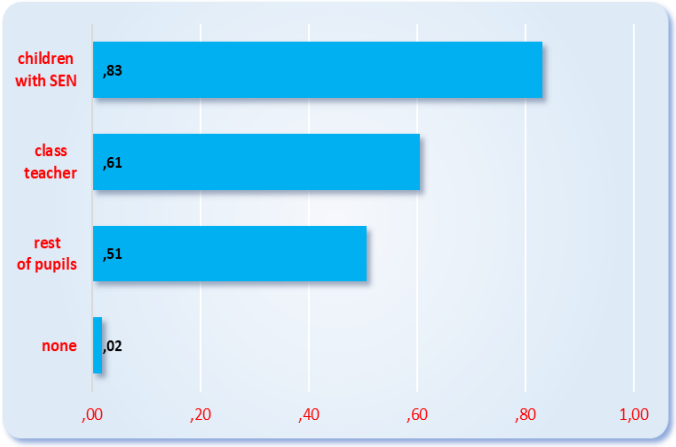

Figure 7. Evaluation of shadows' perceived importance related to different beneficiaries

Paired samples t test confirms significant differences among the average scores for all four answers (compared two by two), so there is a clear hierarchy: shadows are considered to be more useful to the children with SEN, then to the class teacher, and then to the other children in the class.

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Figure 8 presents the average scores for each of the 4 options of response for each of the countries our respondent come from:

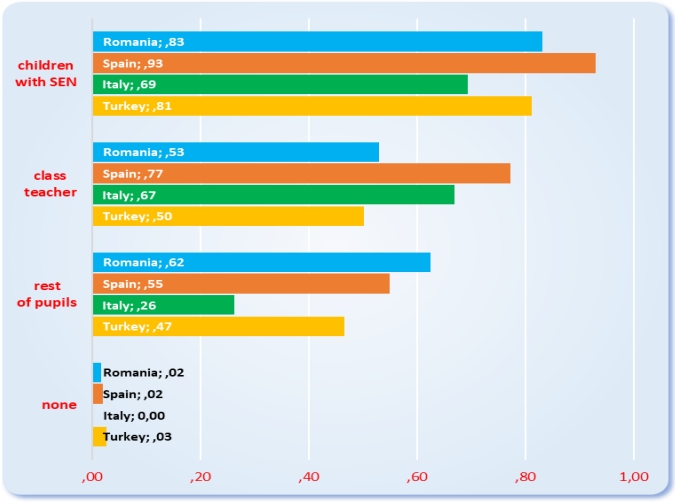

Figure 8. Evaluation of shadows' perceived importance related to different beneficiaries – cross countries analysis

One-way Anova proves a significant influence of the country on the perceived influence of shadows on all three educational actors, but the hierarchy is similar in all countries: the shadows are more useful for the children with SEN, then for the class teacher and then for the rest of the pupils (with the exception of Romania, where shadows as perceived as more useful to the rest of the pupils compared with the teacher).

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Figure 9 presents the average scores for each of the 4 options of response for pre-primary teachers, primary teachers and other educational specialists:

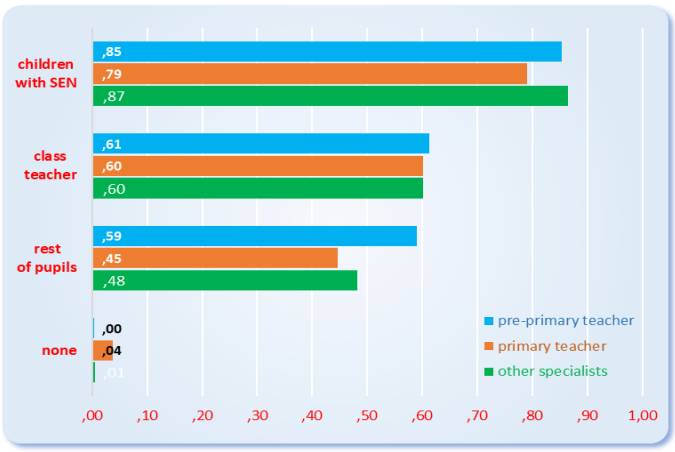

Figure 9. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational status

One-way Anova shows that status has no significant influence on evaluating the usefulness of shadows on children with SEN and on class teacher, but has a significant influence on perceived

usefulness of shadows on the rest of the pupils, with pre-primary teachers making significantly more positive evaluation compared with primary teachers (p=0,001).

Still, the hierarchy is similar for pre-primary teachers, primary teachers and other specialists; irrespective of their status, they all consider that shadows are more useful for the children with SEN, then for the class teacher and then for the rest of the pupils.

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Figure 10 presents the average scores for each of the 4 options of response for less experienced and experienced specialists:

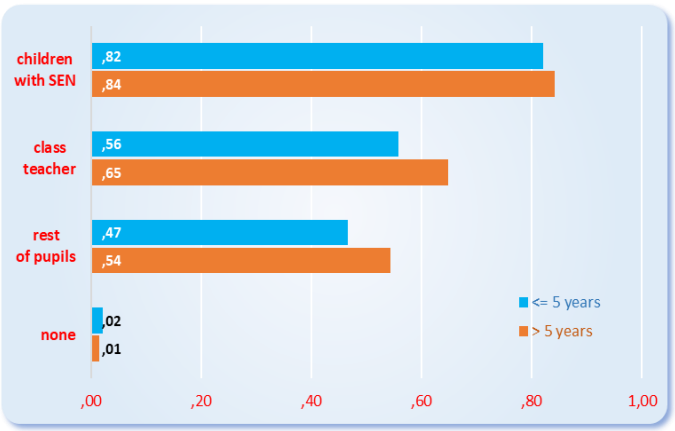

Figure 10. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational experience

Independent samples t test shows significant differences for impact on the class teacher and impact on the rest of pupils, both effects being significantly more visible for the more experienced specialists, while the impact on the children with SEN is equally visible for both categories of specialists.

Still, the hierarchy is similar for less experienced and experienced specialists; irrespective of their experience, they all consider that shadows are more useful for the children with SEN, then for the class teacher and then for the rest of the pupils.

×

To conclude on this topic, we can synthetize and mention that having a shadow in the classroom is considered to be beneficial firstly for the children with SEN, but also for the class teacher and for the rest of the pupils, with less than 2% of the respondents mentioning that having a shadow in the classroom is not useful at all.

This attitude is irrespective of the country, but is more intense for the pre-primary teachers compared with the primary teachers, and for the more experienced specialists compared with the less experienced ones.

2.1.2. Perceived necessary number of shadows in a classroom

Our respondents were asked to mention the adequate number of shadows in a classroom with more than one child with SEN, selecting one of the possible answers:

❍ one shadow for each child with special educational needs

❍ only one "shadow" for all the children with special educational needs

❍ no "shadow" at all, all teachers can handle working with children with special educational needs based on their didactic expertise

×

Regarding the number of shadows needed in a classroom with more than one child with SEN, just more than half of the respondents consider that one shadow should be assisting each child with SEN, while almost the other half mentions that one shadow for all children with SEN in a classroom would suffice (percentages presented in figure 11).

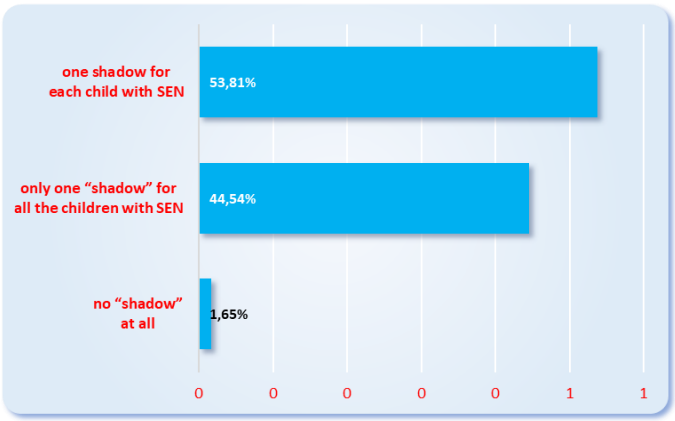

Figure 11. Distribution of answers regarding the necessary number of shadows in a classroom

Again, the results emphasize on the fact that shadows are perceived as useful in the classroom, with less than 2% of the respondents considering that no shadow is needed irrespective of the number of children with SEN in the class; the vast majority of respondents agree that one or more shadows are useful in a class with more than one child with SEN.

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Figure 12 shows the percentage of respondents selecting (and not selecting) each answer for each of the four countries the respondents come from.

As visible in figure 12, the respondents in Romania and Spain are focusing more on the option of having one shadow for each child with SEN, while in Italy and Turkey the focus is on having only one shadow for all the children with SEN in a class.

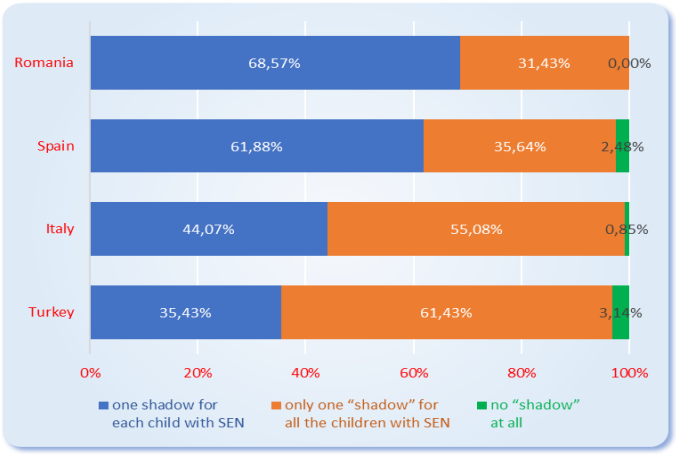

Figure 12. Distribution of answers regarding the necessary number of shadows in a classroom – cross countries analysis

We don't have enough data from our research to explain this difference, so we can only speculate that this could be explain by some more general aspects related to the philosophy of education in each country. But more important than this is that in all four investigated countries, the percentage of respondents mentioning that no shadow is needed is very small, especially in Romania where no respondent selected this option of response.

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Figure 13 shows the percentage of respondents selecting (and not selecting) each answer for each category of respondent according to the status – pre-primary teachers, primary teachers and other specialists:

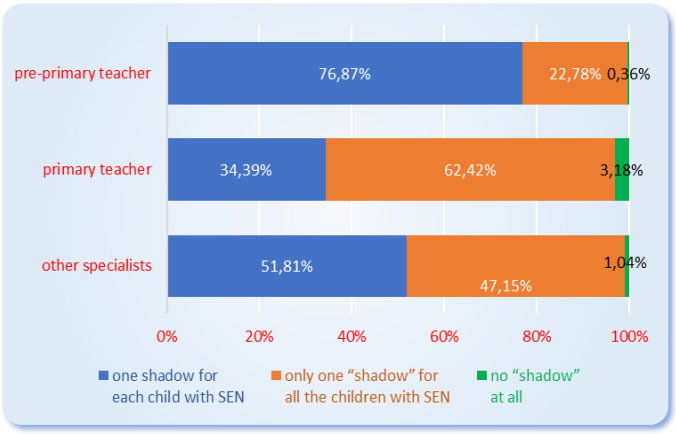

Figure 13. Distribution of answers regarding the necessary number of shadows in a classroom – comparison by educational status

While most of the pre-primary teachers consider that they should be assisted by one shadow for each child with SEN, most of the primary teachers consider that one shadow for all children with SEN in a class would suffice. The other specialists are undecided, with more or less half of the respondent selecting each answer.

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Figure 14 shows the percentage of less experienced and experienced specialists selecting (and not selecting) each answer:

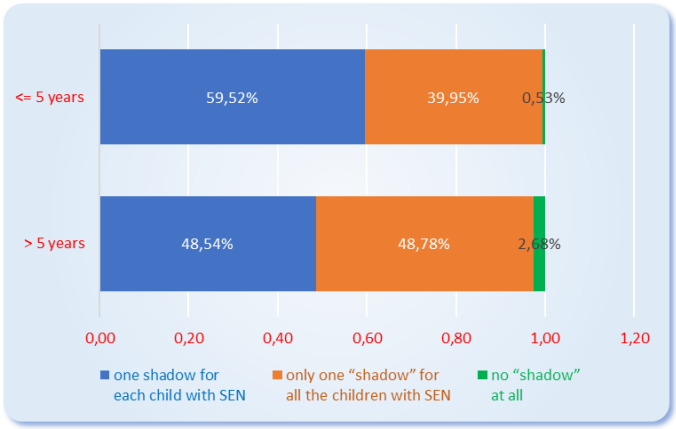

Figure 14. Distribution of answers regarding the necessary number of shadows in a classroom – comparison by educational experience

While for the less experienced trainers there is a clear preference toward having one shadow for each child with SEN in a class, the experienced trainers are more or less equally divided between those that consider that one shadow is enough and those that consider that more shadows are needed, one for each should with SEN.

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To conclude on this topic, we can synthetize and mention that our respondents fully agree on the importance of having at least one shadow in classes integrating children with SEN, with less than 2% of the respondents considering that no shadow is needed irrespective of the number of children with SEN in the class; the proportion of respondents considering that there should be one shadow for each child with SEN is only slightly bigger than the proportion of respondents considering that one shadow in a class will suffice.

In Romania and Spain there is a focus on having one shadow for each child with SEN, while in Italy and Turkey the focus is on having only one shadow for all the children with SEN in a class.

Having a shadow for each child with SEN is more important for the pre-primary teachers, while having only one shadow for all children with SEN in a class is the main option or the primary teachers.

As expected, having a shadow for each child with SEN is more important for the less experienced specialists, while the more experienced ones are undecided between having one or more shadows in the classroom.

2.1.3. Perceived collaboration skills needed for shadows

Our respondents were asked to mention what collaboration skills should the shadows have, focusing on the persons that they collaborate with, by selecting from:

❑ competencies in collaborating with the class teacher, as they will work and teach together

❑ competencies in collaborating with the children with special educational needs, as the main beneficiaries of their work

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As data in figure 15 shows, the shadows should develop both their skills to collaborate with the class teacher and their skills to collaborate with children with SEN:

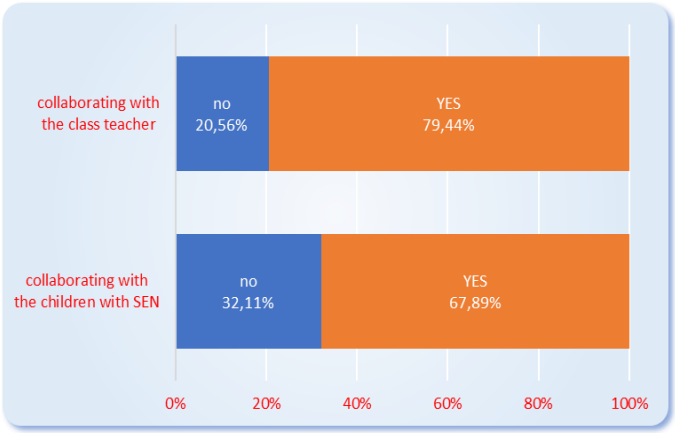

Figure 15. Distribution of answers regarding the main collaboration skills needed for shadows

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Average scores for each answer (considering No as 0 and Yes as 1), presented in figure 16, are high enough so that we can consider that both communication skills are considered relevant by our respondents.

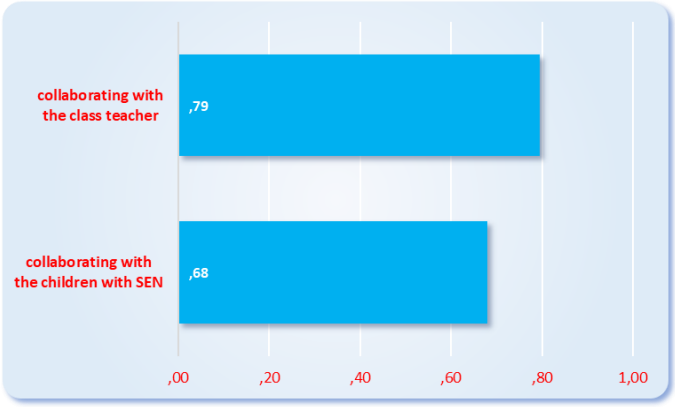

Figure 16. Evaluation of the main collaboration skills needed for shadows

Still, paired samples t test proves that skills of collaborating with the class teacher are considered significantly more important than skills of collaborating with the children with SEN (p<0,001), even if children with SEN are the main beneficiaries of shadows efforts and activity.

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Figure 17 presents the average score for each answer in Romania, Spain, Italy and Turkey:

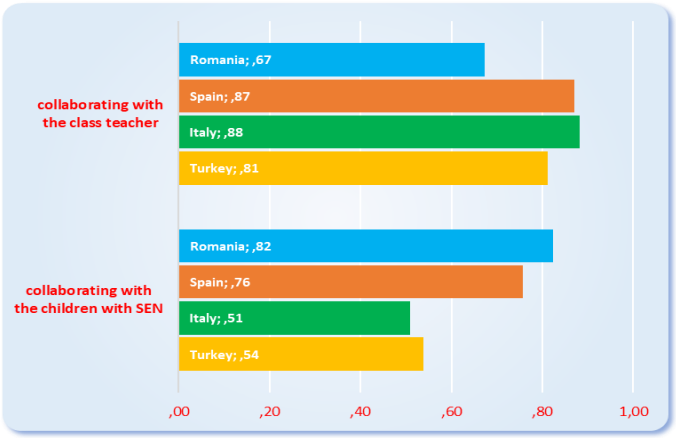

Figure 17. Evaluation of the main collaboration skills needed for shadows – cross countries analysis

One-way Anova shows significant influences on both answers: the collaborations skills with the class teacher are less important for respondents in Romania compared with the ones in Spain, Italy and Turkey (no significant differences among those 3 countries), while the collaboration skills with children with SEN are less important in Italy and Turkey (no differences between those 2) compared with Romania and Spain (no differences between those 2).

×

Figure 18 presents the average score for each answer for pre-primary teachers, primary teachers and other specialists:

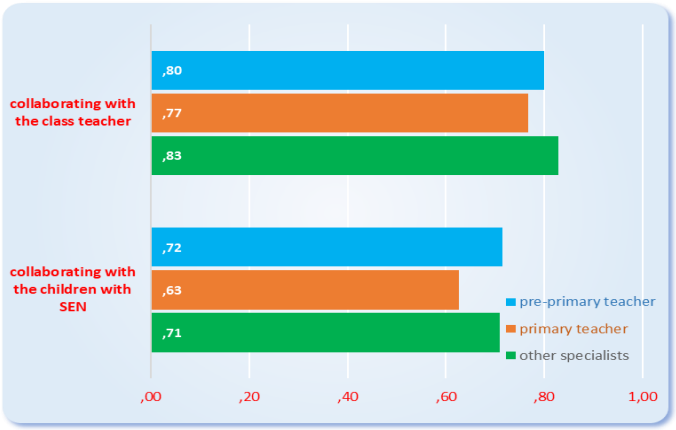

Figure 18. Evaluation of the main collaboration skills needed for shadows – comparison by educational status

One-way Anova shows no significant differences in the answers given by pre-primary teachers, primary teachers and other specialists.

×

Figure 18 presents the average score for each answer for less experienced and experienced specialists:

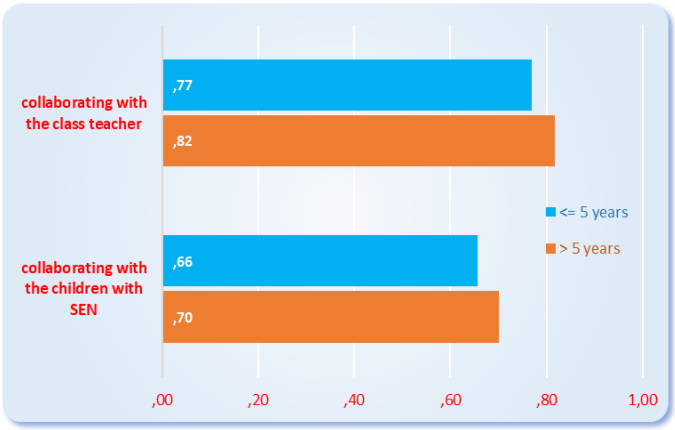

Figure 19. Evaluation of the main collaboration skills needed for shadows – comparison by educational experience

Independent samples t test shows no significant influence of experience on evaluating either of the two communication skills that were analysed.

×

To conclude on this topic, we can synthetize and mention that our respondents considered that shadows should develop their communication skills focusing on both the children with SEN and the teachers, but priority should have the development of their abilities to communicate with the children with SEN.

The collaborations skills with the class teacher are less important for respondents in Romania, while the collaboration skills with children with SEN are less important in Italy and Turkey compared with Romania and Spain.

Status and experience have no significant influence on the evaluation of the need of developing the shadows skills of communicating with children with SEN or with class teachers.

2.2. Perceived involvement of shadows in educational activities

This section presents the evaluations done by our respondents regarding the role that shadows should have in the classroom and their involvement in the educational decisions taken in the classroom.

2.2.1. The role of the shadows in the classroom

Our respondents were asked to mention the optimal involvement of shadows in the educational activities by selecting one or more of the following answers:

❑ establishing the educational objectives for children with special educational needs

❑ selecting the pedagogical tool and educational activities for children with special educational needs

❑ implementing the selected educational activities for children with special educational needs, assisting the class teacher

❑ selecting and applying the evaluation tools and assessment of educational progress for children with special educational needs

❑ facilitating the communication and collaboration between the children with special educational needs and the rest of the school group

×

Figure 20 shows the percentage of respondents selecting (and not selecting) each of the answers:

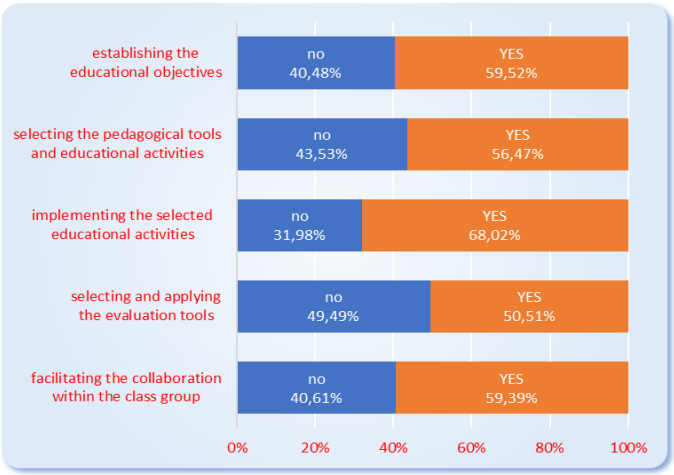

Figure 20. Distribution of answers regarding the potential involvement of shadows in educational activities

As visible in figure 20, there is a tendency of selecting all of the proposed answers, with more than half of the respondent selecting each potential role of the shadows.

Still, there is a hierarchy of the potential roles of the shadows, with most of the respondents focusing on the role of assisting the class teacher in implementing the selected educational activities for children with SEN; also, establishing the objectives for children with SEN and facilitating the collaboration between children with SEN and the rest of the class are evaluated as important.

×

Figure 21 shows average scores for each potential response (calculated by considering No as 0 and Yes as 1), separately for Romania, Spain, Italy and Turkey:

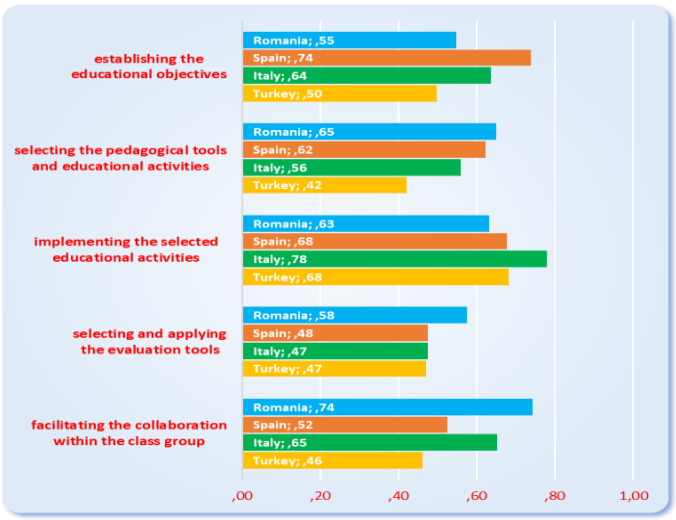

Figure 21. Evaluation of the potential involvement of shadows in educational activities – cross countries analysis

One-way Anova shows that there is a significant influence of educational culture on all potential answers, except on selecting and applying the evaluation tools, equally important for all respondents irrespective of their country. Establishing the educational objectives for children with SEN is more important in Spain and less important in Turkey, while selecting the tools and activities for children with SEN is more important in Romania and Spain and less important in Turkey. Assisting the class teacher in implementing the activities for children with SEN is more important in Italy compared to Romania, while facilitating the collaboration between children with SEN and the rest of the class is more important in Romania and Italy compared with Spain and Turkey.

×

Data in figure 22 presents the average evaluation done by pre-primary teachers, primary teachers and other specialists on the roles of shadows in the classroom:

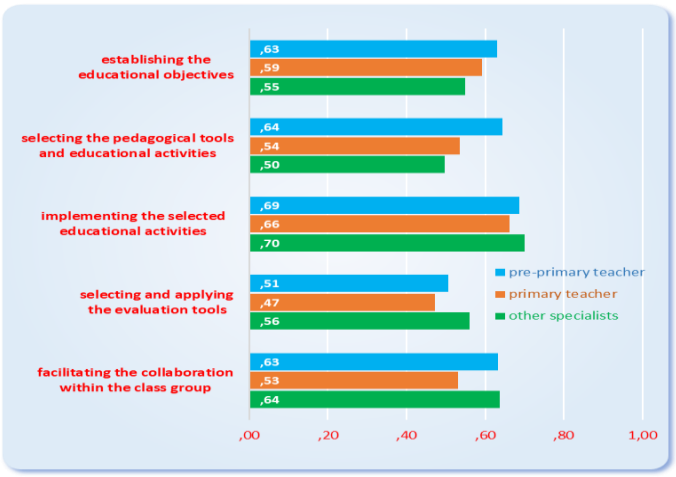

Figure 22. Evaluation of the potential involvement of shadows in educational activities – comparison by educational status

One-way Anova shows significant influences of status only regarding the selection of tools and educational activities for children with SEN (more important for pre-primary teachers compared with primary teachers and other specialists) and facilitation of collaboration between children with SEN and rest of the class (more important for pre-primary teachers compared with primary teachers).

×

Data in figure 23 presents the average evaluation done by less experienced and experienced specialists on the roles of shadows in the classroom.

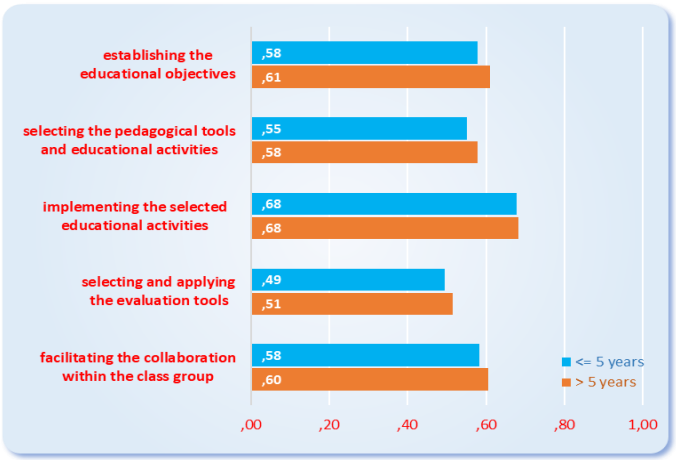

Figure 23. Evaluation of the potential involvement of shadows in educational activities – comparison by educational experience

Independent samples t tests show no significant differences between the less experienced trainers and experienced trainers for either of the analysed answers, so experience has no significant influence on evaluating the shadows' role in the classroom.

×

To conclude on this topic, we can synthetize and mention that the most important role of shadows is related to assisting the class teacher in implementing the selected educational activities for children with SEN, but establishing the objectives for children with SEN and facilitating the collaboration between children with SEN and the rest of the class are also considered to be important roles.

The are some cultural influences on perceiving the roles of shadows, the only coherent one being that the Turkish respondents have a general tendency of sub-evaluating all roles of shadows.

The shadows' role in selection of educational tools and activities and in facilitating the collaboration between children with SEN and rest of the class is more obvious for pre-primary teachers compared with primary teachers, while experience has no significant impact on evaluating the roles of shadows in the classroom.

2.2.2. The involvement of shadows in the decision-making process

Our respondents were asked to evaluate the optimal involvement of shadows in the educational decisions by selecting one answer from the following ones:

❍ teachers should decide the educational approach (activities, pedagogical tools etc.) and adapt it for children with special educational needs; "shadows" should only assist class teachers in implementing those activities

❍ teachers should decide the educational approach (activities, pedagogical tools etc.) and "shadows" should adapt it for children with special educational needs; class teacher and "shadow" should work together with the children with special educational needs

❍ teachers and "shadows" should collaborate into deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with special educational needs, while still remaining effective for the rest of the class

×

Figure 24 shows the percentages of specialists choosing each of the possible answers:

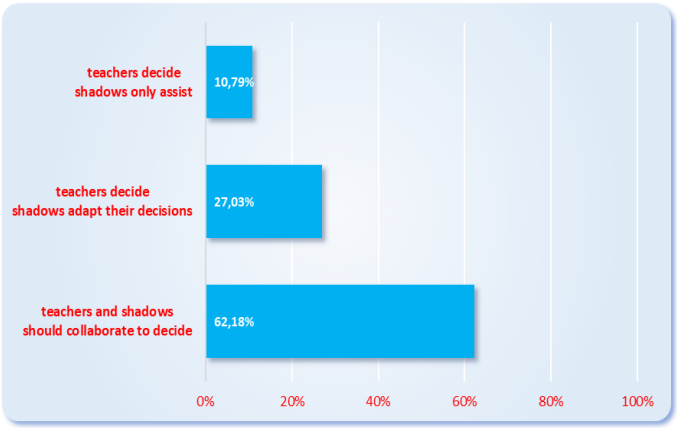

Figure 24. Distribution of answers regarding the potential role of shadows in educational activities

Almost two thirds of our respondents considered that shadows should be fully involved in the decision-making process, and teachers and "shadows" should collaborate into deciding the best educational approach and into adapting it for children with SEN, while still remaining effective for the rest of the class. About one quarter of our respondents mentioned that the involvement of shadows should be limited to adapting the methodology decided by the teacher to the needs of children with SEN, while only one out of ten respondents considered that teachers are the only decision-makers and shadows only assist them into implementing their decisions.

Over-all, there is a positive perception regarding the involvement of shadows in the decision-making process, supporting the importance of collaboration between teachers and shadows into taking the best decisions for children with SEN and for the rest of the class.

×

Figure 25 presents the percentages of specialists agreeing with each potential role of the shadows, separately for each country:

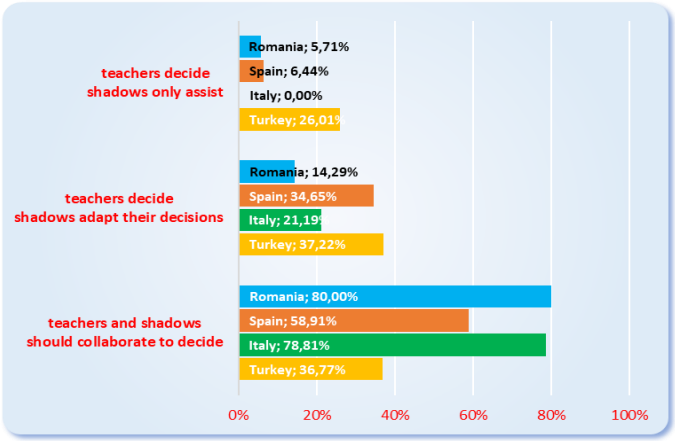

Figure 25. Distribution of answers regarding the potential role of shadows in educational activities – cross countries analysis

On the one hand, we can observe that specialists from Romania and Italy focus more on the full involvement of shadows in decision-making process, while in Spain the respondents are a little more reserved – the majority still agrees on full involvement, but a third of the respondents consider that shadows should only be involved in adapting the decisions made by the teachers.

The Turkish respondents are undecided, with more or less one third of them choosing each possible answer, with a significant proportion of respondents agreeing that teachers should have full power and responsibility of decision and shadows should only assist them.

×

Figure 26 presents the percentages of specialists agreeing with each potential role of the shadows, separately for pre-primary teachers, primary teachers and other specialists in education:

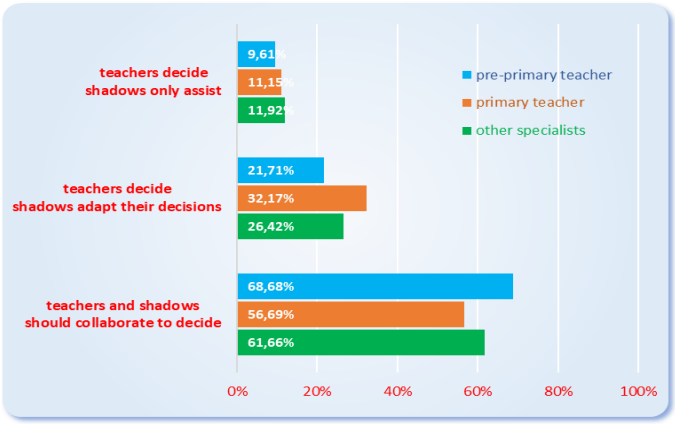

Figure 26. Distribution of answers regarding the potential role of shadows in educational activities – comparison by educational status

While all three categories of specialists seem to agree on the fact that shadows should be fully involved in the educational decision-making process, the receptivity to involving the shadows in making decisions is higher for pre-primary teachers.

×

Figure 27 presents the percentages of specialists agreeing with each potential role of the shadows, separately less experienced and experienced specialists:

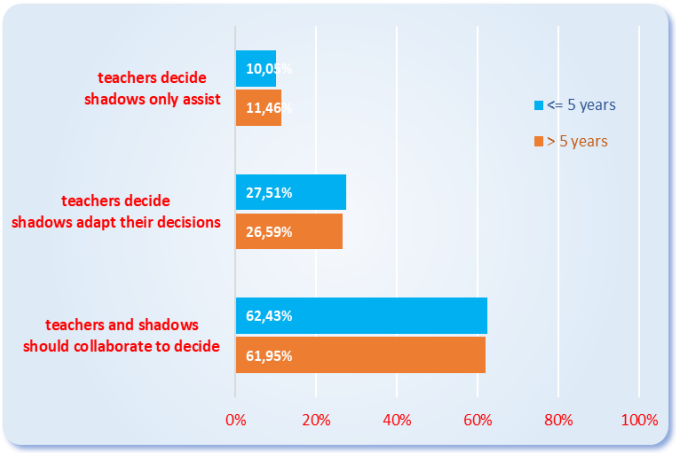

Figure 27. Distribution of answers regarding the potential role of shadows in educational activities – comparison by educational experience

There are no differeces between the evaluations done by less experienced specialist and by the experienced specialists; irrespective of their experience, most of our respondents agreed that full involvment of shadows in the decision-making process is recommendable.

×

To conclude on this topic, we can synthetize and mention that shadows should be involved in the decision-process, and teachers and shadows should fully collaborate to make the decisions. The most positive evaluation of the role of shadows in the decision-making process is in Italy and Romania, while the Turkish specialists are undecided, with a significant proportion of them even considering that teachers should make all the decisions.

The receptivity to involving the shadows in the decision-making process is higher for pre-primary teachers, but is not significantly influenced by the experience of specialists making the evaluation.

2.3. Required skills for teachers to collaborate with shadows

Our respondents were asked to evaluate the importance of 21 skills of teachers collaborating with shadows, on a scale from 1 – irrelevant to 5 – very important.

×

Figure 28 presents the average scores for each evaluated skill:

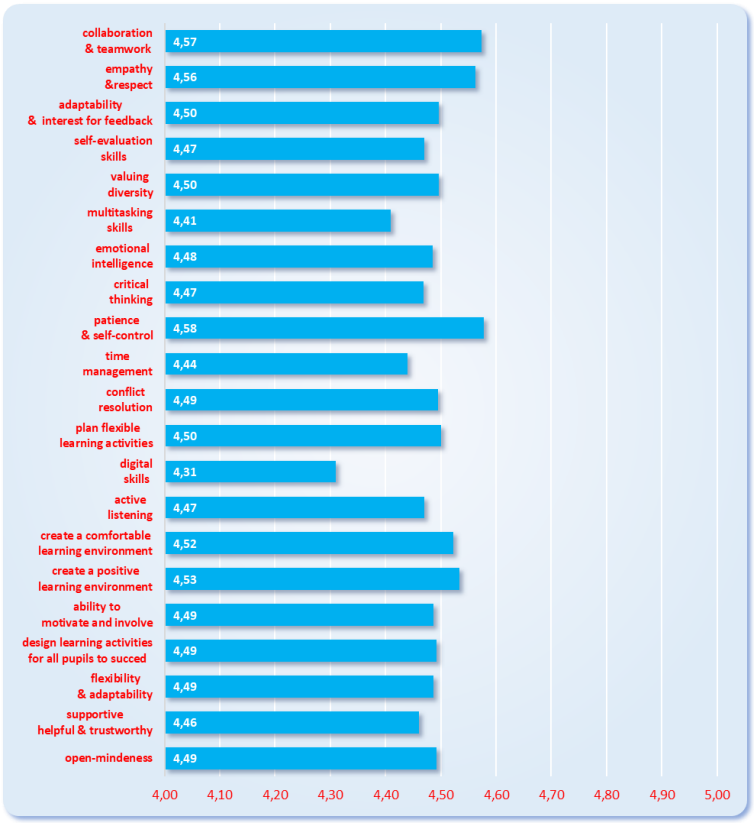

Figure 28. Evaluation of the needed skills for a teacher to collaborate with shadows

On the one hand, analysing the data shows that all skills are considered to be important for teachers working with shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the respondents created a **clear hierarchy of the skills needed for teachers to fully cooperate with shadows**:

❑ **3 highly important skills**: patience and self-control; collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions;

❑ **5 important skills**: ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated; ability to create a comfortable learning environment for all children, including those with SEN; valuing diversity and respect the differences; adaptability and interest for feedback from children and "shadows"; ability to plan flexible learning activities adequate to the educational needs and developmental level of all children.

×

Figure 29 presents the average evaluation of the importance of skills needed for teachers to collaborate with shadows, separately for Romania, Spain, Italy and Turkey:

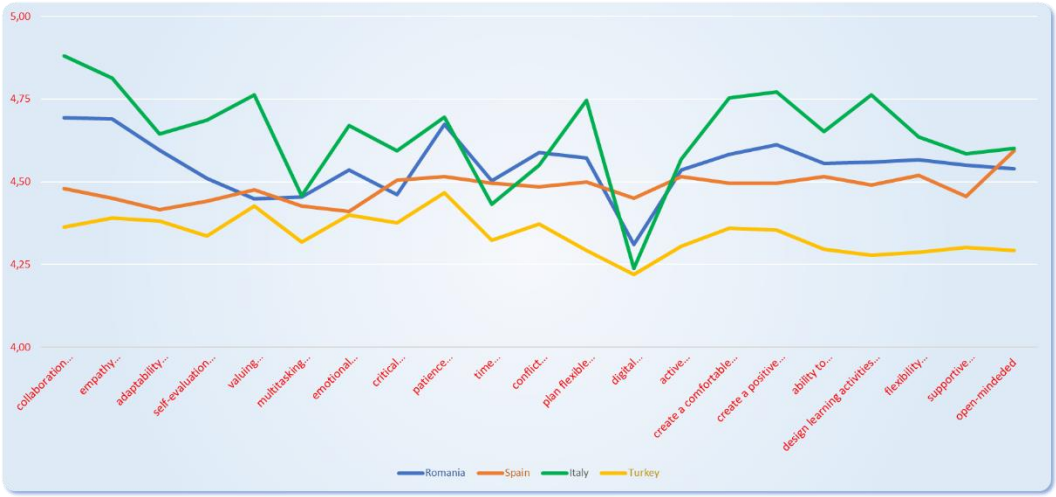

Figure 29. Evaluation of the needed skills for a teacher to collaborate with shadows – cross countries analysis

One-way Anova shows significant differences between the evaluations done in different countries for almost all the analysed skills (with the exception of multitasking, critical thinking and time management skills). The Italian respondents have a general tendency of over-evaluating the importance of the skills needed for teachers to work with shadows, while the Turkish respondents have a general tendency of under-evaluation.

×

Figure 30 presents the average evaluation of the importance of skills needed for teachers to collaborate with shadows, separately for pre-primary teachers, primary teachers and other specialists:

Figure 30. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational status

One-way Anova shows significant differences between the evaluations done by pre-primary teachers, primary teachers and other specialists for almost all the analysed skills (with the exception of multitasking skills, ability to plan flexible learning activities, digital skills, active listening skills and ability to plan activities for all children to succeed). The differences are visible in the chart, with primary teachers having a general tendency of under-evaluation, while other specialists have a general tendency of over-evaluation.

×

Figure 31 presents the average evaluation of the importance of skills needed for teachers to collaborate with shadows, separately for less experienced specialists and experienced specialists:

Figure 31. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational experience

Independent samples t test shows that the only significant difference is related to the evaluation of the importance of designing learning activities for all children to succeed, more important for the experienced specialists compared with the less experienced ones. Still, the general tendency is that experience in education doesn't significantly influence the perception of the skills needed for teachers to collaborate with shadows.

×

To conclude on this topic, we can emphasize that our respondents created a clear profile of the teacher able to fully cooperate with shadows, focusing both on personal skills (he needs to be patient, emphatic and able to communicate and work in teams), but also on professional skills (he needs to be able to create a positive and comfortable learning experience, to value diversity in education and plan flexible learning scenarios, to be adaptable and receptive to feed-back).

The evaluation of the most important skills for teachers to fully cooperate with shadows is influenced by culture (all skills are considered to be more important by the Italian specialists compared with the Turkish ones) and by status (with the primary teachers under-evaluating and other specialists over-evaluating), but not by the experience in education.

2.4. Required skills for shadows to collaborate with teachers

Our respondents were asked to evaluate the importance of 21 skills of shadows collaborating with teachers, on a scale from 1 – irrelevant to 5 – very important.

×

Figure 32 presents the average scores for each evaluated skill:

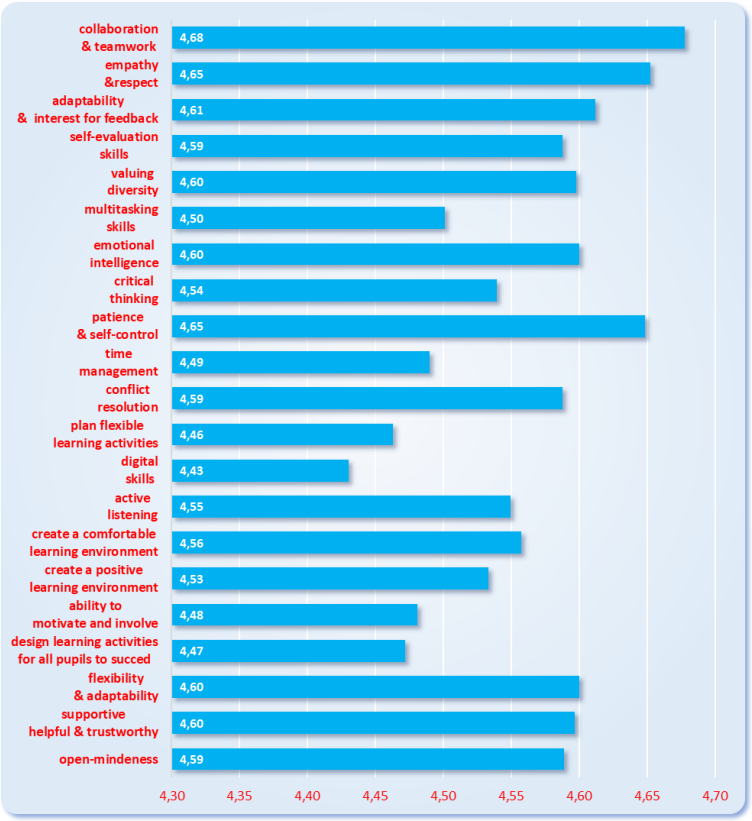

Figure 32. Evaluation of the needed skills for a shadow to collaborate with teachers

On the one hand, analysing the data shows that all skills are considered to be important for shadows in their efforts to collaborate with teachers, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the respondents created a **clear hierarchy of the skills needed for shadows to fully cooperate with teachers**:

❑ **3 highly important skills**: collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions; patience and self-control;

❑ **5 important skills**: adaptability and interest for feedback from children and teachers; valuing diversity and respect the differences; emotional intelligence and stress management skills; flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN; ability to be supportive, helpful and trustworthy, to encourage children to share their problems.

Figure 33 presents the average evaluation of the importance of skills needed for shadows to collaborate with teachers, separately for Romania, Spain, Italy and Turkey:

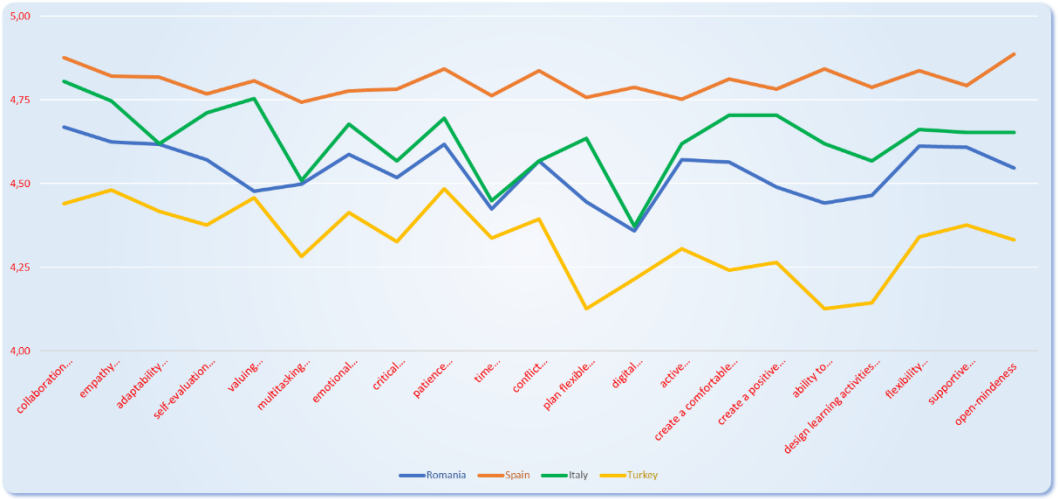

Figure 33. Evaluation of the needed skills for a shadow to collaborate with teachers – cross countries analysis

One-way Anova shows significant and powerful influences of culture on all analysed skills, with Spanish specialists always making the highest evaluation (almost al average scores are above 4-75, closest to the theoretical maximum of 5), Italian and Romanian specialists having similar and more moderated evaluation (generally between 4,5 and 4,75), while the Turkish participants having a general tendency of under-evaluation (most average evaluation between 4,25 and 4,5, but some evaluation are even below 4,25).

Figure 34 presents the average evaluation of the importance of skills needed for shadows to work with teachers, separately for pre-primary teachers, primary teachers and other specialists:

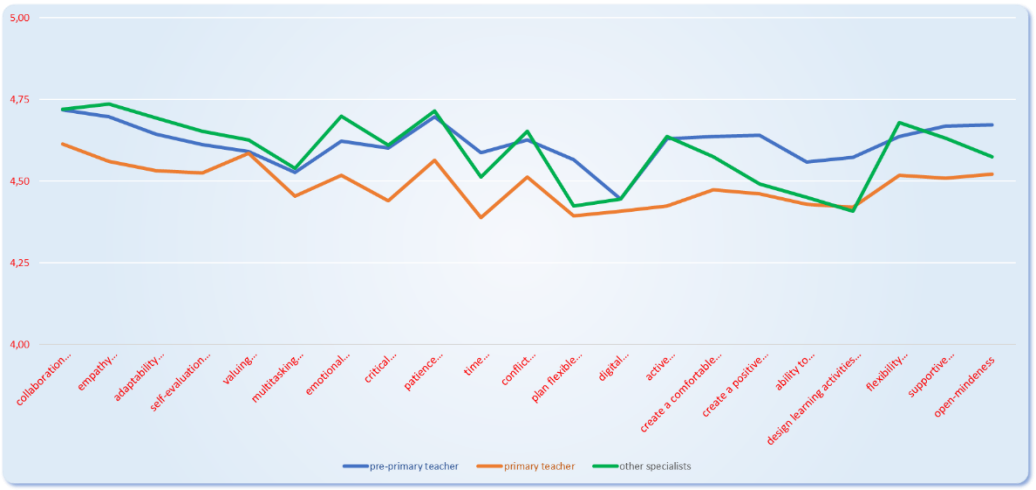

Figure 34. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational status

One-way Anova shows that professional status has no significant influence on the evaluation of most of the skills needed for shadows to collaborate with teachers, with the exception of time management skills, ability to plan flexible learning activities, active listening skills, ability to create a positive learning environment and ability to design activities for all children to succeed, all those skills being sub-evaluated by the primary teachers).

×

Figure 35 presents the average evaluation of the importance of skills needed for shadows to collaborate with teachers, separately for less experienced and experienced specialists:

Figure 35. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational experience

Independent samples t test shows that no significant differences exist between the evaluations done by the lees experienced and experienced specialists, all skills needed for shadows to collaborate with class teachers being similarly evaluated by the two categories of specialists.

×

To conclude on this topic, we can emphasize that our respondents created a clear profile of the shadow able to fully cooperate with class teachers, focusing both on personal skills (he needs to be patient, emphatic and able to communicate and work in teams), but also on professional skills (he needs to be manifest adaptability, emotional intelligence, flexibility, supportive behaviours and respect for the differences while working with the children with SEN).

The evaluation of the most important skills for shadows to fully cooperate with teachers is influenced by culture (all skills are considered to be more important by the Spanish specialists compared with the Turkish ones), but not by status and experience in education.

2.5. Comparative analysis of skills needed for teachers and shadows

Figure 36 presents, in a comparative manner, the average evaluation of the importance of skills needed for the teachers and for the shadows:

Figure 36. Comparison of the evaluation of necessary skills for teachers and for shadows

Paired samples t test shows that average scores are significantly higher when evaluating the skills of shadows compared with evaluating the skills of teachers (with only 5 exceptions where the differences are unsignificant, namely the evaluations of ability to plan flexible learning activities, ability to create a comfortable learning environment, ability to create a positive learning environment, ability to motivate and involve, ability to develop learning activities for all pupils to succeed). This data shows that our respondents have a constant tendency of asking from the shadows to have more developed skills compared with the teachers.

CHAPTER 3

Research data and results in Romania

3.1. Perceived usefulness of shadows for children with special educational needs in Romania

3.1.1. Perceived main beneficiaries of shadows' work

As shown in figure 37, the Romanian respondents consider shadows as being useful for all three educational actors, but mostly for the children with special educational needs.

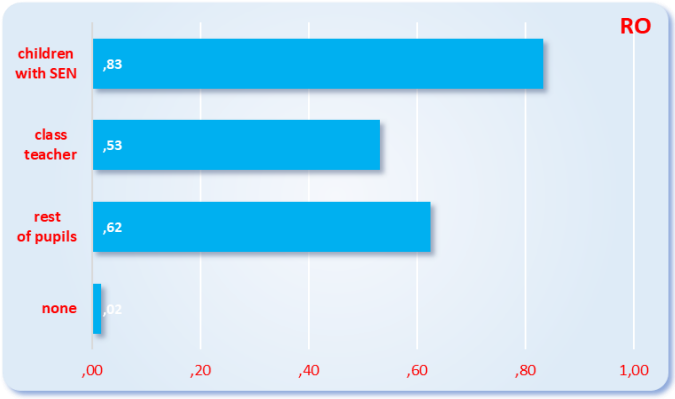

Figure 37. Evaluation of shadows' perceived importance related to different beneficiaries – data from Romania

Almost none of the Romanian respondents considered the shadows as not being useful at all, proving a positive social perception of shadows in the classroom working with children with special educational needs.

Figure 38 presents the average Romanian evaluations of shadows' perceived usefulness for each educational actor, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

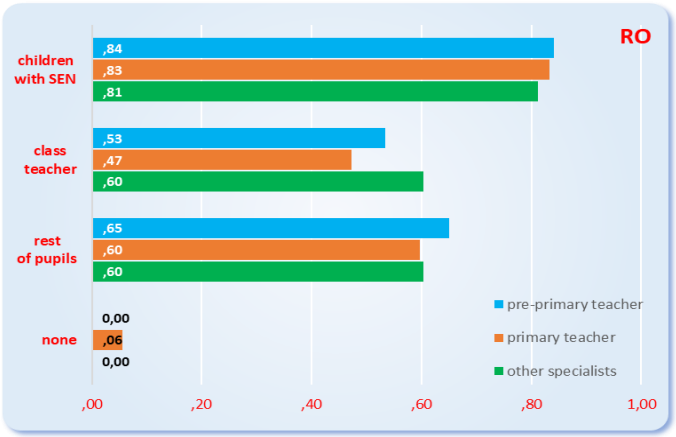

Figure 38. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational status, data from Romania

One-way Anova shows significant difference for none of the important three choices, so the positive perception of usefulness of shadows for the children with SEN, for the class teacher and for the rest of the pupils is irrespective of the educational status, being similar for the Romanian pre-primary teachers, primary teachers and other specialists.

Figure 39 presents the average Romanian evaluations of shadows' perceived usefulness for each educational actor, separately for less experiences and experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

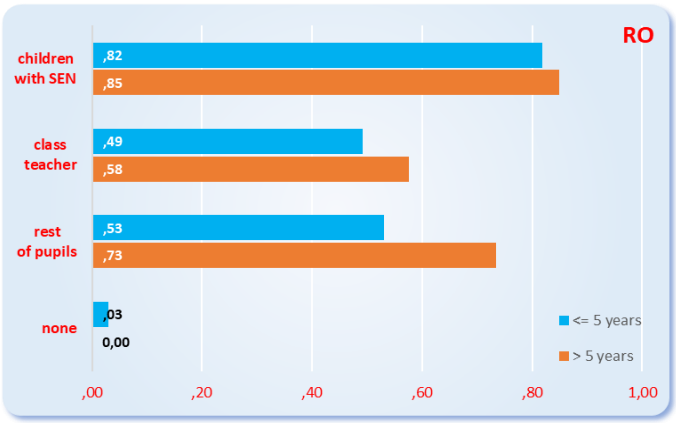

Figure 39. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational experience, data from Romania

Independent samples t test shows significant differences in evaluating the usefulness of shadows for the rest of the class, with experienced specialists having a significantly better evaluation.

3.1.2. Perceived necessary number of shadows in a classroom

Regarding the number of shadows in the classroom, most of the Romanian respondents consider that there should be one shadow for each child with SEN, as shown in figure 40:

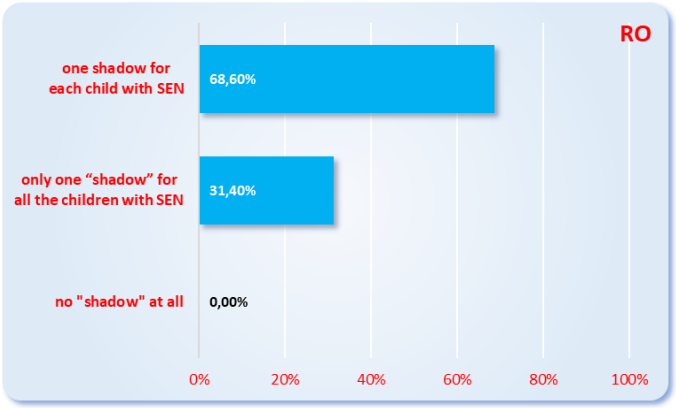

Figure 40. Distribution of answers regarding the necessary number of shadows in a classroom – data from Romania

Data from Romania proves a very positive attitude towards having shadows in classrooms to assist children with SEN, none of the respondents considered that shadows are not needed.

3.1.3. Perceived collaboration skills needed for shadows

Romanian respondents consider that shadows should have specific collaboration skills regarding both teachers and children with special educational needs, as presented in figure 41:

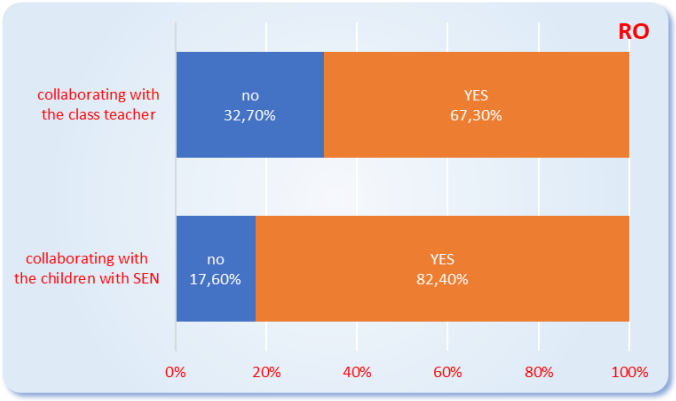

Figure 41. Distribution of answers regarding the main collaboration skills needed for shadows – data from Romania

Still, evaluations done by the Romanian respondents show a more intense focus on the skills to adequately collaborate with the children with SEN.

×

Figure 42 presents the average Romanian evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for pre-primary

teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

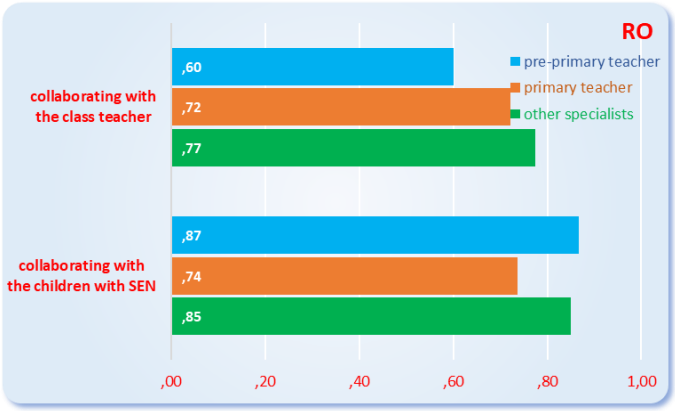

Figure 42. Evaluation of the main collaboration skills needed for shadows – comparison by educational status, data from Romania

One-way Anova shows no significant influence of status on evaluating the shadows' skills of collaborating with the class teacher or with the children with SEN, Romanian pre-primary teachers, primary teachers and other specialists making similar evaluations.

×

Figure 43 presents the average Romanian evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for less experienced and more experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

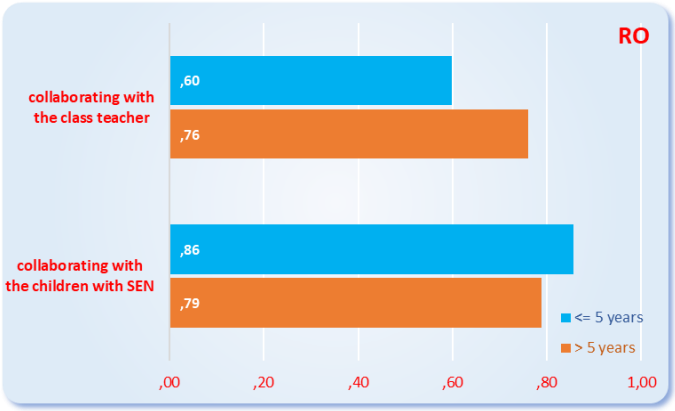

Figure 43. Evaluation of the main collaboration skills needed for shadows – comparison by educational experience, data from Romania

Independent samples t test shows a significant influence of experience on evaluating the shadows' skills of collaborating with the class teacher (experienced trainers considering this skill more important compared with the less experienced trainers), but not on evaluating the shadows' skills of collaborating with the children with SEN, this skill being evaluated in a similar manner by the less experienced and experienced Romanian specialists.

3.2. Perceived involvement of shadows in educational activities in Romania

Figure 44 presents the percentages of Romanian respondents that consider that shadows should be involved in each of the five analysed educational activities:

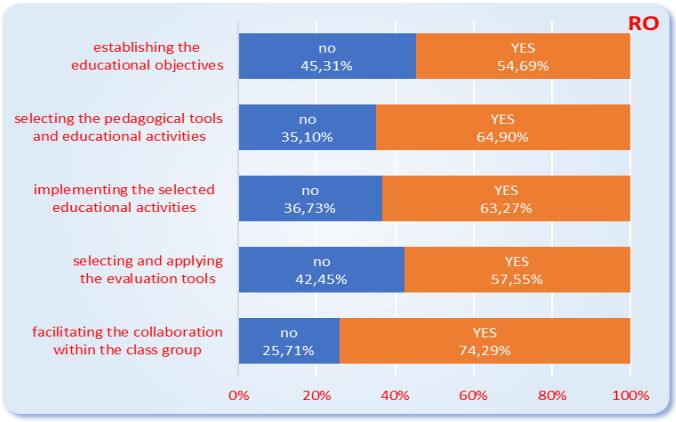

Figure 44. Distribution of answers regarding the potential involvement of shadows in educational activities – data from Romania

As visible in figure 44, there is a tendency of selecting all of the proposed answers, with more than half of the Romanian respondent selecting each potential role of the shadows.

Still, there is a hierarchy of the potential roles of the shadows, with most of the Romanian respondents focusing on the role of facilitating the collaboration between children with SEN and the other pupils in the class. Also, selecting and implementing the educational activities for children with SEN are evaluated as important.

×

Figure 45 presents the average evaluations done by Romanian respondents on the necessity of involving shadows in the five analysed educational activities, separately for pre-primary teachers, primary teachers and other educational specialists:

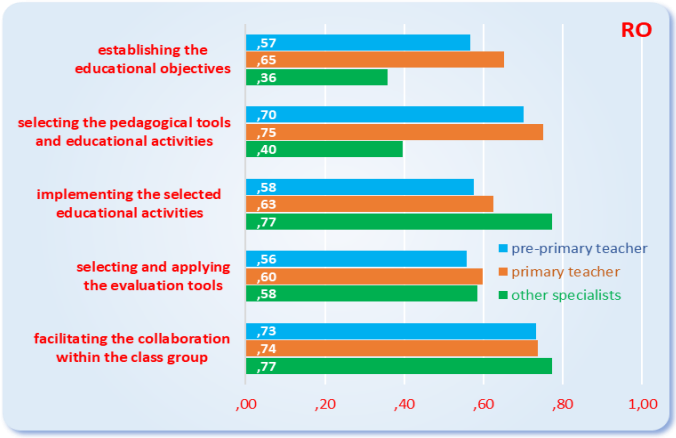

Figure 45. Evaluation of the potential involvement of shadows in educational activities – comparison by educational status – data from Romania

One-way Anova shows a clear and significant influence of status on evaluating the potential involvement of shadows in the educational process; while establishing the educational objectives and selecting the educational activities are less important for the Romanian other specialists compared with the pre-primary and primary teachers, implementing the selected educational activities for the children with SEN are more important for the other specialists compared with the pre-primary teachers. Selecting and applying the evaluation tools and facilitating the collaboration within the classroom are evaluated irrespective of status.

×

Figure 46 presents the average evaluations done by Romanian respondents on the necessity of involving shadows in the five analysed educational activities, separately for less experienced and more experienced educational specialists:

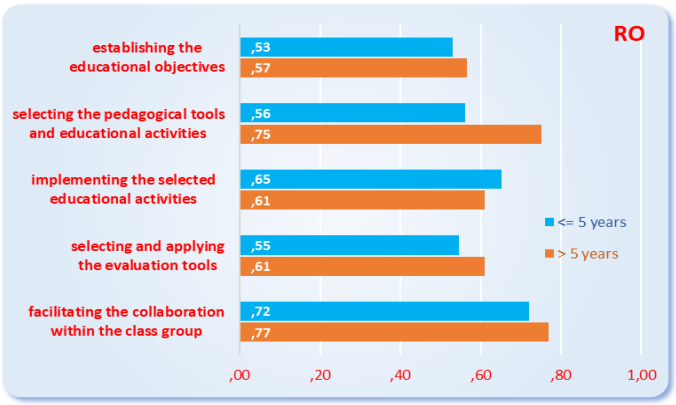

Figure 46. Evaluation of the potential involvement of shadows in educational activities – comparison by educational experience – data from Romania

Independent samples t test shows a limited influence of status on evaluating the potential involvement of shadows in the educational process, with selecting the pedagogical tools and educational activities being more important for the less experienced specialists in Romania.

×

Figure 47 presents the percentages of Romanian respondents choosing each option regarding the implication of shadows in the decision-making process in education:

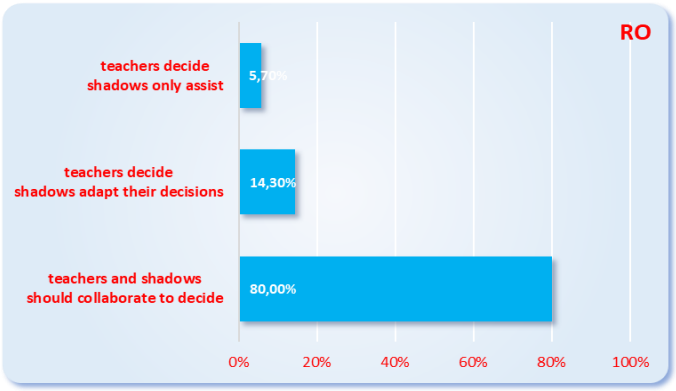

Figure 47. Distribution of answers regarding the potential role of shadows in educational activities – data from Romania

Most of the Romanian respondents (four out of five) considers that shadows should be involved in the decision-making process, as teachers and "shadows" should collaborate into deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with SEN, while still remaining effective for the rest of the class.

3.3. Required skills for teachers to collaborate with shadows in Romania

Figure 48 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Romanian specialists:

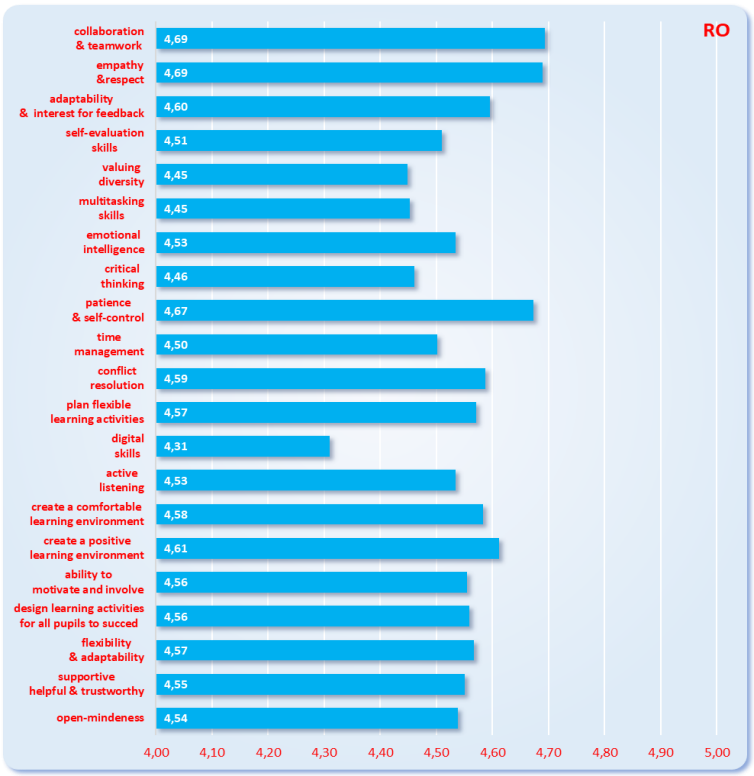

Figure 48. Evaluation of the needed skills for a teacher to collaborate with shadows – data from Romania

On the one hand, analysing the data from Romania shows that all skills are considered to be important for teachers working with shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Romanian respondents created a **clear hierarchy of the skills needed for teachers to fully cooperate with shadows**:

❑ **3 highly important skills**: collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions; patience and self-control;

❑ **6 important skills**: ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated; adaptability and interest for feedback from children and "shadows"; conflict resolution skills; ability to create a comfortable learning environment for all

children, including those with SEN; ability to plan flexible learning activities; flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN.

×

Figure 49 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Romanian specialists according to their status:

Figure 49. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational status, data from Romania

One-way Anova shows significant differences only for 2 dimensions (collaboration & communication skills and empathy), so we can consider that status has no significant influence on evaluating the importance of necessary skills for teachers to collaborate with shadows, as pre-primary teachers, primary teachers and other specialists in Romania made similar evaluations.

×

Figure 50 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Romanian specialists according to their experience:

Figure 50. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational experience, data from Romania

Independent samples t test shows significant differences on any of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for teachers to fully collaborate with shadows in Romania.

3.4. Required skills for shadows to collaborate with teachers in Romania

Figure 51 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Romanian specialists:

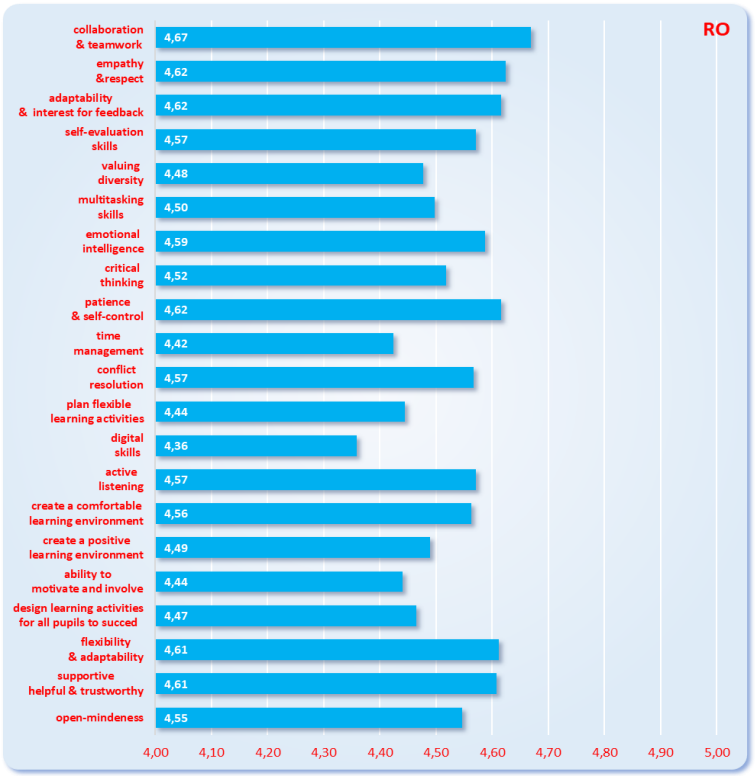

Figure 51. Evaluation of the needed skills for a shadow to collaborate with teachers – data from Romania

On the one hand, analysing the data from Romania shows that all skills are considered to be important for shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Romanian respondents created a **clear hierarchy of the skills needed for shadows**:

❑ **4 highly important skills**: collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions; adaptability and interest for feedback from children and teachers; patience and self-control.

❑ **6 important skills**: flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN; ability to be supportive, helpful and trustworthy, to encourage children to share their problems; emotional intelligence and stress management

skills; self-evaluation skills and ability to observe and objective evaluate its own activity; conflict resolution skills; active listening skills and interest in everyone's needs.

×

Figure 52 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Romanian specialists according to their status:

Figure 52. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational status, data from Romania

One-way Anova shows significant differences for none of the analysed dimensions, with no exception, so we can consider that status has no significant influence on evaluating the importance of necessary skills for shadows to collaborate with teachers, as pre-primary teachers, primary teachers and other specialists in Romania made similar evaluations.

×

Figure 53 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Romanian specialists according to their experience:

Figure 53. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational experience, data from Romania

Independent samples t test shows significant differences on any of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for shadows in Romania.

3.5. Comparative analysis of skills needed for teachers and shadows in Romania

Figure 54 presents, in a comparative manner, the average evaluation done in Romania for the importance of skills needed for the teachers and for the shadows:

Figure 54. Comparison of the evaluation of necessary skills for teachers and for shadows – data from Romania

Statistical analysis shows that there is a general tendency of the Romanian respondents to consider that shadows and teachers should have similar skills, as paired samples t test finds unsignificant differences for 17 out of the 21 analysed dimensions. Regarding the exceptions, empathy, ability to plan flexible learning activities, ability to create a positive learning environment, ability to motivate and involve are considered by the Romanian respondents as being more important for the teachers compared with the shadows.

3.6. Synthesis of the results in Romania

The general attitude toward shadows in Romania is very positive for all evaluated aspects:

❑ shadows are considered beneficial especially for the children with SEN, but also for the rest of the pupils in the class and even for the class teachers, and almost none of the respondents considered that having a shadow in the classroom is not useful at all. This positive attitude toward the shadows is irrespective of the status (pre-primary teachers, primary teachers and other specialists making similar evaluation), but is more pronounced in case of the more experienced specialists;

❑ shadows are considered to be needed for each child with SEN, and absolutely no respondent considered that shadows are not needed in the classroom where children with SEN are integrated;

❑ shadows should have developed collaboration skills with both the children with SEN and the class teachers, but the main focus is on collaborating with children with SEN; status has no relevant impact on those two evaluations, while experience has a limited impact, only regarding the skills of collaborating with the class teacher, this aspect being more important for the experienced trainers;

❑ regarding the role of shadows in the educational activities, the Romanian specialists focused on the role of facilitating the collaboration between children with SEN and the other pupils in the class, this role having the highest evaluation irrespective of status and experience;

❑ regarding the role of shadows in the decision-making process, the Romanian specialists focus mainly on the collaboration between teachers and shadows for deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with SEN, while still remaining effective for the rest of the class.

Regarding the necessary skills for teachers to collaborate with shadows, the Romanian specialists focused on some personal skills (teamwork abilities, empathy, patience, conflict resolution skills), but also valued some of the professional skills (ability to create positive and comfortable environment, to motivate children, to listen their feed-back and plan flexible learning activities).

Regarding the necessary skills for shadows to fully collaborate with the class teachers, the Romanian specialists focused more on personal skills (teamwork abilities, empathy, patience, adaptability, supportive attitude, emotional intelligence, conflict resolution, active listening skills), the only professional skill highly evaluated being flexibility and adaptability in working with children with SEN.

Comparative analysis showed that the professional profile of teachers and shadows are very similar (only 4 out of 21 dimensions being significantly different), confirming the important status of shadows in the educational process, but also high expectancies regarding their skills and involvement in activities.

To synthetise, we can emphasise that Romanian specialists in education consider that shadows are useful for all education actors, they are needed and one shadow should be assisting each child with SEN with the main role of facilitating its interaction with the rest of the class, they should be involved in the decision-making process and should have similar skills with the class teachers.

CHAPTER 4

Research data and results in Spain

4.1. Perceived usefulness of shadows for children with special educational needs in Spain

4.1.1. Perceived main beneficiaries of shadows' work

As shown in figure 55, the Spanish respondents consider shadows as being useful for all three educational actors, but mostly for the children with special educational needs.

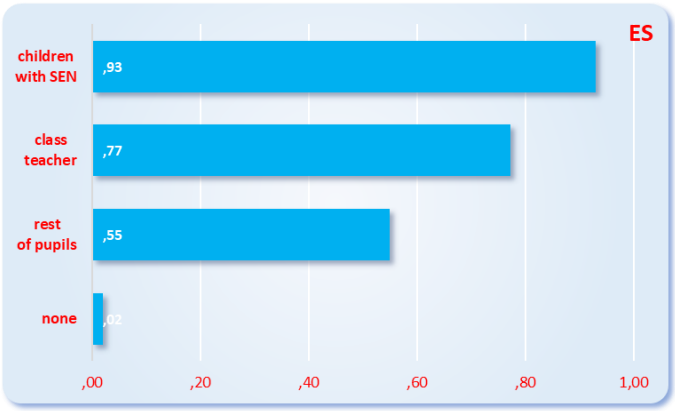

Figure 55. Evaluation of shadows' perceived importance related to different beneficiaries – data from Spain

Almost none of the Spanish respondents considered the shadows as not being useful at all, proving a positive social perception of shadows in the classroom working with children with special educational needs.

Figure 56 presents the average Spanish evaluations of shadows' perceived usefulness for each educational actor, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

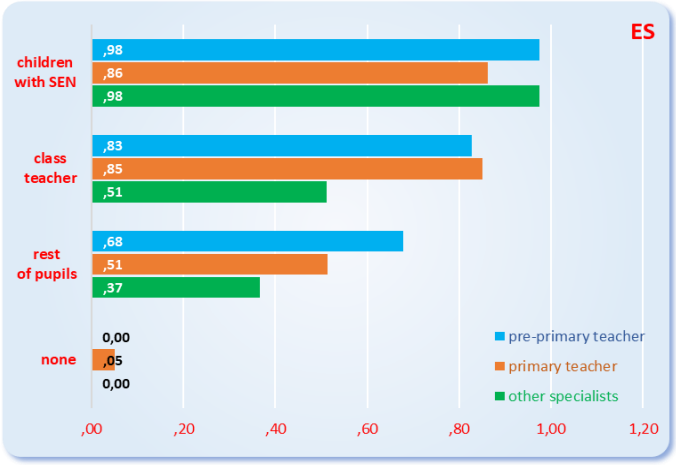

Figure 56. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational status, data from Spain

One-way Anova shows significant difference for all of the important three choices, with the perception of usefulness of shadows for the children with SEN being less obvious for the primary teachers, while the perception of usefulness of shadows for the class teacher and for the rest of the pupils is less obvious for the other specialists in Spain.

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Figure 57 presents the average Spanish evaluations of shadows' perceived usefulness for each educational actor, separately for less experiences and experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

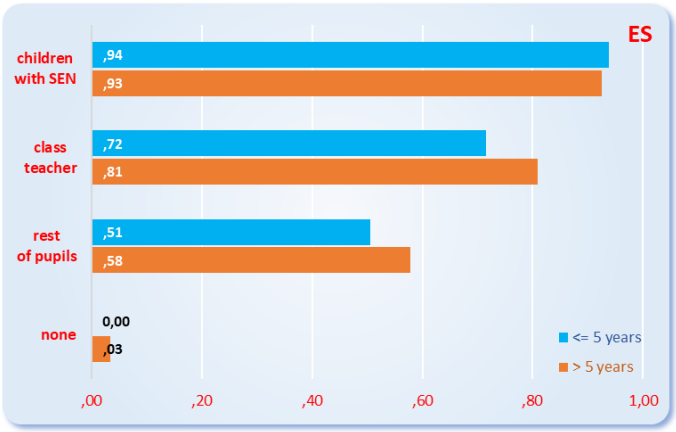

Figure 57. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational experience, data from Spain

Independent samples t test shows no significant differences between the average evaluations done by less experienced and experienced specialists in Spain.

4.1.2. Perceived necessary number of shadows in a classroom

Regarding the number of shadows in the classroom, most of the Spanish respondents consider that there should be one shadow for each child with SEN, as shown in figure 58:

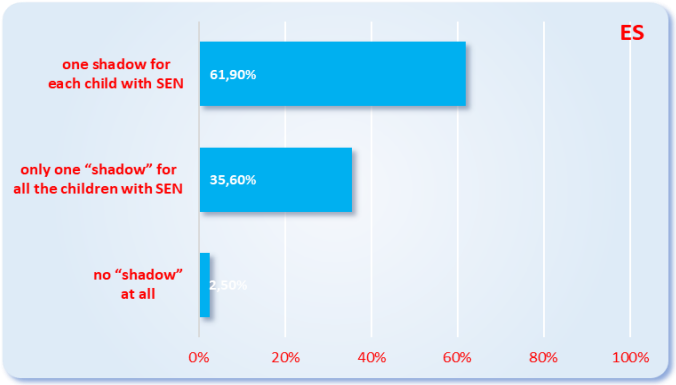

Figure 58. Distribution of answers regarding the necessary number of shadows in a classroom – data from Spain

Data from Spain proves a very positive attitude towards having shadows in classrooms to assist children with SEN, with almost none of the respondents considered that shadows are not needed.

4.1.3. Perceived collaboration skills needed for shadows

Spanish respondents consider that shadows should have specific collaboration skills regarding both teachers and children with special educational needs, with a more intense focus on the skills to adequately collaborate with the class teachers, as presented in figure 59:

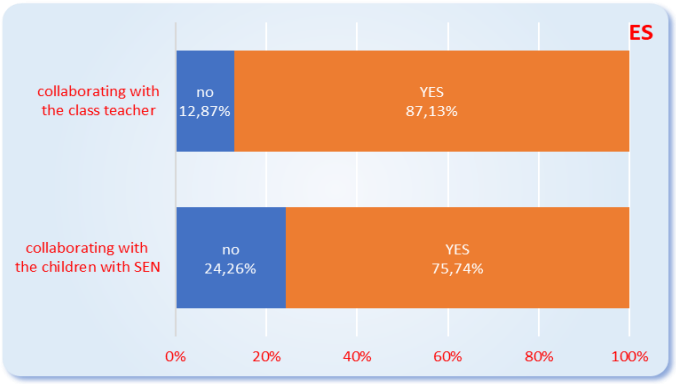

Figure 59. Distribution of answers regarding the main collaboration skills needed for shadows – data from Spain

Still, evaluations done by the Spanish respondents show a more intense focus on the skills to adequately collaborate with the children with the class teachers.

Figure 60 presents the average Spanish evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

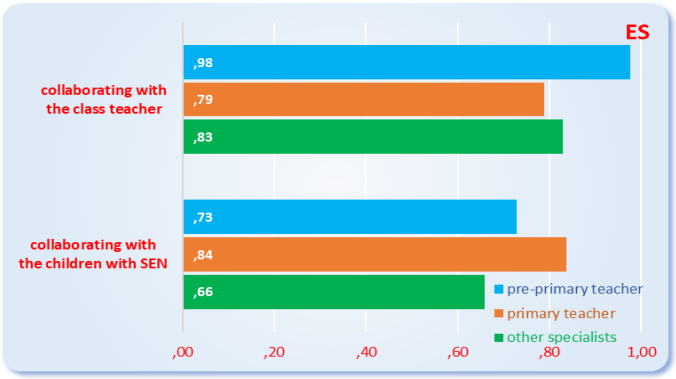

Figure 60. Evaluation of the main collaboration skills needed for shadows – comparison by educational *status, data from Spain*

One-way Anova shows a significant influence of status on evaluating the shadows' skills of collaborating with the class teacher, with pre-primary teachers considering those skills as more important compared with primary teachers, but no significant influence of status on evaluating the shadows' skills of collaborating with the children with SEN.

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Figure 61 presents the average Spanish evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for less experienced and more experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

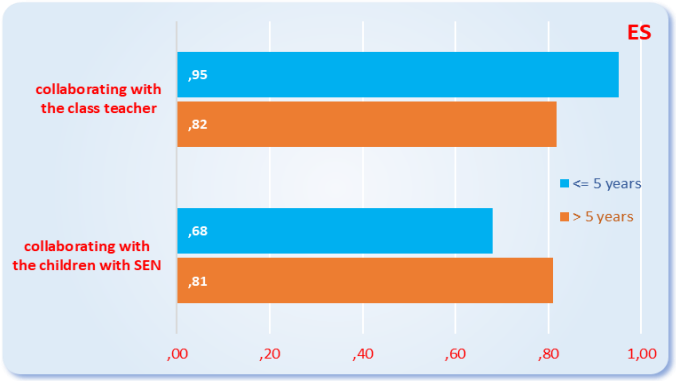

Figure 61. Evaluation of the main collaboration skills needed for shadows – comparison by educational experience, data from Spain

Independent samples t test shows a significant influence of experience on both analysed dimensions; while the shadows' skills of collaborating with the class teacher is more important for the less experienced specialists, the shadows' skills of collaborating with the children with SEN is more important for the experienced specialists in Italy.

4.2. Perceived involvement of shadows in educational activities in Spain

Figure 62 presents the percentages of Spanish respondents that consider that shadows should be involved in each of the five analysed educational activities:

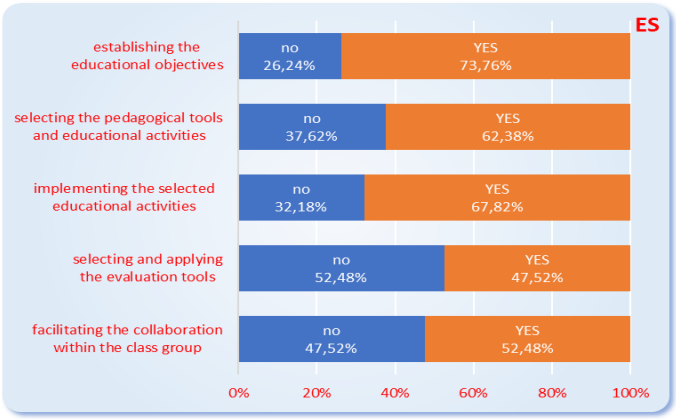

Figure 62. Distribution of answers regarding the potential involvement of shadows in educational activities – data from Spain

As visible in figure 62, there is a tendency of selecting all of the proposed answers, with almost half of the Spanish respondent selecting each potential role of the shadows.

Still, there is a hierarchy of the potential roles of the shadows, with most of the Spanish respondents focusing on the role of establishing the educational objectives for children with SEN. Also, selecting and implementing the educational activities for children with SEN are evaluated as important.

×

Figure 63 presents the average evaluations done by Spanish respondents on the necessity of involving shadows in the five analysed educational activities, separately for pre-primary teachers, primary teachers and other educational specialists:

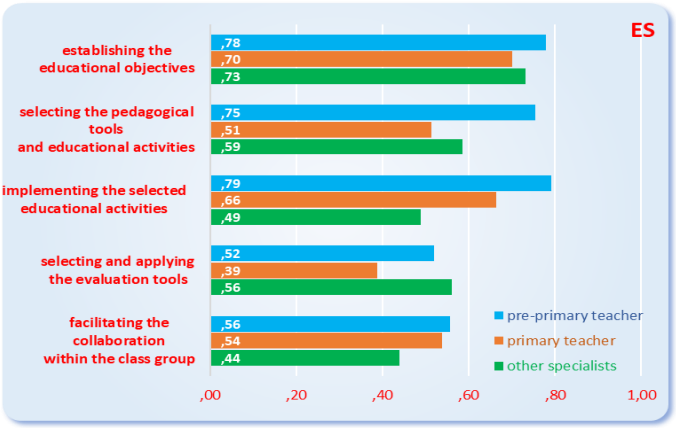

Figure 63. Evaluation of the potential involvement of shadows in educational activities – comparison by educational status – data from Spain

One-way Anova shows a clear and significant influence of status on evaluating the potential involvement of shadows in the educational process; selecting the educational activities and implementing the selected educational activities for the children with SEN are more important for the Spanish pre-primary teachers compared with the primary teachers and other specialists. Establishing the educational objectives, selecting and applying the evaluation tools and facilitating the collaboration within the classroom are evaluated irrespective of the Spanish respondents' status.

×

Figure 64 presents the average evaluations done by Spanish respondents on the necessity of involving shadows in the five analysed educational activities, separately for less experienced and more experienced educational specialists:

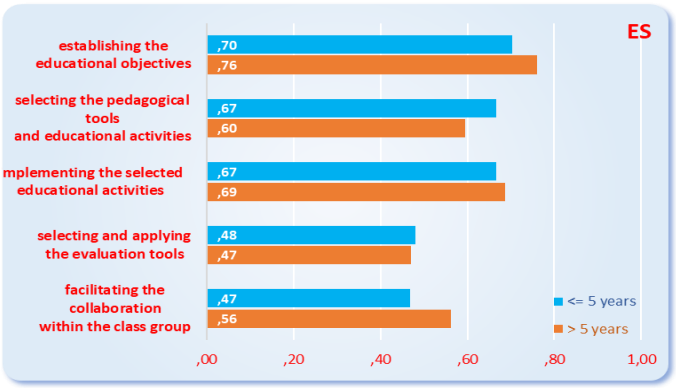

Figure 64. Evaluation of the potential involvement of shadows in educational activities – comparison by educational experience – data from Spain

Independent samples t test shows no significant influence of status on evaluating the potential involvement of shadows in the educational process, with all analysed dimension being evaluated similarly by the less experienced and more experienced specialists in Spain.

×

Figure 65 presents the percentages of Spanish respondents choosing each option regarding the implication of shadows in the decision-making process in education:

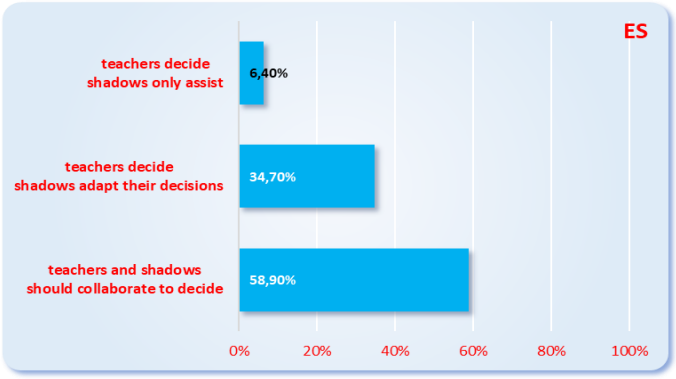

Figure 65. Distribution of answers regarding the potential role of shadows in educational activities – data from Spain

Most of the Spanish respondents (three out of five) considers that shadows should be involved in the decision-making process, as teachers and "shadows" should collaborate into deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with SEN, while still remaining effective for the rest of the class.

4.3. Required skills for teachers to collaborate with shadows in Spain

Figure 66 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Spanish specialists

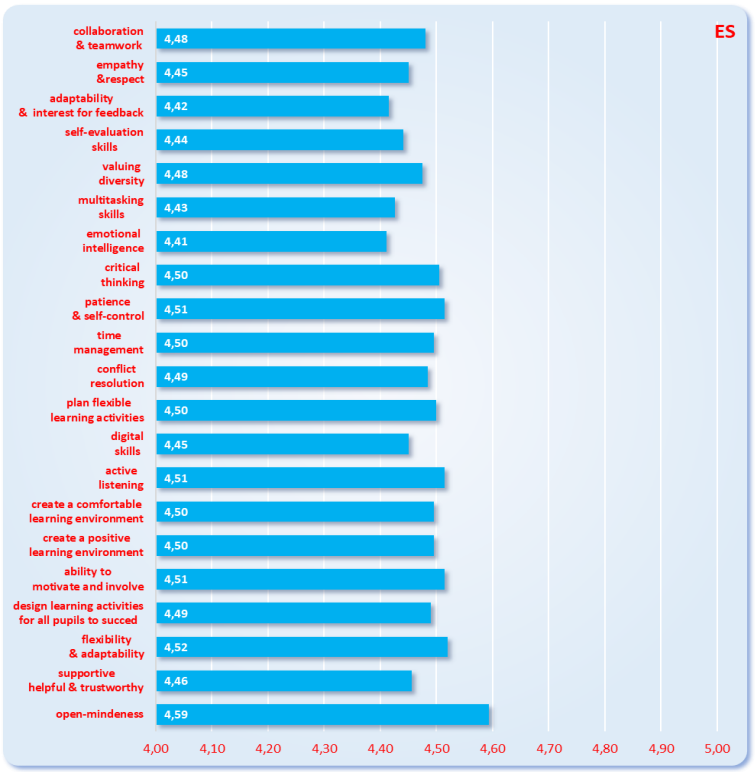

Figure 66. Evaluation of the needed skills for a teacher to collaborate with shadows – data from Spain

On the one hand, analysing the data from Spain shows that all skills are considered to be important for teachers working with shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Spanish respondents created a **clear hierarchy of the skills needed for teachers to fully cooperate with shadows**:

❑ **5 highly important skills**: capacity to remain open-minded and trust the learning potential of all children; flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN; patience and self-control; active listening skills and interest in everyone's needs; ability to motivate and involve other in learning activities (including the "shadows");

❑ **5 important skills**: critical thinking skills and problem-solving abilities; scheduling and time management skills; ability to plan flexible learning activities adequate to the educational needs and developmental level of all children; ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated; ability to create a comfortable learning environment for all children, including those with SEN.

×

Figure 67 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Spanish specialists according to their status:

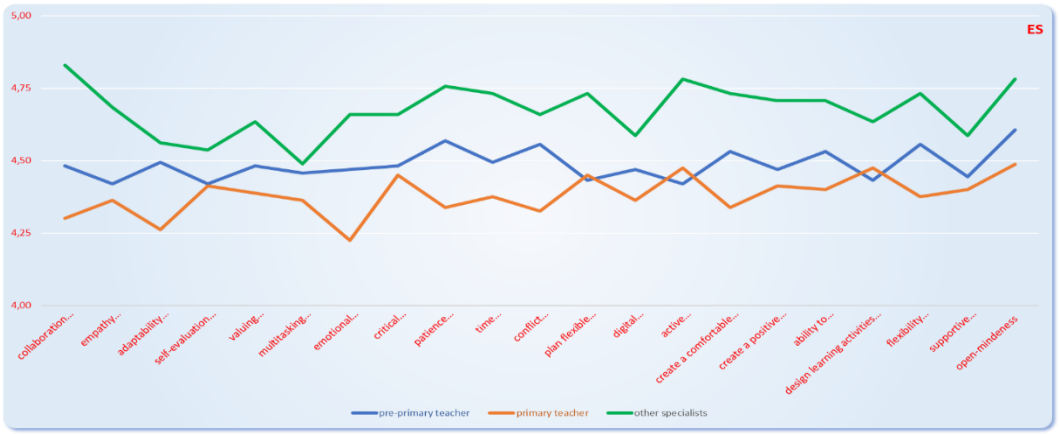

Figure 67. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational status, data from Spain

One-way Anova sows significant differences on 14 out of the 21 analysed dimensions, so we can consider that status has a significant impact on evaluating the necessary skills needed for teachers to fully collaborate with shadows, those skills being considered more important by the Spanish educational specialists compared with the pre-primary and primary teachers.

×

Figure 68 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Spanish specialists according to their experience:

Figure 68. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational experience, data from Spain

Independent samples t test shows significant differences on any of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for teachers to fully collaborate with shadows in Spain.

4.4. Required skills for shadows to collaborate with teachers in Spain

Figure 69 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Spanish specialists:

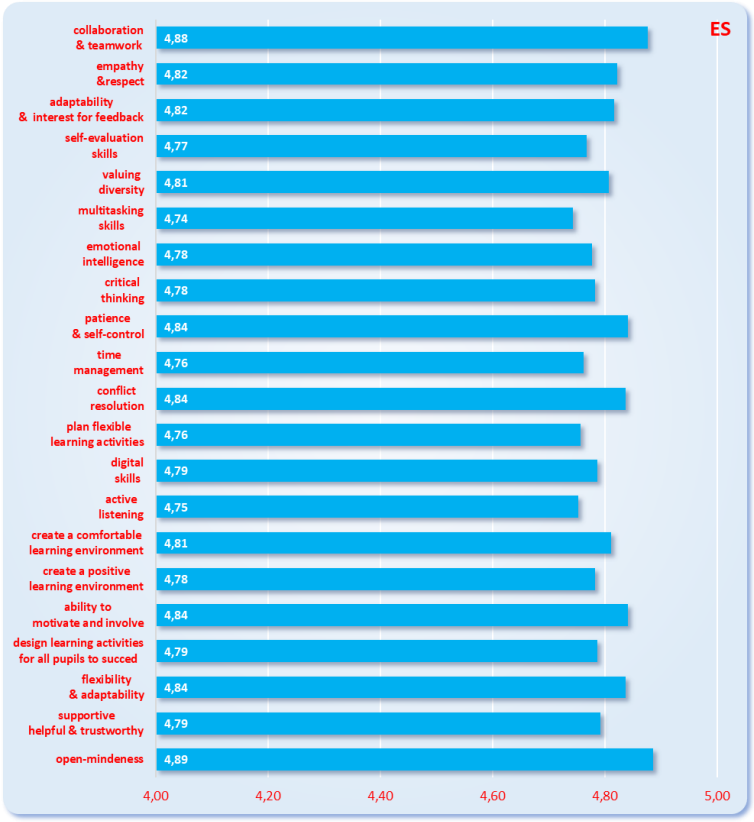

Figure 69. Evaluation of the needed skills for a shadow to collaborate with teachers – data from Spain

On the one hand, analysing the data from Spain shows that all skills are considered to be very important for shadows, as the average evaluation is between 4.74 and 5 for all 21 analysed skills.

On the other hand, the Spanish respondents created a **clear hierarchy of the skills needed for shadows**:

❑ **2 highly important skills**: capacity to remain open-minded and trust the learning potential of all children; collaboration and communication skills, teamwork abilities;

❑ **4 important skills**: patience and self-control; conflict resolution skills; ability to motivate and involve other in learning activities (including the teachers); flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN.

×

Figure 70 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Spanish specialists according to their status:

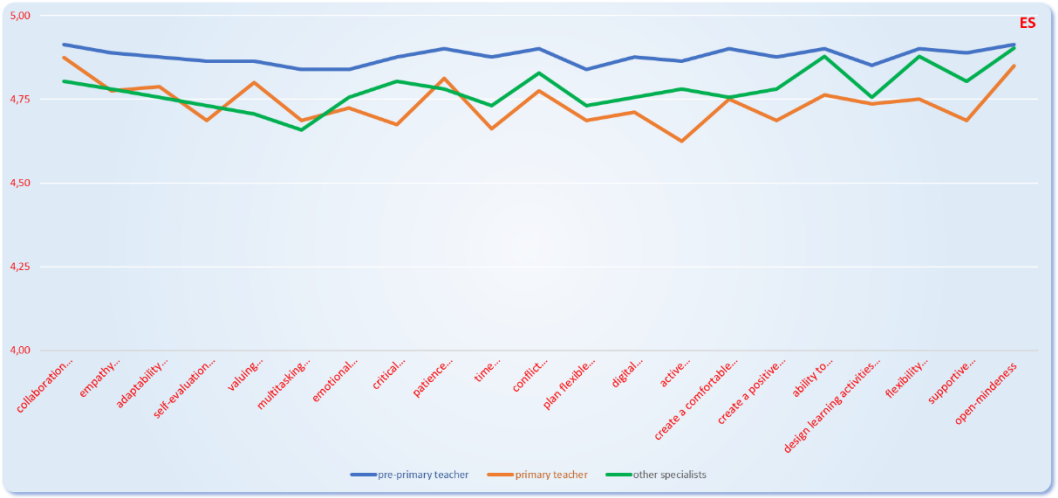

Figure 70. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational status, data from Spain

One-way Anova shows significant differences for only seven of the analysed dimensions, so we can consider that status has no significant influence on evaluating the importance of necessary skills for shadows to collaborate with teachers, as pre-primary teachers, primary teachers and other specialists in Spain made similar evaluations.

×

Figure 71 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Spanish specialists according to their experience:

Figure 71. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational experience, data from Spain

Independent samples t test shows significant differences on only one of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for shadows in Spain.

4.5. Comparative analysis of skills needed for teachers and shadows in Spain

Figure 72 presents, in a comparative manner, the average evaluation done in Spain for the importance of skills needed for the teachers and for the shadows:

Figure 72. Comparison of the evaluation of necessary skills for teachers and for shadows – data from Spain

Statistical analysis shows that there is a general tendency of the Spanish respondents to expect more developed skills for shadows compared with the teachers, as paired samples t test finds significant differences for all 21 analysed dimensions. This is surprising considering that teachers are usually more qualified than shadows, so probably a more detailed analysis could be needed in order to fully understand this unexpected result.

4.6. Synthesis of the results in Spain

The general attitude toward shadows in Spain is very positive for all evaluated aspects:

❑ shadows are considered beneficial especially for the children with SEN, but also for the class teacher and even for the rest of the pupils, and almost none of the respondents considered that having a shadow in the classroom is not useful at all. This positive attitude toward the shadows is influenced by the status (assisting children with SEN being more important for pre-primary teachers), but is not influenced by experience;

❑ shadows are considered to be needed for each child with SEN, and almost no respondent considered that shadows are not needed in the classroom where children with SEN are integrated;

❑ shadows should have developed collaboration skills with both the children with SEN and the class teachers, but the main focus is on collaborating with the class teacher; pre-primary teachers focus more on collaboration with the class teachers compared with primary teachers, while experience has a differentiated influence: collaborating with the class teachers is more important for the less experienced specialists and collaborating with the children with SEN is more important for the experienced ones;

❑ regarding the role of shadows in the educational activities, the Spanish specialists focused on the role of establishing the educational objectives for children with SEN, this role having the highest evaluation irrespective of status and experience;

❑ regarding the role of shadows in the decision-making process, the Spanish specialists focus mainly on the collaboration between teachers and shadows for deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with SEN, while still remaining effective for the rest of the class.

Regarding the necessary skills for teachers to collaborate with shadows, the Spanish specialists focused on a mixt of personal skills (patience, active listening skills, critical thinking, time management skills) and professional abilities (trust the learning potential of children with SEN, flexibility in working with those children and ability to motivate them, ability to create a positive and comfortable learning environment).

Regarding the necessary skills for shadows to fully collaborate with the class teachers, the Spanish specialists also focused on a mixt of personal skills (teamwork abilities, patience, conflict resolution skills) and professional abilities (trust the learning potential of children with SEN, ability to motivate those children and flexibility in working with them).

Comparative analysis showed that the professional profile of shadows includes more developed skills compared with the teachers (all 21 analysed skills were evaluated as being more important for the shadows compared with the teachers), strongly emphasising that expectations are higher for the shadows compared with the class teachers.

To synthetise, we can emphasise that Spanish specialists in education consider that shadows are useful for all education actors, they are needed and one shadow should be assisting each child with SEN with the main role of establishing the educational objectives for those children, they should be involved in the decision-making process and should have more developed personal and professional skills compared with the class teachers.

CHAPTER 5

Research data and results in Italy

5.1. Perceived usefulness of shadows for children with special educational needs in Italy

5.1.1. Perceived main beneficiaries of shadows' work

As shown in figure 73, the Italian respondents consider shadows as being useful for all three educational actors, but mostly for the children with special educational needs.

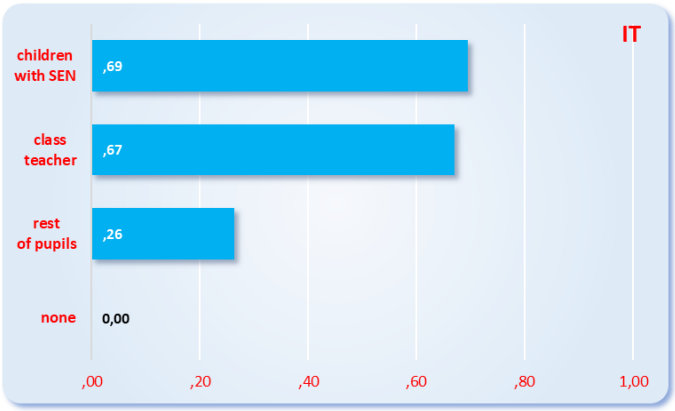

Figure 73. Evaluation of shadows' perceived importance related to different beneficiaries – data from Italy

Almost none of the Italian respondents considered the shadows as not being useful at all, proving a positive social perception of shadows in the classroom working with children with special educational needs.

Figure 74 presents the average Italian evaluations of shadows' perceived usefulness for each educational actor, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

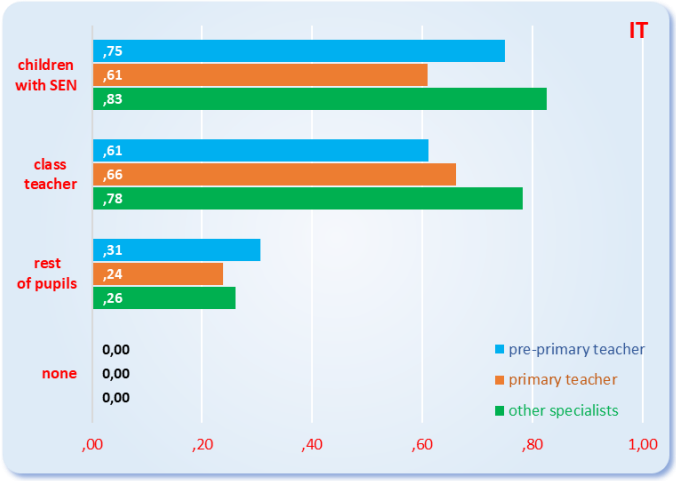

Figure 74. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational status, data from Italy

One-way Anova shows significant difference for none of the important three choices, so the positive perception of usefulness of shadows for the children with SEN, for the class teacher and for the rest of the pupils is irrespective of the educational status, being similar for the Italian pre-primary teachers, primary teachers and other specialists.

×

Figure 75 presents the average Italian evaluations of shadows' perceived usefulness for each educational actor, separately for less experiences and experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

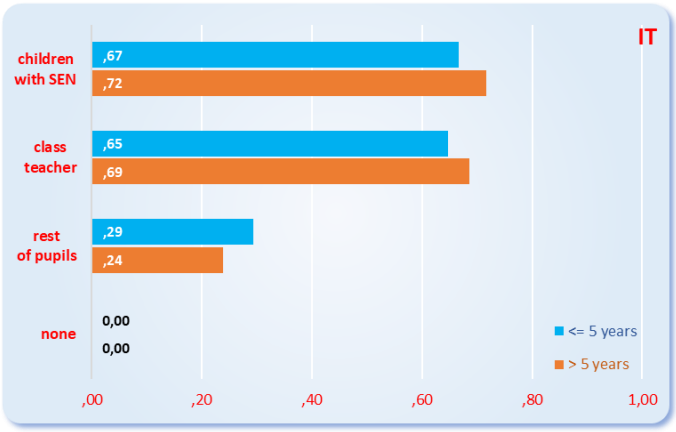

Figure 75. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational experience, data from Italy

Independent samples t test shows no significant differences between the average evaluations done by less experienced and experienced specialists in Italy.

5.1.2. Perceived necessary number of shadows in a classroom

Regarding the number of shadows in the classroom, most of the Italian respondents agreed with having shadows to assist the children with SEN, as shown in figure 76:

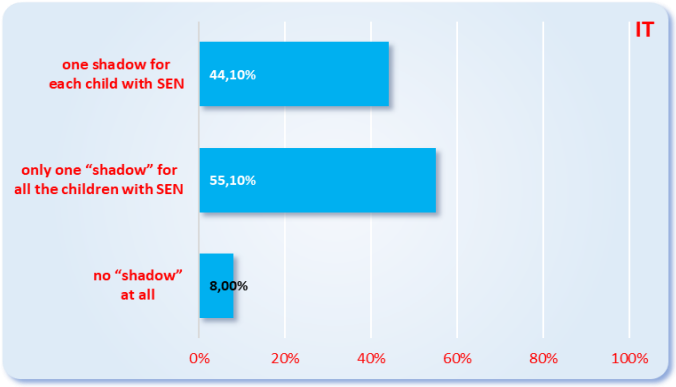

Figure 76. Distribution of answers regarding the necessary number of shadows in a classroom – data from Italy

Data from Italy shows that most respondents consider that one shadow for all children with SEN in a class would suffice, but still almost half of the respondents think that one shadow should be present for each child with SEN. In the same time, almost one out of ten respondents considered that shadows are not needed, therefore this topic should be further analysed in order to fully understand the social perception of the needed number of shadows in a classroom.

5.1.3. Perceived collaboration skills needed for shadows

Italian respondents consider that shadows should have specific collaboration skills regarding both teachers and children with special educational needs, with a more intense focus on the skills to adequately collaborate with the class teachers, as presented in figure 77:

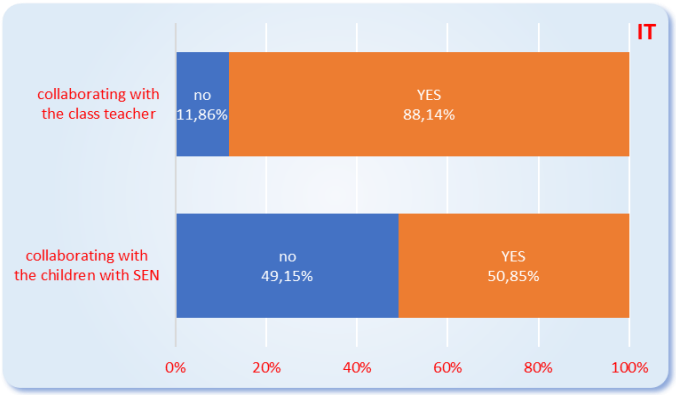

Figure 77. Distribution of answers regarding the main collaboration skills needed for shadows – data from Italy

Still, evaluations done by the Italian respondents show a more intense focus on the skills to adequately collaborate with the children with class teachers.

×

Figure 77 presents the average Italian evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

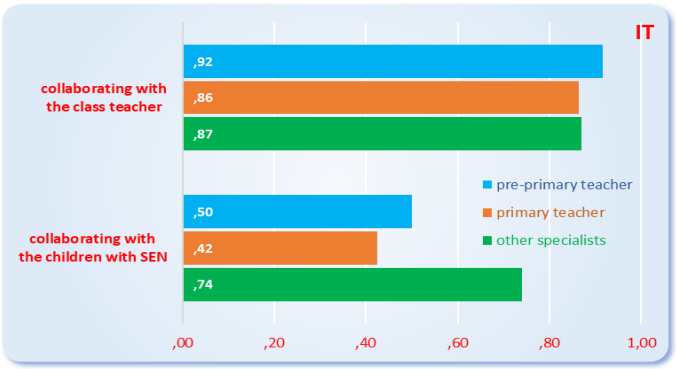

Figure 78. Evaluation of the main collaboration skills needed for shadows – comparison by educational status, data from Italy

One-way Anova shows a significant influence of status on evaluating the shadows' skills of collaborating with the children with SEN, with primary teachers considering those skills as less important compared with other specialists, but no significant influence of status on evaluating the shadows' skills of collaborating with the class teacher.

×

Figure 79 presents the average Italian evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for less experienced and more experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

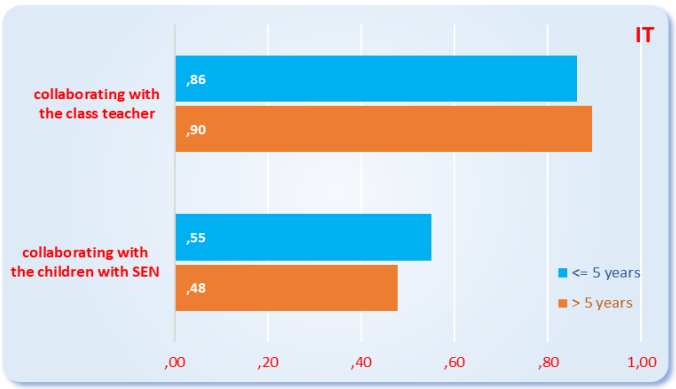

Figure 79. Evaluation of the main collaboration skills needed for shadows – comparison by educational experience, data from Italy

Independent samples t test shows no significant influence of experience on either of the analysed dimensions; shadows' skills of collaborating with the class teachers and with the children with SEN are evaluated irrespective of the experience in education of the Italian respondents.

5.2. Perceived involvement of shadows in educational activities in Italy

Figure 80 presents the percentages of Italian respondents that consider that shadows should be involved in each of the five analysed educational activities:

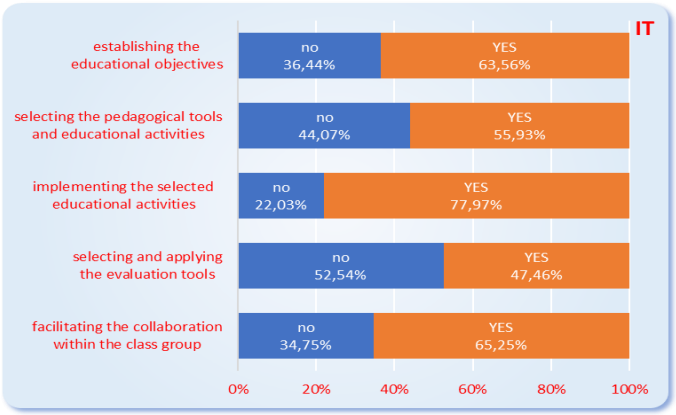

Figure 80. Distribution of answers regarding the potential involvement of shadows in educational activities – data from Italy

As visible in figure 80, there is a tendency of selecting all of the proposed answers, with almost half of the Italian respondent selecting each potential role of the shadows.

Still, there is a hierarchy of the potential roles of the shadows, with most of the Italian respondents focusing on the role of implementing the selected educational activities for children with SEN. Also, facilitating the collaboration within the class and establishing the educational objectives for children with SEN are evaluated as important.

×

Figure 80 presents the average evaluations done by Italian respondents on the necessity of involving shadows in the five analysed educational activities, separately for pre-primary teachers, primary teachers and other educational specialists:

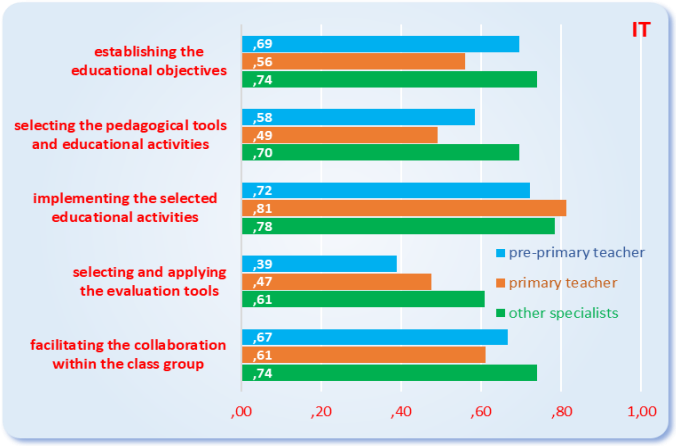

Figure 81. Evaluation of the potential involvement of shadows in educational activities – comparison by educational status – data from Italy

One-way Anova shows no significant influences of status on evaluating the potential involvement of shadows in the educational process, as all five analysed aspects are evaluated irrespective of the Italian respondents' status.

×

Figure 82 presents the average evaluations done by Italian respondents on the necessity of involving shadows in the five analysed educational activities, separately for less experienced and more experienced educational specialists:

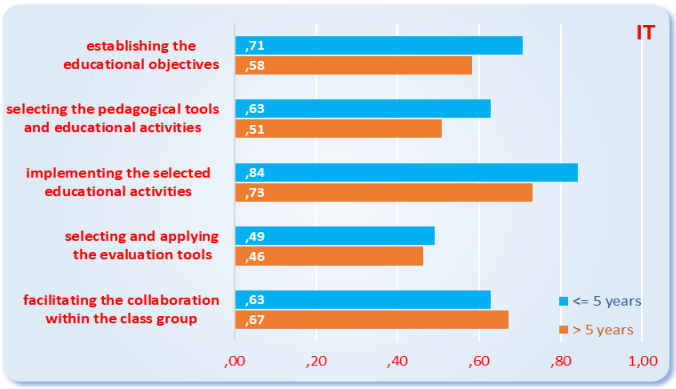

Figure 82. Evaluation of the potential involvement of shadows in educational activities – comparison by educational experience – data from Italy

Independent samples t test shows no significant influence of status on evaluating the potential involvement of shadows in the educational process, with all analysed dimension being evaluated similarly by the less experienced and more experienced specialists in Italy.

×

Figure 83 presents the percentages of Italian respondents choosing each option regarding the implication of shadows in the decision-making process in education:

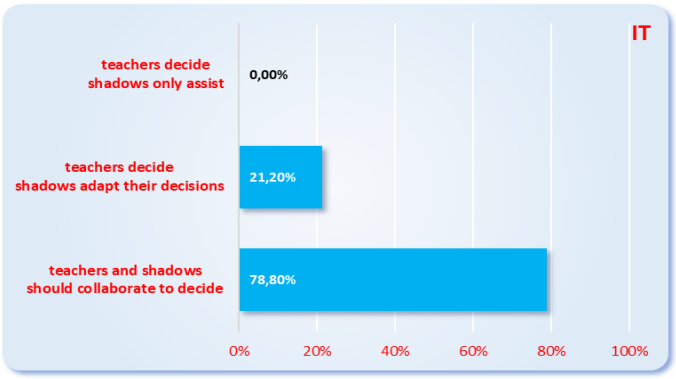

Figure 83. Distribution of answers regarding the potential role of shadows in educational activities – data from Italy

Most of the Italian respondents (four out of five) considers that shadows should be involved in the decision-making process, as teachers and "shadows" should collaborate into deciding the

best educational approach (activities, pedagogical tools etc.) and into adapting it for children with SEN, while still remaining effective for the rest of the class.

5.3. Required skills for teachers to collaborate with shadows in Italy

Figure 84 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Italian specialists

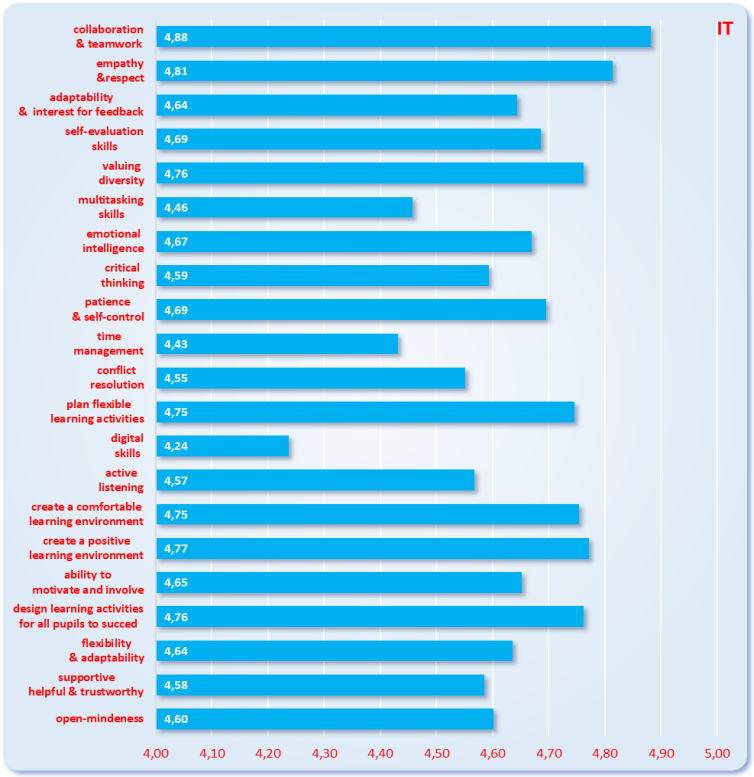

Figure 84. Evaluation of the needed skills for a teacher to collaborate with shadows – data from Italy

On the one hand, analysing the data from Italy shows that all skills are considered to be important for teachers working with shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Italian respondents created a **clear hierarchy of the skills needed for teachers to fully cooperate with shadows**:

❑ **3 highly important skills**: collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions; ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated;

❑ **4 important skills**: valuing diversity and respect the differences; ability to design learning activities for all pupils to succeed, including the ones with SEN; ability to plan flexible learning

activities adequate to the educational needs and developmental level of all children; ability to create a comfortable learning environment for all children, including those with SEN.

×

Figure 85 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Italian specialists according to their status:

Figure 85. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational status, data from Italy

One-way Anova shows significant differences only for one dimension (ability to create activities for every pupil to succeed), so we can consider that status has no significant influence on evaluating the importance of necessary skills for teachers to collaborate with shadows, as pre-primary teachers, primary teachers and other specialists in Italy made similar evaluations.

×

Figure 86 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Italian specialists according to their experience:

Figure 86. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational experience, data from Italy

Independent samples t test shows significant differences for only four of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for teachers to fully collaborate with shadows in Italy.

5.4. Required skills for shadows to collaborate with teachers in Italy

Figure 87 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Italian specialists:

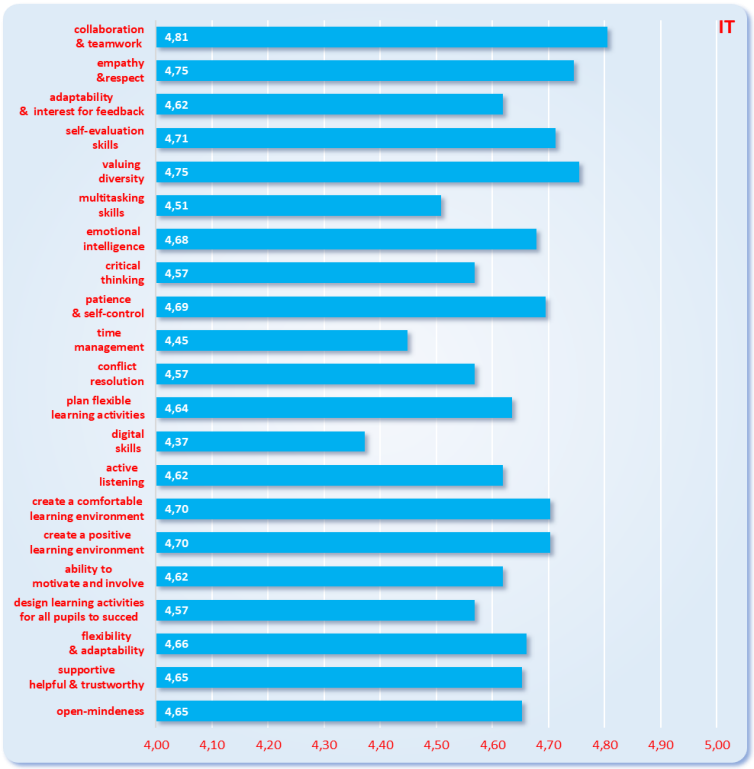

Figure 87. Evaluation of the needed skills for a shadow to collaborate with teachers – data from Italy

On the one hand, analysing the data from Italy shows that all skills are considered to be important for shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Italian respondents created a **clear hierarchy of the skills needed for shadows**:

❑ **3 highly important skills**: collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinion; valuing diversity and respect the differences;

❑ **5 important skills**: self-evaluation skills and ability to observe and objective evaluate its own activity; ability to create a comfortable learning environment for all children, including those with SEN; ability to create a positive environment in inclusive classrooms, to make all children feel

motivated and integrated; patience and self-control; emotional intelligence and stress management skills.

×

Figure 88 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Italian specialists according to their status:

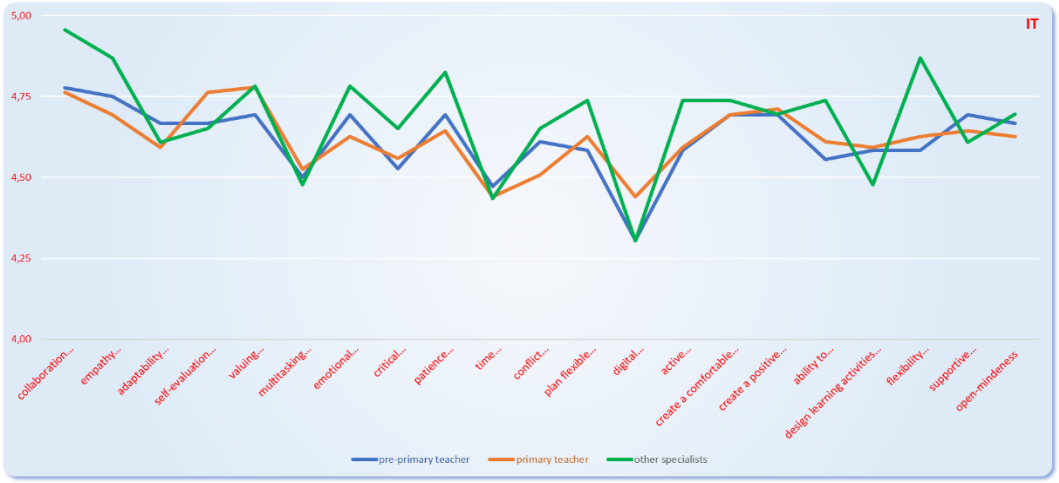

Figure 88. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational status, data from Italy

One-way Anova shows significant differences for none of the analysed dimensions, with no exception, so we can consider that status has no significant influence on evaluating the importance of necessary skills for shadows to collaborate with teachers, as pre-primary teachers, primary teachers and other specialists in Italy made similar evaluations.

×

Figure 89 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Italian specialists according to their experience:

Figure 89. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational experience, data from Italy

Independent samples t test shows significant differences on any of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for shadows in Italy.

5.5. Comparative analysis of skills needed for teachers and shadows in Italy

Figure 90 presents, in a comparative manner, the average evaluation done in Italy for the importance of skills needed for the teachers and for the shadows:

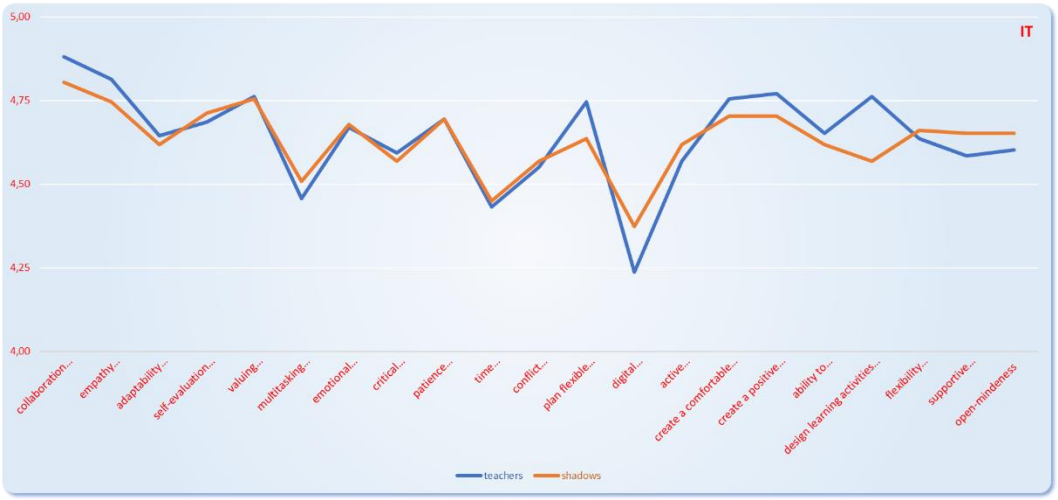

Figure 90. Comparison of the evaluation of necessary skills for teachers and for shadows – data from Italy

Statistical analysis shows that there is a general tendency of the Italian respondents to consider that shadows and teachers should have similar skills, as paired samples t test finds unsignificant differences for 19 out of the 21 analysed dimensions. Regarding the exceptions, digital skills are considered by the Italian respondents as being more important for the shadows, while ability to design learning activities for all children to succeed is considered to be more important for the teachers.

5.6. Synthesis of the results in Italy

The general attitude toward shadows in Italy is very positive for all evaluated aspects:

❑ shadows are considered beneficial especially for the children with SEN, but also for the class teacher and even for the rest of the pupils, and none of the respondents considered that having a shadow in the classroom is not useful at all. This positive attitude toward the shadows is irrespective of status or experience;

❑ shadows are considered to be needed in the classrooms where children with SEN are integrated; slightly more respondents consider that only one shadow in a classroom would suffice irrespective of the number of children with SEN in that class;

❑ shadows should have developed collaboration skills with both the children with SEN and the class teachers, but the main focus is on collaborating with the class teacher; specialists consider the collaboration skills with the children with SEN as being more important compared with the primary teachers, while experience has no significant effect on any of those two evaluations;

❑ regarding the role of shadows in the educational activities, the Italian specialists focused on the role of implementing the selected educational activities for children with SEN, this role having the highest evaluation irrespective of status and experience;

❑ regarding the role of shadows in the decision-making process, the Italian specialists focus mainly on the collaboration between teachers and shadows for deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with SEN, while still remaining effective for the rest of the class.

Regarding the necessary skills for teachers to collaborate with shadows, the Italian specialists focused on a mixt of personal skills (teamwork abilities, empathy, respect for the differences) and professional abilities (ability to create a positive and comfortable learning environment, ability to design learning activities for children with SEN to succeed and flexibility in working with those children).

Regarding the necessary skills for shadows to fully collaborate with the class teachers, the Italian specialists also focused on a mixt of personal skills (teamwork abilities, empathy, respect for the differences, self-evaluation, patience, emotional intelligence) and professional abilities (ability to create a positive and comfortable learning environment).

Comparative analysis showed that the professional profile of teachers and shadows are very similar (only 2 out of 21 dimensions being significantly different), confirming the important status of shadows in the educational process, but also high expectancies regarding their skills and involvement in activities.

To synthetise, we can emphasise that Italian specialists in education consider that shadows are useful for all education actors, at least one shadow is needed in each class that integrates children with SEN with the main role of implementing the selected educational activities for those children, they should be involved in the decision-making process and should have similar skills with the class teachers.

CHAPTER 6

Research data and results in Turkey

6.1. Perceived usefulness of shadows for children with special educational needs in Turkey

6.1.1. Perceived main beneficiaries of shadows' work

As shown in figure 91, the Turkish respondents consider shadows as being useful for all three educational actors, but mostly for the children with special educational needs.

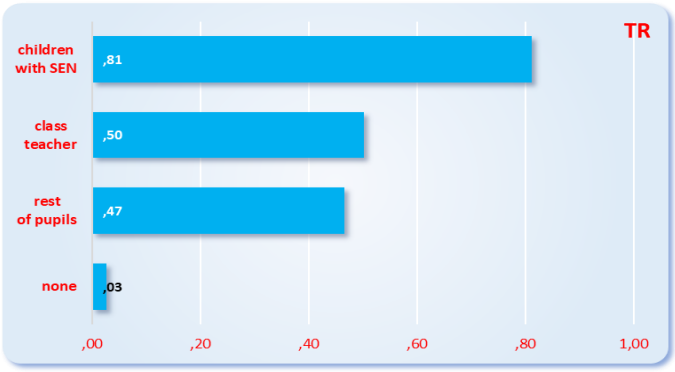

Figure 91. Evaluation of shadows' perceived importance related to different beneficiaries – data from Turkey

Almost none of the Turkish respondents considered the shadows as not being useful at all, proving a positive social perception of shadows in the classroom working with children with SEN.

×

Figure 92 presents the average Turkish evaluations of shadows' perceived usefulness for each educational actor, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

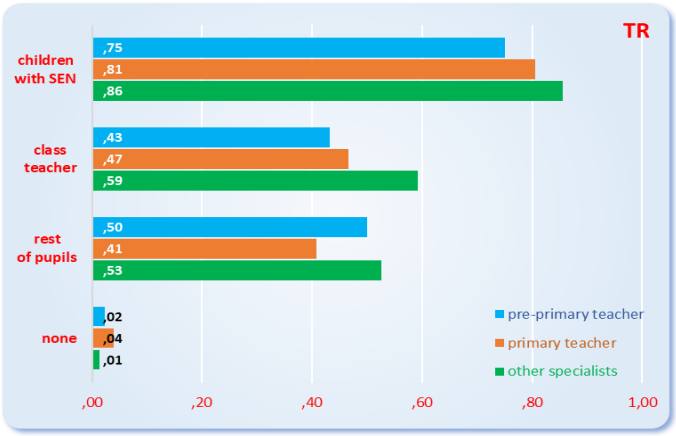

Figure 92. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational status, data from Turkey

One-way Anova shows significant difference for none of the important three choices, so the positive perception of usefulness of shadows for the children with SEN, for the class teacher and for the rest of the pupils is irrespective of the educational status, being similar for the Turkish pre-primary teachers, primary teachers and other specialists.

×

Figure 93 presents the average Turkish evaluations of shadows' perceived usefulness for each educational actor, separately for less experiences and experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-useful at all and 1 meaning very useful):

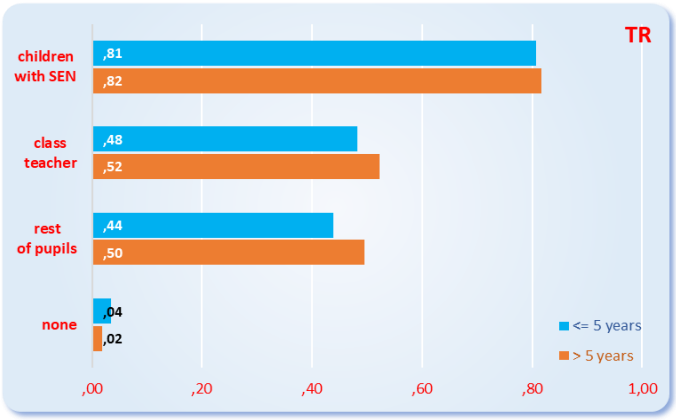

Figure 93. Evaluation of shadows' perceived importance related to different beneficiaries – comparison by educational experience, data from Turkey

Independent samples t test shows no significant differences between the average evaluations done by less experienced and experienced specialists in Turkey.

6.1.2. Perceived necessary number of shadows in a classroom

Regarding the number of shadows in the classroom, most of the Turkish respondents consider that there should be only one shadow for all children with SEN, as shown in figure 94:

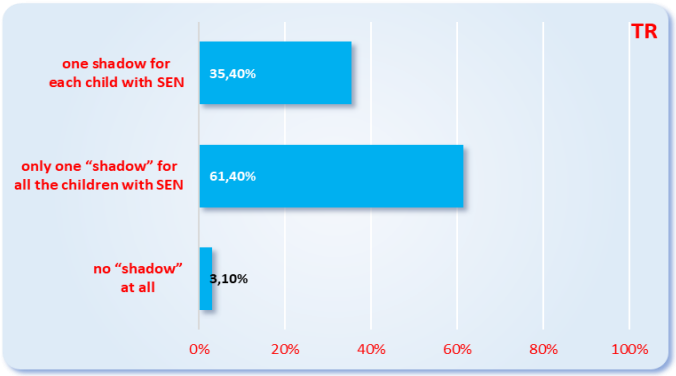

Figure 94. Distribution of answers regarding the necessary number of shadows in a classroom – data from Turkey

Data from Turkey proves a very positive attitude towards having shadows in classrooms to assist children with SEN, with almost none of the respondents considered that shadows are not needed.

6.1.3. Perceived collaboration skills needed for shadows

Turkish respondents consider that shadows should have specific collaboration skills regarding both teachers and children with special educational needs, with a more intense focus on the skills to adequately collaborate with the class teachers, as presented in figure 95:

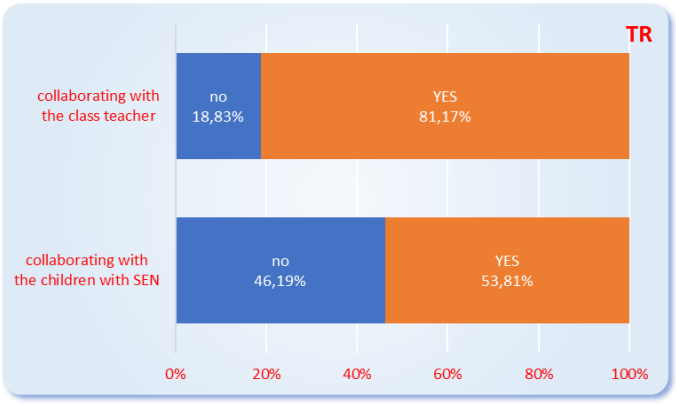

Figure 95. Distribution of answers regarding the main collaboration skills needed for shadows – data from Turkey

Still, evaluations done by the Turkish respondents show a more intense focus on the skills to adequately collaborate with the children with class teachers.

×

Figure 96 presents the average Turkish evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for pre-primary teachers, primary teachers and other educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

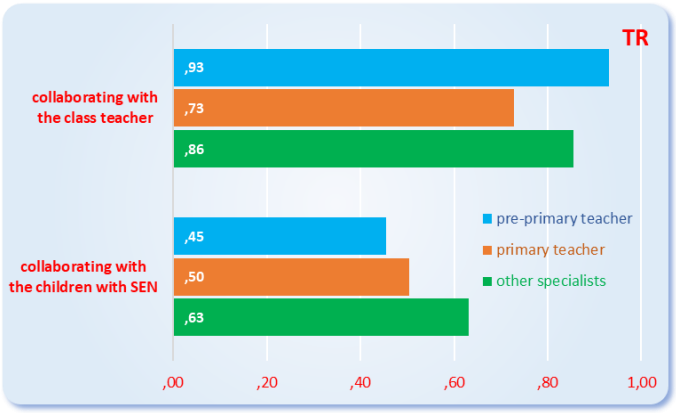

Figure 96. Evaluation of the main collaboration skills needed for shadows – comparison by educational status, data from Turkey

One-way Anova shows a significant influence of status on evaluating the shadows' skills of collaborating with the class teacher, with pre-primary teachers considering those skills as more important compared with primary teachers, but no significant influence of status on evaluating the shadows' skills of collaborating with the children with SEN.

×

Figure 97 presents the average Turkish evaluations of shadows' needed skills to collaborate with class teachers and with children with special educational needs, separately for less experienced and more experienced educational specialists (on a 0 to 1 scale, with 0 meaning not-needed at all and 1 meaning very needed):

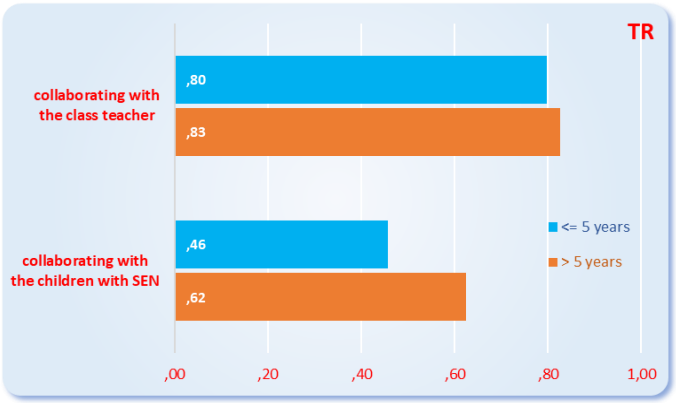

Figure 97. Evaluation of the main collaboration skills needed for shadows – comparison by educational experience, data from Turkey

Independent samples t test shows a significant influence of experience on evaluating the shadows' skills of collaborating with the children with SEN (experienced specialists considering this skill more important compared with the less experienced specialists), but not on evaluating the shadows' skills of collaborating with the class teacher, this skill being evaluated in a similar manner by the less experienced and experienced Romanian specialists.

6.2. Perceived involvement of shadows in educational activities in Turkey

Figure 98 presents the percentages of Turkish respondents that consider that shadows should be involved in each of the five analysed educational activities:

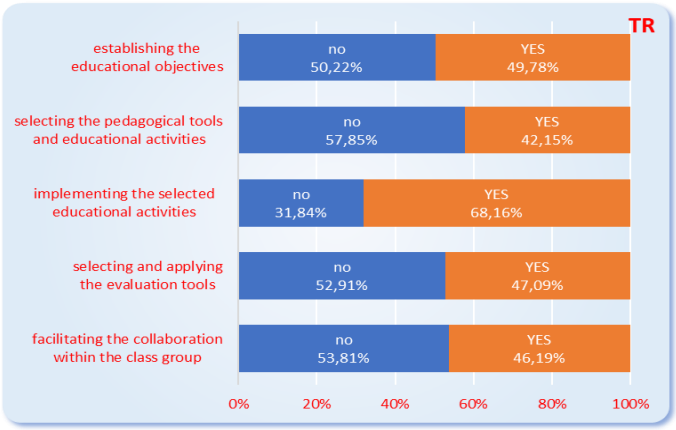

Figure 98. Distribution of answers regarding the potential involvement of shadows in educational activities – data from Turkey

As visible in figure 98, there is a tendency of the Turkish respondents to be more selective, with only one option being selected by more than half of the respondents.

Therefore, there is a very clear hierarchy of the potential roles of the shadows, with most of the Turkish respondents focusing on the role of implementing the selected activities for children with SEN; the rest of the roles are evaluated in a similar manner, but those roles are considered less important compared with the first one.

×

Figure 99 presents the average evaluations done by Turkish respondents on the necessity of involving shadows in the five analysed educational activities, separately for pre-primary teachers, primary teachers and other educational specialist:

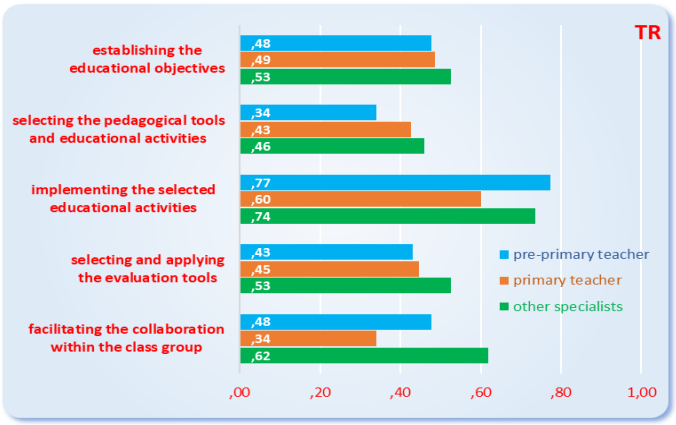

Figure 99. Evaluation of the potential involvement of shadows in educational activities – comparison by educational status – data from Turkey

One-way Anova shows no significant influences of status on evaluating the potential involvement of shadows in the educational process, as all five analysed aspects are evaluated irrespective of the Turkish respondents' status.

×

Figure 100 presents the average evaluations done by Turkish respondents on the necessity of involving shadows in the five analysed educational activities, separately for less experienced and more experienced educational specialists:

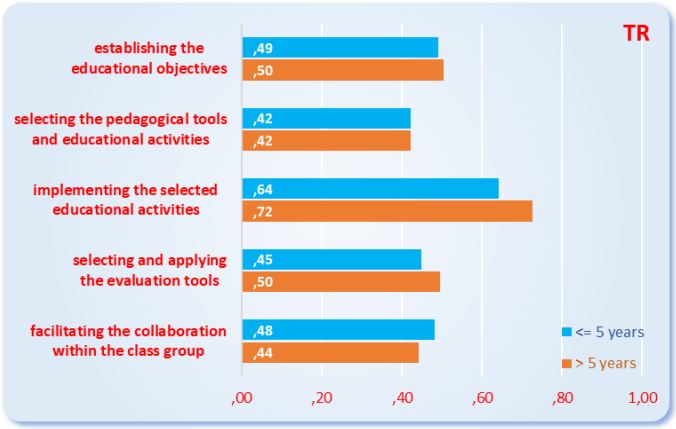

Figure 100. Evaluation of the potential involvement of shadows in educational activities – comparison by educational experience – data from Turkey

Independent samples t test shows no significant influence of status on evaluating the potential involvement of shadows in the educational process, with all analysed dimension being evaluated similarly by the less experienced and more experienced specialists in Turkey.

×

Figure 101 presents the percentages of Turkish respondents choosing each option regarding the implication of shadows in the decision-making process in education:

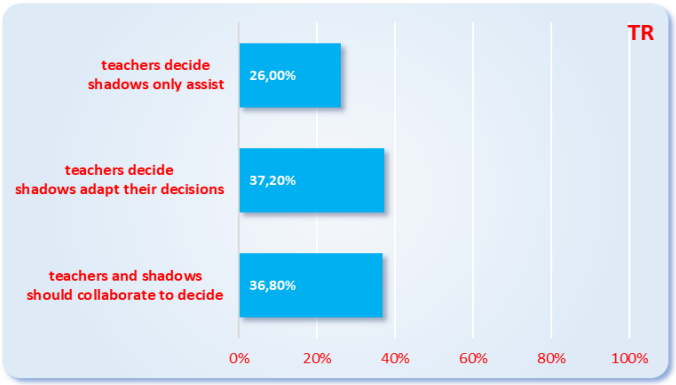

Figure 101. Distribution of answers regarding the potential role of shadows in educational activities – data from Turkey

Turkish respondents are undecided regarding the role of the shadows in the decision-making process, with more or less similar proportions of specialists agreeing with all three alternatives. Additional data might be necessary to fully understand this diversity in opinions and interpret it.

6.3. Required skills for teachers to collaborate with shadows in Turkey

Figure 102 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Turkish specialists

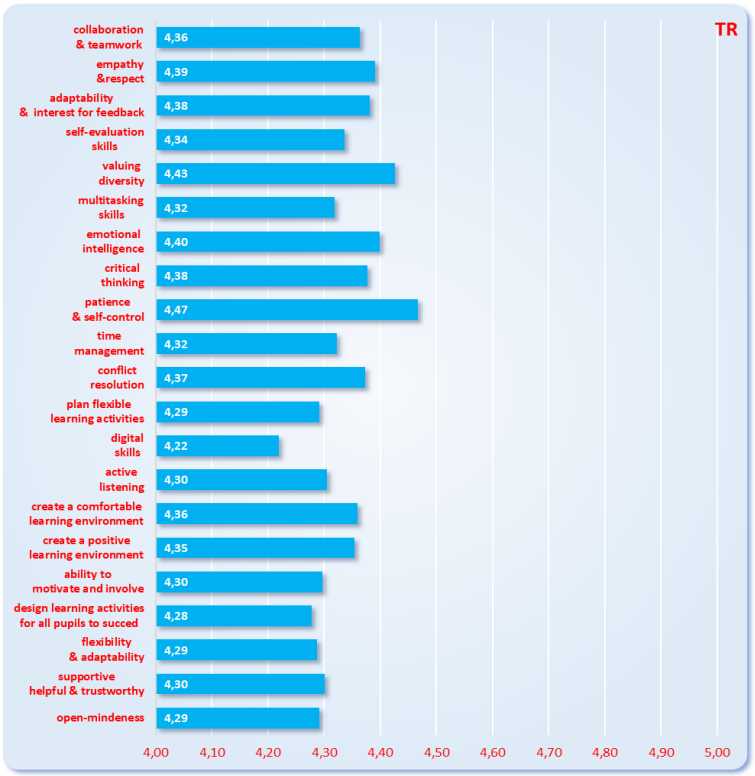

Figure 102. Evaluation of the needed skills for a teacher to collaborate with shadows – data from Turkey

On the one hand, analysing the data from Turkey shows that all skills are considered to be important for teachers working with shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Turkish respondents created a **clear hierarchy of the skills needed for teachers to fully cooperate with shadows**:

❑ **3 highly important skills**: patience and self-control; valuing diversity and respect the differences; emotional intelligence and stress management skills;

❑ **6 important skills**: empathy and respect for others needs and opinions; adaptability and interest for feedback from children and "shadows"; critical thinking skills and problem-solving abilities; conflict resolution skills; collaboration and communication skills, teamwork abilities; ability to create a comfortable learning environment for all children, including those with SEN.

×

Figure 103 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Turkish specialists according to their status:

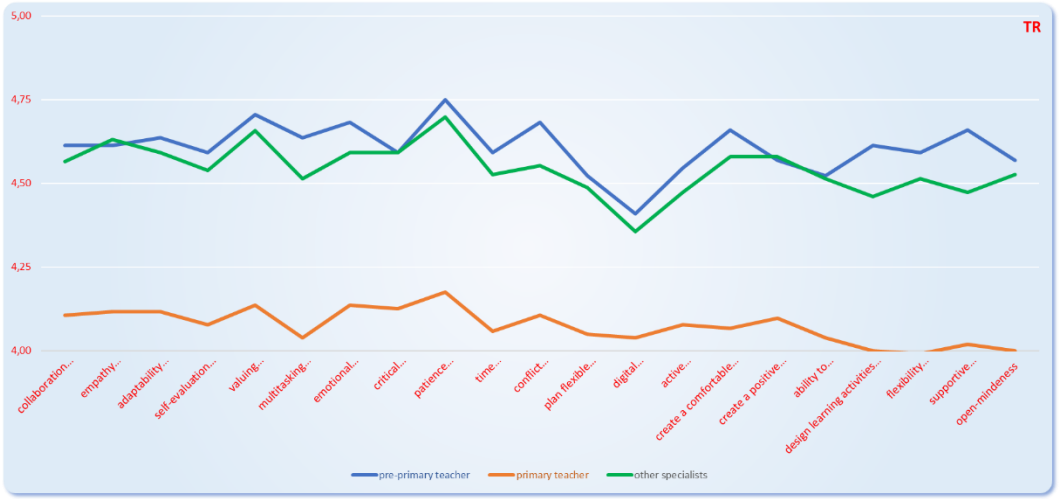

Figure 103. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational status, data from Turkey

One-way Anova shows significant differences only for all analysed dimensions, with no exception, so we can consider that status has a significant influence on evaluating the importance of necessary skills for teachers to collaborate with shadows, as primary teachers considered all the skills as being less important compared with pre-primary teachers and other specialist (those two last categories making similar evaluations).

×

Figure 104 presents the importance of different skills needed for teachers to fully cooperate with shadows, average evaluations done by the Turkish specialists according to their experience:

Figure 104. Evaluation of the needed skills for a teacher to collaborate with shadows – comparison by educational experience, data from Turkey

Independent samples t test shows significant differences for only one of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for teachers to fully collaborate with shadows in Turkey.

6.4. Required skills for shadows to collaborate with teachers in Turkey

Figure 105 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Turkish specialists:

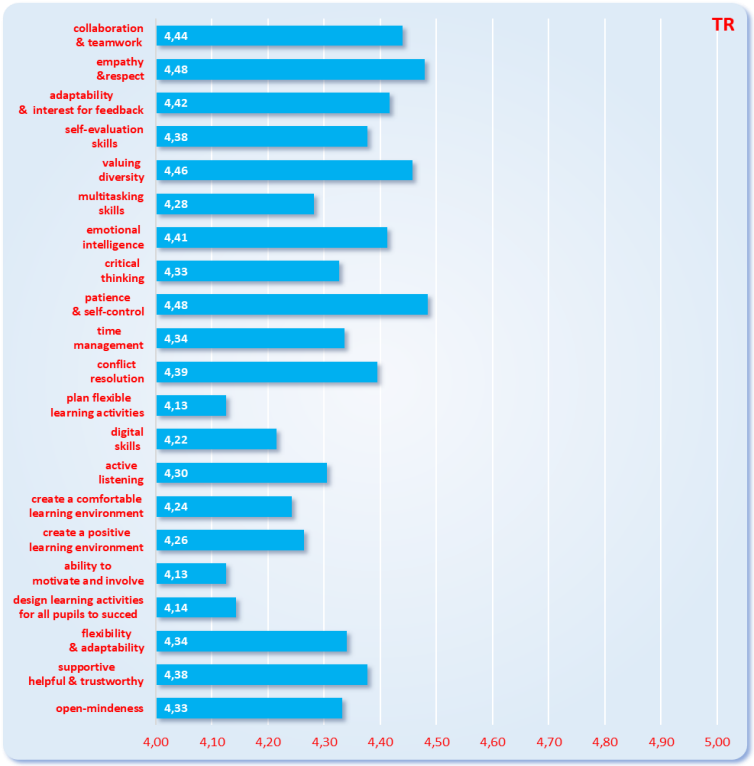

Figure 105. Evaluation of the needed skills for a shadow to collaborate with teachers – data from Turkey

On the one hand, analysing the data from Turkey shows that all skills are considered to be important for shadows, as the average evaluation is between 4 (important) and 5 (very important) for all 21 analysed skills.

On the other hand, the Turkish respondents created a **clear hierarchy of the skills needed for shadows**:

❑ **3 highly important skills**: patience and self-control; empathy and respect for others needs and opinions; valuing diversity and respect the differences;

❑ **6 important skills**: collaboration and communication skills, teamwork abilities; adaptability and interest for feedback from children and teachers; emotional intelligence and stress management skills; conflict resolution skills; self-evaluation skills and ability to observe and

objective evaluate its own activity; ability to be supportive, helpful and trustworthy, to encourage children to share their problems.

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Figure 106 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Turkish specialists according to their status:

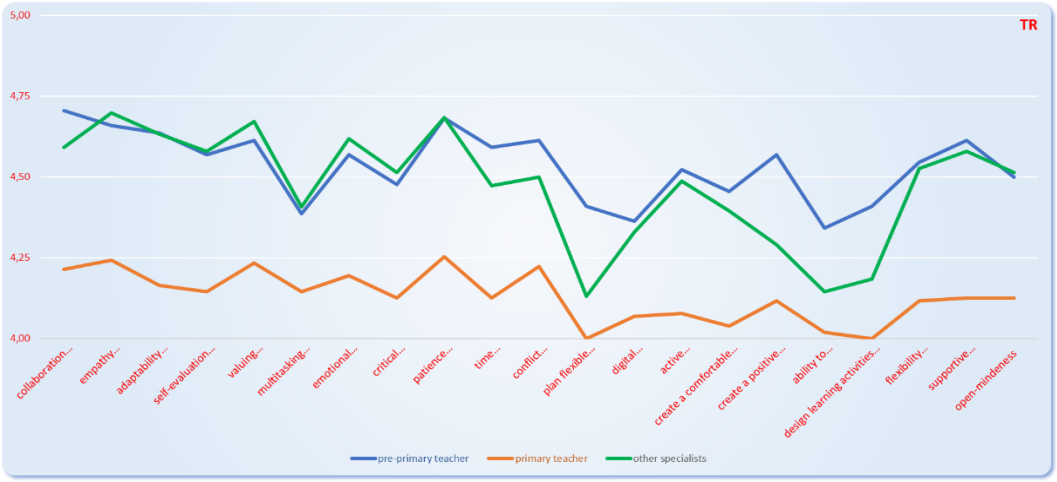

Figure 106. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational status, data from Turkey

One-way Anova shows significant differences for 16 of the analysed dimensions, so we can consider that status has a significant influence on evaluating the importance of necessary skills for shadows to collaborate with teachers, as pre-primary teachers and other specialists consider most of the analysed skills as being more important compared with the other specialists in Turkey.

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Figure 107 presents the importance of different skills needed for shadows to fully cooperate with teachers, average evaluations done by the Turkish specialists according to their experience:

Figure 107. Evaluation of the needed skills for a shadow to collaborate with teachers – comparison by educational experience, data from Turkey

Independent samples t test shows significant differences on any of the analysed dimensions, so we can consider that experience has no significant effect on establishing the importance of skills needed for shadows in Turkey.

6.5. Comparative analysis of skills needed for teachers and shadows in Turkey

Figure 108 presents, in a comparative manner, the average evaluation done in Turkey for the importance of skills needed for the teachers and for the shadows:

Figure 108. Comparison of the evaluation of necessary skills for teachers and for shadows – data from Turkey

Statistical analysis shows that there is a general tendency of the Turkish respondents to consider that shadows and teachers should have similar skills, as paired samples t test finds unsignificant differences for 15 out of the 21 analysed dimensions. Regarding the exceptions, collaboration skills and empathy are considered by the Turkish respondents to be more important for shadows, while ability to plan flexible learning activities, ability to create a comfortable learning environment, ability to motivate and involve and ability to design learning activities for all pupils to succeed are considered by the Turkish respondents to be more important for the teachers.

6.6. Synthesis of the results in Turkey

The general attitude toward shadows in Turkey is very positive for all evaluated aspects:

❑ shadows are considered beneficial especially for the children with SEN, but also for the class teacher and even for the rest of the pupils, and almost none of the respondents considered that having a shadow in the classroom is not useful at all. This positive attitude toward the shadows is irrespective of status or experience;

❑ shadows are considered to be needed in the classrooms where children with SEN are integrated; slightly more respondents consider that only one shadow in a classroom would suffice irrespective of the number of children with SEN in that class;

❑ shadows should have developed collaboration skills with both the children with SEN and the class teachers, but the main focus is on collaborating with the class teacher; pre-primary teachers consider the collaboration skills with the teachers as being more important compared with the primary teachers, while the collaboration skills with the children with SEN is perceived as more important by the experienced specialists compared with the less experienced ones;

❑ regarding the role of shadows in the educational activities, the Turkish specialists focused on the role of implementing the selected educational activities for children with SEN, this role having the highest evaluation irrespective of status and experience;

❑ regarding the role of shadows in the decision-making process, the Turkish specialists are undecided, with more or less similar proportions of specialists agreeing with all three alternatives: shadows should only assist teachers, shadows adapt the teachers' decisions, shadows and teachers collaborate for decisions.

Regarding the necessary skills for teachers to collaborate with shadows, the Turkish specialists focused mostly on the personal skills (patience, respect for the differences, emotional intelligence, empathy, critical thinking, conflict resolution skills, teamwork abilities), with accent on only few professional skills (interest for feed-back from shadows, ability to create a comfortable learning environment).

Regarding the necessary skills for shadows to fully collaborate with the class teachers, the Turkish specialists focused mostly on the personal skills (patience, empathy, respect for the differences, teamwork abilities, emotional intelligence, conflict resolution skills, self-evaluation, supportive attitude), with accent on only one professional skills (interest for feed-back from children and teachers).

Comparative analysis showed that the professional profile of teachers and shadows are very similar (only 6 out of 21 dimensions being significantly different), confirming the important status of shadows in the educational process, but also high expectancies regarding their skills and involvement in activities.

To synthetise, we can emphasise that Turkish specialists in education consider that shadows are useful for all education actors, at least one shadow is needed in each class that integrates children with SEN with the main role of implementing the selected educational activities for those children and shadows should have similar skills with the class teachers; the role of shadows in the decision-making process is unclear for the Turkish specialists, as some of them would like to involve shadows, other consider that only teachers should decide.

CHAPTER 7

Discussion on the results

7.1. Perceived usefulness of shadows for children with special educational needs

There is a general positive attitude towards shadows usefulness in the classrooms, as shadows for children with SEN are perceived as being useful especially for those children (with 83% of the respondents agreeing with that), but also for class teachers (60%) and the rest of the pupils in the class (50%); less than 2% of the respondents considered that shadows in the classrooms integrating children with SEN are not useful at all.

This positive attitude is present in all analysed countries, the only difference being that in Spain, Italy and Turkey utility of shadows is more linked to the class teacher compared with the rest of the pupils, while in Romania the utility of shadows is more linked to the rest of the pupils compared with the rest of the class. Still, in all countries, at least two thirds of the respondents consider the shadow as being useful for the children with SEN, this being the main perceived use of having shadows in the classroom.

The usefulness of shadows for the pupils without SEN (the rest of the class) is more obvious for the pre-primary teachers compared with primary teachers, suggesting that in kindergartens is harder for the teachers to manage the rest of the class while giving attention to the children with SEN and teachers feel a stronger need for a shadow to assist them with this aspect.

While the usefulness of shadows for the children with SEN is equally visible for the less experienced specialists and the more experienced ones, the usefulness of shadows for the class teachers and rest of the pupils is more obvious for the experienced specialists, suggesting that experience in education makes the important role of shadow more visible for the specialists.

The positive attitude regarding the shadows is visible in the evaluations made regarding the necessary number of shadows in the classroom integrating more children with SEN, with more

than 98% of our respondents considering that at least one shadow is necessary in those classrooms. There is a predilection on considering that one shadow is necessary for each child with SEN, but the percentage of respondents considering that only one shadow in a classroom would suffice is high enough to make us consider that further analysis is needed on this topic for a clear answer.

The necessary number of shadows in a classroom is clearly influenced by culture, as in Romania and Spain the tendency is towards considering necessary to have one shadow for each child with SEN, while in Italy and especially Turkey the tendency is to consider that one shadow for all children with SEN in a classroom will suffice.

Pre-primary teachers have a strong tendency to consider that they should be assisted by a shadow for each child with SEN, while primary teachers tend to agree that one shadow in a classroom would suffice; other specialists are undecided, with similar percentages of them choosing each option.

The less experienced specialists focus more on the usefulness of having a shadow for each child with SEN in a classroom (their limited expertise making them more receptive to asking for help and assistance), while the experienced specialists are more or less undecided, choosing both options.

7.2. Perceived involvement of shadows in educational activities

In the educational activities, shadows are perceived as cooperating with both the class teacher and the children with SEN, so they need to have developed skills to cooperate with both mentioned educational actors; still, according to our respondents, the skills of cooperating with the class teachers are slightly more important.

Again, we observed a relevant impact of culture on evaluating this aspect: while the skills of collaborating with the class teachers are less important in Romania, the skills of collaborating with children with SEN are less important in Italy and Turkey compared with Romania and Spain.

Status and experience have no significant influence on this evaluation.

The main shadow's role in a classroom is to assist the class teacher in implementing the selected educational activities for the children with SEN; still, all 5 analysed roles are selected by at least half of our respondents, supporting, once more, the important role that shadows should have in the classroom.

While the evaluation of the importance of the potential roles of shadows is significantly influenced by culture (except the shadows role in evaluation, that is similarly evaluated in all countries), the cross-country analysis shows a different focus in each country: in Romania the main role of the shadows is to facilitate the collaboration of children with SEN with the rest of the class, in Spain the focus is on establishing the educational objectives for children with SEN, in Italy and Turkey the main role of shadows is to implement the selected educational activities.

The shadows' role in selecting the educational activities and facilitating the collaboration between children with SEN and rest of the class are more important for the pre-primary teachers

compared with the primary teachers, while experience has no significant impact on this evaluation.

The important role attributed by our respondents to the shadows is confirmed by considering that shadows need to be involved in the decision-making process, with almost 90% of our respondents considering that shadows should collaborate with teachers to make the decisions together or at least be responsible for adapting the decisions for the children with SEN (almost two thirds of our respondents valuing the collaboration for common decisions).

The most positive attitude towards involving shadows in decision-making process is in Romania and Italy, where four out of five specialists plead for the full collaboration in making decisions. A more reserved, but still positive attitude in in Spain, where most of the respondents agree to collaboration, but one third of respondents consider that the proper role for shadows is to adapt the decisions to the children with SEN, shadows being less involved in taking those decisions. Turkish attitude towards involving shadows in decision is neutral: while a third of respondents plead to collaboration in decisions, a quarter of them considers that the only ones that could make decisions are the teachers, while shadows only assist. Still, what is common in all countries is that more specialists plead for at least some involvement of shadows in making decisions than the ones considering that only teachers should decide.

Pre-primary teachers are more receptive to involving shadows in the decisions compared with the primary teachers (this option can be linked with pre-primary teachers asking for shadows for each child with SEN and considering shadows impact on children without SEN as being more important), but experience doesn't influence the perception of necessity of involving shadows in decisions.

7.3. Required skills for teachers to collaborate with shadows

The profile of a teacher that is able to fully cooperate with shadows for children with SEN is clearly centred on its personal skills, the most important ones being patience and self-control, teamwork abilities, empathy, respect for the differences. Still, there are some professional skills asked: ability to create a positive and comfortable learning environment for all children, including the ones with SEN, adaptability and interest for feed-back from children, but also from shadows and ability to design flexible learning activities according to this feed-back.

Culture has a very strong impact on identifying this profile, the importance of almost all skills (except multitasking, critical thinking and time management skills) being differently evaluated in each country. The Italian respondents have a general tendency of over-evaluating the importance of the skills needed for teachers to work with shadows, while the Turkish respondents have a general tendency of under-evaluation.

The perception of the necessary skills for a shadow to collaborate with the class teacher is independent of respondents' status or experience.

7.4. Required skills for shadows to collaborate with teachers

The profile of a shadow that is able to fully cooperate with class teachers is clearly centred on its personal skills, the most important ones being teamwork abilities, empathy, patience and self-control, respect for the differences, emotional intelligence and stress management skills, supportive attitude. Still, there are some professional skills asked: adaptability and interest for feed-back from children, but also from class teachers and flexibility to unpredictable situations involving the children with SEN.

Culture has a very strong impact on identifying this profile, the importance of all skills being differently evaluated in each country. The Spanish respondents have the highest requests from shadows, the Romanian and Italian ones are more moderated, while the Turkish participants have a general tendency of under-evaluation.

7.5. Comparative analysis of skills needed for teachers and shadows

Analysing the profiles established by our respondents for the teachers and for the shadows to fully collaborate with each-other, one can observe their similarity: the three most important skills are identical (collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions; patience and self-control) , even if their order is different, while out of the 5 important skills, 2 are also identical (valuing diversity and respect the differences, adaptability and interest for feedback from children)

The specific skills for teachers are the ability to create a positive and comfortable learning environment and ability to plan flexible learning activities, while the specific skills for shadows are the ability to be supportive, helpful and trustworthy, to encourage children to share their problems, the emotional intelligence and stress management skills and the flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN.

The is a general tendency of asking from the shadows to have more developed skills compared with the shadows, but cross-country analysis showed that this is explained only by the evaluations done in Spain, while in Italy, Romania and Turkey the level of expertise asked from the shadows is similar with the one asked for the teachers.

CHAPTER 8

Research conclusions

Data collected from almost 800 specialists in education (mostly pre-primary teachers and primary teachers, but also school counsellors, psychologists, social workers, pedagogues etc.) in four countries (Romania, Spain, Italy and Turkey) emphasizes on a very positive attitude towards having shadows for children with SEN in the classroom.

Shadows in the classroom are perceived as useful, especially for the children with SEN, but also for the class teachers and for the rest of the children. Almost all specialists agree that at least one shadow should be present in classed integrating children with SEN, and more than half of the respondents plead for one shadow for each child with SEN integrated in mainstream education.

The main shadow's role in a classroom is to assist the class teacher in implementing the selected educational activities for the children with SEN, therefore the shadows skills of collaborating with the class teachers are considered to be slightly more important compared with the skills of collaborating with the children with SEN.

The importance of shadows in the classroom is emphasized also by their perceived involvement in the decision-making process, almost all respondents considering that that shadows should collaborate with teachers to make the decisions together or at least be responsible for adapting the decisions for the children with SEN (almost two thirds of our respondents valuing the collaboration for common decisions).

The profile of a teacher that is able to fully cooperate with shadows for children with SEN is clearly centred on its personal skills, the most important ones being patience and self-control, teamwork abilities, empathy, respect for the differences. Still, there are some professional skills asked: ability to create a positive and comfortable learning environment for all children, including the ones with SEN, adaptability and interest for feed-back from children, but also from shadows and ability to design flexible learning activities according to this feed-back.

Therefore, we emphasize that a **training that aims to develop teachers' skills** to fully cooperate with shadows should focus on 8 modules:

❑ **3 mandatory modules**: patience and self-control; collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions;

❑ **5 optional modules**: ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated; ability to create a comfortable learning environment for all children, including those with SEN; valuing diversity and respect the differences; adaptability and interest for feedback from children and "shadows"; ability to plan flexible learning activities adequate to the educational needs and developmental level of all children.

Given the strong impact on culture on the skills needed for teachers to fully cooperate with shadows, we emphasize on the flexibility of such training and we encourage trainers and training institutions:

- on the one hand, to adapt the activities to the national educational and cultural context by selecting 2 of the 5 optional modules, taking into consideration the data regarding the skills evaluated as being more important in their country;

- on the other hand, if the optional modules don't give trainer enough adaptability to the local context, they could introduce new modules aiming to develop other skills considered relevant in their country (according to our data) or at local level.

The profile of a shadow that is able to fully cooperate with class teachers is clearly centred on its personal skills, the most important ones being teamwork abilities, empathy, patience and self-control, respect for the differences, emotional intelligence and stress management skills, supportive attitude. Still, there are some professional skills asked: adaptability and interest for feed-back from children, but also from class teachers and flexibility to unpredictable situations involving the children with SEN.

Therefore, we emphasize that a **training that aims to develop shadows' skills** to fully cooperate with teachers should focus on 8 modules:

❑ **3 mandatory modules**: collaboration and communication skills, teamwork abilities; empathy and respect for others needs and opinions; patience and self-control

❑ **5 optional modules**: adaptability and interest for feedback from children and teachers; valuing diversity and respect the differences; emotional intelligence and stress management skills; flexibility and adaptability to unpredictable situations or reactions from children, especially those

with SEN; ability to be supportive, helpful and trustworthy, to encourage children to share their problems.

Once again, the strong impact that culture has on evaluating the skills necessary for shadows makes adapting of such a training relevant and needed, and trainers could adapt it either by selecting the relevant modules or introducing other themes and modules to reflect the national and local training needs.

Even more, **the training of shadows need to be adapted according to the professional background of shadows in each country**; for instance, at least in Romania or any other country where shadows can be adults without a professional qualification, the training activities need to be further adapted to their learning potential, as opposite of Italy for instance where shadows are highly trained teachers.

Annexes

The questionnaire - school integration of children with special educational needs

According to the laws of education in more European countries, children with special educational needs (SEN) are allowed to have a „shadow" to assist them (and the teacher) in the educational activities, especially in pre-primary and primary education. This „shadow" can be a specialized teacher or an adult with less pedagogical expertise (for instance, phycologists, social workers or even parents or other relatives).

Our research aims to identify specific ways to facilitate the collaboration between the class teacher and the "shadow" for the benefit of the pupils with special educational needs, but also for the benefit of the rest of the pupils in the class.

Section 1. General information regarding the "shadows"

1. In your opinion, having a "shadow" in the classroom is useful for:

❑ the children with special educational needs, that have access to better educational services

❑ the class teacher, who has an "assistant" in working with the children with special educational needs

❑ the rest of the pupils, as the class teacher has more time to work with them since the "shadow" works closely with the children with special educational needs

❑ none of the above-mentioned, having a shadow in the classroom is not useful at all

2. In your opinion, in classes integrating more than one child with special educational needs, it would be useful to have:

❍ one shadow for each child with special educational needs

❍ only one "shadow" for all the children with special educational needs

❍ no "shadow" at all, all teachers can handle working with children with special educational needs based on their didactic expertise

3. Besides the specific competencies and knowledge for working with children with special educational needs, shadows should have:

❑ competencies in collaborating with the class teacher, as they will work and teach together

❑ competencies in collaborating with the children with special educational needs, as the main beneficiaries of their work

4. In your opinion, "shadows" should be involved in:

❑ establishing the educational objectives for children with special educational needs

❑ selecting the pedagogical tool and educational activities for children with special educational needs

❑ implementing the selected educational activities for children with special educational needs, assisting the class teacher

❑ selecting and applying the evaluation tools and assessment of educational progress for children with special educational needs

❑ facilitating the communication and collaboration between the children with special educational needs and the rest of the school group

5. In your opinion:

❍ teachers should decide the educational approach (activities, pedagogical tools etc.) and adapt it for children with special educational needs; "shadows" should only assist class teachers in implementing those activities

❍ teachers should decide the educational approach (activities, pedagogical tools etc.) and "shadows" should adapt it for children with special educational needs; class teacher and "shadow" should work together with the children with special educational needs

❍ teachers and "shadows" should collaborate into deciding the best educational approach (activities, pedagogical tools etc.) and into adapting it for children with special educational needs, while still remaining effective for the rest of the class

Section 2. skills needed for teachers collaborating with "shadows"

For effective work with children with special educational needs and collaborating with "shadows", class teachers should have a solid knowledge of this field (special education, pedagogy etc.), but also a specific skill set that will enhance the quality of their work.

Please rate each of the following skills in terms of importance for teachers working with "shadows":

	Irrelevant ⇩	unimportant ⇩	can't decide ⇩	important ⇩	**very important** ⇩
collaboration and communication skills, teamwork abilities	1	2	3	4	5
empathy and respect for others needs and opinion	1	2	3	4	5
adaptability and interest for feedback from children and "shadows"	1	2	3	4	5
self-evaluation skills and ability to observe and objective evaluate its own activity	1	2	3	4	5
valuing diversity and respect the differences	1	2	3	4	5
multitasking skills (managing simultaneous activities of child with SEN, "shadow", rest of the class, its own activity etc.)	1	2	3	4	5
emotional intelligence and stress management skills	1	2	3	4	5
critical thinking skills and problem-solving abilities	1	2	3	4	5
patience and self-control	1	2	3	4	5

scheduling and time management skills	1	2	3	4	5
conflict resolution skills	1	2	3	4	5
ability to plan flexible learning activities adequate to the educational needs and developmental level of all children	1	2	3	4	5
digital skills and abilities to integrate new technologies in teaching and learning	1	2	3	4	5
active listening skills and interest in everyone's needs	1	2	3	4	5
ability to create a comfortable learning environment for all children, including those with SEN	1	2	3	4	5
ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated	1	2	3	4	5
ability to motivate and involve other in learning activities (including the "shadows")	1	2	3	4	5
ability to design learning activities for all pupils to succeed, including the ones with SEN	1	2	3	4	5
flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN	1	2	3	4	5
ability to be supportive, helpful and trustworthy, to encourage children to share their problems	1	2	3	4	5
capacity to remain open-minded and trust the learning potential of all children	1	2	3	4	5

Section 3. Skills needed for "shadows"

For effective work with children with special educational needs and collaborating with class teachers, "shadows" should have a solid knowledge of the special educational needs, but also a specific skill set that will enhance the quality of their work.

Please rate each of the following skills in terms of importance for "shadows" for children with special educational needs:

	Irrelevant ⇩	unimportant ⇩	can't decide ⇩	important ⇩	**very important** ⇩
collaboration and communication skills, teamwork abilities	1	2	3	4	5
empathy and respect for others needs and opinion	1	2	3	4	5
adaptability and interest for feedback from children and teachers	1	2	3	4	5
self-evaluation skills and ability to observe and objective evaluate its own activity	1	2	3	4	5
valuing diversity and respect the differences	1	2	3	4	5
multitasking skills (managing simultaneous activities of child with SEN, teachers, rest of the class, its own activity etc.)	1	2	3	4	5
emotional intelligence and stress management skills	1	2	3	4	5
critical thinking skills and problem-solving abilities	1	2	3	4	5
patience and self-control	1	2	3	4	5

scheduling and time management skills	1	2	3	4	5
conflict resolution skills	1	2	3	4	5
ability to plan flexible learning activities adequate to the educational needs and developmental level of all children	1	2	3	4	5
digital skills and abilities to integrate new technologies in teaching and learning	1	2	3	4	5
active listening skills and interest in everyone's needs	1	2	3	4	5
ability to create a comfortable learning environment for all children, including those with SEN	1	2	3	4	5
ability to create a positive environment in inclusive classrooms, to make all children feel motivated and integrated	1	2	3	4	5
ability to motivate and involve other in learning activities (including the teachers)	1	2	3	4	5
ability to design learning activities for all pupils to succeed, not only the ones with SEN	1	2	3	4	5
flexibility and adaptability to unpredictable situations or reactions from children, especially those with SEN	1	2	3	4	5
ability to be supportive, helpful and trustworthy, to encourage children to share their problems	1	2	3	4	5
capacity to remain open-minded and trust the learning potential of all children	1	2	3	4	5

Section 4. General information about the respondent

Category of staff:

❍ pre-primary teacher

❍ primary teacher

❍ school counsellor

❍ psychologist

❍ pedagogue

❍ social worker

❍ another educational expert

Experience in working with children with SEN (number of years): ☐