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ICTs to Remediate Writing Problems in Students with Special Learning Disabilities

Anna Riga, Zoe Karabatzaki, Ioannis Geralexis

Abstract

The purpose of this quantitative research is to investigate the opinions of Secondary Education teachers regarding the use of ICTs in strategies for remediating the writing problems of students with Special Learning Disabilities. Through this specific research work it is appropriate to highlight the advantages and disadvantages of the use of ICTs, the factors that prevent teachers from using them and if the learning objectives are achieved and the students are improved. The results showed that teachers have positive views on the use of ICTs in the teaching of students with Special Learning Difficulties and in strategies for the remediation of writing problems, while they consider their use easy. At the same time, despite their increased benefits, it is considered necessary to train teachers in the ICTs and enrich their programs. Finally, age, years of service and level of education are factors that differentiate teachers' opinions. The findings of the study are examined from the perspective of educational placement.

Keywords: Information and Communication Technologies, Special Learning Disabilities, educational software, applications, secondary teachers' views.

1.Introduction

Technology and its tools are constantly evolving in current times, making them a vital part of people's daily lives, particularly those of the country's student population. In turn, students appear to be more familiar with technological instruments since they grow up alongside them and understand them to a greater extent than earlier generations. As a result, the "modern" school must keep up with the rapid pace of technological advancement while also integrating it into its framework. Traditional teacher-centered teaching is on the decline, and modern perspectives provide a different rhythm to a modern style of education that is technologically in touch with today's environment. It is important to note that a substantial percentage of the secondary education student population has special learning disabilities. As a result, the secondary school teacher's duty should be based on adapting instructional content in order to implement successful teaching for all students, including those with special learning disabilities. In particular, the entire range of ICT software, applications, devices, and tools can be utilized in the educational process since they provide audio-visual material and group activities that engage students, improve concentration, and increase learning motivation (Antoniou & Siskos, 2006). Secondary school teachers, on the other hand, must provide adequate training and demonstrate competence in technological changes in order to use ICT in the educational process. They will be able to utilize technological tools more effectively this way.

2.Theoretical Background

The entry of new technologies into the educational process, and particularly in the education of people with SLD, contributes to the development of basic learning functions that the student has difficulty with (Besio, 2005). New technologies refer to support devices for individuals in the broad context of special education, such as the computer, as well as educational software applications (Besio, 2005). These contribute drastically to both the social and educational enhancement of students with SLD through the appropriately adapted educational environments they provide, enhancing the learning of these student populations. In addition, new technologies play a vital important role in shaping the knowledge and functions of school staff, namely therapists and special educators. They are provided with the appropriate diagnostic tools, through which they can use different strategies of new technologies, which lead to a better understanding of children's learning difficulties (Drigas & Ioannidou, 2013).

Regarding the intervention tools made available by modern technologies, it should be noted that they assist activities that are crucial in the lives of students with special learning disabilities, such as learning, work, and leisure. As a result, new technologies improve these students' lives and learning abilities (Drigas & Ioannidou, 2013).

Additionally, new technologies (or ICTs) aid in the promotion of collaborative learning, knowledge, the development of critical thinking, and creativity, as well as the improvement of teaching techniques and the ability of students to address major problems in their daily lives (Komis, 2004; Vathrakogianni, Pitsadioti, & Chalioti, 2020). Because they work entirely digitally, their application in teaching students with special learning disabilities ensures a greater quality of learning and education (Stasinou, 2013). It should be noted at this point that the benefits of ICT are noticeable throughout the educational process, as teachers have the opportunity to experiment with new teaching methods, make learning more enjoyable, and assist students in developing new skills that are important in their lives (Porpodas, 2003).

It is also fundamental for educators to gain proficiency in these digital settings in order to improve their professional skills. As an outcome, new technologies can contribute to a more beneficial modification in the behaviour of both teachers and students, enabling both groups to profit from them (Kaware & Sain, 2015).

As a matter of fact, it is obvious that intervention tools have a wide variety of applications and software that are accessible to a substantial portion of the population. ICTs create an interactive and accessible environment for personalized learning, permitting students to enhance cognitive skills more rapidly than traditional education methods. ICT is a formidable weapon in the arsenal of educators because it combines entertainment with the development of numeracy and arithmetic skills (Drigas et al., 2016).

Virtual environments, applications, and alternative communication systems can be an important asset for students with special learning difficulties since they are always adapted to their needs (Mastrogiannis, 2009). Software for both general and more specialized use is a particular technological innovation in special education. Of course, teachers' knowledge on the use of ICT in education is also considered particularly important (Mastrogiannis, 2014).

The use of new technologies contributes to a multisensory approach to learning, the cultivation of social and communication skills, the development of problem-solving skills, and the interaction of students with SLD with their peers and teachers (Angelopoulou, 2011). Furthermore, through ICT, students are exposed to interactive collaborative learning

environments, through which information sharing and collaboration among other group members are encouraged with the aim of solving problems (Drigas & Karyotaki, 2016). The digital game, in particular, is a useful tool for students with SLD. It is an applied educational program with video game features that is designed to enhance learning through both teacher and student entertainment. As a consequence, it fosters knowledge and skill development in students with SLD, as the student gains knowledge on his or her own through a pleasant process with various educational benefits (Tzifopoulos, 2018).

Furthermore, educational digital games (serious games) can improve learning, teach important skills, and help students with learning disabilities process information (Eichenbaum et al., 2014). Action video games promote a model for teaching complex skills, and they are a form of game that is exploited to improve cognitive and perceptual skills (Papanastasiou et al., 2017).

New technologies facilitate collaboration between the functioning of children with SLD and their involvement in school activities, allowing them to overcome obstacles and be supported in the subject matter. Learning at school requires the evolution of traditional school methods since each child must have the opportunity to learn through play before practicing writing, calculating, and reading. Once these skills are acquired, the child's horizons in all areas of his or her life are broadened (Drigas & Kostas, 2014).

A considerable amount of research is emerging on the impact of video games on the cognitive skills of students with learning disabilities, including attention, executive control, and visual memory tasks. As a result of these studies, it is evident that video games can benefit students with writing problems in terms of cognitive functions (Kefalis, 2020).

In conclusion, students discover how to interact with their peers, communicate more effectively, and learn through this contact, in contrast to the learning benefits. Likewise, students socialize, develop self-esteem, learn to cooperate, and thus become more integrated into the educational environment (Starcic & Bagon, 2014).

3. Method

3.1. Research design

The purpose of this research is to investigate the views of secondary school teachers on the advantages, disadvantages, and impediments of using ICT in remediation strategies for students with special learning disabilities. It is undeniable that teachers' perspectives on the use of ICT play a crucial role in the education of students with special learning disabilities, who appear to benefit, develop, and improve as an outcome of their use. The current study is quantitative empirical research in the field of special education, in order to obtain reliable conclusions.

3.2. Sample-Participants

The sample of the present descriptive quantitative research consisted of N=113 secondary school teachers working in public secondary schools and general education high schools in the prefecture of Attica. They may work in their classroom with students who have special learning disabilities, either as special educators in parallel support or as special educators in an integration department.

3.3. Research Tools

This study's measurement instrument/tool was a specially structured questionnaire that was designed specifically and exclusively for this quantitative research. Initially, the questionnaire includes an introductory note that presents the purpose of the survey, its format, how to complete it, and the time required to complete it. The design of the questionnaire was based on the basic principles of a questionnaire to be completed at the workplace of the sample population, so the researcher paid particular attention to factors such as functional size, clarity of wording, convenient completion time, and aesthetics in the appearance of the electronic form (Lodico, Spaulding and Voegtle, 2006). The questionnaire is divided into two axes, which were designed based on the purpose and the research hypotheses of the study. The first axis includes eight closed-ended questions about the demographics and some individual characteristics of the participant, such as gender, age, years of experience, educational level, level of knowledge, etc. (questions I., II., III., IV., V., VI., VII., VIII.). Then follows the second axis, which includes 2 closed-type questions (Yes/No), 3 multiple-choice questions and 21 questions based on a 5-point "Likert" scale (1=Not at all, 2=A slightly, 3= moderately, 4= fairly, 5=greatly).

3.4. Validity and Reliability

The most critical aspects of an effective quantitative research are validity and reliability. A research tool is valid when it can offer the theoretical concept that inspired its construction. The Cronbach Alpha reliability coefficient is used to determine the reliability check in the current research study on the advantages, disadvantages, and impediments of using ICT to remediate writing problems in students with special learning disabilities.

3.5. Research Questions

Through this research we attempted to determine answers to the following research questions:

- 1) To what extent do secondary school teachers use ICT to help students with special learning disabilities with their writing?
- 2) Do secondary school teachers have experience and training in using ICT to teach students with special learning disabilities?
- 3) What resources do secondary school teachers use for strategies to remediate the writing problems of students with special learning disabilities?
- 4) Are there differences according to the demographic characteristics (gender, age, title, qualification) of secondary school teachers in terms of ICT use?
- 5) What are the impediments that may hinder teachers from incorporating ICT in the rehabilitation of writing problems?
- 6) What are secondary school teachers' perspectives on the role of ICT in achieving learning objectives and improving student performance?

4. Data Analysis

Statistical Tools

The presentation and analysis of the data were carried out using descriptive and inferential statistical methods. Specifically, the aggregated responses collected through the questionnaire are presented through distribution tables of absolute and relative frequencies as well as measures of location and dispersion (mean and standard deviation). In addition, t-tests for

independent samples, ANOVA between numerical and nominal variables, and Pearson's test for testing correlations between numerical variables were used to perform statistical tests. Note that data processing was implemented with the SPSS 20.0 statistical package.

5. Results

Descriptive Statistical Analysis

5.1 Use of ICT in writing remediation strategies

Using statistical analysis of the results and delving deeper into the results presentation related to the second part of the research tool, the usefulness of ICT in remediation strategies for writing of students with specific learning difficulties appears to be high, with a relative mean score on a 5-point Likert scale of 3.81 (T.A.=0.94).

Table 1: Use of ICT in writing remediation strategies

	N	%	M.O.	T.A.	
How useful do you think ICT is in writing remediation strategies for students with specific learning difficulties?	Not at all	1	0,9%		
	Slightly	7	6,2%		
	Moderately	35	31,0%	3,81	0,94
	Fairly	39	34,5%		
	Greatly	31	27,4%		

The percentage of teachers who use modern technological tools in the classroom to teach students with special learning difficulties is high, at 79.0%, with an average time of use of more than two years.

5.2 The advantages of using ICTs

The advantages of using ICT in the teaching process for students with specific learning difficulties are found to be significant (M.O. = 3.48, T.A. = 0.87). In fact, their use is considered simple, while they significantly improve students' writing skills, with slightly lower advantages for the remediation of students' writing problems.

Table 2: The advantages of using ICTs

	Not at all		Slightly		Moderately		Fairly		Greatly		M.O.	T.A.
	N	%	N	%	N	%	N	%	N	%		
Were there any advantages to incorporating ICTs into your students' remediation strategies for writing issues?	3	2,7%	19	16,8%	40	35,4%	35	31,0%	16	14,2%	3,37	1,01
Would you consider it easy to use ICTs in teaching your students with specific learning difficulties?	3	2,7%	11	9,7%	39	34,5%	42	37,2%	18	15,9%	3,54	0,96
Do you consider that ICTs enhances your students' writing skills?	0	0,0%	17	15,0%	38	33,6%	40	35,4%	18	15,9%	3,52	0,94
Advantages of ICTs											3,48	0,87

5.3 The disadvantages of using ICTs

Despite their increased advantages, ICTs have significant disadvantages (M.O. = 3.67, T.A. = 0.63), the most significant of which are the need for teacher training in them and the low content of their programs, which requires enrichment. Nonetheless, no significant difficulties in using ICT have been observed.

Table 3: The disadvantages of using ICTs

	Not at all		Slightly		Moderately		Fairly		Greatly		M.O.	T.A.
	N	%	N	%	N	%	N	%	N	%		
Have you encountered any significant challenges in implementing ICTs in the writing remediation strategies of your students with specific learning disabilities?	14	12,4%	63	55,8%	21	18,6%	12	10,6%	3	2,7%	2,35	0,93
How necessary do you consider the enrichment of curricula and their adaptation with technological tools in the rehabilitation of students with specific learning difficulties?	1	0,9%	2	1,8%	24	21,2%	21	18,6%	65	57,5%	4,30	0,92
How necessary do you consider the training of teachers on the use of ICTs as an essential tool for teaching students with special learning difficulties to be the responsibility of the Ministry?	1	0,9%	3	2,7%	21	18,6%	18	15,9%	70	61,9%	4,35	0,93
Disadvantages of ICTs											3,67	0,63

5.4 Impediments to ICTs adoption

Furthermore, no particularly high level of impediment to the use of ICTs in the educational process is noticed, with the matching overall average score of 2.41 (T.A. = 0.57). More specifically, the degree to which teachers experience anxiety and insecurity when using ICTs is very low, while the inhibiting effect on their use of limited teaching time, management's attitude toward ICT, the adequacy of technological resources in schools, and the adequacy of traditional teaching methods are lower than average.

Table 4: Impediments to ICTs adoption

	Not at all		Slightly		Moderately		Fairly		Greatly		M.O.	T.A.
	N	%	N	%	N	%	N	%	N	%		
Is your limited teaching time an impediment to using technology tools in the educational process?	15	4,4%	37	32,7%	44	38,9%	22	19,5%	5	4,4%	2,87	0,93
Is the school administration in favour of using ICTs?	13	11,5%	53	46,9%	33	29,2%	11	9,7%	3	2,7%	2,45	0,92
Is your school equipped with the necessary resources and infrastructure for students with special learning difficulties to use ICTs?	15	13,3%	55	48,7%	32	28,3%	10	8,8%	1	0,9%	2,35	0,85
Do you experience stress and insecurity as a result of your use of technological media?	55	48,7%	30	26,5%	13	11,5%	13	11,5%	2	1,8%	1,91	1,11
Do you believe that traditional methods produce greater results in remediating writing issues among your students with special learning difficulties?	26	23,0%	35	31,0%	27	23,9%	22	19,5%	3	2,7%	2,48	1,13
Impediments to ICTs use											2,41	0,57

5.5. ICTs results for students

The use of ICTs generates significant benefits (M.O. = 3.53; T.A. = 0.82), with students eager to utilize it because it piques their interest. Teachers firmly believe that ICTs broadens the horizons of students with specific learning disabilities, allowing them to have a more positive attitude toward the lesson, while there is a lower level of belief that it promotes the development of independent work and causes a difference in students' performance in writing problems.

Table 5: ICTs results for students

	Not at all		Slightly		Moderately		Fairly		Greatly		M.O.	T.A.
	N	%	N	%	N	%	N	%	N	%		
Do you believe that ICTs promote the development of independent work?	0	0,0%	22	19,5%	45	39,8%	34	30,1%	12	10,6%	3,32	0,91
Do you believe that ICTs captures the attention and interest of students with special learning disabilities?	0	0,0%	11	9,7%	37	32,7%	38	33,6%	27	23,9%	3,72	0,94
Do you believe that ICTs assists students with writing difficulties to understand the lesson?	0	0,0%	20	17,7%	39	34,5%	37	32,7%	17	15,0%	3,45	0,95
Do you believe that ICTs broadens the perspectives of students who have special learning disabilities?	0	0,9%	15	13,3%	34	30,1%	46	40,7%	17	15,0%	3,56	0,93
Do you believe that your students are secure when using computer-based instructional software?	1	0,9%	21	18,6%	36	31,9%	40	35,4%	15	13,3%	3,42	0,97
Do you believe that the use of ICTs has aided your students' positive attitude toward the lesson?	2	1,8%	17	15,0%	28	24,8%	45	39,8%	21	18,6%	3,58	1,02
Do you believe your students gained more knowledge from the ICTs-enhanced lesson?	1	0,9%	16	14,2%	42	37,2%	37	32,7%	17	15,0%	3,47	0,95
Have your students requested that ICTs be utilized in a future lesson?	1	0,9%	3	2,7%	38	33,6%	42	37,2%	29	25,7%	3,84	0,87
Was there a difference in students' performance on writing difficulties after ICTs was used in the classroom?	0	0,9%	17	15,0%	45	39,8%	37	32,7%	13	11,5%	3,39	0,91
ICTs results for students											3,53	0,82

5.6 Pearson's Correlation Analysis

The Pearson correlation matrix of ICTs benefits, downsides, inhibitors of ICT use, and effects on students is shown below. Initially, it was discovered that teachers who identified higher benefits of ICTs use also identified high disadvantages ($r = 0.39$, $p = 0.001$), while identifying low inhibitors to its use ($r = -0.292$, $p = 0.002$) and high student results. Furthermore, increasing disadvantages of ICT use are associated with increased inhibitors of ICTs use ($r = 0.188$, $p = 0.046$), but also with increased effectiveness for students ($r = 0.327$, $p = 0.001$). Finally, the presence of high levels of ICTs inhibitors reduces the effectiveness of ICTs use for students and vice versa ($r = -0.283$, $p = 0.002$).

Table 6: Pearson correlation matrix

	Advantages of ICTs	Disadvantages of ICTs	Impediments to ICTs use	ICTs results for students
Advantages of ICTs	R 1 P			
Disadvantages of ICTs	R 0,394 P 0,000	1		
Impediments to ICTs use	R -0,292 P 0,002	0,188 0,046	1	
ICTs results for students	R 0,810 P 0,000	0,327 0,000	-0,283 0,002	1

5.7 Controlling for participant gender differences

The presence of statistically significant differences in the mean scores of the analysed dimensions based on teachers' gender is investigated using the t-test for independent samples. As can be shown, the observed level of significance in each case is greater than 0.05, indicating that male and female teachers' impressions of the use of ICTs in the educational process do not differ statistically substantially.

Table 7: T-tests for independent samples of educators based on their gender

	Gender				t	BE	P
	Male		Female				
	M.O.	T.A.	M.O.	T.A.			
Advantages of ICTs	3,64	0,91	3,41	0,85	1,275	111	0,205
Disadvantages of ICTs	3,63	0,58	3,69	0,65	-0,466	111	0,642
Impediments to ICTs use	2,46	0,62	2,39	0,55	0,636	111	0,526
ICTs results for students	3,70	0,88	3,45	0,79	1,440	111	0,153

5.8 Testing for differences in M.O. using the ONE-WAY ANOVA criterion

Regarding that, based on the results of the corresponding univariate analysis of variance tests, it is discovered that younger teachers, particularly those under 35 years old, identify a greater

degree of benefits from the use of ICTs in the educational process ($p = 0.001$), but also fewer impediments to this process ($p = 0.001$). Furthermore, the results are comparable in terms of the importance of ICTs use for students ($p 0.001$).

Table 8: ANOVA tests based on teachers' age

	Age								F	BE	p
	25-35		36-45		46-55		56 and more				
	M.O.	T.A.	M.O.	T.A.	M.O.	T.A.	M.O.	T.A.			
Advantages of ICTs	3,65	0,78	3,59	0,88	2,98	0,83	2,17	0,69	6,628	112	0,000
Disadvantages of ICTs	3,63	0,67	3,74	0,53	3,63	0,67	4,00	0,47	0,578	112	0,631
Impediments to ICTs use	2,28	0,54	2,40	0,49	2,82	0,64	2,90	0,12	5,735	112	0,001
ICTs results for students	3,77	0,78	3,66	0,74	2,86	0,67	2,42	0,40	9,230	112	0,000

Simultaneously, the higher the respondents' level of knowledge and further training in special education, the higher the perceived degree of benefits of ICTs use in the learning process ($p 0.001$) and its effects on students ($p 0.001$). Those with a PhD and a Master's degree in special education have significantly higher relative mean scores, as observed.

Table 9: ANOVA tests based on teachers' knowledge and training in special education

	Knowledge – Retraining in Special Education												F	BE	p
	Master's in Special Education		Doctorate in Special Education		Annual training in PEK Education		No training in Special Education		Other						
	M.O.	T.A.	M.O.	T.A.	M.O.	T.A.	M.O.	T.A.	M.O.	T.A.					
Advantages of ICTs	3,84	0,69	4,58	0,46	3,36	0,79	2,69	0,68	3,08	0,32	17,632	112	0,000		
Disadvantages of ICTs	3,75	0,58	4,08	0,15	3,67	0,58	3,48	0,76	3,17	0,58	2,426	112	0,052		
Impediments to ICTs use	2,36	0,56	2,23	0,41	2,40	0,74	2,61	0,42	2,15	0,30	1,401	112	0,238		
ICTs results for students	3,91	0,67	4,36	0,55	3,48	0,74	2,72	0,55	3,17	0,33	18,414	112	0,000		

Finally, based on the findings of the related one-way ANOVA tests, it is discovered that teachers with fewer years of experience notice a greater degree of benefits from the use of ICTs in the educational process ($p 0.001$), but also fewer blocking factors ($p 0.001$). Simultaneously, they rate the effectiveness of ICTs use on student advancement more favourably ($p = 0.001$).

Table 10: ANOVA tests depending on the years of experience of teachers

	Years of experience						F	BE	p
	1-10		11-21		22 and more				
	M.O.	T.A.	M.O.	T.A.	M.O.	T.A.			
Advantages of ICTs	3,64	0,78	2,90	0,93	2,33	0,71	11,160	112	0,000
Disadvantages of ICTs	3,65	0,63	3,67	0,66	4,00	0,41	0,721	112	0,488
Impediments to ICTs use	2,31	0,58	2,83	0,29	2,92	0,11	8,525	112	0,000
ICTs results for students	3,70	0,76	2,85	0,70	2,53	0,43	13,437	112	0,000

6. Discussion

There are no statistically significant variations in men's and women's perceptions based on this survey's demographic and occupational data. This data contrasts with prior studies that found statistically significant differences between male and female teachers' positive evaluations of ICTs (Jimoyiannis & Komis, 2007). Furthermore, in the current research, teachers who attended ICTs usage seminars in the classroom demonstrated a greater perceived level of advantages from ICTs use, a lower level of inhibitors, and higher perceived results for students.

Moreover, teachers with fewer years of experience see a bigger benefit from using ICTs in the classroom and have fewer impediments to doing so. Simultaneously, they should improve their evaluation of the effectiveness of ICTs use for student advancement. Regarding the age of the respondents, it is evident that younger secondary teachers (up to 35 years old) see greater benefits from the use of ICTs in the educational process and fewer impediments, but the results for the value of ICTs use for students are identical. Similarly, the findings of Katsarou's (2020) research in primary education revealed that younger instructors with less experience were more ready to use ICTs in their instruction. Also, older teachers appeared to embrace a more traditional teacher-centered teaching model (Katsarou, 2020).

Of course, the need to adapt the school to modern society by implementing instructional software to increase learning quality is always emphasized (Simeonidis, 2021). It is easy to conclude that the implementation of a variety of technological tools and educational software can assist learners with SLD to operate better, cultivate skills, and encourage active participation in school activities. The application of ICTs facilitates the acquisition of autonomy skills as well as cognitive skills, with generalization to students' everyday lives (Drigas & Kostas, 2014). According to recent research, interactive environments help students develop metacognitive skills, stimulate creative thinking, take initiative, solve problems with relative autonomy, and raise their self-awareness (Drigas & Karyotaki, 2016).

The benefits of utilizing ICTs in the education of children with specific learning disabilities tend to be improved when teachers believe ICTs is simple to use and greatly enhances students' writing skills. The benefits of incorporating ICTs into the educational process are numerous, as demonstrated by the research of Vathrakogianni et al. (2020). It is also suggested that active learning, an emphasis on teaching, critical thinking and creativity, differentiated instruction, and interdisciplinarity are reasons why ICTs can be used in education (Vathrakogianni, 2020).

Of course, it should be emphasized that the benefits of ICTs in resolving students' writing problems were slightly lower in the current study.

However, despite their increased benefits, ICTs also have substantial disadvantages, as demonstrated by the current study, the most notable of which are the requirement for teacher training in them and the limited content of their programs, which requires enrichment. As a result, it is critical to train instructors in the use of ICTs and to improve curricula. These findings about the disadvantages of ICTs in this study are also stated in another recent study by Ioannou (2021) about primary education. Besides, the curriculum's character contains strong traditional characteristics of devotion to the book. As a result of their practical dedication to curricula, teachers are frequently unable to employ modern technological tools. However, as the current survey demonstrates, there are no significant impediments to adopting ICTs from their perspective.

The current study's results analysis presents the positive perceptions of secondary school teachers working in public general education schools in the prefecture of Attica regarding the use of ICTs for strategies of remediation of writing problems in students with SLD, using a variety of software and applications available from the Ministry of Education and beyond. These advantages can be observed in the entire student population, but especially in SLD students. These findings are consistent with findings from other recent research that investigates teachers' views on the use of ICTs in the classroom (Qasem & Viswnathappa, 2016).

Therefore, there are no significant obstacles to the use of ICTs in education. Teachers, in particular, do not feel overly worried or insecure when utilizing ICTs, and the limited teaching time (40–45 minutes per teaching hour) has no significant inhibitory effect. However, it appears that management is only moderately supportive of ICTs use and tends to lack suitable technological resources. Finally, they suggest that students who use SLD's writing remediation strategies do not benefit greatly from traditional instructional methods.

Students that aspire to use ICTs to its full potential benefit from it, and the survey results reveal that ICTs captivates their interest. Teachers believe that ICTs broadens the horizons of students with special learning disabilities, supporting them in developing a more positive approach toward learning. A lower degree, on the other hand, is thought to stimulate the growth of independent work and lead to a difference in students' performance in writing problems. According to the findings of this study, students' use of ICTs is beneficial.

Finally, there were no gender differences in the teachers' perspectives. However, it was discovered that younger educators, particularly those under the age of 35, have seen greater advantages and fewer impediments to using ICTs in their classrooms.

6.1 Study Limitations—Future Propositions

A key limitation of the research is that of the sample, not in terms of number since it is considered representative of the group under investigation, but mainly due to the fact that the data collection was exclusively from teachers in the prefecture of Attica. This geographical limitation is very important, as the focus was on a single setting and the specific characteristics of the teachers living and working there. A similar survey would be of particular interest, focusing on a sample of secondary school teachers nationwide. Furthermore, further pilot research is proposed using information from qualitative research methods as well. Through

interviews with teachers, parents of children with SLD, and students on the effectiveness of ICTs use and the improvement of learning objectives, a more substantial feedback of the research tool as well as important material can be obtained, achieving a direct link with Greek data. Given the lack of focus on the field of special education, especially in Greek society, the results of the research are considered important and are expected to enrich scientific research and be a motivation for new studies in the field of special education.

Further research is suggested in the future around the creation of more digital media for secondary school students with SLD, as most of these are aimed at primary school students. In addition, an extension of the research should also be carried out in tertiary education, as it would be important to explore the views of these teachers on the use of ICTs in universities in the country for students with SLD. The use of ICTs in higher education has been developing rapidly for both implementation and evaluation of the educational process. As a result, research interest is high, and the findings may result in adjustments and changes to educational policy and curriculum design as a whole.

7. Conclusion

Finally we underline the importance of the digital technologies in education domain and in special learning disabilities that is very productive and successful, facilitates and improves the assessment, the intervention and the educational procedures via Mobiles which brings educational activities everywhere [30-39], various ICTs applications which are the core supporters of education [40-75], AI, STEM & ROBOTICS which raise educational procedures into new levers of performance [76-94], and games which transforms the education in a very friendly and enjoyable interaction [95-103]. Additionally, the enhancement and combination of ICTs with theories and models of metacognition, mindfulness, meditation and emotional intelligence cultivation [104-156] as well as with environmental factors and nutrition [26-29], accelerates and improves more over the educational practices and results, especially in the special learning disabilities domain and its practices like assessment and intervention.

More specifically, the current study's findings indicate that the majority of secondary school teachers consider it vital to train them in the use of ICTs in order to utilize them in the educational process, specifically for their students with SLD. Furthermore, it is deemed acceptable to expand curricula through the use of ICTs in teaching, with the goal of developing complex learning programs that directly respond to the individual needs of each student. Technology and its tools are continually growing, thus the "modern school" should keep up with the latest trends and evolve in order to provide good support for the entire learning community.

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