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ICTs in behavioral problems and Research and analysis in Athens' schools

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Abstract

The teacher's role in the current society emphasizes educating students about "present reality" and teaching them coping mechanisms. In a time when people struggle, their personalities are torn apart, and ethos and moral values are devalued, teachers must assume the role of social educators. Teachers encourage their pupils to recognize problems and difficulties and acknowledge, express, and control their emotions. This article aims to look into the problems with classroom conduct. The present effort intends to explain instructors' responsibilities for preventing, restricting, actively intervening, and supporting students in problem-solving behavior and defining problematic behavior. Additionally, statistical processing and data analysis are part of the study project. These processes are based on questionnaires that were provided to eight instructors about their viewpoints and the behavioral problem-management strategies they employ.

Keywords

Behavioral Problems, School, ICTs, Metacognition, Attention Deficit Hyperactivity Disorder (ADHD), Bullying, Oppositional Defiant Disorder (ODD)

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1. Introduction

The number of pupils with behavioral issues in the classroom has increased recently (Kourkoutas, 2004c). Due to these issues, students need help to live up to the standards set by the educational environment, both in terms of academic achievement and interpersonal interactions with teachers and other students (Farmer, 2000a). It can be challenging to tell if a particular behavior is regular or unusual. Researchers have thus established specific standard criteria, including whether the conduct is damaging to the kid or their surroundings, the local sociocultural norms of the settings where they live and learn, and the frequency and severity of their behavior (Greenhalgh, 2001). According to Gresham and Kern (2004), hostility, bullying at school, social isolation, and excessive child obedience are the most prevalent behavioral issues in the classroom.

The family, the school, the child himself, and society are all considered potential factors. Unfortunately, the reasons frequently converge and overlap, making it difficult to pinpoint them. Because of this, the problematic conduct continues in all settings and spheres of the child's life (Kauffman, 2001). These actions result from low academic achievement and difficulties in forming deep bonds with friends, parents, and instructors. The child's internal problems, school abandonment, and amplification of these behaviors are further consequences (Hinshaw, 1992).

Training that emphasizes the growth of cognitive and metacognitive abilities is necessary to regulate behavioral issues (Drigas & Mitsea, 2020). According to Chaidi and Drigas (2020), an individual's emotional intelligence and cognitive functions are positively correlated. So that the kid can handle the stressful events at school, there is a significant need to establish and grow emotional intelligence, starting with schooling (Drigas & Papoutsi, 2020). The instructor themselves may have a significant role in reducing behavioral issues and the stress they bring. Identifying the issue is a crucial initial step, followed by applying a variety of effective teaching techniques and strategies that will probably assist the students in lessening their behavioral issues in class and enhancing their good character characteristics (Kassen et al., 1990). Depending on the child, teachers should use a flexible and individual approach. A teacher must always be an ally rather than a punitive force (Dane & Schneider, 1998).

2. Categories of problematic behavior

As previously said, a behavior is deemed troublesome or distressing if it displays impulsive, provocative, antisocial, and violent behavior patterns toward others and materially impedes a child's growth and development (Kamps & Tankersley, 1996). In educational settings, a wide variety of behavioral issues are seen, including:

2.1. Attention Deficit Hyperactivity Disorder (ADHD)

Inattention and impulsiveness/hyperactivity are the two prominent symptoms of ADHD. The primary characteristics of the condition include restlessness, excessive hand, and foot motion, inability to concentrate, risk-taking behavior, forgetfulness of books and pencils, inability to wait one's turn, interruptions, and disobedience of regulations. On the other hand, when a kid is involved in an activity that they find incredibly intriguing or when they are in a setting that is quite rigorously organized, the symptoms of the illness may be mild or even nonexistent (Kakouros & Maniadaki, 1998; Sciberras et al., 2014).

Since it can be challenging to distinguish between ADHD and "vivid" or "snappy" conduct, parents and teachers should exercise caution when labeling an excitable and disobedient youngster. When a kid has ADHD, they frequently exhibit the behaviors above in all settings rather than just one, like school (Lahey et al., 2000). It is also important to note that there are three distinct forms of ADHD, each with a unique set of symptoms. For instance, there could merely be the symptom of inattention, which teachers frequently ignore because these kids do not disrupt the class. As signs of behavioral issues, there may merely be the symptom of hyperactivity, or both inattention and hyperactivity (American Psychiatric Association, 2013; Barkley, 2003).

According to Whalen and Henker (1999), disruptive conduct in children frequently results in exclusion from school-related activities, problems getting along with peers, and academic failure. The illness does not go better with time, but the symptoms might evolve and show themselves as internal or outward uneasiness, anxiety disorders, or violence (Barkley, 2003).

2.2. Disobedience – Opposition – Aggression

When kids are occasionally worn out, stressed out, or unhappy, it is common for them to misbehave, which is perfectly natural. Contrarily, persistently aggressive conduct in children can harm their interpersonal interactions and make them highly uncomfortable (Burke et al., 2002). Disobedient children typically engage in the following confrontational behaviors:

- They refuse to follow classroom rules and pay attention to their teachers.
- They lack self-control.
- They frequently fight and insult others.
- They refuse to cooperate and comply.
- They display hostility, outbursts, and touchiness.
- They frequently lie to avoid being punished.

According to Cole et al. (1994), ADHD, learning difficulties, mood disorders, and anxiety disorders frequently coexist with undesirable behaviors.

2.3. Bullying

When a youngster is subjected to one or more pupils' unpleasant behaviors frequently and over an extended period, it is considered bullying or victimization. Aggression is uncalled for, unreasonable, unwarranted, and persistent. It is used on a weaker youngster (the "victim") by a stronger child (the "per-

petrator"). It primarily seeks to provoke dread, worry, or agony. While the weaker kid cannot defend himself, the bullied youngster benefits in some way (e.g., pleasure, social standing, financial gain, etc.) (Sourander et al., 2000). Bullying can be physical, sexual, verbal, indirect, racial or racist, snatching or damaging property, and threat or compulsion (Farrington et al., 1993). For instance, social isolation is a frequent and hurtful kind of bullying that is less obvious to adults (teachers). The development of a bad reputation, stalking, systematic ignorance (ghosting), silence, and intimidation of others connected to the "victim" are all examples of indirect bullying. Bullying may happen anywhere, including the courtyard, the corridors, the stairs, the bathrooms, and the bus ride to and from school. As a result, the instructor misses many examples (Psalti et al., 2005).

2.4. Social Isolation

In the same way, friendship fosters camaraderie, joy, contentment, and fulfillment. Its absence may result in social isolation, loneliness, and boredom. Some confident kids in the school setting exhibit specific traits that "favor" them in friendships and help them become "popular". Children that are more "shy and reserved" exist as well. These kids have less-developed social skills and talents, seem lonely more often, and are less likely to participate actively in class, make friends, or interact with others. They also exhibit apathy in response to stimuli, making them frequent targets of criticism and sufferers of bullying and mockery (Boxer & Frick, 2008; Farrington, 1995).

2.5. Excessive Compliance

According to Schneider and Leitenberg (1989), excessive compliance is harmful. It complicates the dynamics in the classroom because it renders the child dysfunctional (both in terms of learning and developing relationships with classmates and teachers) and may result in their complete submission to them and denial of their desires, lack of critical ability, and expression of views, and ultimately loss of their individuality. Too much obedience might also encourage a youngster to engage in antisocial conduct. This indicates that a child's intense need to fit in might cause them to exhibit eccentric behaviors to grab attention and win the approval of their peers, which causes chaos and confusion in the classroom (Farrington, 1995).

3. Behavior issues and ICTS

ICT has been successfully used in special education, claim Kontostavlou & Drigas (2019). Teachers may use ICT approaches to intervene with students, which can be advantageous for them because it can help them advance their knowledge and skills. Prem, Mohanraj, and Samuel (2020) looked at how computer interfaces affected the developing brains of ADHD children. With cutting-edge technology, people with neurological disorders like focus Deficit Hyperactivity Disorder (ADHD) can improve their focus with the help of the Brain-Computer Interface (BCI). BCI allows for monitoring the brain's activity during a task, including levels of attention and hemisphere balance (Carelli et al., 2017). Using BCI to help persons with attention problems focus more is a relatively new tactic. BCIs use mathematical algorithms to decipher the neurophysiological impulses produced by the nervous system. The "neuro bio-feedback treatment" allows patients to monitor and manage their brain activity. According to Mehdi et al. (2016), some of the most popular BCIs are magnetoencephalography (MEG), near-infrared spectroscopy (NIRS), functional magnetic resonance imaging (fMRI), electrocorticography (ECoG), and multi-electrode cerebral implants.

A meta-analysis found that although medication's effects wane over time, neurofeedback's effects on ADHD youngsters continue to improve (Van Doren et al., 2018). This demonstrates neurofeedback's long-term effectiveness. The use of BCI for attention problems is criticized in this study for both healthy individuals and those who have a variety of cognitive disorders, including dementia, ALS, ALS-related cognitive deficits, ALS, autism spectrum disorder (ASD), cognitive deficits brought on by brain and spinal cord injuries, post-stroke disabilities, and ADHD. The databases PubMed, Web of Science, and Scopus were searched using the terms "brain," "interface," "computer," "training," and "neurofeedback" to find twenty-three (23) surveys, which were then assessed (Prem et al., 2020).

The brain-computer interface has been suggested as a neurofeedback therapy for kids with ADHD. A 3D game based on BCI was developed by Jiang et al. (2011) to grab players' interest. While users employ a 3D animation technique to control the motion of a virtual hand, the BCI processor tracks their attention levels. Another team of researchers put a sensor- and Bluetooth-based intervention method to the test using a CogoLand game. After the session, parents noticed a significant reduction in their ADHD child's symptoms (Lim et al., 2012). Neuroimaging studies have shown that neurofeedback therapy can help children with ADHD by regulating the brain functions that control selective inhibition (Beauregard & Levesque, 2006). A video game developed by Munoz et al. (2015) utilizes BCI to monitor the neurophysiological signals of children with ADHD. The title of the game was "The Harvest Challenge." The setting was a coffee farm. Games usually help people get better at waiting, planning, and following directions to achieve goals. If these skills have been developed, impulsivity may be managed.

Qian et al. (2018) used BCI with the fMRI method to examine changes in brain function. After the training, the inattentiveness symptoms of the intervention group were significantly better than those of the control group. The researchers saw an improvement in behavior and a quicker pace of brain development in kids with ADHD. Sciberras et al. (2014) found that BCI-based attention training programs reduced the symptoms of anxiety and depression.

Mobile applications may be an extra teaching tool in educational settings to enhance children's academic abilities, according to Drigas & Kokkalia (2016). Powell, Parker, Robertson, and Harpin (2017) examined whether mobile programs were suitable for kids with ADHD. Today, owing to technological developments and programs created specifically for

this population, ADHD may be successfully managed. Xu et al. (2002) reviewed 19 research studies on how children with ADHD use technology between the ages of 4 and 19. The authors concluded that inadequate evidence supports the efficacy of such treatments. This study examined the value of 10 applications for children and teenagers with ADHD and the professionals who assist them. For this study, the top 10 mobile applications for children and teenagers with ADHD were selected from the Apple iTunes Store and the Android Google Play Store in the United Kingdom. The programs were selected based on their rankings, which were generated by algorithms using data from downloads and ratings; the search phrase used was "ADHD." Five doctors from a medical facility that treats children and teenagers with ADHD participated in this study, as did five children who had been diagnosed with the disorder and ranged in age from 6 to 17 years. During the experiment, the children with ADHD utilized the applications, and afterward, they were asked for comments. The effectiveness of these applications for this demographic was also discussed with clinicians (Powell et al., 2017).

The therapists thought that apps might be used to monitor children's and teenagers' ADHD symptoms and that they positively and negatively impacted their social interactions. Additionally, they were interested in issues like accessibility, how important it is for applications to consider ADHD symptoms, the difficulties they present if they are appropriate for all ages, and whether they allow customizability so that every user can relate. Furthermore, two teens and two medical professionals observed that the applications were only sometimes trustworthy because they frequently did not work well or disconnected. Due to their inability to pay for the applications online, two young people believed that paying for them was a barrier. Children and doctors agreed that applications should reward users, be engaging, visually pleasing, and include language and characters that kids can relate to (Powell et al., 2017).

Two participants said that if they had ADHD symptoms (i.e., lessened hyperactivity), the sessions might help them unwind. They said that getting an instant reward like coins made them happy throughout the game. Another participant said that he could relax by focusing on patterns. In the same vein, doctors believed that encouraging users required incentives. One doctor claims that treatments for ADHD can improve memory and inhibitions, which will lessen impulsivity. Since they were less impressed and, in some cases, even angered by apps that permitted passive listening or viewing, the young people also stated that applications should be interesting. Additionally, doctors suggested using apps as journals or reminders to keep track of nutrition, mood, and ADHD symptoms (Powell et al., 2017).

According to Kokkalia et al. (2017), serious games are a cutting-edge teaching strategy that may improve and support kids with various needs while enhancing learning and fun in educational settings. The effect of the EmoGalaxy video game on kids with Oppositional Defiant Disorder (ODD) in terms of their social skills was examined by Hakimirad et al. in 2019. The research population comprised children with ODD who were divided into two groups (the experimental and the control groups). Twenty boys between the ages of 7 and 12 were selected and randomly split into the experimental group (10 kids) and the control group (10 kids). The control group received no therapy, whereas the experimental group utilized EmoGalaxy for fifteen (15) 45-minute intervention sessions. The student's social skills were assessed using the Gresham & Elliot (1990) Social Skills Assessment Scale before and after the intervention.

The EmoGalaxy video game requires the user to switch between four different planets. The four fundamental emotions—joy, sadness, fear, and wrath—are each represented by a planet. On the globe, the user may play various games in various locations. The three emotional skills the game is designed to assist players in developing are emotional expression, control, and awareness. On the "frowning" planet, for instance, players must display and exhibit rage in order to participate in any game. The game uses the front camera to capture the players' faces and identify their emotional states. The game will ask the player to choose a character with an angry expression if he cannot display the right mood. In other words, it evaluates name recognition, an essential component of emotional intelligence. Each game ends with the participants receiving a score. The following planet, which corresponds to a new emotion, can be reached by the player after their score reaches a predetermined level (Hakimirad et al., 2019).

PCs, iPhone 5 and later devices, Android 4.4 and higher smartphones and tablets, and EmoGalaxy are all compatible. The two-dimensional game was made with the Unity 5 software. The results showed a significant difference between pre-and post-intervention social skills test scores. Teamwork increased by 0.46 points on EmoGalaxy, assertiveness by 0.59 points, responsibility by 0.25 points, and self-control by 0.47 points. There was a 0.73 effect on all social abilities. According to the results of this study (Hakimirad et al., 2019), EmoGalaxy, as a cognitive video game, had a noticeable effect on all elements of social skills in kids with ODD.

4. Methodology

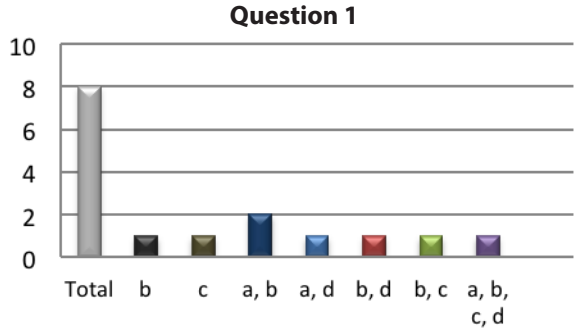
In this investigation section, questionnaires about views and attitudes about behavioral issues were presented to 8 primary school teachers from the 105th Elementary School of Athens. Six of the teachers were female, and two were male. Most of them were between 40 and 55 and had extensive teaching experience. Additional questionnaire details included the region, grade, instructor, date, and teaching lesson. It is important to note that professors may provide more than one response to some questions. Different classes received the surveys. The replies were then subjected to statistical processing and descriptive data analysis.

5. Questionnaires' Analysis

Question 1:
Do you think that the behavioral problems that usually occur in your classroom are due to: *
a) The child's difficulty to socialize and adapt to the school reality
b) A problematic family environment
c) Influences of the broader social environment
d) Cultural differences and social inequality

Table 1. Presentation of results

Options	Absolute frequency	Relative frequency
B	1	12,5%
C	1	12,5%
a, b	2	25%
a, d	1	12,5%
b, d	1	12,5%
b, c	1	12,5%
a, b, c, d	1	12,5%
Total	8	100%

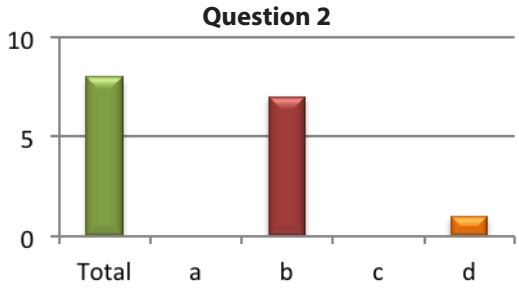


Graph 1. Visual presentation of results

Question 2:
Problem behaviors that occur in the classroom can be effectively addressed:
a) Exclusively and solely by you
b) In cooperation with the parents
c) With the help of colleagues and the manager
d) With the help of specialized scientists

Table 2. Presentation of results

Options	Absolute frequency	Relative frequency
a	0	0%
b	7	87,5%
c	0	0%
d	1	12,5%
Total	8	100%

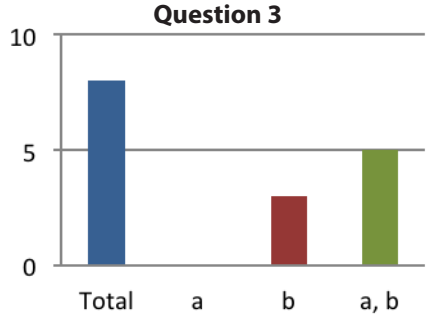


Graph 2. Visual presentation of results

Question 3:
When a problematic behavior occurs, you give priority to: *
a) Diagnosing the root causes of the problem
b) The pedagogical treatment of the problem

Table 3. Presentation of results

Options	Absolute frequency	Relative frequency
a	0	0%
b	3	37,5%
a, b	5	62,5%
Total	8	100%

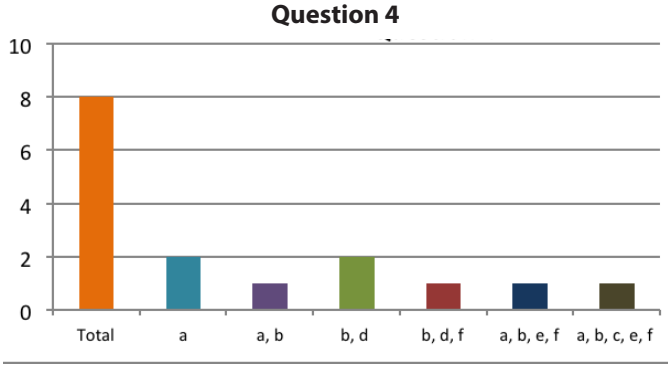


Graph 3. Visual presentation of results

Question 4:
You characterize an unwanted student's behavior in class as problematic after: *
a) Systematic observation of the student's behavior in the school environment
b) A detailed record of the frequency, intensity and duration of the problem behavior
c) A friendly discussion with the student
d) Communicating with the parents
e) Cooperating with the school counselor
f) Referring the student to a specialized scientist or service

Table 4. Presentation of results

Options	Absolute frequency	Relative frequency
a	2	25%
a, b	1	12,5%
β, d	2	25%
b, d, f	1	12,5%
a, b, e, f	1	12,5%
a, b, c, d, e, f	1	12,5%
Total	8	100%

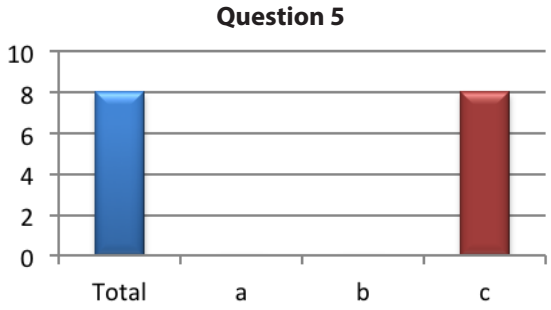


Graph 4. Visual presentation of results

Question 5:
To deal with a problematic behavior in class, you intervene with:
a) Advice and counseling
b) Disapproval and reprimands
c) Interest and sympathy

Table 5. Presentation of resuls

Options	Absolute frequency	Relative frequency
a	0	0%
b	0	0%
c	8	100%
Total	8	100%

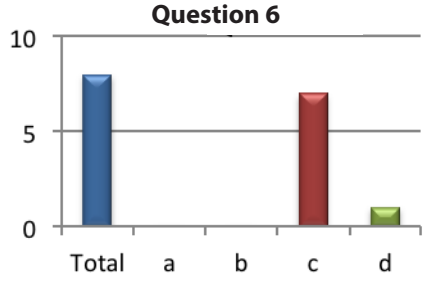


Graph 5. Visual presentation of results

Question 6:
Do you introduce your students to desirable behaviors by developing social skills and imitating role models?
a) Never
b) Rare
c) Often
d) Always

Table 6. Presentation of results

Options	Absolute frequency	Relative frequency
a	0	0%
b	0	0%
c	7	87,5%
d	1	12,5%
Total	8	100%

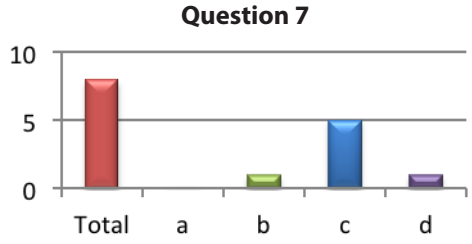


Graph 6. Visual presentation of results

Question 7:
Interpersonal relationships in class and student behavior affect school success or failure:
a) Not at all
b) Somewhat
c) Quite much
d) Very much

Table 7. Presentation of results

Options	Absolute frequency	Relative frequency
a	0	0%
b	1	12,5%
c	5	75%
d	1	12,5%
Total	8	100%

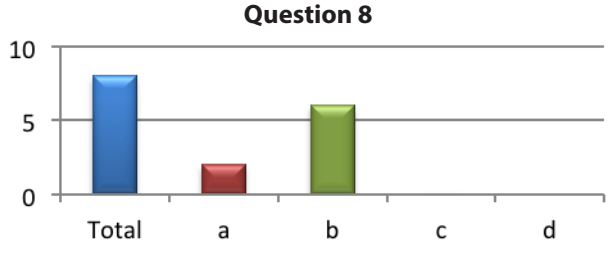


Graph 7. Visual presentation of results

Question 8:
Do you believe that education of students with behavioral problems should take place:
a) In a regular class
b) In a regular class but with parallel support from another teacher
c) In a special class
d) In a special school

Table 8. Presentation of results

Options	Absolute frequency	Relative frequency
a	2	25%
b	6	75%
c	0	0%
d	0	0%
Total	8	100%

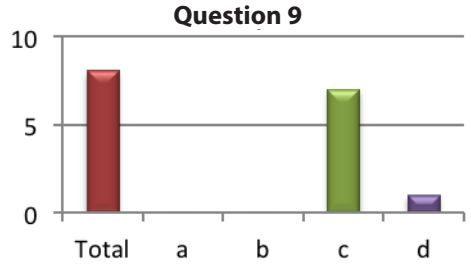


Graph 8. Visual presentation of results

Question 9:
Do you think there is a correlation between the behavioral problems and the learning difficulties that a student faces in the classroom?
a) Not at all
b) Somewhat
c) Quite much
d) Very much

Table 9. Presentation of results

Options	Absolute frequency	Relative frequency
a	0	0%
b	0	0%
c	7	87,5%
d	1	12,5%
Total	8	100%



Graph 9. Visual presentation of results

6. Conclusions

Eight (8) questionnaires were distributed to eight (8) instructors of both sexes from the same school but different classes during the research. These teachers had distinct backgrounds, experiences, expertise, and occasionally different teaching methods due to various issues in some of the classes. The questionnaires asked about the instructors' assessments of behavioral issues and their chosen intervention methods. Below, each question is examined in light of the responses provided and the resulting percentages. The first query was how the teachers saw the root reasons for problematic conduct. Only 25% (2 teachers) of the instructors (6 out of 8) provided the same response, while the majority of teachers (6 out of 8) provided more than two replies. Because of this, it can be challenging to pinpoint the root reasons for behavioral issues. This difficulty may be brought on by the subject's complexity, which allows for a variety of individualized methods, as well as by the ignorance of most teachers. However, 87.5% of the teachers emphasized, among other things, the complicated familial context.

The instructors' opinions on the best strategy for dealing with problematic conduct were the subject of the second question. Most instructors (87.5%) thought working with parents was significant, whereas only one teacher thought working with specialist scientists was more critical. Most instructors

(87.5%) said that the complexity of the home environment was one of the causes of these issues; consequently, they saw the need for cooperation with the family. These findings are closely connected to the preceding question.

The focus that instructors place on problematic conduct when it happens was the subject of the third query. Three of the eight instructors in the study favored a pedagogical approach to the issue. The other five focused on the identification of the issue's causes and pedagogical solutions at the same time. However, they could have concentrated more on identifying the issues. Linking these responses to the preceding ones, we can observe an apparent inclination among instructors to handle these issues using instructional methods and in cooperation with the issue's origin.

The fourth question centered on the circumstances and context that aid instructors in determining if a behavior is troublesome. Additionally, the majority (six out of eight) chose several responses in various combinations. However, 87.5% of teachers said that one of the critical requirements is to thoroughly document the frequency, severity, and duration of the problematic conduct. In contrast, just one teacher said that one of the requirements is to have a kind conversation with the kid. This demonstrates the teachers' desire to monitor the students' conduct continuously. 75% of those, who designated the systematic monitoring of the learner in the classroom setting as a prerequisite, also attest to this.

How the instructor personally intervenes in the classroom is the topic of the fifth question. It can be seen that everyone in this situation chooses sympathy and interest. No one opted for counsel, recommendations, condemnation, or reprimands. Most of the instructors used this technique as their educational strategy, which is very much in line with the prior solutions to the problem-solving question. The second question, which explores whether social skill development and role modeling are used as triggers for desirable actions, likewise received consistent responses, which is noteworthy. Most of them (82.5%) use these techniques frequently, whereas one teacher uses them regularly.

When asked whether interpersonal interactions and students' behavior in class impact academic achievement or failure in question 7, most instructors (75%) agreed that they do. Additionally, one teacher emphasized how overly strong this association is, while another backed the opposite view, i.e., that it makes no difference. These responses are closely connected to those provided in response to the ninth question about the connection between behavioral issues and learning impairments. Only one teacher again said that this codependence is excessive, with the majority of instructors (87.5%) stating that there is a significant relationship. Despite the varied questions, the answers were consistently consistent, which supports the theory that instructors strongly link behavioral issues with academic failure and learning impairments.

The eighth and last question focused on the instructors' opinions about the ideal learning environment for pupils with behavioral issues. Most of them (75%) agreed that the regular classroom with the assistance of another instructor is the ideal learning environment. The remaining 25% supported the traditional classroom but offered no parallel assistance. No educator suggested special education programs or a separate school. All teachers believe the regular classroom is the most suitable learning environment for students with behavioral issues. Most likely, they do not want to further the stigmatization of these kids already in place. Therefore they see a regular classroom as the best setting to foster teamwork and settle conflicts while upholding the principles of diversity and inclusion.

7. Discussion

This essay sought to investigate the classroom behavioral issues that arise. Provocative, antisocial, and hostile attitudes toward others are traits of problematic conduct that substantially negatively impact a child's growth and development. Attention Deficit Hyperactivity Disorder (ADHD), Disobedience-Opposition-Aggression, Bullying, Social Isolation, and Excessive Compliance are examples of undesirable behaviors (Kourkoutas, 2011).

Problematic behaviors have wide-ranging effects on the educational process and the relationships among pupils. Children first display learning challenges unrelated to physical, sensory, or mental conditions (McClelland et al., 2000). Additionally, they struggle to build and maintain healthy interpersonal connections with adults and their peers. When engaging with others, they display incorrect emotional reactions and struggle with sadness and melancholy. Last, according to Boxer & Frick (2008), they frequently act rebelliously and suffer dread.

The overall finding of the review of the research is that tailored classroom treatments that aim to support good behaviors, as well as interpersonal and emotional skills for kids with behavioral difficulties, are successful, especially when integrated with modern technology. Drigas and Kokkalia (2016), Mcevoy & Welker (2000), Poulou & Norwich (2001a) are a few examples. Managing behavioral issues in the classroom is very demanding and challenging. Therefore, it is essential for the student's academic and psychological growth that the issue is identified as soon as possible (Merrell, 2002).

The results of a study on eight elementary school teachers at the 105th Elementary School in Athens demonstrate that we have long since moved past the traditional classroom of the past, where the teacher ruled through austerity, punishment, enforcement, and marginalization of students who deviated from expected standards. Modern educators instead adopt a compassionate, accessible attitude while dealing with challenging situations in the classroom and demonstrate an interest in cutting-edge educational techniques. These encouraging findings mark a significant departure from earlier patterns, but more instructors must be included in the study for the findings to be generalized.

Last but not least, it is essential to highlight the importance of all digital technologies in education, particularly in treating behavioral problems. These technologies, which include mobile devices (Vlachou and Drigas 2017; Papoutsi et al., 2018; Karabatzaki et al., 2018; Stathopoulou et al., 2018; Drigas et al. 2015; Kokkalia et al., 2016; Stathopoulou et al. 2022), a variety of ICTs applications (Drigas & Ioannidou, 2011; Drigas

et al. 2004; Drigas et al. 2004a; Drigas et al. 2011; Charami & Drigas, 2014; Drigas & Kouremenos, 2005; Drigas et al. 2016; Drigas & Kokkalia, 2017; Drigas & Koukianakis 2004; Drigas & Leliopoulos, 2013; Pappas et al. 2018; Papanastasiou et al. 2018; Drigas & Kontopoulou, 2016; Papanastasiou et al. 2020; Drigas et al., 2005; Pappas et al. 2018; Pappas et al. 2019; Drigas & Koukianakis 2009; Theodorou & Drigas, 2012 Papas & Drigas 2015; Drigas & Kostas, 2014; Alexopoulou et al., 2019; Pappas & Drigas, 2015; Drigas & Ioannidou 2013; Drigas & Papanastasiou, 2014; Drigas & Politi Georgousi, 2019; Lizeta et al. 2015; Kontostavlou & Drigas, 2019; Drigas & Vlachou, 2016; Drigas et al., 2006; Drigas & Koukianakis, 2006; Drigas et al. 2005), AI & STEM ROBOTICS (Drigas & Ioannidou, 2013; Drigas & Vrettakos, 2004; Drigas & Vrettakos, 2005; Drigas et al. 2009; Vrettakos et al. 2009; Drigas & Dourou, 2013; Anagnostopoulou et al. 2020; Papas & Drigas, 2016; Lytra & Drigas 2021; Mitsea et al. 2020; Chaidi et al. 2021), and games (Chaidi & Drigas, 2022; Papanastasiou et al. 2017; Kokkalia et al. 2017; Drigas & Papas, 2015; Papanastasiou et al. 2017; Drigas & Kokkalia, 2014; Doulou & Drigas, 2022; Kokkalia et al. 2016), make assessment, intervention, and educational procedures more straightforward and more effective. Additionally, the use of ICTs in conjunction with theories and models of metacognition, mindfulness, meditation, and emotional intelligence cultivation (Drigas & Mitsea, 2020; Drigas & Papoutsi, 2019; Drigas & Pappas, 2017; Drigas & Karyotaki, 2017; Drigas & Mitsea, 2021; Drigas & Papoutsi, 2020; Kokkalia et al. 2019; Pappas & Drigas, 2019; Papoutsi & Drigas, 2017; Papoutsi & Drigas, 2016; Karyotaki & Drigas, 2015; Papoutsi et al. 2019; Chaidi & Drigas, 2020; Drigas & Karyotaki 2019; Drigas et al. 2018; Karyotaki & Drigas, 2016; Mitsea et al. 2021; Angelopoulou & Drigas 2021; Tourimpampa et al. 2018; Drigas & Mitsea, 2020; Papoutsi et al. 2021; Kapsi et al., 2020; Drigas et al., 2021; Galitskaya & Drigas, 2021; Chaidi & Drigas, 2020; Drigas & Mitsea, 2021; Drigas & Mitsea, 2022; Drigas et al. 2022; Drigas & Karyotaki 2019; Bamicha & Drigas, 2022) as well as with environmental factors and nutrition (Stavridou et al. 2021; Zavitsanou & Drigas, 2021; Driga & Drigas, 2019) accelerates and enhances educational practices and outcomes, particularly for students who exhibit behavioral issues.

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