# Technology-Supported Teaching And Its Challenges In Supporting Students With Special Need

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**ABSTRACT**
This study, in terms of its importance and usefulness, serves the problems of teaching supported by technology in classes where students with special needs are integrated. More specifically, the analysis of the factors that influence teaching efficiency will highlight the influential role of technology in these classes.

The study, by nature of data collection and analysis, is a quantitative study in relation to the research method. AML[1] teachers were taken as samples. The data were processed with the statistical program SPSS, version 20, and the instrument used is TSES[2].

This study provides a contemporary reflection of the analysis of factors such as the relationship that exists between teacher training regarding contemporary technology-based teaching; adapting technology-assisted teaching to inclusive classrooms[3].

The conclusions in this study show that teacher training is a permanent necessity; Technology support in inclusive classrooms is the key to effective students with special needs. Also, this study can serve student interns in teaching programs who see engagement with students with special needs as a challenge in their career.

**KEYWORDS:**Inclusive Classroom, Training, Technology-based teaching, Students With Special Needs.

## I. INTRODUCTION

Different studies have addressed the problems that inclusive classes have today. Teaching in technology-based inclusive classrooms requires adaptation based on the abilities and needs of students with special needs. The use of technology in teaching is seen as a challenge for both teachers and students with special needs.

[1] The inclusion of students with special needs in general classes contributes new challenges for teachers, In these classes, teaching adapted to the skills these students have, relying on technology, constitutes the main challenge for teaching.

[2] Teachers' attitudes are crucial to the success of adaptive programs in including students with special needs in learning activities. In this study, the impact of the individual characteristics of students with special needs as well as their strong relationship with technology in the classroom. Also, teacher trainings in terms of training in the use of this technology, determine their attitudes towards teaching in inclusive classes.

[3] The characteristics that influence effective staff development are diverse and quite complex. In order to meet the needs in the field of education, training for teaching staff should be done both before and during the service. Pre-service training refers to individuals before they become teachers, which refers to the period of schooling in colleges or universities[4].

Teachers' confidence is related to the success of children with special needs in integrating them into the learning process. Although teacher efficacy has been identified as an effective influencing factor in the classroom, its importance in inclusive classrooms is still being observed to be analyzed by various researchers.

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[1]AML – Higher Secondary Education (Grades 10-12).
[2]TSES - Teachers' Sense of Efficacy Scale, (Tschannen-Moran & Woolfolk Hoy, 2001).
[3]Inclusive classes - classes where students with special needs are also integrated.

[4]Preparing Teachers for Inclusive Education, CRS ... National Action Plan to Support People with Disabilities 2006-2010, the Inclusive Education Strategy 2006-2010.

## II. MATERIALS AND METHODS

[4] On the influences and attitudes of teachers on inclusion, positive attitudes towards the general concept of inclusion as well as different views on the difficulties that different types of disabilities present in regular classes are identified. Also, (et.al.) emphasizes the importance of long-term training in the formation of positive attitudes of teachers for these classes. Efficiency is also affected by teachers' willingness to cooperate or not with these children in inclusive classes.

[5] The attitudes of teachers in inclusive classes show the connection of efficiency in teaching with several factors such as: teacher trainings, successful practices and support with assistant teachers.

[6] For more than two decades, teacher efficacy has been identified as crucial to improving teacher training as well as educational reforms. Efficacy in teachers affects the plan of effective teaching strategies, which increases their performance making them more productive. Teacher trainings should be seen as part of this comprehensive process, where teachers will continuously get to know each other and deal with the ways in which adaptation is made in teaching, recognizing the needs and opportunities of each of the students who are part of the cooperative group. of the class.

[7] Efficacy and a sense of confidence have consistently accompanied teachers' positivist behaviors during teaching. [8] Effective teaching strategies and management, as well as effective planning and collaboration as well as teachers' enthusiasm for technology-based teaching are seen as success in inclusive teaching.

[9] The readiness of teachers in the application of new strategies in teaching, which have played a role in creating a positive atmosphere in the classroom and the role of students in decision-making, is another positive step in these classes.

The objectives of the paper:

The paper aims to study the various relationships that give a dependency to the factors that influence effective teaching in inclusive classes:

Objective 1: To measure the relationship between teacher readiness in inclusive classrooms and classroom characteristics, such as: number of students in the class, number of students with special needs in the class (including the number of undiagnosed students) as well as conditions and location of school;

Objective 2: To measure the relationship between teachers' access to the adaptation of technology-based instruction to the characteristics of each student.

The methodology used in this study is the quantitative method of data collection and processing. This makes the arguments that emerge in his conclusion about the factors that influence teachers of inclusive classes more stable. The instrument used in the research is the Surveys conducted among teachers.

To measure the influencing factors on teachers, the TSES instrument was used in the content of the questionnaires, distributed for the survey of teachers of Higher Secondary Education (grades 10-12).

Albanian teaching, in relation to inclusiveness, is presented with several different problems. The establishment of hypotheses, their analysis, as well as their validation or not, in relation to the factors that influence teaching in classes where students with special needs are included, will be dealt with step by step in this research.

The hypotheses raised in this study:

H. 1. Teachers who develop ongoing training related to teaching students with special needs based on technology, have a higher efficiency than teachers who do not receive training;

H. 2. Teachers from urban areas have a higher efficiency in teaching in relation to the integration of students with special needs in the classroom than those from rural areas.

H. 3. Teachers who in their experiences have worked many times with students with special needs in the teaching process, are more efficient than teachers who have never had experience in teaching with students with special needs.

Sampling included in the study

The population chosen in this research are teachers of Higher Secondary Education, in the two main districts such as: Tirana and Durrës. The number of teachers included in the study is 348 teachers.

The districts from which the champions were selected were done intentionally, since the cities of Tirana and Durrës have been cities where more investment has been made in relation to "Recognition of Disability" through trainings and projects applied in this direction.

The technique used to select the sample of Questionnaires was random clustered, since in completing the questionnaires, teachers were selected from schools: in the city center, far from the center as well as in schools in rural areas,

whose selection was made to represent them. to be almost equal.

Data analysis

Analysis, as a work process, that is done with quantitative data to summarize, describe and explain the data stands alongside the validation of hypotheses (Matthews. B, & Ross. L, (2010). Specifically, in this research, for the analysis of quantitative data, the database was first created using the SPSS statistical program, version 20. The variables were coded and recoded according to the instructions of the researchers who developed these instruments. For the analysis of the hypotheses, ANOVA, t-tests, etc. were used.

[10] Before performing all statistical tests, the fulfillment of mandatory assumptions for these tests such as: normal distribution of variables, assumption of homogeneity of variables,

assumption of homogeneity of variance, etc. have been taken into account.

## III. RESULTS

Descriptive data results

An analysis was made to see whether or not continuous teacher trainings influenced the way teachers perceived the technology-based teaching adaptation that addresses hypothesis 1.

The role of teacher trainings addressed in hypothesis 1 for the relationship they have with the efficiency of teaching with these students. The ANOVA analysis showed that there is no relationship between training and the way it is seen and managed in the schools studied. Such a data was also given to the crosstabulations developed with the same variables. Detailed data for this variable are presented in the table below.

| | N | THE AVARAGE ARITMETICHAL | DEVIATION STANDARD | VALUE MINIMUM | VALUE MAXIMUM |
|---|---|---|---|---|---|
| Yes | 204 | 98.00 | 13.146 | 23 | 120 |
| Not | 108 | 95.27 | 11.638 | 56 | 111 |
| Can not answer | 22 | 99.32 | 9.031 | 68 | 108 |
| Total | 334 | 97.20 | 12.487 | 23 | 120 |

**Table 1.** Descriptive data table for training & TSES

| | Sum of squares | The degrees of freedom | The average foursquare | F | Importance STATISTICAL |
|---|---|---|---|---|---|
| Between Group | 632.17 | 2 | 316.08 | 2.040 | .132 |
| Inside Group | 51289.99 | 331 | 154.95 | | |
| Total | 51922.16 | 333 | | | |

**Table 2.** ANOVA table for TSES and training

**Frequency Table**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| | Very little | 15 | 4.3 | 4.5 | 4.5 |
| | Little impact | 36 | 10.3 | 10.8 | 15.4 |
| Valid | Almost enough | 160 | 46.0 | 48.2 | 63.6 |
| | More | 121 | 34.8 | 36.4 | 100.0 |
| | Total | 332 | 95.4 | 100-0 | |
| | Missing System | 16 | 4.6 | | |
| | Total | 348 | 100.0 | | |

**Table 3.** Inclusion of alternative strategies in inclusive classes

|  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Yes | 204 | 58.6 | 61.1 | 61.1 |
| Not | 108 | 31.0 | 32.3 | 93.4 |
| Valid |  |  |  |  |
| I can't answer | 22 | 6.3 | 6.6 | 100.0 |
|  |  |  |  |  |
| Total | 332 | 96.0 | 100.0 |  |
| Missing | 16 | 4.0 |  |  |
| System | 348 | 100.0 |  |  |
| Total |  |  |  |  |

**Table 4.** Technology-supported teaching training

|  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Totally disagree | 7 | 2.0 | 2.1 | 2.1 |
| I don't agree | 11 | 3.2 | 3.3 | 5.4 |
| Not sure, but more so disagree | 10 | 2.9 | 3.0 | 8.4 |
| Not sure, but I tend to accept | 23 | 6.6 | 6.9 | 15.2 |
| Agree | 141 | 4.5 | 42.1 | 57.3 |
| Completely agree | 143 | 41.1 | 42.7 | 100.0 |
| Total | 335 | 96.3 | 100.0 |  |
| System | 13 | 3.7 |  |  |
| Total | 348 | 100.0 |  |  |

**Table 5.** Equipment with adaptive materials to facilitate work with students with special needs

Regarding the distribution of teachers according to the location of the school, an almost equal representation has been made. 43.7% of teachers taught in schools located in the center of the city; 25% of the teachers were in schools on the outskirts of the city and 31.3% of the sample were teachers employed in rural schools.

|  | Sum of squares | The degrees of freedom | The average foursquare | F | Importance STATISTICAL |
|---|---|---|---|---|---|
| Between Group | 212.74 | 2 | 106.37 | .636 | .530 |
| Inside Group | 57500.12 | 344 | 167.15 |  |  |
| Total | 57712.86 | 346 |  |  |  |

**Table 6.** ANOVA table for TSES in relation to school location

Regarding Hypothesis 3 that deals with the relationship that teaching effectiveness has with the frequency of the number of children with special needs in their experiences, whether diagnosed or undiagnosed students. In the table of descriptive data it is shown that the group of teachers who had more than three students with special needs diagnosed or not during the teaching experience, is more efficient in comprehensive learning. Something like this can be expected because these teachers are used to managing such a class, so it is not difficult for them and they are very confident in themselves about their abilities and efficiency in the classroom. Even the second ANOVA table is statistically significant: $F_{(4; 327)} = 4.54$, $p<0.01$. This means that dealing with students with special needs makes teachers more "specialists" in this field. Specific descriptive and ANOVA data values are in the following tables:

|  | N | THE AVARAGE ARITMETICHAL | DEVIATION STANDARD | VALUE MINIMUM | VALUE MAXIMUM |
|---|---|---|---|---|---|
| None | 134 | 97.33 | 11.665 | 56 | 119 |
| One | 130 | 96.84 | 11.295 | 63 | 118 |
| Two | 44 | 99.95 | 9.572 | 71 | 120 |
| Three | 13 | 84.85 | 24.872 | 23 | 108 |
| More than three | 11 | 102.85 | 13.582 | 69 | 114 |
| Total | 332 | 97.17 | 12.341 | 23 | 120 |

**Table 7.** Descriptive data table for the number of students with special needs in class & TSES

|  | Sum of squares | The degrees of freedom | The average foursquare | F | Importance STATISTICAL |
|---|---|---|---|---|---|
| Between Group | 2651.07 | 4 | 662.77 | 4.54 | .001 |
| Inside Group | 47763.49 | 327 | 146.07 |  |  |
| Total | 50414.55 | 331 |  |  |  |

**Table 8.** ANOVA table for TSES and the number of students with special needs in the class

## IV DISCUSSIONS

Discussions about the (dis)validation of hypotheses

This study aimed to examine the hypotheses in an attempt to reach a conclusion on teachers and their teaching in relation to students with special needs that they have in their classes as well as the various problems that these classes have. Below is the (dis)confirmation of the hypotheses raised at the beginning of the research:

Regarding Hypothesis 1- Teachers who develop continuous training in relation to teaching students with special needs, have a higher efficiency than teachers who do not receive training:

ANOVA analysis, Table 1 and Table 2 showed that there is no relationship between teacher training and teaching students with special needs. Such a data also appeared in Crosstabulations developed with the same variables.

Regarding Hypothesis 2- Teachers from urban areas have a higher efficiency in teaching in relation to the integration of students with special needs in the lesson than those from rural areas;

The ANOVA analysis showed that there was no difference regarding the integration of students with special needs in the lesson related to the location of the school, Table 3. This analysis made this hypothesis not true either.

Regarding hypothesis 3 - Teachers who in their experiences have worked many times with students with special needs in the teaching process, are more efficient than teachers who have never had experience in teaching with students with special needs:

The analysis shows that teachers who have had experience with students with special needs are characterized by greater confidence than teachers who have not had experience teaching with these students before. As this experience makes them more confident and ready to cooperate with these students. Another reason that makes this hypothesis true is that this experience increases their level of confidence and makes these teachers feel more "specialized" than other teachers.

## V. CONCLUSIONS

348 teachers covering grades 10-12 participated in this study and the year they were an active part of the study was the 2021-2022 school year, from which 90% of the participants were female teachers and only 10% of them were male teachers. This percentage is justified by the very fact that in the Albanian education system this is very visible, since the teachers who cover these programs are more female teachers.

In terms of school location, 68.7% were teachers of urban schools (schools in the city center and far from the center) and 31.3% were teachers of schools in rural areas. From the point of view of the educational level, only 11.4% of them had a secondary education, since teachers who were continuing bachelor's students were not considered as such, while 42.6% and 45.6% were teachers graduated in bachelor's and master's level. .

As for the classes in care, we can say that the distribution is very similar since in terms of the number of parallel classes in schools, they are approximate, which did not constitute any element to emphasize.

Regarding the number of students with A.K. in the classroom, 40% of the teachers declared that they had no students with special needs, while 60% of them declared that they had students with special needs, from which 53% of them had 1-2 students with special needs, while 7% of the teachers had 3-4 students with special needs. This includes cases where there are students with diagnosed special needs and undiagnosed students in the class, which makes it very difficult for the teacher's role in managing the lesson in relation to the inclusion of students in the learning process. But even the part of teachers who had 1-2 students with special needs in the class showed signs of fatigue when discussing about teaching these students.

What was noticeable in the contacts with the teachers was that they very persistently requested trainings regarding the recognition of "Limited Abilities" as well as "Teaching" for its adaptation depending on the abilities and needs of these students . Over 70% of teachers declared that they were untrained and indicated that they had a lot

Although somewhat limited, the research results show a relationship between teachers' belief in the efficacy of teaching and attitudes towards this teaching in inclusive schools. The variables that affect the levels of confidence in this efficiency are related to the professional attitudes as well as the teachers' experiences with these students. The number of students in the class (which in our kalsas is greater than the average of the considerable number), as well as the number of students with special needs in the same class (cases when there are more than two students with special needs in the class, affects the confidence of teachers for the most complete integration of these students in the lesson.

## RECOMMENDATIONS
- Trainings related to contemporary teaching methods coupled with new technology, towards an interactive class where all students feel "free" and equal to new contemporary approaches;
- Students with special needs find spaces and easily integrate with the curriculum that fits as many of their developmental requirements;
- The support we need to create for intern students, in school practices, who can play the temporary role of support teacher for students with special needs.

## HINTS
- Professional development of teachers in inclusive classes:
This research did not examine the specific elements of teacher professional development that directly influence teachers' attitudes toward teaching in inclusive classrooms.
In the future, studies related to the specific definitions of the professional development of teachers, which is related to the direct influence as well as the positive attitudes of teachers for a more natural integration of students with special needs in the classroom, will be seen as a priority;
- Roles in the partnership that comprehensive classes offer:
At the center of a focus will be the role of teachers (in the same class) and professionals in the partnership that will provide the inclusive classes, where the guardian teacher, assistant teacher, Disability specialists, etc., will harmonize all actions, to realize an optimal development of students with special needs within the lesson. This will mean the relationship between the partners and their role in this interaction, which will be decisive in the success of the positive developments expected towards students with special needs.
- "Needs analysis" and intervention
Also, a special attention should be paid to the "intervention" so that the specialist teachers together with the professionals, in the framework of the "needs analysis" of the students with special needs, determine the teaching strategies, so that the lesson is as close as possible to the realizations planned.

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