

**KA2 STRATEGIC PARTNERSHIP PROJECT**   
**n° 2016-1-LT01-KA201-023166**

**ABA - OUR NEW VIEW IN SPECIAL EDUCATION**



**Education staff opportunities for ABA**

**integration in Schools**

**COMPARATIVE STUDY**

**2017**

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1. STUDY DESCRIPTION

**Aim** - Foresees the realization of a comparative study on the main approaches on ABA integration in Schools in the participating organizations' countries and/or regions.

**Preparation time** - December 2016 - May 2017.

**Main impact of this methodology can be:**

* For educational government in local, regional or national level - to show most important aspect in child’s with autism syndrome or emotional and behavioural disorders;
* For pedagogues - to realise suitable tools for ABA elements use in education. Also to know parents view and identify similarities or differences in view of child’s education;
* For parents - to understand pedagogues position and make suitable suggestions for their child's education.

**Methodology:**

**Multilingual research -**each partner has conducted surveys in their mother tongue in order to facilitate an adequate understanding in the participating organizations' countries and/or regions. Information collected relates to quantitative and qualitative data.

The main aspects that were examined are the following:

- Different View about ABA strategy at schools and positive attitude;

- ABA integration in the curriculum: Schools integration of ABA across the special education curriculum. Possibilities and realization. The schools’ awareness of ABA’s positive affects on the quality of learning and teaching. School community attitudes and behaviour;

- Continuing Professional Development: Schools commitment to ongoing professional development in ABA;

- ICT using in ABA e-learning creating. Clear understanding of the staff on how ICT can be used to improve personal skills - actuality for every country;

- Resources and infrastructure: Schools appropriate ABA resources, including hardware, software and infrastructure to support particular learning environments, and reflect plans for ABA development as outlined in the school’s policy.

- Partner will in order to investigate the reasons of success/ failure and learn lessons for potential good applications of the mechanisms that stand at the basis of them.

- Legislative framework in every country.

The study parts in every partner’s country are as follows:

* + - 1. Legislative basis and possibilities analysis.

**Aim** - to realise law system suitability to autistic child’s education, integration and look for schools feasibilities, awareness to use ABA.

This section is dedicated to present the main legislative basis for the education, integration and protection of the rights of children with autism or special needs in force in the countries involved.

Every country analysis and list of analysed documents is added at the end of research.

2. Questionnaires for educators and parents.

**Aim -** to identify and compare parents and teachers view in ABA benefit, real use for children and possible use in school they child attend.

This study includes the questionnaire results which applied on teachers and parents/care holders of six partner countries of the project.

Questionnaires have been applied on 145 teachers and 179 parents.

3. Semi-structured interviews/case studies.

**AIM:** The focus of this section of the study is to represent the educational treatment of children with autism spectrum disorders and to elicit the perspectives of usage or needs of applying ABA method with the ICT tools.

We prepared semi-structured interview administered to the specialized school staff or autism experts to obtain a reference frame of the real situation and possibility of implementing projects aimed at schools to support the training of children with special educational needs.

The case study semi-structured interview consists of an introductory section that explains the situation of followed children and their families (state social support, family relationships with environment, communication, opinion of using ICT tools and how institutions match the child's needs) and 10 open questions focused on ABA and ICT tools.

**Preparation time** - April 2017.

Number of target group (teachers who work with ASD) – 13.

2. LEGISLATIVE BASIS AND POSSIBILITIES ANALYSIS

This section is dedicated to present the main legislative basis for the education, integration and protection of the rights of children with autism or special needs in force in the countries involved.

**Aim** - to realise law system suitability to autistic child’s education, integration and look for schools feasibilities, awareness to use ABA.

Every country analysis and list of analysed documents is added at the end of research.

More detailed information passed in Annex 6.

# LITHUANIA ANALYSIS

Education of special needs of the Republic of Lithuania is governed by the documents of Lithuanian Government and by the Ministry of Education, Social Security, Labour and Health Security.

Provisions of Special Education Law are incorporated into the Education Law. The concept of National schools (1989) and the United Nations Convention on the Rights of the Child played important role.

Another important document completed in 1994 – “Special Education System Outline” - which became one of the supporting transformation landmarks of children with special education needs.

Salamanca Declaration (1994) and adjustment procedures of "Special educational assistance for children with special needs in general education institutions" (1993) were especially important in creating a special education policy and its implementation in practice.

After adopted of the Special Education Law (1998), there was created and confirmed several major prescriptive functioning documents of the Special Education.

The most important of them - general Law 2002 of Education, Health security and Health security and Labour ministry "Groups of disorders. People with special needs are included in groups for people with special educational needs" and "Individual assessment of special educational needs" (2002).

After adopted of the Special Education Law (1998), there was published several important secondary legislations which standardized examinations, the opportunity of students learning at home, educational institutions of special education commission and its organization of work, special educational assistance for SN preschool children at home, procedure for admission to institutions of special education and other issues.

One of the most important ideas was an integrated education of SPV in searching changes of special education. With the new wave, came the concept of inclusive education, an idea „school for all“, the need to connect of general and special education. This is a new challenge for the whole education system.

Children with special needs have the right to be educated in an educational institution located nearest to their place of residence, and thus the secondary school or pre-school institution, as determined by Lithuanian existing legislations.

Each family is free to decide whether the child will educate in special education institution, together with the children having the same or similar problems, or together with typical development peers. This is not an easy choice.

Not all Lithuanian general education institutions are ready to educate children with serious disorders. The reasons are several: lack of funds, the public is not ready to accept different children, lack of information for parents; teachers are not adequately prepared to work in an integrated group or class. There are no professionals for working with autistic children.

Many specialists working in various aspects involved in training programs and projects. Specialists working even after several decades with such children, say that autistic children are different and it is impossible to find two identical children.

Experts agree on one issue - the earlier the purposeful work, the better results will be achieved. There are many autism intervention strategies, but applied behaviour analysis has the most research evidence about its effectiveness.

Applied behavior analysis - is a science, applying behavioural and learning principles and methods approved of clinical analysis to establish the desirable behaviour. .ABA principles are applied successfully and are popular in various areas of psychology, education studies, business, gerontology, sports, medicine, criminology, sustainable development and other sciences.

Therapy and intervention by the principles of ABA is the most effective way to improve autistic people’s quality of life, teaching them skills to help adapt to the environment and everyday life in society.

For children with disorders need a lot of individual activities, ABA therapy costs are considerable. For many families, this is not possible. However, providing ABA services through a system of educational institutions can reduce the therapy costs.

Education institution which child attends has to become member of team of the child's individual program implementation. Without a doubt, child will easier understand his challenges and educators working in a team with professional behaviour and the child's family will receive the necessary training and valuable advice as the greatest reward - the child's progress.

3. ABA USE IN EDUCATION ORGANIZATIONS

**Aim -** to identify and compare parents and teachers view in ABA benefit, real use for children and possible use in school they child attend.

This study includes the questionnaire results, which applied on teachers and parents/care holders of six partner countries of the project.

Questionnaires have been applied on 145 teachers and 179 parents. Prognosis was – 120 teachers and 120 parents, so the results exceeded expectations.

Teachers were selected among special education teachers who work with children have autism and among teachers who have at least one inclusive student in their classroom.

As for parents, they are mothers or fathers who have children with autism or emotional and behavior disorders.

**TEACHERS QUESTIONNAIRE**

The questionnaire was administered to a total of 144 teachers from the six countries involved.

The sample is composed of 86% by women. The most represented age range is 32-45 years, equal to 45% of the sample, followed by range> 45 equal to 30%.

The age ranges of the teaching years of our sample are represented as follows: 0-5 range of 30%, 6-10 range equal to 27%, 11-20 range equal to 21% and >20 range equal to 23%.

The 46% of the sample are class teachers, the 28% are support teachers and 26% other.

From the questionnaires it emerges that the most critical area found in the educational context is the one related to communicative function (38%) followed by behavioral function (23%) and integration into class group (16%).

In addition, the most common supportive measures in special education provided to teachers of our sample are: teacher assistant (26%), measure training (24%) and special place for activities (20%).

**SPECIAL TOPICS RELATED TO ABA**

**Question 8 - Which method of training/therapy do you use for your students who have autism at school?**

General diagram of the 8th question in teacher questionnaire is below. From 6 countries, 145 teachers answered this question. According to the average of the answer from six Project partner countries, the usage rate of ABA is 18,3 % and this is too low. This result shows appearance of ABA-ONV is based on realistic reasons.

Another important result from this is the option “None” with 36 % percentage. This result shows general method of education has been used for the education of students with autism, not other well-known methods or other methods. High percentage of “None” option shows, the education of students who have autism has been neglected.

Also “Other” option with 14 % shows the probability of existence of special methods by countries or each teacher use their own methods.

**General Graphic Question 8 – Which method of training / therapy do you use for your students who have autism at school? ANSWERS - %**

**Graphic by countries, question 8 - Methods for autistic students(%)**

According to answers which method is most often used for training/therapy with children who have autism, majority of respondents answered that they do not use any method - only 35% respondents in Lithuania, 30% in Italy. Turkey respondents most use ABA method -60%. Also are used other therapy’s, such as TEACCH - in Spain (80%), Greece (53%) and Italy (65%), Lithuania (24%), SON RISE - 9% in Lithuania. Also Spain mentioned PECS (15%).

When we look at results by countries, ABA method is mostly used in Turkey with the rate of 60 % and Lithuania with the rate of 35%. At the application stage for the project, Turkey and Lithuania have been chosen as the countries “Short Term Training” courses will be held. These results also shows right decision of our project have been made for the courses.

**Question 9-Which one of these methods do you want to have skills, knowledge?**

On this question, 3 educational methods have been suggested for teachers. These are ABA, TEACCH and SON-RISE. According to the given answers, ABA is the method which preferred most to have knowledge and skill by people at 60% rate. TEACCH in second place - 24% and less interested in SON-RICE - 15%.

**General Graphic-Question 9- Which one of these methods do you want to have skills, knowledge? ANSWERS-%**

When we look at the result of previous question (question 8), although some teachers use this method they want to have training to enhance their knowledge and skill. This result especially for the education of disabled student proves that teachers need improve themselves continuously and they are already willing to do this.

Also it results (ABA - 60%) shows again that the ABA-ONV project is necessary.

When we look at the results by countries, in the four of six countries, the number of teachers want to have skill and knowledge about ABA is above average. In Italy and Spain, TEACCH method is the predominantly demanded one. This case shows a new project about TEACCH method after this can be done as a KA2 project.

SON-RISE method is the less demanded method and mostly Spanish teachers with 35% rate have mentioned it.

**Graphic by countries, question 9-Which one of these methods do you want to have skills, knowledge? %**

Majority of respondents would like to acquire more skills and knowledge about the ABA method - 91% Turkey respondents, 71% -Greece, 65% - Lithuania, 50% - Bulgaria, 33% - Italy. Less interested in ABA Spain respondents – only 21%. Also is interest in TEACCH%) (Italian - 58%, Spanish – 50%, Bulgarian - 45%, Greece – 21%, less – Lithuania (18%) and Turkey (5%) and SON- RISE (Spanish - 29%, Lithuanian - 18%. Less in Greece, Turkey, Bulgaria – 5% and Italia – 4%) methods.

There are some special questions for the ones who marked ABA on the 9th question. (7 questions). Given answers:

**Question 9-11. In your opinion, the intervention ABA has provided by**

**General Graphic-Question 9-11 Teacher’s opinion, the intervention ABA provided by, %**

According to the revealed chart above with the results of the participant countries were combined, ABA is mostly used by private sector (31%). The rate of use in public schools is 29%. But there is significant differences in countries. So, to make an inference or to generalize is hard. The table explaining the situation by countries is below:

**By countries9.11 diagram. Teacher’s opinion, the intervention ABA provided by, %**

Most answers has shown that interventional ABA methodology might be applied at public educational system (Spain – 60%, Lithuania and Italy -50%) and private providers - (Greece- 100%, Italy – 50%, Spain – 40%, Turkey - 39%, Lithuania – 21% and Bulgaria – 20%). Most respondents have no idea or, however, it is oriented towards the application of ABA in the private regime.

**Question 9-12 Whether one or more of these elements are possible to be used in education?**

In the 9.12 graphic shows what element to be used possibly in education by the teachers who marked ABA on the 9th question. Here, teachers were able to mark more than one option. All in all, the possible methods to be used in education are Establishing small units of behavior, behavior-analytic treatment plan, timesheets and Establishing rules. Least possible ones are comprehensive assessment and symbols - PECS (Picture Exchange Communication System)

**General Graphic, 9-12, Elements are possible to be used in education, %**

**By countries9.12 diagram. Elements are possible to be used in education, %**

At least one of these elements might be used for educational purposes: comprehensive assessment (24% Lithuania, 11% Greece, 9% Spain), establishing small units of behavior (24% Lithuania, 20% Bulgaria, 19% Turkey, 13% Spain); timesheets (33% Italy, 22% Greece, 19% Turkey, 13% Spain, 10% Bulgaria), behavior-analytic treatment plan (30% Bulgaria, 19% Turkey, 13% Spain, 11% Greece), establishing rules (40% Bulgaria, 33% Italy, 13% Spain, 11% Greece and Turkey, only 6% Lithuania respondents), diaries about behavior (18% Lithuania, 13% Spain, 11% Greece and Turkey), incentives (reward) (33% Italy, 13% Spain, 12% Lithuania, 11% Greece and Turkey), PECS ( 22% Greece, 16% Spain).

**Question 9-13 In your opinion most useful cooperation with training team member using ABA could be.**

This question is about collaborating in the use of ABA. The teachers were asked “with whom you work cooperatively, ABA method would be more useful ?”.When we consider the total given responses in 6 countries, teachers use ABA suggest collaborating mostly with parents (28% ) The useful persons to be collaborated are private pedagogues and teacher assistants. At the same time the cooperative work with management is fourthly with 14% and it is a quite important issue.

As a result, it is a fact that, Education is a team work. Especially in the education of autistic children, all persons around the child, especially teachers and parents, should cooperate. For this reason, the answers given by teachers to this question were generally evenly distribute

**General Graphic, 9-13. In teachers opinion most useful cooperation with training team member using ABA could be, %.**

When we look at the graphic below on countries basis, cooperation with management (60%) is considered very important in Bulgaria; also 13% in Turkey and 10% in Lithuania. The matter of cooperation with parents is important in all countries while the rate is 50% in Greece and 33% in Italy and Turkey, 23% in Spain, 20% Bulgaria and 19% Lithuania.

Besides, as really useful marked cooperation with special pedagogue – 33% in Italy, 25% in Greece, 24% in Lithuania and in other partner countries from 15-20%. No less important role is played to teacher assistant - 33% in Italy, 23% in Spain, 22% in Turkey and only 10% assigned Lithuanian respondents. Also mentioned speech therapist - is considered significant with the rate 23% in Spain, 13% in Turkey. Physiologist importance marked only Lithuanian respondents – 14%, kinesitherapist – 25% in Greece.

**By countries 9.13 diagram. In teachers opinion most useful cooperation with training team member using ABA could be,%**

**Question 9-15. In your opinion, how often is needed to record behavioral changes of your students using ABA?**

Another graphic related with the 9th question that should be taken into account is the graphic below of the questions numbered 9th and 15th.

Regarding to this graphic, the teachers use ABA method have been suggested recording behavioral changes in their students on a weekly basis necessarily at the rate of 54 %. Secondly, recording daily basis is just 25%. These results show the importance of recording to be monitored change and development in behaviors of the students.

**General Graphic 9-15. Frequency of need to record behavioral changes of your students using ABA,%**

We get a result below when we consider the results on countries basis.

**By countries9.15 diagram. Frequency of need to record behavioral changes of your students using ABA,%**

According to the respondents, how often was necessary behaviour change record using ABA, the most respondents were in two versions of the answers (equally), who said behaviour record was necessary every week (90% Bulgaria, 72% Turkey, 67% Greece and 29% Lithuania), daily (100% Spain, 33% Greece, 28% Turkey, 14% Lithuania, 10% Bulgaria) and for each term (100% Italy and 29% Lithuania). The least Lithuanian respondents (10%) believe that the behaviour record required on Other frequency.

4. ABA AND ICT - TOOLS COULD BE USED

**Preparation time** - April 2017.

We prepared semi-structured interview administered to the specialized school staff or autism experts to obtain a reference frame of the real situation and possibility of implementing projects aimed at schools to support the training of children with special educational needs.

The case study semi-structured interview consists of an introductory section that explains the situation of followed children and their families (state social support, family relationships with environment, communication, opinion of using ICT tools and how institutions match the child's needs) and 10 open questions focused on ABA and ICT tools.

Number of target group (teachers who work with ASD) – 13.

**AIM:** The focus of this section of the study is to represent the educational treatment of children with autism spectrum disorders and to elicit the perspectives of usage or needs of applying ABA method with the ICT tools.

**INTRODUCTORY SECTION**

|  |  |  |  |
| --- | --- | --- | --- |
| Main Topics | Interviewed | Social state support | Parents/teachers position of using ICT tools.  Is there a possibility to get state support?  Is it possible to buy special measures in educational institution? |
|  | I- Pre-school teacher  II-Elementary school teacher working in pre-primary group | The resulting disability allowance | Institutions provided with special education measures in accordance with the law of the 30 September. 2011. Sometimes the institution, specialists or parents purchase special measures at their own expense.  We recently received new measures at school. We have to participate in projects and in any chance of winning, we would be able to buy them, but there is a little chance to get it from the government. |
|  | I-II Teachers | Not referred | Not referred |
|  | I- Support teacher, working in elementary school institution  II- Expert in autism (psychologist, ABA operator and lecturer) that collaborates with educational organizations. | The resulting disability allowance | Institutions can provide with special education measures in accordance with current regulations, but do not always cover the needs of all pupils. Parents can purchase special measures at their own expense benefiting from tax relief on the purchase (Law 104/92). |
|  | I-II Pre-school teachers  III Primary school teacher whose school has a pre-primary group classroom | All children get special education twice in a week. Special programmes, which have been made by specialists, are applied and government meets its charge and transportation costs. | Government meets the cost of educational materials. Government pays the price of the service of special education at the centres for who benefits twice a week.  Families use ICT tools when the teacher suggest.  When teachers use them in their classrooms are available Smart board, computer and laptop. |
|  | I-II Psychologists working with autistic children in an Autism Centre. | The resulting disability allowance | In Spain, children under 6 years old can access, free of charge or through the scholarship, the services that correspond to them, according to their diagnosis. In this case, he can access to individual therapy twice a week, the rest, and any support that is wanted or required, depends on the family support.  Both parents and the professionals believe that ICTs are a good tool to work with, since among his interests are computers, mobiles and tablets, so they are attractive supports that we can use to work with him.  Parents are involved and motivated to use ICTs or any appropriate tool that benefits their child.  In the school, they also have audiovisual methods to make the teaching more dynamic, these are subsidized by the state.  Associations in which the respondents work there are some tools like tablets, computers and tactile whiteboards. But they cannot cover all needs, since demand and needs are higher than public expenditure |
|  | **I-II T**eachers working at School for Children with Special Needs | The institution has received opportunity to make regular checks with psychiatrists and to appoint psychologists in their working team.  The foster family receives disability allowance. | The Ministry of education in Bulgaria offers opportunity to schools’ management to participate in national projects for supplying schools with ICT tools. The school of both teachers is equipped with computers, laptops and interactive board. But these devices cannot be used in education treatment of the autistic disorders for lack of information, trained and experienced teachers in ABA as highly specialized method. The single opportunity to gain such kind of professional qualification is staffs’ involvement in European or other projects in order to obtain information and to share it with parents about the usage of ICT tools in ABA method. |



**Comparative Interview and Case study Analysis**

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The survey highlighted some key aspects:

* It is not possible to generalize the environmental situation of families with children with ASD. It really depends on their environment, the kind of help received in the knowledge of their child's disorder, the child's functioning framework, and the activities of the social agencies where families are involved.
* Expert, Parental and teachers’ experience in raising and educating children and students with ASD revealed the usefulness of applying ABA method also to school.
* It seems to be great interest in using and adapting ABA to the educational process. However the findings indicate that ABA is not so popular and used method due to lack of information and state educational support. Even in countries where ABA is better known and applied its spread is uneven. The possibilities to apply ABA in schools are really limited although teachers show the opening to collaborate with specialized figures and to use methods to ensure an adequate schooling.
* In fact they don't seem to be a lot of possibilities from the governments to sustain a systematic diffusion of such method of intervention in school but also in other public institution.
* ICT is really useful in schools. As students with autism have often difficulty in mastering certain skills it is useful for the schools to have the possibility to use ICT tools and appropriate educational software to respond to the special educational needs.

In fact the use of technologies can integrate the systems and proposals that are currently being used with autistic children, making them more motivating and interesting, and facilitating learning in different contexts. Unfortunately not always the school can cover the needs of all pupils.

* There are no limits to the application of the ICT to ABA. The elements more quoted are: Pictorial representation of the tasks; Diaries; Educational games; PECS, Visual agenda; Tasks covered by ABA method.

**CONCLUSIONS**

The diagnosis of autism is usually formulated with reference to the two major international classifications of mental disorders: the DSM - Diagnostic and Statistical Manual of Mental Disorders and the ICD - International Classification of Diseases (International Classification of Diseases Disorders and Diseases) of WHO - World Health Organization.

In DSM-V, autism subtypes were grouped into a single category called ASD (Autism Spectrum Disorders), with the exception of Rhett’s syndrome, which has been implicated in neurological disorders. DSM-V also introduces "social communication disorder", whose diagnostic features partially overlap with autism spectrum disorders, since the diagnosis of social communication disorder requires the presence of a "pragmatic language impairment" and a Mismanagement "in the social use of verbal and non verbal communication”.

Studies have shown that differences in the social and cognitive abilities of the previous subgroups are better characterized in terms of a continuum. It has also been found that the diagnosis of the various subtypes of pervasive developmental disorders is very variable between the different diagnostic centres and is most often associated with severity, linguistic level or QI.

Educational intervention on children with ASD or emotional-behavioural disorders poses a challenge to teachers who must necessarily shape their job based on the characteristics of their pupils with special educational needs. Educational interventions in these cases must be necessarily global and have to use a variety of methods and support to ensure a proper development and learning pathway.

The present study has allowed us to highlight some fundamental issues and take pictures of the current situation of children with special educational needs within the educational system by identifying some strengths and weaknesses.

First of all, analyzing the regulatory bases of the six countries involved in the project we found that

Each of the European countries involved has promulgated a series of legislative provisions aimed to guarantee the education, integration and protection of children with autism or special needs.

A considerable effort has already been made to support the implementation and dissemination of interventions and policies to protect the rights of children with disabilities and their families. Beyond the specificities of the laws, the goal that is to be pursued is common: to foster the integration and inclusion of all people in the community through good practice.

Nevertheless, there are some critical issues in making effective and widespread implementation of all those interventions and structured methodologies to enhance learning, growth and independence of children with autism and special needs.

There seems to be a gap between the regulatory body and its real applicability especially related to the available economic resources and the difficulty for school and health personnel to access specific training paths.

This determines that access to some intervention methods is limited. In fact ABA training, like other intervention models, has to be paid for and, although recommended, is not supported / provided by the various institutions. It's up to the teacher or the professional to choose if he wants to train or learn more about ABA.

Moreover, for these margins of discretion, the dissemination of this method is also not homogeneous within the same country, without guaranteeing the right of access to treatment and special education methods.

Our project ‘ABA – OUR NEW VIEW IN SPECIAL EDUCATION’ can give the opportunity to highlight the critical points and strengths in special education and to spread the gained experience among teachers’ community.

It seems to be useful applying ABA method also to school, using and adapting ABA to the educational process. but the findings indicate that ABA is not so popular and used method due to lack of information and state educational support. Even in countries where ABA is better known and applied its spread is uneven. The possibilities to apply ABA in schools are really limited although teachers show the opening to collaborate with specialized figures and to use methods to ensure an adequate schooling.

As students with autism have often difficulty in mastering certain skills it is useful for the schools to have the possibility to use ICT tools and appropriate educational software to respond to the special educational needs.

In fact the use of technologies can integrate the systems and proposals that are currently being used with autistic children, making them more motivating and interesting, and facilitating learning in different contexts.

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