Needs of students with high skills

How can they be of service to students with specific needs

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Abstract.

Schools must abandon the idea that we can reach every child if we work for an average, since, as has been stated, and it will be recalled in this article, the average does not exist. There is a pattern that does not intend to camouflage each singularity present in the school and in the classroom. We have been sharing in teacher's training ways to attend to the talent that exists in the school. The practice of projects allows not to leave these students behind, projects that take place inside and outside the classroom, putting into practice, in this latter case, active methodologies based on universal design for learning (UDL). We present national and international projects that we have been moving in and that, with the primary objective of expanding the talent of students with high skills, promoting global inclusion in dynamics of vertical mentoring: students (mentees) with high potential in one or more areas (STREAM - science, technology, engineering, arts, mathematics, reading and writing) build activities for younger students, with difficulties, namely reading and writing, making them more dynamic, a construction that is mentored by older students, with the guidance of teachers . Everything that is done contributes to the development of all the essential skills for lifelong learning. In this paper we also present some preliminary results on the perception of the impact of parents, students and teachers on projects that have already been completed and that allow us to continue to invest in this active form of teaching and learning.

Keywords: Giftedness; learning difficulties; UDL; peer tutoring; inclusion

1. Introduction

Giftedness. What is it. Why should schools look at it differently. What can schools do.
It is a look at the other side of inclusion. Or, better, from a perspective at a basic assumption of inclusion: equity, which presupposes giving each one what each one needs.
For years, people have been talking about school for everyone. The term and the concept 'inclusive education' came out of the Salamanca Declaration, but there is still difficulty in realizing that inclusion is not giving everyone the same because working for a media - which is the assumption of equality - is working for nobody. The word 'average' has been replaced

many years ago by the word 'pattern', but the practice has not yet kept pace with conceptual change.

Therefore, on the one hand, there is an urgent need to put the notion of equity into practice, inside and outside the classroom, not omitting the nuance of the standard called each student with above-average skills, with resources, for example, to universal design for learning (UDL); on the other hand, we believe that projects that make it possible to expand the potential of students with high potential make sense and that this high potential can be placed at the service of other students, such as, among others, students with specific learning difficulties.

This article addresses the concept of giftedness, followed by an approach to the methodology 'universal design for learning' as a methodology capable of enhancing the learning of ALL students in the classroom; before the presentation of 3 projects that have aimed at enhancing high student skills, while these are at the service of other students, we will present a framework of the 'peer tutoring' concept.

2. The concept of giftedness: needs and difficulties

Gagné (1985), author of the theory on which the Investing in Capacity Project (PIC) is based, distinguishes two concepts that literature generally considers to be synonymous: *giftedness* and *talent* . The author explains that in the literature we find four different ways of approaching this issue: (i) beyond the non-distinction, as already said, (ii) conceptual separation between intelligence, measurable through tests that assess the intelligence quotient (IQ) - including here also the school results -, and other skills, such as ability to express ideas, orally or in writing, music or art, (iii) marginal distinctions (refers to the distinctions made by Robeck (1968) and Gowan (1979), cited by Gagné (1985), which did not deserve much acceptance, and (iv) the models of Renzulli and Cohn, later integrated by Foster (1982, cited by Gagné, 1985).

Exposing Renzulli's proposal, Gagné (1985) gives us a redefinition of the concept of giftedness, which proposes the interaction of three fundamental psychological traits: (i) above average abilities (but not necessarily exceptional), (ii) creativity and (iii) motivation. Thus, in order for a child to be considered gifted, these three components must be brought together simultaneously, which must be visible in an area of achievement.

Gagné (1985) presents three criticisms of Renzulli's model. Firstly, the role given to the motivation factor, believing that this component - which it claims to be, in fact, important - will have to play, in the context of giftedness, and its identification, a different role. Second, the issue of creativity, which Gagné (1985) considers to be an identification factor, but only in some areas. The last criticism is related to the fact that Renzulli focused, according to Gagné (1985), on intellectual skills, given that all the studies cited made reference to the IQ (or its manifestation in academic activities). And the other areas, asks the researcher, do they not exist?

Gagné's model (1985; 2002), which is called by its author DMGT - "A Differentiated Model of Giftedness and Talent" (Gagné, 2002) -, therefore, intends a different approach, based on the dichotomy between domains of capacity and fields of achievement, concepts that correspond, respectively, to giftedness (referring to a competence clearly above average in

one or more areas of ability) and talent (achievements clearly above average in one or more fields of human activities). And it is in this correspondence, domains of capacity - giftedness / fields of achievement - talent, that Gagné's (1985) contribution to the attempt to clarify the concept of giftedness lies. The definition attributed by the author to each of the terms does not invalidate that they have characteristics in common, because both refer to human skills and both target individuals that are different from the ordinary, due to exceptional behavior; no wonder that so many professionals confuse them (Gagné, 2008).

This model has several implications, one of which is the assumption that all talented children are necessarily gifted, since talent is a manifestation of giftedness. It can, in fact, happen, as Gagné (1985) clarifies, that a gifted child does not translate this potential into academic talent.

Arising from the assumptions of his model and taking into account the six categories mentioned by Marland, Gagné (1985) argues that three of these categories, plus one that the author adds (general intellectual capacity, creativity and productive thinking skills, and psychomotor domain), identify gifted domains, while the remaining three (academic aptitude, leadership and visual and expressive arts) refer to fields of talent. Note also the distinction between domains (for giftedness) and fields (for talent).

In view of Gagné (1985), the environment has a greater influence on talent than on giftedness. In fact, the author himself (Gagné, 2002) clarifies that what refers to giftedness, or endowment, "gifts" (p. 1), is partially controlled by genetics, while the talent "progressively emerges from the transformation of these high aptitudes into the well-trained and systematically developed skills characteristic of a particular field of human activity or performance "(p. 1). It follows that the development of the talent manifestation occurs when entering a system of learning and practice.

Do gifted students need differentiation?

If it is, in fact, true that gifted students have characteristics that put them at a clear advantage with regard to the learning process - among others, greater neural plasticity, greater processing speed, greater interaction with the environment, greater receptivity to rewards, greater interest in the task (León, 2020) - it is also a fact that high intellectual capacity comes at a cost: these individuals are less capable in socioemotional domains compared to individuals with average capacity (Baudson et al., 2016), in addition of feeling tired and bored in the continuous moments when they have to wait for others, not even taking advantage of their potential, being, on the contrary, those who learn least at school (Guenther, 2012). There are two questions at this point: there is a need to have to wait for others ... we all have to learn the same ... where is the differentiation? Why do you continue to work for an average, even if the speech goes in another direction?

It is known that "gifted children have Special Educational Needs" (Serra, 2005, p. 75) in an allusion to the term that precedes the current *specific needs*, and, yes, they require pedagogical differentiation strategies without which they will be able to position themselves on problematic levels, as "low [school] results, negative attitude, apathy, inattention, irreverence, lack of persistence, (…) hyperactivity, preference for marginal groups; at the family level, (…) aggressiveness, emotional instability, isolation, arrogance, intolerance, disobedience, unhappiness and feelings of rejection "(pp.83-84).

3. Universal design for learning serving everyone

Significant changes were brought by Decree-Law no. 54/2018, of 6 July, in Portugal, with the remaining legislation that complements it, standing out between these two: (i) All Means All, in an allusion to the association that congratulated Portugal on this step towards inclusion, an approach that serves ALL, and (ii) the Universal Design for Learning (UDL) methodological option, naturally articulated with the Multilevel Intervention methodology.

This is yet another stage - an important one - on the path towards the design of inclusive education, with a long way to go. In fact, "in terms of rights and access, there are evident marks that 98% of children and young people with special needs attend the regular system (UN, 2016; National Report for the Implementation of the 2030 Agenda, 2017), the same does not happen with participation (UNESCO, 2017) "(Alves, 2018, p. IV). Therefore, it is urgent to put in practice methodologies that are proven effective in order to definitively overcome the integration stage. One of these methodologies, as mentioned by Spooner et al. (2007), is the UDL, which appears as a response to the difficulties that teachers have always felt in differentiating the curriculum taking into account the diversity of the classroom.

The UDL, which first appeared at the Center for Applied Special Technology (CAST) in 1999, is adopted in Portugal following the observation that it is difficult to put into practice the concept of individualized intervention, which was underlying the diploma that was revoked with the current legislation, Decree-Law no. 3/2008, of 7 January. The UDL emerges as the planning of anticipating all barriers that may exist in the classroom, using measures to support learning and inclusion, provided for in Decree-Law No. 54/2018, of 6 July, seeks eliminate all barriers and enjoy the diversity of the class. This planning takes into account the standard of the class and the logic of presenting several proposals whose choice, whenever possible, comes from the students' will. For this reason, UDL is closely associated with the concept of *self-determination*; two other concepts that complete the support axis of this methodology are *curricular flexibility*, made possible by the three measures provided for in Decree-Law no. 54/2018, of 6 July - curricular accommodations, non-significant curricular adaptations and significant curricular adaptations -, and the aforementioned *planning*.

The relationship between UDL and pedagogical differentiation (PD) is not consensual. For Alves et al. (2013, p. 127): UDL "is a natural complement to differentiated education". CAST distinguishes UDL from PD in two ways: (i) *temporal*, when referring that UDL is related to what happens before class - very much associated with planning - and PD is what happens during and after, and (ii) *focus*, since, in PD, there are activities designed for specific students and in the UDL various tasks are presented, leaving (in principle) to the students the choice of the activity that suits their goals, needs and capabilities. We have no doubt that the PD provided for as a universal measure in Decree-Law No. 54/2018, of 6 July, is the internal PD (Alves et al., 2013). Regardless of the model that can be adopted to make this distinction, UDL from PD, we have no doubt that these are two models that have a lot in common, not least because they are based on shared principles. Still on PD, we consider that it may be confusing to have the name of a measure as the designation of a methodology that, in fact, integrates all the measures provided for in DL 54/2018. UDL is based on 3 principles: motivation, presentation and expression. This model presupposes, therefore, that, taking into account the diversity of the class and with the objective of

eliminating barriers, multiple ways of motivating all students are envisaged by the teacher, multiple ways of making all content accessible to all and multiple ways of allowing all students to reveal their learning.

4. Peer tutoring

Several authors establish the bridge between active learning methodologies and Vygotsky's socio-cultural theory (Villamizar, 2017). For Erbil (2020), peer-based learning is based on active learning methodologies, which will be all that involve students in the learning process. Student-centered pedagogy is based on the notion of a student actively involved in their learning, while being assisted by a teacher-facilitator (Teixeira et al., 2019).

For Lovato et al. (2018, p. 160), the active methodologies translate into collaborative or cooperative practices are listed below: “Problematization”, “Problem-Based Learning”, “Project-Based Learning”, “Team-Based Learning”, “ Peer Instruction ”,“ Inverted Classroom ”,“ Jigsaw ”,“ Division of Students into Teams for Success ”and“ Team Match Tournaments ”.

Mazur, in the early 90s, began a process of change in his pedagogical practices, motivated by conclusions proposed by studies by Halloun and Hestenes, (Mazur, 1997). We owe Mazur the methodology called 'Peer Tutoring'.

In the scope of the projects that we have proposed with the objective of working with high potential students, placing them at the service of other students, the concept of 'Peer tutoring' is not associated with any specific methodology, but with the dynamics between students, peers, and the concept of “more capable partner”, associated with Vigotski and brought by Gaspar (2004, p. 86): for knowledge sharing to be possible, in “social interaction there must always be more capable partners who hold this knowledge and transfer it to less capable partners who intend to acquire it (Gaspar, 2004, pp. 86-87). Age proximity, to which language proximity is associated, makes peer tutoring useful dynamics not only for the tutoring but also for the tutor. Despite this, the adult is not excluded from any dynamic, as Gaspar (2004, p. 87) points out: in a “classroom without the teacher, as Piaget ironically suggested, it is not possible to learn anything, unless there is someone who can play his part ”.

5. Three projects for above-average capabilities students and for students with learning difficulties

Since 2012/13, we have had projects in the Nelas Group of Schools, on an extracurricular basis, which aim to expand the potential of students with above-average skills in one or more areas. That is, recalling Gagné (2008), *Building gifts into talents*.

Three of these projects add to that purpose the training of STEM areas - sciences, technologies, engineering and mathematics - or STREAM - the former plus arts -, starting from research projects as a starting point for the creation of activities aimed at students who wish to expand their potential or who have difficulties, such as reading and writing.

The three projects share the objective of having at least part of the project that takes place in the classroom, students teaching classes to students, trying to reach everyone. The last

project to be discussed is now starting and will adopt, in the classroom context, the UDL and PD methodologies.

These projects are presented below.

5.1. Project Investing in Capacity (PIC)

The Project Investing in Capacity (PIC), which was born in the Portuguese Association for Gifted Children, and has been funded since the first edition by Lapa do Lobo Foundation, has been implemented in the Nelas Group of Schools since 2012/13. The diversity of activities that characterize the project has been possible thanks to a very broad set of Partner Entities, highlighting those that have been maintained throughout these years, namely: Nelas Group of Schools, Nelas Town Council, Catholic University Of Viseu, all the Higher Schools of the Polytechnic Institute of Viseu, Edufor Training Center, the Portuguese Institute of Sport and Youth and the aforementioned Lapa do Lobo Foundation.

It arose as a need to respond to students with more skills, not always understood as such, even in the presence of a gap between their abilities and the school requirement - and even in the way it is organized - often leads them to demotivation and to results far short of what they could be. In addition, these more capable students have deficit areas that need to be developed urgently. Removing the preconceived ideas associated with Giftedness is also one of the objectives of this project, information that has already been shared with parents, teachers and Institutions partners of the Project, in Training Actions and sent documents.

The PIC is divided into two phases - the group phase and the individual project phase.

From the second to the sixth year of schooling (although this logic has undergone changes throughout the project years), the students are in the group stage: the group of first cycle students - for whom are proposed curricular goals of the fourth and / or the second cycle - and the group of students of the second cycle - whose goals are those foreseen for students also of higher levels of schooling. Here, they develop a set of proposals within three areas, which include, according to a multi and interdisciplinary logic, a variable range, different from year to year.

There is also the individual projects phase, attended by students who have already been in the project and who are in the seventh grade (there have also been changes throughout the PIC). These students are selected according to specific criteria.

Both phases of this project aim to develop the areas of competence and values foreseen in the Profile of Students on Leaving Mandatory Schooling (https://www.dge.mec.pt/sites/default/files/Curriculo/Projeto_Autonomia_e_Flexibilidade/perfil_dos_alunos.pdf).

In 2020/21, the individual project phase of the PIC is being developed under the logic of chain mentoring. In fact, 6 students in this project, who attend the 6th and 7th grades - those we call 'mentees ' – who are mentored by high school students - some of them students who had already joined this project and are now returning - and all guided by teachers in each area chosen by the mentees and their mentors develop activities that meet the needs of students with learning difficulties or the need to go beyond what the school already gives,

especially aimed at an audience of students from 1st cycle to 6th year of schooling. The projects are taking place in the area of Physics, Chemistry, Mathematics, foreign languages, arts and the mother tongue, Portuguese.

One of the concerns that has existed in the context of the project is related to the assessment of the project's impact on its direct stakeholders: first of all students, but also on teachers and parents. Assessing the real impact, for example, on students' school results has been seen as an impossibility, which is why we have focused on the following perception, first of all of students - this assessment is made by all students at the end of each session, which takes place every fortnight, usually on Wednesday afternoon, when most of the students do not have classes. This assessment focuses on the learning that the students were able to learn, summarized in one sentence, and on the qualitative and quantitative assessment that the students attribute to it.

The table below shows the quantitative assessment of these 9 years of the project made by the **students**.

Qu

adro 1: Avaliação empreendida pelos alunos dos 9 anos de PIC

	Group A (1.st e 2.nd Cycles)			Group B (7.th grades)			Group C (8.th e 9.th grades)		
	Comunication	Sciences	Creativity	Comunication	Sciences	Creativity	Comunication	Sciences	Creativity
	8,9	8 ,7	8 ,7	8,5	8 ,9	8 ,4	8	7 ,1	7, 8
Results PIC I	8,7			8,6			7,6		
Average of 3 groups	8,3								
Average by areas	8,4			8,2			8,3		

	Group A (1.º Cycle)			Group B (2.º e 3.º cycles)		
	Comunication	Sciences	Creativity	Comunication	Sciences	Creativity
	9,8	9,3	9,8	8,2	8,8	9,2
	9,6			8,7		
Results PIC II	Average of the 2 groups					
	9,1					
	Average by areas					
	9		9		9,5	

	Group A (1.st Cycles)			Group B (2.nd cycle e 7.th grade)		
	Comunication	Sciences	Creativity	Comunication	Sciences	Creativity
Results PIC III	9,8	9,6	9,4	9,3	9,4	9,1
	9,6			9,3		
	Average of 2 groups					
	9,5					
	Average by areas					
	9,6		9,5		9,3	

	Group A (1.st Cycles)			Group B (2.nd cycle e 7.th grade)		
	Comunication	Sciences	Creativity	Comunication	Sciences	Creativity
Resultos PIC IV	9,3 <	9,6 =	9,8 >	9,6 >	9,9 >	9,6 >
	9,6 =			9,7 >		
	Average of 2 groups					
	9,7 >					
	Average by areas					
	9,5 <		9,8 >		9,7 >	

	Group A (1.st Cycle)			Group B (2.nd cycle)		
	Comunication	Sciences	Creativity	Comunication	Sciences	Creativity
Results PIC5	9,6 >	9,5 <	9,6 <	9,3 <	9,7 <	8,4 <
	9,6 =			9,1 <		
	Average of 2 groups					
	9,4 <					

	Average by areas		
	9,5 =	**9,6 <**	**9 <**

	Group A (2.nd and 3.rd grades)			**Group B (4.th grade and e 2.nd cycle)**		
	Comunication	**Sciences**	**Creativity**	**Comunication**	**Sciences**	**Creativity**
	8,5 <	**8,6 <**	**8,6 <**	**9 <**	**9,1 <**	**9,3 >**
Results PIC6	**8,6 <**			**9,1 =**		
	Average of 2 groups					
	8,9 <					
	Average by areas					
	8,8 <	**8,9 <**		**9 =**		

	Group A (2.nd and 3.rd grades)			**Group B (4.th grade and e 2.nd cycle)**		
	Comunication	**Sciences**	**Creativity**	**Comunication**	**Sciences**	**Creativity**
	9,4 >	**9,8 >**	**9,5 >**	**9,5 >**	**9,6 >**	**9,6 >**
Results PIC7	**9,6 > (+ 1 valor)**			**9,6 >**		
	Average of 2 grupos					
	9,6 >					
	Average by areas					
	9,5 >	**9,7 >**		**9,6 >**		

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	Group A (2.nd and 3.rd grades)			**Group B (4.th grade and e 2.nd cycle)**			
	Comunication	**Sciences**	**Creativity**	**Comunication**	**Sciences**	**Creativity**	
	9,5 >	**9,2 <**	**9,1 <**	**9,8 >**	**9 <**	**8,6 < (- 1 valor)**	
	9,3 <			**9,1 <**			
Results PIC8	**Average of 2 grupos**						
	9,2<						
	Average by areas						
	9,7 >		**9,1 <**			**8,9 <**	

Source: Relatório final do PIC 8 – 2019/20

Below is a summary of the 2019/20 assessment made by **parents**. It should be noted that, of the 37 students who participated in the project in 2019/20, only 17 of the respective guardians completed the evaluation questionnaire.

In the first question, the parents were asked to state whether or not they agreed with the three statements made. All parents agreed with the following statement: "The PIC contributes to increase students' motivation for school life - students who participate in it". Regarding the statement "The PIC is based on an ideology - equity, differentiated response - which makes sense", 2 parents (11.8%) mentioned that "no", with the remaining 15 (88.2%) agreeing with the statement . 1 guardian (5.9%) does not agree with the statement "The PIC should continue next year (if the Covid situation does not arise)", with the remaining 16 (94.1%) considering that the project should continue .

Regarding a possible PIC 9, the 16 respondents - given that one of the parents, having stated that he did not agree that the PIC would continue, answered only to question 2 -, considered that "PIC can systematically integrate teaching students secondary school as specialists assigned to the areas to streamline sessions, similar to what has already been done in the Science area ". The same 16 parents also consider that "The PIC should continue to invest in specialists outside the PIC". 6 (37.5%) guardians do not agree to Saturday sessions.

Regarding the question "If E @ D continues or if the issues of social distance remain, (as it seems to be the case), do you consider that there are conditions for a PIC 9 in 2020/21?", 10 parents (58.8%) said no, with 7 (43.8%) saying yes. To the question "If you answered YES to the previous question, can you please submit any work suggestions that may take place in a context of (semi) distance learning or with rules of social distance? Thank you. ", 5 parents (29.5%) answered the following: Use protocoled auditoriums, where space is bigger and better, to comply with all DGS procedures. Use of outdoor spaces, such as gardens, with seating places (eg: in a circle) together with sound systems (to develop an activity with a specialist).

Conclusions:

Regarding the questions that were asked, we highlight positive and less positive aspects:

- As a less positive aspect - but perfectly understandable -, we highlight the fact that the majority of parents (58.8%) consider that, if the situation caused by Covid-19 continues, "there are no conditions for a PIC 9 in 2020/21 ". There are, nevertheless, very interesting suggestions put forward by 5 guardians for the eventuality of proposing to proceed with the project in 2020/21.
- As positive aspects, we highlight the fact that parents consider that the PIC:

• "it contributes so that the students who participate in it feel more motivated for school life". This is the main objective of the PIC, and having the perception on the part of the parents - which, incidentally, has been a constant throughout the 8 editions of the project - in this sense has been what drives us to continue over almost a decade.

• PIC should continue in 2020/21, if Covid-19 is not an issue (only 1 parent did not agree with this statement).

• We consider it very interesting that all parents agree that the PIC should use, in a more systematic way, older students to assist the dynamization of sessions, as has been a practice in the Science area. The same parents affirm that this does not invalidate the fact that one should also bet on specialists outside the PIC.

We also present the evaluation made by teachers, for the same period, 2019/20. It is also worth mentioning that, of the 14 teachers who were asked for this assessment, 8 responded.

The information obtained is summarized below.

PIC relevance and its continuity with and without restrictions of social distance

All respondents (8) state that the PIC is based on an ideology - equity, differentiated response - that makes sense. All respondents believe that the PIC contributes to make the students who participate in it feel more motivated for school life and all teachers consider that the PIC should continue if the situation in Covid-19 is not an issue. The totality of teachers considered that "PIC can systematically integrate secondary school students from the school as specialists assigned to the areas to dynamize sessions, similarly to what has already been done in the Science area", which does not invalidate that should "continue to bet on specialists outside the PIC". More than half of teachers (62.5%) do not agree to Saturday sessions.

A very significant percentage of respondents (75%) believe that, "If E @ D continues or if issues of social distance remain, (as it seems to be the case)", there are no conditions for a PIC 9 in 2020 / 21. 2 teachers, on the contrary, consider that there is a possibility that PIC will continue to be in a situation of social distance, having proposed the following:

- Practical outdoor activity with dynamizers and themes to be defined.
- Individual projects, research, presentation of results and construction of activities for other students, by PIC students with their advisors.

Conclusions:

From the data collected, we can highlight the following aspects:

- All teachers consider that PIC meets the ideology of inclusion and equity. It is this belief that has allowed the existence of 8 years of PIC, a fact that was already considered a strength of the School by the last external evaluation.
- All teachers consider that, unless confinement restrictions are placed, the PIC should continue for the next school year. Two teachers stated that, even in a situation of social distance, there are conditions for a PIC 9 in 2020/21, having presented proposals for this possibility. If the PIC Team votes for the continuity of the PIC, this will be an issue that deserves a strong analysis, which should be crossed with the opinion given by the parents in the questionnaire - we recall that 62.5% of the Parents / Guardians mentioned that they did not agree that the PIC took place in a situation of social detachment like the one that looks like we will continue to live in the next school year. Could it be a year of Individual Projects only?

More information about this project can be obtained on this website: https://www.edufor.pt/aenelas-pic/.

5.2. STEM For All Seasons Project

The STEM For All Seasons (STEM) project was an Erasmus + project (2016-2018) that included students from PIC who carried out individual projects in the scope of the STEM areas - science, technology, engineering and mathematics - and had a meteorological station as a starting point acquired in the context of the project. 7 PIC students, who were in the 7th grade when STEM started and completed it in the 9th grade, each student, selected a research topic within the scope of the STEM areas. After selecting the topic and what they would like to investigate, advisors were selected. After having spent 1 year in research in the chosen areas, students made several presentations at public events, such as, for example, at a congress organized under this project (https://mfffalmeida1.wixsite.com/website/registro).

After this period of research, students built activities and gave several lessons in classes of younger students (https://mfffalmeida1.wixsite.com/website). It is important to mention, even for what will be mentioned in point 5.2., that the original format of this project, which had Ireland as coordinating country, did not foresee a large part of the activities that we carried out in Portugal, that is, it was our purpose to go a lot to in addition to the original formulation, because we thought it would be an asset for students at our school. For example, the logic of investigation by students guided by teachers that the project had, as well as the teaching of classes from students to students, was not foreseen. Nor the congress we proposed.

The classes taught by students to students had an excellent evaluation by peers, as can be seen in the consultation of the website: https://mfffalmeida1.wixsite.com/website.

STEM was rated by the National Agency of Portugal with 80 points, a fact that integrated it at a Very Good level.

5.3. STREAM this TEAM project

The Erasmus + STREAM this TEAM (STREAM) project integrates a part of the logic that we have printed in Portugal on the STEM project, but it will go far beyond it.

This project is coordinated by Portugal, the Edufor Training Center, and in Portugal it is developing in the Nelas School Group, and has partners who are reference entities in each country: Portuguese Association of Dyslexia of Bulgaria, the Kocaeli Provincial Directorate of National Education of Turkey, Rezeknes Tehnologiju Akademija, of Latvia, and Scoala Gimnaziala Bogdan Petriceicu Hasdeu, of Romania. They are partners of a quality that has already proven itself in several Erasmus + projects, both within this same team and others.

STREAM project aims to

(1) develop all key skills for lifelong learning;

(2) provide a demanding teaching and learning process for students with above average abilities, contributing to the motivation of students who have great aptitude for STREAM areas, and those who doesn´t;

(3) train peer strategies among students;

(4) focus on a methodology that has been extensively studied (http://www.cast.org/) but not really implemented: UDL-universal design for learning, contributing to a more including school for ALL;

(5) train teachers and SEN Staff to intervene with students with high capacities and with learning difficultiesn / reading and writing difficulties, including dyslexia, which is the most common type of learning disability (https://www.idaontario.com/about- dyslexia /)

Looking at each and every one in order to create truly inclusive schools is the purpose of this project. To be achieved this, teachers and other technicians need to know how, and that is why we designed 4 LTTAs (2 trainings and 2 study visits).

The STREAM project has 3 outputs:

1-STREAM Book: a book that aims to be a guide for the entire project and that will focus on the following themes: (1) What is STREAM; (2) How to implement it in a regular classroom; (3) Needs of students with dyslexia / learning difficulties; (4) Needs of high performing students; (5) Benefits of peer-to-peer methodology / help.

2-STREAM Classroom: (1) the construction of innovative and challenging projects carried out by students with above-average skills in the STREAM areas, guided by competent teachers in the STREAM areas; (2) the elaboration of lesson plans and innovative activities within the STREAM areas, proposed and created by those students and designed to be implemented in the classroom, with the main objective - working on reading / writing; (3) Some of the classes will be given by students to students within the scope of eTwinning; (4) the construction of programs aimed at students with dyslexia or other reading difficulties, conducted by students led by SEN Staff and which will be promoted by students with high reading skills; (5) the dissemination of best practices in the teaching of STREAM and work focused on reading / writing; (6) the compilation of all material in a STREAM BOX and the dissemination of all these activities.

3-Webquest-CRD - focused on intervention on the Causes of Reading Difficulties associated with dyslexia, the program can be used with students with other reading difficulties. This program will be created, tested with students and, at the end, the results that will dictate the degree of effectiveness of the program will be presented.

This project started in December 2021 and we believe it will be a milestone in inclusion in our country.

6. Conclusion

Inclusion presupposes that ALL, meaning all, is served in regular schools and that they can expand their potential. All students have needs and everyone can learn from everyone. This is the principle that governs the proposal of the three projects referred to in this article, which take place inside and outside the classroom.

The three projects are based on the ideal of inclusion and equity and seek to contribute to the fulfillment of what is foreseen in the Echool's Educational Project.

It is a fact that we do not know if the existence of any of the 3 projects in our Group of schools allows the academic results of the students that integrate it to be more positive. Carrying out an assessment of the real impact of the project seems to be close impossible, taking into account the set of variables that we would have to isolate. Research tells us, however, that there are gains in students participating in project-based methodologies with regard to motivation, allowing even better adaptation to the future world of work (Purkovic & Prihoda, 2020). The question of motivation has been reported by the students themselves and by their parents as being a positive thing they have from the project. Specifically in relation to PIC and STEM - given that STREAM is still starting -, the evaluation, especially qualitative (also quantitative) that brought to us, referring to the opinion of students, parents and teachers, has been more than enough to continue believing in this project.

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