Need Analysis Report 101



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Professional questionnaire

Sociological data

Q1. Qual o género com que se identifica? 28 responses



Figure 1 – Gender

28 professionals answered the questionnaire in Portugal, with 26 (92.2%) reporting being female and 2 (7.1%) being male (Figure 1).

In terms of age 46.4% are in 20-35 range, 32.1% in 51-65 range and 21,4% are aged between 20 and 35 years old, meaning that the majority of professionals that work with ASD students are not new (Figure 2).



Figure 2 - Age

Q4. Selecione a opção que mais se adequa à zona onde trabalha. 28 responses



Figure 3 - Type of region

The majority of respondents work in an urban zone, with 53.6% of them reporting their region has less than 100 000 inhabitants and 28.6% more than 100 000 inhabitants. Only 17.9% work at a rural place.

Professional data

Q5. Selecione o título profissional que o representa melhor. 28 responses



Figure 4 - Professional Title and Role at School

Teachers are 12 in 28, being 9 (32.1%) of respondents of Special Education and 3 (10.7%) teachers without special education, followed by Psychologists 4 (14.3%) and operational assistants 2 (7.1%). 2 (7.1%) of respondents are Speech therapist and another two professional consider him/herself as Psychomotrician (7.1%); One (3.6%) of the respondents identify him/herself with Rehabilitation Superior Technician; another one

with physical therapist (3.6%) ; one as Occupational Therapist (3.6%) and another one is a Kindergarten teacher (3.6%) ; one is Technical assistant (3.6%) ; one is school coordinator (3.6%) and other one caregiver (3.6%). Therefore, the diversity of professionals titles show the diversity of students with ASD as well the particular human resources (and diversity) that every school can offer, independently of student's needs (Figure 4).





Figure 5 - Years of Professional Experience

The years of experience from professionals is also diversified (From 1 one year to more than 37 years). Further analysis of type of professional and number of experience years will be conducted in the next report (Figure 5).



Figure 6 - rofessionals' level of Education

In what respects the professionals' level of Education, 14 (50%) have a Bachelor degree and 10 (35.7%) a Master degree ; no one has a PhD and 2 (7.1%) have Secondary School ; one has a 3 years degree before Bolonha (less than the actual bachelor degree) and other one (3.6%) a CET (Technological Specialization Course) in social service.

Experience with ASD





Figure 7 - ASD formal training

Only 16 in 28 (57.1%) professionals have received training in ASD during their scholar education (Figure 7).

Q9. Recebeu formação sobre a PEA fora do seu percurso académico? (ex: Workshops, formações, sessões de treino) 28 responses





22 (78.6%) of respondents state they have received training in ASD outside their initial training, while 6 (21.4%) did not. It raises the question where this training was continuous

training (public or private funded) or an investment by professionals (Figure 8). In what respects the years of experience in profession, 13 in 28 (46.4%) respondents have between 1 and 3 years of experience. The average of years of experience is 15.6 years, STD=12.1, wih a minimum of 1 year and a maximum of 41 years old (Figure 1).



Q10. Quantos anos de experiência tem a trabalhar com crianças com PEA? 28 responses

Figure 9 - years of professional experience in working with ASD students



Q11. Até ao momento, com quantas crianças com PEA já trabalhou? 28 responses

Figure 10 - Number of ASD students wich every professional has worked with

With an average of 12.3 students, professionals have been working wit a minimum of 1 child and a maximum of 37 (Table 1). So an analysis of years of experience of professionals with number of students the professionals have worked with will clarify the graph in Figure 10.

average	12.3
min	1.0
max	3.,0
SD	9.6

Table 1 – Number od ASD children professionals have worked with

In what respects the professionals' knowledge of level (1 to 3) of ASD 14 (50%) of them are not sure about it. 9 respondents (32.1%) state the students that they have worked with are level 1, 10 respondents (35.7%) worked with ASD students' level 2 and 9 (32.1%) state they have worked with ASD students' level 2. Such indicates that these levels are not well know among professionals and it should be translated in children's abilities.



Students Digital Competencies

Q13. Tem alguma informação sobre quais as capacidades digitais dos alunos que acompanha? (Ligar computadores, jogar videojogos, usar apps de chat (ex: WhatsApp, etc.) 28 responses



Figure 11 - knowledge of students digital skills

22 (78.6%) of respondents state they are aknowledge of their ASD children digital skills, while 6 (21.4%) did not. In what respects the perceived digital skills of children, 17 (60.7%) of professionals mention «to play in a PC or tablet», and 16 (57.1%) refer ASD children «can use a PC or tablet to do school work» ; 11 (39.3%) of respondents state ASD children are able to use a PC or tablet to conduct searches on the Internet and 10 (35.7%) consider they are able to use a PC or tablet to access social networks.

Q14. Se respondeu "Sim" na Q13, selecione as capacidades digitais dos alunos que acompanha. 28 responses

Usar um computador ou tabl... Usar um computador para v... Jogar num computador e/ou... Usar um telemóvel para faze... Usar um telemóvel para faze...



Only 7.1% of professionals did receive training about E-learning during their academic path (**Figure 13**) and 46.4% received some training in E-learning (**Figure 14**) (continuous training).

Q15. Teve algum tipo de formação sobre ensino à distância durante o seu percurso académico? ²⁸ responses



Figure 13 - Training about Remote Learning/E-learning

Q16. Já frequentou algum tipo de formação sobre ensino à distância fora do seu percurso académico? 28 responses



Figure 14 - Training about remote Learning outside the academic path

To better support and education of children with ASD, the subjects professionals would you like to learn in distance learning are diverse and the most common are presented hereby :

- Learn how to use several software to develop communication skills in children
- Digital literacy and health literacy
- How to communicate remotely with students with PEA without acquiring a room
- Tips for dealing with socialization

- Digital literacy and academic skills level 1,2 and 3
- Capture a higher level of attention from children
- Intervention strategies
- Create digital activities to develop reading
- Alternative/augmentative communication using free resources
- What is the best way to work in this area/programs to be used with students with PEA
- Combining digital and physical activity.

Regarding Q18 « What is your opinion about an online course to improve the digital skills of students with ASD, as well as professionals who accompany them on a daily basis? » 27 (92.8%) of respondents consider it of great importance for students and professionals. One respondent state : « It would be great, especially if it is free, since this type of training is practically non-existent in the training centers for teachers at the county level. And other one : «It can be a great resource for communication in a more adult stage and especially if they do not use verbal-oral communication as a privileged means. On the other hand, I believe that it may not be the best choice, as it does not help to promote interaction and communication with others, which are the main difficulties evident in the PEA.»



Q20. Costuma usar equipamentos digitais com os seus alunos com PEA? 28 responses

71.4% use digital devices with ASD children. Personal computers and tablets are the most used devices and PC touch and mobile phones used sometimes.

In what respects non-digital tools, the most frequent ones are :

• Gym material created by me and special education teachers

- pecs symbols
- symbolic games
- Paper
- cognitive-behavioral strategies
- Pedagogical/board games
- Videos.....Music (on placement)
- Communication activities that improve interaction.
- Images

Digital and ASD

In Q.23 « In your opinion, do you think that digital tools can help and/or improve your work with students with ASD?» 27 (96.4%) of the respondents agree that digital tools are important, they could be motivating, children could acquire important skills for they everyday life. One professional disagree : « I dont think so ! ».

In what respects Q.24, the problems in using digital tools with ASD children are :

- Attention time
- Number of children in the room
- Lack of interest
- Lack of money
- Acquisition of skills and maintenance of selective attention
- Access to tools and software
- Maintenance of selective attention
- Prevent effective communication, as they are more focused on the tablet than on the person they are supposed to communicate with.
- In motivation for writing
- Dependency
- Lack of time to explore digital tools
- Dealing with the student's frustration and refusal for wanting to perform an activity that is unrelated to the work that has to be done.
- Poor concentration and attention, lack of reaction
- None
- Knowledge
- Obsessive behavior and consequent frustration when it is not possible to be at the computer.

- None.
- None

Contact information

85.7% of respondents accept to receive emails and more information about this project. The contacts are not explicitid here.

General comment

The data from the Portuguese context highlights the importance of computers, tablets and digital games in the media consumption of children on the autism spectrum, and it is precisely in the digital sphere that their teachers' main training needs lie. Teachers set digital literacy as a training priority for themselves, listing the need to implement new intervention strategies, combine physical and digital aspects, among others.

However, the educational advantages of digital media are hindered by a wide range of barriers, such as access, financial, logistical and motivational issues, among others.