

## SPECIAL EDUCATION TEACHERS: TRAINING AND INTERVENTION STRATEGIES FOR INTERNET RISKS OF STUDENTS WITH INTELLECTUAL DISABILITIES IN SPANISH CENTRES

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### Abstract

The use of the Internet is a key aspect in the inclusion of students with intellectual disabilities (ID) in the current information society, although this process entails both benefits and potential risks. The perceptions of teachers and, in particular, of special education teachers are of interest for taking advantage of the benefits of the Internet since they are essential supports in the digital literacy of their students. In the same way, these teachers can favour the prevention and management of online risks. The purpose of this study was to explore the training received as well as their perceived ability to prevent and manage risks online. A cross-sectional study was conducted based on a survey design in which 134 Spanish special education teachers participated (27 male, 107 female), belonging to ordinary centres ( $n = 56$ ) and special education centres ( $n = 78$ ). Teachers had an average of 16.31 years of teaching experience ( $SD = 10.40$ ). Descriptive and contrast analyses were performed using the T and Chi square tests. The results show that 88.1% of the participating teachers have not received any training on online risks. Consequently, teachers perceive themselves as little or nothing at all prepared to prevent online risks (51%), or to manage them if they occur (61%). There are no significant differences in the competence perceived by teachers according to whether their educational centre is ordinary or special, or according to gender. On the contrary, there were differences in the application of five of the 24 preventive mediation strategies analysed. These results show that the participating teachers have not received adequate training to optimize the potential benefits of the Internet for people with ID, neither to prevent nor manage the associated risks. Hence, teachers tend to feel barely competent to address this issue. This fact is of important relevance since the special education teachers are one of the key supports in schools for students with ID both in direct educational intervention and in the advice of the rest of the teachers. Their lack of training calls into question their ability to develop a digital literacy that favours the inclusion of these students. Therefore, the need to design and implement specific training plans on this subject for teachers as well as measuring their effectiveness is concluded.

**Keywords:** *Intellectual disability, Internet, mediation, training, teachers.*

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### 1. Introduction

People with intellectual disabilities (ID) have alterations in cognitive functioning associated with difficulties in adaptive skills. Consequently, they require supports of different intensity and nature to improve their functioning in different environments and activities (Schalock et al., 2010). Digital inclusion is a basic right for people with disabilities (United Nations, 2006). The use of the Internet carries benefits that must be enhanced, and risks that must be prevented or managed (Chiner, Gómez-Puerta, & Mengual-Andrés, 2019). Caregivers (e.g. family members, teachers, support staff) represent the most important source of training and support for the use of digital devices by people with ID (Palmer, Wehmeyer, Davies, & Stock, 2012). What's more, they also turn out to be a very suitable source for online risk prevention (Wright, 2017).

The role of teachers in this regard is key since they support digital literacy and online access of students with ID (Kydland, Molka-Danielsen, & Balandin, 2012). This situation highlights the importance of teachers' training in order to implement online risks mediation strategies that favour the safe use of the Internet by their students with ID (Kalmus, von Feilitzen, & Siibak, 2012). However, there are still very few studies that address this issue (Normand & Sallafranque-St-Louis, 2016), and they are even less so in the field of special education teachers (Chadwick, 2019).

## 2. Objectives

This study aimed to know the training received by special education teachers as well as their perceived ability to prevent and manage risks online in students with ID. It also had the purpose to determine differences in teachers' perceptions according to their gender and type of centre they work at.

## 3. Methods

### 3.1. Participants

Stratified cluster sampling was carried out taking the three provinces of the Valencian Community (Spain) as stratum to randomly select the schools. A sample of 134 participants was obtained, composed of teachers who belonged to Primary Education Schools ( $n = 32$ ), Secondary Education Schools ( $n = 24$ ), and Special Education Centres ( $n = 78$ ). The majority were female teachers ( $n = 107$ , 79.9%), with an average age of 42.68 years old ( $SD = 11.09$ ). The teachers had a teaching experience that ranged from 1 to 39 years, with an average of 16.31 years ( $SD = 10.40$ ).

### 3.2. Instruments

A questionnaire was designed adapting the contributions made by the *EU Kids Online* project (Sonia Livingstone, Haddon, Görzig, & Ólafsson, 2011) to the characteristics of the population of special education teachers. In addition to the demographic information of the participants (e.g. gender, age, province, type of centre), the questionnaire, first, included a 5-point Likert scale (1 = not at all prepared, 5 = very prepared) in which teachers were asked about their perception of training to prevent or manage risks online for students with ID. Second, the instrument presented a list of 24 online risks prevention or management strategies and participants were asked to indicate which ones they had used in their centre or promoted with the families of students with ID. Third, using a dichotomous question, the teachers had to answer whether they had received specific training on safe use of the Internet by minors with ID and, if so, what the duration in hours of this training had been. Finally, the questionnaire presented a question about the sources from which the teachers had obtained information and / or training; they were also asked to mark which of these sources they would like to receive specific training from. The validity of the questionnaire was calculated using the Content Validity Index for which the review of 10 experts in education and ICT was requested, obtaining a result of .87 (Lawshe, 1975). Reliability was adequate reaching alpha values equal to or greater than .81 in the various sections of the questionnaire.

### 3.3. Procedure

A cross-sectional descriptive and comparative study was carried out based on a survey design. The study received the approval of the Ethics Committee of the University of Alicante (procedure UA-2017-11-15). An informed consent of all the participants was collected and the surveys were anonymised. The surveys were sent by post to the selected schools in an envelope, which included the informed consent, a cover letter, the surveys, and a postage-paid envelope for their return. The time required, to respond to the instrument was between 10 and 15 minutes approximately.

### 3.4. Data analyses

Descriptive analyses were performed to identify their perceptions on their training and skills to prevent or manage online risks. Differences between teachers' perceptions according to gender and centre were performed using contrast analyses (T and Chi square tests).

## 4. Results

### 4.1. Training received on Internet safety and teachers' perceived level of preparedness

Regarding the training received, 88.8% of the participants ( $n = 119$ ) indicated that they had not received any specific training related to online safety or online risks prevention and management for students with ID. Furthermore, teachers perceived that their training to prevent or manage risks online was moderate. Taking into consideration the 5-point Likert scale (1 = *not at all prepared*, 5 = *very prepared*), the respondents placed their prevention preparedness at an average of 2.78 ( $SD = .873$ ) and 2.65 regarding their skills to effectively manage risks ( $SD = .834$ ). Furthermore, 38% of the teaching staff indicated that they felt not at all or slightly prepared to prevent risks, while 45.6% expressed it in these same terms in the case of online risk management. The results did not show statistically significant differences according to gender or type of centre regarding the perception of teachers' preparedness to prevent or manage Internet risks for students with ID.

The teachers who had received specific training on this subject ( $n = 15$ ) indicated that it ranged from 45 minutes to 100 hours, with an average of 33.58 hours ( $SD = 32.98$ ). The results did not show statistically significant differences in the training received by the teachers, according to gender or type of centre. As reflected in Table 1, the sources from which teachers have mostly obtained information or training are the media (41%) and the workplace 30.6%). Regarding training sources prioritised by teachers, specialized teacher training centres (which are called CEFIRE at the Valencian Community, Spain) (59.7%) and training plans at their workplace (46.3%) stood out.

Table 1. Information and Training Sources on Internet use and safety received and wanted.

Source	Received		Wanted	
	n	%	n	%
Workplace	41	30.6	62	46.3
Training and Resource Centres for Teaching (CEFIRE)	27	20.1	80	59.7
Media	55	41	22	16.4
Internet service providers	7	5.2	31	23.1
Public Administration	20	14.9	56	41.8
Non-profit organizations	20	14.9	40	29.9
Specialized websites	29	21.6	32	23.9
Family and friends	36	26.9	16	11.9
Other sources (e.g. police, self-taught)	9	6.7	4	3
Have not received or wanted to receive information	8	6	0	0

When contrasting the results on received information and training sources according to gender and type of centre significant differences were identified. First, it was observed that males had obtained more information from specialized websites than female teachers (40.7% vs. 16.8%,  $\chi^2 = 5.931$ ,  $p = .015$ ). Second, teachers in ordinary schools had obtained more information from the media than teachers in special education centres (57.1% vs. 29.5%,  $\chi^2 = 9.192$ ,  $p = .002$ ).

#### 4.2. Online risks mediation strategies

Table 2 shows how the most frequent mediation strategies implemented are based on talking to students with ID about what they do on the Internet (88.1%), staying close to them when using the Internet (76.9%) or sharing online some activities (71.6%).

Table 2. Internet risk mediation strategies implemented and/or promoted by teachers.

Strategy	Total sample		Type of centre				$\chi^2$
			GEC <sup>(1)</sup>		SEC <sup>(1)</sup>		
	n	%	n	%	n	%	
Talks/workshops aimed at families	49	36.6	28	50	21	26.9	6.522
Talks/workshops aimed at the students with ID	59	44	15	26.8	44	56.4	10.609**
Talk about what they do online	118	88.1	49	87.5	69	88.5	0.000
Sit next to them while using the Internet	78	58.1	27	48.2	51	65.4	3.276
Stay close to them when using the Internet	103	76.9	37	66.1	66	84.6	5.304*
Share online activities	96	71.6	38	67.9	58	74.4	0.396
Activate content control filters	63	47	28	50	35	44.9	0.169
Install navigation and access control programs	44	32.8	23	41.1	21	26.9	2.352
Install antivirus or anti-spam programs	66	49.3	25	44.6	41	52.6	0.532
Prohibit them from using social networking sites	32	23.9	11	19.6	21	26.9	0.592
Control the use of social networking sites	37	27.6	12	21.4	25	32.1	1.347
Prohibit them from sharing personal information	32	23.9	7	12.5	25	32.1	5.821*
Talk about which sites are appropriate	81	60.4	32	57.1	49	62.8	0.234
Talk about misleading advertising online	81	60.9	35	63.6	46	59	0.131
Talk about the risks of data / identity theft	75	56.4	35	62.5	40	51.9	1.070
Talk about the risks of online chatting or flirting with strangers	94	70.1	37	66.1	57	73.1	0.466
Talk about what they would do if they were worried about something that had happened online	66	49.3	22	39.3	44	56.4	3.170
Control time on the Internet	59	44	21	37.5	38	48.7	1.240
Check their browsing history	28	20.9	9	16.1	19	24.4	0.900
Check their messages	25	18.7	9	16.1	16	20.5	0.182
Check friendships or contacts added to their social media profile	20	14.9	7	12.5	13	16.7	0.178
Place fixed devices in common areas	23	17.2	13	23.2	10	12.8	1.800
Allow them to use mobile devices only in common areas	41	30.6	16	28.6	25	32.1	0.058
Other (disable wifi password, firewall)	11	8.2	4	7.1	7	9	0.004
Not used any strategy	0	0	0	0	0	0	-

<sup>(1)</sup> GEC: special education teachers at general education centres; SEC: special education teachers at special education centres; Chi-square significant at \* $p < .05$ , \*\* $p < .01$ .

Special education teachers at special education centres implemented more frequently than teachers at general education centres strategies such as talks/workshops aimed at the students with ID (56.4% vs. 26.8%,  $\chi^2 = 10.609$ ,  $p = .001$ ), stay close to them when using the Internet (84.6% vs. 66.1%,  $\chi^2 = 5.304$ ,  $p = .021$ ), and prohibit them from sharing personal information (32.1% vs. 12.5%,  $\chi^2 = 15.821$ ,  $p = .016$ ). The results also showed statistically significant differences according to gender. Specifically, male teachers tended to implement more the strategy based on talking about which sites are appropriate (88.9% vs. 53.3%,  $\chi^2 = 9.999$ ,  $p = .001$ ).

## 5. Discussion and conclusions

This study aimed to explore the training received by special education teachers as well as their perceived preparedness to prevent and / or manage risks online in students with ID. Findings showed that the participants in this study had little training in the safe use of the Internet by their students with ID. Furthermore, they consider themselves only moderately prepared to deal with the online risks of their students, as other studies had previously found (Gómez-Puerta & Chiner, 2019). This situation contrasts with the recommendations regarding the importance of knowing mediation strategies for online risk prevention or management (Karaseva, Siibak, & Prullmann-Vengerfeldt, 2015).

The most common implemented actions have to do with active mediation strategies such as talking to them or offering information. The use of these strategies can promote a greater understanding by students of online hazards while favouring positive risk management (Seale, 2015). However, teachers also use other strategies based on monitoring, restriction or technical control (e.g. being close to them when they use the Internet, sharing activities online). These strategies seem to reflect a lower confidence of teachers in the capacity of the student with ID to manage risks and an attitude towards overprotection, which is inadequate to favour the personal autonomy of these people (Seale & Chadwick, 2017).

Regarding the sources of information or training, a large part of the teaching staff has received information about the risks by the media. This source of information may not be adequately rigorous for training. However, a significant number of teachers have also received training in their workplace. In general, teachers claim to receive training from formal sources such as teacher training centres, their workplace, or from the public administration itself. Anyway, further research is needed to better understand the factors that underlie these findings (Gómez-Puerta & Chiner, 2019).

This study has several limitations that must be taken into account when interpreting its results. First, the sample does not represent the population of special education teachers. Secondly, the data only represent the perception of the respondents, which may be biased and not coincide with the objective reality of their training or risk prevention strategies implemented. Finally, the data collection method (postal survey) also has certain limitations (e.g. poor understanding of the questions, low response rate) and may also bias the results (Creswell, 2012).

In sum, findings showed that teachers lack adequate training to manage the risks associated with Internet access for students with ID. Likewise, the mediation actions implemented seem to underlie an attitude of lack of confidence and overprotection towards the person with ID, an aspect that should be specifically addressed in teacher training. Participants have received most of the information available to them through the media, which seems inappropriate. Training plans for this group of professionals must be designed, implemented and evaluated. Finally, it is advisable to continue investigating and deepening on this issue due, on the one hand, to the relative novelty of the subject and, on the other, the educational and social implications of the phenomenon.

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