

What students with intellectual disabilities know about writing planning

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Abstract

Background: Studies on the writing of students with intellectual disabilities have been scarce and unrepresentative. Therefore, the purpose of this research was to analyse this group of students' abilities to plan their texts

Method: A collective case study was carried out, with an eminently qualitative approach, although aided by an initial quantitative analysis. Fifteen students with unspecified intellectual disabilities were interviewed using open-ended questions. For data interpretation, content analysis and quantification of responses were used.

Results: The results revealed the abilities and limitations of these students regarding the knowledge and use of one of the key processes of written expression (writing planning).

Conclusion: The cognitive operations of planning, in which these students admitted the greatest problems, were the ordering and recording of ideas, and textual structuring.

KEYWORDS

students with unspecified intellectual disabilities, writing difficulties, writing planning

1 | INTRODUCTION

Writing is a complex cognitive skill that challenges many students and especially those with an intellectual disability. However, people with intellectual disabilities are not homogeneous (Beail & Williams, 2014; Palmqvist et al., 2020). Intellectual disability is generally associated with certain syndromes, but there are also people with unspecified intellectual development disorders (WHO, ICD, 2015 10, Version 2015).

Research has revealed that people with intellectual disabilities have difficulties reaching certain educational levels, primarily in the field of oral and written communication (Di Blasi et al., 2019; Lim & Lee, 2019; Ratz & Lenhard, 2013; Vega & Gràcia, 2016). However, written communication skills have rarely been studied in people with

intellectual disabilities, although it is always less developed than oral communication (Banikowski & Mehring, 1999; Belva et al., 2012; Riaño, 2012). In this regard, Gallego (2008) found in a sample of 10 student (mean age 18.2) with intellectual disability of different aetiology and whose IQ were between 58 and 70 (mean 65.6) that they showed difficulties in written expression due to lack of skills to organise ideas according to textual typologies and because they did not have writing plans. Cognitive interview was used to obtain the data and content analysis was used to interpret them.

Additionally, in a study with similar characteristics, Gallego and Rodríguez (2016), in a collective case study with 25 Spanish students with Down Syndrome (cytogenetic documentation of trisomy-21) and whose age ranged from 16 to 21 years (mean age 19.4) found that they had a superficial knowledge of planning written composition, due

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to their special problems in organising ideas in a text and handling rough drafts.

Equivalently, the exploratory study by Varuzza et al. (2015), which examined the writing skills of 12 people with Down syndrome, 13 with Williams syndrome, and 11 children with typical mental age development, concluded that the two groups with genetic syndromes did not differ from typically developing children in writing a list of objects, in the number and type of errors in text composition, and in text copying tasks. However, in word dictation tasks, individuals with SW made fewer errors than the other two groups. They concluded that writing skills are not unattainable for people with intellectual disabilities.

These few studies increase the need for a greater research effort to find out what the written communication problems of students with intellectual disabilities are in order to implement specific interventions tailored to their needs. However, the difficulty of analysing and fully understanding the global process of written composition and the relevance given to reflecting on writing (Hayes, 1996) made this research focus on the cognitive process of planning, considered as a central component of written expression (Llaurado & Dockrell, 2019; McCutchen, 2006).

2 | THEORETICAL AND RESEARCH CONTEXT

McVilly et al. (2008) have emphasised the importance of identifying both the contextual circumstances of the research and the method appropriate to that context. This research is framed within the cognitive model of writing by Hayes and Flower (1980), later modified by Hayes (1996, 2012), which understands written composition as a problem-solving process articulated around three recursive and interactive processes (planning, transcription and review), which are put into operation with the activation of different strategies (MacArthur et al., 1995).

The planning or reflection process (Hayes, 1996), the focus of this study, is perceived as the mental representation of the composition in which all the elements of the text (content, structure, and intentions) are synthesised. This includes the following sub-processes and operations:

1. Generate the content (ideas) of what is going to be written. Other processes associated with this operation are also identified such as the search for content in different sources and the recording of ideas.
2. Organise and structure the content according to the different discursive genres. Also associated to this operation we identified the selection and arrangement of ideas.
3. Formulate the objectives to control the act of composing the text. Along with this operation, we included considering the audience or potential readers of the text and the intentions or purposes of the writing.

On the other hand, taking into account the evolution of research on writing, a more qualitative approach has been chosen which focuses more on the cognitive processes of writing rather than its

products (texts). The process approach that this research assumes is essential in discovering the author's thought process, while understanding the difficulty involved in analysing processes not directly observable (Marinkovich, 2002). Its undoubted relevance for research lies in the fact that it allows an in-depth understanding of writing processes, given its explanatory and interpretive nature.

In this context, the objectives of the research were: (1) to check the abilities of students with unspecified intellectual disabilities to plan their texts; (2) to identify the limitations of these students in writing planning; (3) to propose didactic guidelines for improvement. However, in accordance with these objectives and given the exploratory nature of the study, the initial hypotheses were formulated as these basic questions: Do students with unspecified intellectual disabilities know and use the textual planning process? What cognitive strategies do they activate during the planning of a text? What difficulties do they recognise? What teaching guidelines are advisable?

3 | METHOD

The research is framed in the interpretive paradigm, through an eminently qualitative methodological approach with the collective case study technique. It involves the intensive study of several cases to explore or describe the educational phenomenon researched (Stake, 2020). However, this qualitative study has been initially aided by a quantitative analysis (Wegerif & Mercer, 1997).

3.1 | Participants

By means of intentional sampling, 15 students were selected (six males and nine females) with unspecified intellectual disabilities (mean age 15:04) from a specific centre, located in a city in southeastern Spain. The students had reading and writing skills similar to those shown by children who begin 3rd grade (8–9 years old) of Primary Education, as stated in their Academic Record, according to the scores obtained in the reading tests (Cuetos et al., 2014) and writing (Cuetos et al., 2018).

The students had a mild (IQ 50–69) or moderate (IQ 35–49) intellectual disability, diagnosed before 18 years of age and with limited adaptability (WHO, ICD, 2015 10, Version 2015). These students were selected according to the following criteria: (a) to be diagnosed by the Service of Educational Guidance of the Ministry of Education as persons with unspecified intellectual disability; (b) have sufficient verbal communication skills; (c) express desire to participate in the study; (d) have informed consent from their parents.

3.2 | Instruments

An interview guide (Table 1) was used to explore what knowledge students with unspecified intellectual disabilities had about the textual planning process. The underlying intention was for them to reflect on

TABLE 1 Interview guide

- Generating ideas

- (01) Before writing a text or an essay, what are you going to write?
 (02) When you begin to write, do you think of words that relate to the topic?
 (03) Where do you get your ideas: out of your head ...?
 (04) When begin to write, do you look for words or just the ones you remember?
 (05) Do you write them down somewhere?
 (06) The words or ideas that you remember, do you write them all or do you choose some?
 (07) Do you write down on a separate sheet what you want to put in the text, before writing it?
 (08) Do you use a formula to collect and order the ideas and not forget them?
 (09) At the time of writing, do you write what comes to your mind or do you take into account what you thought before writing?
 (10) When you write a text, do you find the right words to express yourself?
 (11) Are the words you finally write the ones you really wanted?
 (12) Do you know how and where to find new words and ideas to write?

- Formulation of objectives

- (13) Why do you usually write a text?
 (14) Before writing, do you think about the person who will read your text?
 (15) When you write, do you do it so that they understand you?
 (16) What do you want to achieve when you write a text?
 (17) What do you do to achieve that?
 (18) Where in the text can you notice it?

- Organization or structuring of content

- (19) Before writing, do you classify or order the ideas?
 (20) How do you get to write a text? How do you order the ideas? What do you do?
 (21) Why do you order them like this and not in another way?
 (22) Do you use any formulas or tricks to organize your ideas?
 (23) Do you think of the complete sentences or do you write them as they occur to you?
 (24) Before writing, do you think about the type of text: exposition, narrative ...?
 (25) Do you organize ideas and words differently depending on the type of text?
 (26) Do you follow any rules?

what they do when faced with the construction of a text. To do this, they were encouraged to express themselves freely with the intention of understanding their perception about the processes that they activate when they write.

As can be seen in Table 1, the questions are varied and allow for a wide range of answers, around mastery of writing planning skills (e.g., the question 'Do you think what are you going to write?' seeks to inquire about the writing subject; the question 'Do you think about the person who will read it?' asked about if they take into account the destinies of their writings; the question 'Do you think about the type of text?' Tries to find out if the students are aware that there are different textual typologies).

This guide for conducting the in-depth interviews was submitted to the consideration of three expert judges in writing, who unanimously determined the validity of its content according to criteria of representativeness and relevance of the items.

TABLE 2 Writing planning operations

Categories	Codes (±P)	Explanation (student's ability/inability to ...)
Generating ideas	±P1	... generate ideas that allow the construction of a text.
Audience	±P2	... think about the recipients or people who will read the text.
Objectives	±P3	... formulate the purposes or intentions of a text.
Source of ideas	±P4	... identify and select the resources from which to extract the contents of a text.
Selection of ideas	±P5	... selectively identify the main ideas of a text.
Ordering of ideas	±P6	... organize and properly sequence the ideas in a text.
Recording of ideas	±P7	... use instruments in which to write down the ideas (contents) of a text.
Textual structuring	±P8	... use the appropriate textual structure, according to the type of text.

3.3 | Procedure

The study was approved by the Ethics Committee of Vice President for Research and Transfer of the University of Granada (Spain). Student participation was voluntary, with the prior informed consent of the families.

Individual interviews were conducted in a suitable room at the school in late 2020. The duration was approximately 45 min. The interviews were conducted personally, after obtaining the authorization of the centre director and parents, as well as the consent of the participants. To this end, protective measures were put in place to prevent COVID-19 (e.g., physical distancing, use of masks, disinfection, ventilation). Previously, the principal investigator (PI) had various contacts with the participants until s/he gained their trust. During the interview, they were encouraged to freely express their perceptions about the strategies they use when faced with writing a text.

All the interviews were recorded with permission and transcribed verbatim by the PI, in order to perform the content analysis (Bardin, 1996; Krippendorff, 2004). Previously, the research's authors reviewed each of the interview transcripts to increase their veracity (Maclean et al., 2004).

3.4 | Data analysis

A deductive category system was established to reduce the data and organise the information, based on the theoretical model of writing that inspires this research (Hayes, 1996; Hayes & Flower, 1980). These categories were defined by operation to satisfy this studies' requirements (Table 2).

As can be seen in Table 2, each category (e.g., source of ideas) was encoded, represented by a capital letter (P), a number (4) and a value (\pm). It was coded with a positive sign (+) when the student declared that s/he was correctly performing the planning operation of writing and with a negative sign (-) when s/he stated that s/he did not perform this operation or did it improperly.

This category system was validated via a jury of experts and triangulation (Denzin, 2009; Merriam & Tisdell, 2016). Three expert researchers in written expression made their judgements according to various criteria (Bardin, 1996): completeness (categories cover the entire planning process), mutual exclusion (each recording unit cannot be included in more than one category), homogeneity (categories are defined according to the same principle of definition) objectivity (equanimity in the naming of categories), relevance (importance of each category for extracting information from interviews), and productivity (categories provide valuable results in information). To assess the reliability of the degree of agreement between the expert judges, the Cohen's kappa coefficient was calculated, which showed excellent reliability ($k = 0.97$).

Interviews were coded and independently categorised by four researchers. Then, through a cyclical and recursive process, the data was triangulated (Parameswaran et al., 2020) to provide greater consistency to the findings (Yin, 2011). Likewise, the number of responses for each category was computed, according to the assigned value (\pm), to perform the quantitative analysis.

4 | RESULTS

The results of the study were obtained mainly from the content analysis of the interviews, aided by the quantification of the value of the

responses. It should be noted, however, that since it is a collective case study, the number of frequencies (Figure 1) was calculated from the total number of responses (\pm) obtained from all students in the sample.

The quantitative analysis (Table 3) revealed that positive frequencies outweighed negative frequencies in most categories. This first approach to our object of study allows us to indicate that the interviewees carried out the planning process operations in 55.23% of the cases and that they admitted not doing it, or doing it inadequately, in 44.77%. Likewise, it was observed that the recording of ideas, textual structuring and ordering of ideas were the cognitive operations in which the interviewees found the greatest problems. As can be seen, the participants report a partial knowledge of the planning process. Although they are familiar with certain strategies for planning a text (e.g., taking the addressees into account), they also indicate that they are unaware of other strategies (e.g., textual organisation).

However, the quantitative analysis only provided a first approximation to the phenomenon studied. The main interest of this research is not in the quantification of the data but in the in-depth analysis of the interviews (I). To illustrate this interpretation, some literal statements from the students are listed below, ordered according to the research questions.

4.1 | Do students with unspecified intellectual disabilities participating in this study know and use the textual planning process?

In-depth analysis of the interviews revealed that these students were partially aware of the writing planning process, since they used the operations involved in the writing process in a discontinuous and irregular, even arbitrary, way.

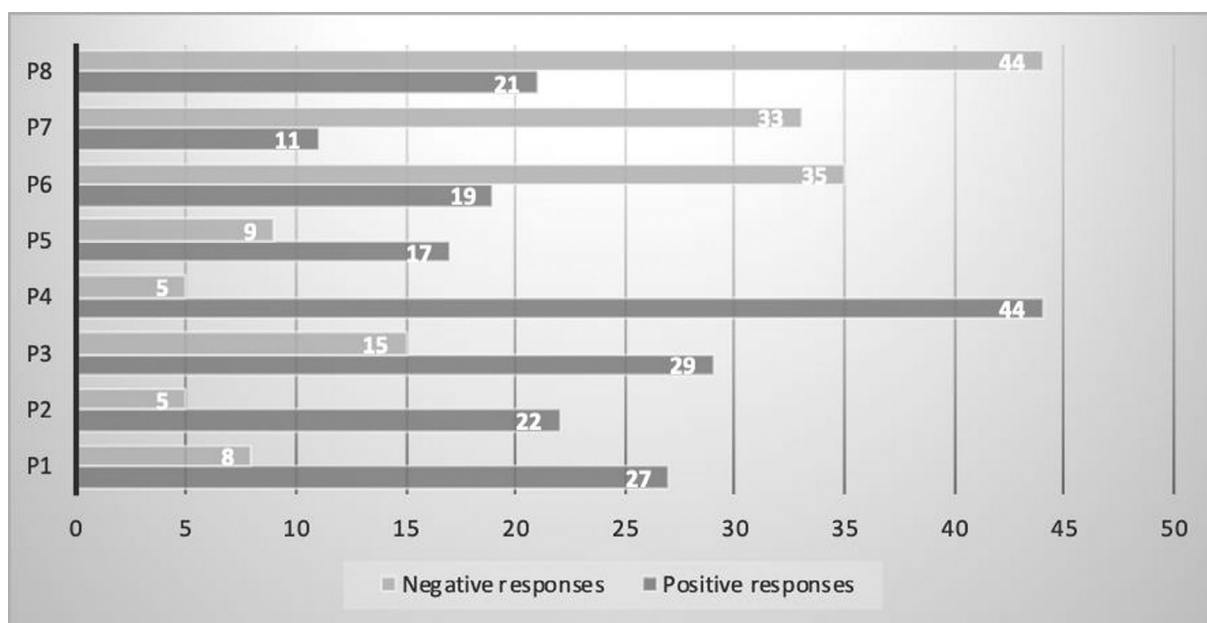


FIGURE 1 Planning frequencies (\pm)

Categories	Codes	Frequencies +	Frequencies -	Total ±	%
Generating ideas	±P1	27	8	35	10.17
Audience	±P2	22	5	27	7.85
Objectives	±P3	29	15	44	12.79
Source of ideas	±P4	44	5	49	14.24
Selection of ideas	±P5	17	9	26	7.56
Ordering of ideas	±P6	19	35	54	15.70
Recording of ideas	±P7	11	33	44	12.79
Textual structuring	±P8	21	44	65	18.90
Total		190	154	344	100

TABLE 3 Planning category frequencies

- Researcher: Before writing a text, do you think about what you are going to put?

- Informants: *I really don't know how I do it (I07). I write what comes to mind (I06). I write slowly while thinking (I05).*

- Researcher: Do you always think about the person who is going to read your text?

- Informants: *Not always, always, I don't think it is necessary (I01, I14). It's true that sometimes I remember to, but sometimes I don't remember (I04).*

- Researcher: When you write a text, what do you want to achieve?

- Informants: *Well, I don't know, I haven't thought about it, but it must be well presented (I03). I don't know, I don't think about it, I write what they send me and I don't like crossing things out (I05). I carefully write my handwriting so that it turns out well (I07).*

- Researcher: When you are writing a text, do you write what you had thought or what comes to mind?

- Informants: *I don't really know how I do it (I04). Sometimes I write, sometimes I think a little, sometimes I look at the book, everything (I08).*

- Researcher: Do you classify or order the ideas you are going to write in some way?

- Informants: *I order them mentally (I13). No, no (I02, I06), it is not necessary (I03, I07).*

4.2 | What cognitive strategies do they activate during the planning of a text?

The qualitative analysis revealed that students with unspecified intellectual disabilities mostly highlighted the importance of generating ideas to write a text.

- Researcher: Before writing a text, what are you going to write?
- Informants: *Yes, of course, I think about it and I pay attention to my teacher (I08). Always, so as not to write without knowing what to put (I02). You always have to think before writing to know what to put (I04). I like to think about what I am going to write and then write it (I09). If you do not take into account what you are going to write ... surely you are wrong and you do it wrong and then the teacher ... (I14).*

Likewise, and in a majority way, the interviewees stated that they wrote while thinking about the recipients of their texts, trying to

accommodate them. Some of the responses even indicated, implicitly or explicitly, the recipient of the writing. Exceptionally, some of the interviewees admitted ignoring potential readers, perhaps because they do not value the importance of the audience.

- Researcher: Before writing a text, do you think about the person who is going to read it so that he or she understands you?

- Informants: *Yes, yes, always (I01, I04, I09), if not they will tell you that you are not paying attention (I10). Of course, yes, that's what s/he tells us, that we have to think about many things and know who we are writing to (I14). You have to think about what you are going to tell them (I15). I always try to be understood by my teacher, so s/he tells me that it is okay (I12). Nor is it so necessary (I01).*

These students have also admitted a great variety of objectives in the preparation of their writings: get a good grade, express personal experiences, write good writing, have fun or be entertained.

- Researcher: When you write a text, what do you want to achieve?

- Informants: *Do the best I can (I02), do it well and without faults, otherwise... (I06). I always like to get a good grade and do well (I11). Telling things that have happened to me and that is how I remember it and I have a good time (I15).*

It is surprising that several responses are motivated by the demands of the social conventions of writing. A special concern was observed with the more formal aspects of the text, such as handwriting, spelling, margins, etc.

- Researcher: What do you want to achieve?
- Informants: *Not to put spelling mistakes (I06, I12). I like to do it very clean and very well (I14).*

It was also discovered that, commonly, these students generated the ideas of their texts using their own imagination, the Internet, consulting some books or asking people around them.

- Researcher: Where do you get the ideas to write an essay?
- Informants: *From many places, from my head, from the computer (I04). I always remember things and write them (I06). Well, from books that we have (I07), I look at a book (I15). Since I read, later I remember what I read (I11). I always search on the computer (I12).*

The interviewees suggested that the selection of ideas that they included in their texts were the result of their thoughts, although this was not always the case. Responses were also found in which the ideas that other people around them can provide are welcome.

- Researcher: When you are writing a text, do you write what you had thought or what comes to mind?

- Informants: *I write everything, if it doesn't come out too small and s/he tells me to put more (I01). Not everything, maybe I won't write it down, I say I'm going to put this and I'll put it, because my friend told me (I03). When I know a lot, I put what I think is best (I08). Well, what I think, what occurs to me, what they tell me... (I10).*

Accidentally, some responses revealed the simultaneous execution of two cognitive operations ('selection of ideas' and 'recording of ideas').

- Researcher: Do you write all the words you can think of or just a few?

- Informants: *I look at what I have in my rough draft and I write it down (I14). Since I think about a lot of things, then I write down what is important (I15).*

4.3 | What difficulties do they recognise?

From the participants' statements, the main writing difficulties revolve around writing plans, the generation and organisation of ideas and textual structuring. Indeed, the qualitative analysis revealed the low importance that the interviewees gave to ordering of ideas for the general structure of the text. The frequency of negative responses demonstrates this. Although some students declared to organise their speech globally before writing it, most of them answered negatively or evasively.

- Researcher: Do you classify or order the ideas you are going to write in some way? How do you order them?

- Informants: *The truth is that I don't dedicate time to that (I05). What is the use of doing that? (I09). You have to do homework without wasting time (I08). Well, I don't do that (I14).*

At times, it was found that these students wrote the ideas as they came to their minds, streams of thoughts without paying attention to other considerations. At times, there was even a slight disdain for the use of this strategy.

- Researcher: When you write a text or an essay, do you follow any order?

- Informants: *That doesn't worry me (I05). I write it straight through, as I see it coming (I10). You don't need to think so much, I just write... (I15).*

It was also found that the interviewed students avoid the use of drafts when faced with the writing of a text. They justify this decision because they understand that it is an irrelevant strategy, that it is a waste of time. They probably trust their imagination too much.

- Researcher: Before writing a text, do you write down the ideas on a sheet or draft?

- Informants: *No (I01, I04, I08), I don't need to (I07, I10). I think about it and write it (I12). I don't do that and it works out for me (I13). I don't usually write anything down, what for? (I14). This wastes a lot of time (I11, I15).*

Rarely did the interviewees admit to organising the ideas of their texts previously.

- Researcher: Do you classify or order the ideas you are going to write in some way?

- Informants: *Yes, this makes it less difficult for me to do it (I01). Sure, I order them the best I can and then I write (I04).*

Also, exceptionally, some responses admitted the importance of the use of drafts or writing plans to construct a good text.

- Informants: *It is important to write a rough draft and then you look at it and it comes out better (I03).*

It was also found that, in general, these students were unaware of the importance of discursive genres in constructing a quality text, although some have declared without much conviction that they organised their ideas taking into account the type of text they planned to elaborate.

- Researcher: Before writing a text, do you think about what kind of text you are going to write? For example, narrative, descriptive...

- Informants: *I don't know (I01). I always write a story (I02). I write and that's it, and then I check to see if I've done it right (I04). I don't need to (I07). I always write what I think, but quickly in order to finish (I09). I always write in order (I11), I order the paragraphs (I13). I order it from top to bottom (I14). That is very difficult, you have to write the best you can but without taking too long... (I15).*

Likewise, they do not admit to using mnemonic rules that help them remember the canonical structure of a text.

- Researcher: Do you follow any rules that help you remember the parts of the text?

- Informants: *No (I01, I02, I05, I06). Sometimes I think a little and write (I03). And what is that? (I08). I don't know (I10), I don't understand (I13).*

In the same way, in their statements, at times doubts arose about how to go about achieving goals. Even some students declared not being aware of the intentions or objectives that guided their writing.

- Researcher: And what do you do to achieve that?

- Informants: *I don't know (I09), I don't remember exactly what I do (I10). The truth is that I am not clear (I03).*

5 | DISCUSSION

This study explored the abilities and limitations of students with unspecified intellectual disabilities when planning a text. Although the data was obtained from a small sample, the findings are valuable in that they allow us to infer explanations, which are of value since they come from the students' own statements. A good way to hear a person's voice is to listen to their own stories to find out how these students cope with writing planning (Edwards & Jones, 2018), information that is extremely useful for making decisions in school.

However, to understand the scope of this collective case study, with an eminently qualitative approach, it is necessary to answer the questions initially posed.

Question 1: Do students with unspecified intellectual disabilities participating in this study know and use the textual planning process?

In general, students with unspecified intellectual disabilities exhibit insufficient knowledge of the planning process. In effect, they

agree to an unequal handling of the strategies that favour the construction of a text, and even admit to ignoring some of the operations inherent in the planning of writing. The finding agrees with previous studies (Belva et al., 2012; Gallego, 2008; Gallego & Rodríguez, 2016; Riaño, 2012; Varuzza et al., 2015), in which problems were detected in written communication skills, in general, and in the use of some planning strategies (e.g., textual structuring). But these findings are not exclusive to students with intellectual disabilities. Planning difficulties have also been observed in samples of children without intellectual disabilities (Graham & Harris, 2005; Olinghouse, 2008; Ramos et al., 2005).

Question 2: What cognitive strategies do they activate during the planning of a text?

The study revealed that these students, as already pointed out by other previous investigations carried out with other students with intellectual disabilities (Gallego, 2008; Gallego & Rodríguez, 2016), admitted using certain planning strategies to face the elaboration of a text. Commonly, they tend to think about the recipients of their texts and turn to different sources from which they extract ideas to enrich their writing, driven by very different objectives, among which is their excessive concern with the social conventions of writing. Perhaps because people with intellectual disabilities adopt similar strategies to compensate for other cognitive abilities (Palmqvist et al., 2020). However, while students with intellectual disabilities of different phenotypes usually respect some logical sequence in the preparation of their texts, the participants of our study declared that they were ignorant of this strategy.

Question 3: What difficulties do they recognise?

Finally, our student statements revealed the difficulties they encounter in planning a text. It is worth noting the lack of importance they attach to writing plans or the proper organisation of ideas in their writings. This discovery is consistent with the data obtained by other researchers (Banikowski & Mehring, 1999; Gallego, 2008; Gallego & Rodríguez, 2016), although students with Down's syndrome also exhibited difficulties in selecting the main ideas of their texts. According to previous studies, our students acknowledge having limitations in generating ideas or connecting them to previous experiences, using different textual structures or controlling the writing process (Banikowski & Mehring, 1999; Riaño, 2012). These findings have also been observed in previous studies conducted with groups of subjects without intellectual disabilities (Arroyo & Salvador, 2005; Dockrell et al., 2007; Newcomer & Barenbaum, 1991).

Question 4: What teaching guidelines are advisable?

Based on the results obtained, further research into aspects related to the organisation of ideas in a text seems advisable to help learners learn to think. The importance of ascertaining students' knowledge of the diversity of textual structures, as well as the relevant role that drafts or writing plans have in producing quality texts, should also need to be stressed. The difficulty of inquiring into the psychological processes of writing through the thinking aloud of each student justifies a greater research effort in this field. However, it will be worthwhile as it will help to provide new data to meet the specific writing needs of students.

However, we must recognise some limitations in this research. First, the lack of a control group threatens the internal validity of the results, although the methodological rigour of the study allows for reliable considerations. Second, the peculiar characteristics of the case studies and the small number of participants advise against generalising the results. Third, participants may have had difficulty answering open-ended questions and providing less detail in their descriptions. Aware of the challenge of obtaining data, it seemed appropriate to take advantage of the technique called 'thinking aloud' (Emig, 1971)—very useful to capture what is going on in the writer's mind when performing writing tasks (Hayes & Flower, 1980)—, but giving some clues in the form of questions to facilitate the answers. Even so, it is likely that students do not have a comprehensive knowledge of the planning process, which may sometimes favour poorly thought-out statements with little richness of information to accurately infer which writing strategies they use. Fourth, the lack of studies on the written expression of students with intellectual disabilities compromises the discussion of the results. Finally, some of the statements of the interviewees may not accurately reflect the strategies they use during the writing of a text. Evoking the writing process, bringing to memory what happens when writing is complex. Writing is not only indebted to the management of cognitive skills, it is also indebted to the metacognitive knowledge that the writer possesses in order to perform the task effectively (Flavell, 1996). But the self-regulation of the writing process is complicated, given that schoolchildren could easily evoke certain strategies or skills, which they then do not use when executing a specific task. Therefore, although the findings are suggestive, the data must be taken with due caution, because what they actually do when they write has not been contrasted with what they declare they do. In this sense, research on learning to write faces an essential challenge, derived from the difficulty of analysing processes that are not directly observable, but clearly implied in their learning, which take place on the mental plane (Sturm, 2016). Finally, only gender and IQ were collected as sociodemographic variables. Consideration of other variables (e.g., single-parent versus two-parent household; family income) would have contributed to a better understanding of the characteristics of the participants. Evoking the writing process, bringing to memory what happens when writing is complex. Writing is not only responsible to the management of cognitive skills, it is also responsible to the metacognitive knowledge that the writer has to effectively perform the task (Flavell, 1996). However, the self-regulation of the writing process is complicated, given that schoolchildren could easily evoke certain strategies or skills, which they then do not use when executing a specific task. Therefore, although the findings are suggestive, the data should be taken with due caution, because what they actually do when they write has not been contrasted with what they actually declare they do. In this sense, research on learning to write faces an essential challenge, derived from the difficulty of analysing processes that are not directly observable, but clearly involved in their learning, which take place on the mental plane (Sturm, 2016). Finally, only gender and IQ were collected as sociodemographic variables. Consideration of other variables (e.g., single-parent household versus

household with both parents; family income) would have contributed to a better understanding of the characteristics of the participants. Future research should complement the analysis of this or other writing processes, using larger samples and randomly chosen control groups, as well as contrasting the students' statements with their own texts (writing products). In any case, analysing the characteristics of the written expression of students with special needs is essential in designing differentiated teaching (Rousseau, 1990).

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[Corrections added on 24 March 2022, after first online publication: Acknowledgement section has been updated in this version.]

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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