Learning difficulties: A Portuguese perspective of a universal issue

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Abstract

In this article we present findings of a study that was conducted with the purpose of deepening the knowledge about the field of learning difficulties in Portugal. Therefore, within these findings we will discuss across several cultural boundaries, themes related with the existence of learning difficulties as a construct, the terminology, the political, social and scientific influences on the field, and the models of identification and of ongoing school support for students. While addressing the above-mentioned themes we will draw attention to the different, yet converging, international understandings of learning difficulties.

Introduction

The term *learning disabilities* was coined in 1962 by Samuel Kirk in an introductory special education text book (Kirk, [1962](#)). One year later, he suggested it again when addressing a group of concerned parents and educators, with the intention of describing a group of school-aged students who did not fit into any of the then current categories of exceptionality in the USA, but who needed ongoing school support (Correia, [1992](#); Hallahan & Mock, [2003](#)). It was an attempt to shift attention towards students' educational needs (Kirk, [1962](#), [1963](#)) and to provide parents and professionals with some common basis of understanding regarding a concept that nowadays describes students who, despite having normal intelligence, have learning and cognitive disorders that are intrinsic to them and that are not primarily due to other conditions such as sensory deficits, intellectual disabilities, emotional and behavioural disturbance or a lack of learning opportunities (Bradley, Danielson, & Hallahan, [2002](#); Tarver & Hallahan, [1976](#)). The term learning disabilities was then immediately accepted (Lerner, [2000](#)) and, as a result, a new political and educational movement was initiated in the USA (Hammill, [1993](#); Kavale & Forness, [1995](#); Kirk, [1981](#)). Throughout the years, similar concepts emerged in other countries due to the cross-cultural nature of learning disabilities (Lerner, [2000](#); Lloyd, Keller, & Li-yu, [2007](#)). As a result, literature published in Europe, Australia and the USA, as well as comparative research that has been conducted, has showed differences in the terminology, definitions and school support from country to country (i.e., Bravo-Valdivieso & Muller, [2001](#); Correia & Martins, [2007](#); Elkins, [2001](#), [2002](#); Fonseca, [1996](#); Gunther, [2001](#); Klassen, [2002](#); Lundberg & Høien, [2001](#); Masayoshi, [2001](#); Oakland, Mpofu, Grégoire, & Faulkner, [2007](#); Ryan, [2007](#); Stevens & Werkhoven, [2001](#); Thygesen, [2007](#); Vianello & Moniga, [1996](#); Vogel, [2001](#); Wedell, [2001](#); Wong & Hutchinson, [2001](#)). Additionally, literature and research reviews have showed that even when the terminology is the same, conceptual and operational definitions may differ and that in the same country the same terminology is used with different meanings (Oakland et al., [2007](#); Sideridis, [2007](#); Vianello & Moniga, [1996](#); Vogel, [2001](#)).

In Portugal, learners with learning disabilities have been associated with the term *learning difficulties* since 1984, when the first scientific manual on this subject written by a Portuguese author was published. His choice of terminology did not have either political or scientific backing. In fact, the author followed the American concept of learning disabilities, but translated the term *disabilities* as *difficulties* because in Portuguese the word *disability* does not sound semantically adequate when associated with the word *learning*. Currently in Portugal, 27 years after the publication of the first edition of this book, the term *learning difficulties* is present in the lexicon of the educational community, as well as in different scientific publications and in official documents of the Ministry of Education. However, the term *learning difficulties* has been associated with a broader and a stricter meaning among these professionals and organizations (Correia & Martins, [1999](#); Martins, [2006](#)). Analysing the use of these terms and the concept that was associated with them, Correia and Martins ([1999](#), [2007](#)) pointed out that in a broader sense, it has been used synonymously with academic failure, while in a stricter sense the term means a specific disorder of learning in one or more academic areas that arise from intrinsic factors and result from neurobiological deficits. Therefore, this has led to both misunderstandings regarding theory and research and to a total lack of implementation of adequate support programs in Portuguese schools. According to Correia ([2005](#)), we must rectify this chaotic state of affairs and provide legal protection for those students with learning difficulties who may require specialized attention and services. Otherwise those students will continue being neglected by the Education system and, thus, will experience the burden of educational, social and political indifference from the very first years of their lives. To shed light on the definitional and terminological problems related to learning difficulties, the purpose of our study was to systematize and deepen the knowledge concerning the Portuguese field of learning difficulties. We aimed to describe, understand and explore the educational theorists' experiences concerning the field of learning difficulties and the meaning they give to that experience with respects to: (1) the existence of learning difficulties as a construct, (2) the terminology used, (3) the political, social and scientific influences on the field and (4) the models for identification and school support for students.

Methodology

Participants

Seven Professors from five Portuguese universities, whose ages ranged from 45 to 70 years were selected from among other university Professors who were teaching in the field of psychology, teacher training and special education. This selection was based on their experience in teaching units of learning difficulties in undergraduate or in graduate education programs, publishing papers and books, carrying out research and of being members of national and/or international networks related to learning difficulties. Therefore, all participants were selected based on their experience and status, which allowed them to address the themes in the study in a comprehensive and all-embracing way (Creswell, [2002](#); Krathwohl, [1998](#); Lincoln & Guba, [1985](#); Patton, [2002](#)). By selecting university Professors with different professional backgrounds and personal experiences, it was accepted that different realities may lead to different understandings of learning difficulties. Additionally, it would allow us to map the scientific knowledge related to the field of learning difficulties that was being disseminated to Portuguese educational professional by the participants.

Data collection instruments

The first author of this paper gathered data by standardized open-ended interviews (Patton, [2002](#)) and documents, that is, the researcher took into consideration not only that which the participants expressed orally, but also that which they wrote. The purpose of the questions was to allow the researcher to understand the kind of terminology participants use, the judgments they make and to capture the complexity of their perceptions and experiences (Patton, [2002](#)). The interviews lasted on average one hour and took place in settings previously established and chosen by participants. The researcher also used participants' public documents, such as doctoral theses, books, articles, brochures and syllabi from units related to the field of learning difficulties, as well as documents such as handouts and transparencies. These documents were obtained by searching databases in the libraries of the universities where the participants were Professors, as well as in private libraries (Cooper & Hedges, [1994](#)). These documents complemented the interviews and constituted another important data gathering source.

Data analysis

All interviews were tape-recorded since that would provide a more faithful reproduction of the participants' own words (Seidman, [1998](#)). Additionally, it would make it possible for the researcher to give greater attention to the meaning and the 'emotions' contained in the verbal and non-verbal communication process established during the interview (Silverman, [2000](#)). After data collection, the interviews were transcribed so it would be possible, when presenting the results, to respect as much as possible the participants' original words, including the silences, interruptions, laughter and the intonations used during the interviews, which so often reflected the feelings and the meaning of that which the participants intended to convey. The transcription of the interviews to written language was made as they were being carried out. Although this process was very time-consuming and, at times, laborious and fastidious, it revealed itself as a fruitful opportunity because it allowed the researcher to plunge into, and become familiar with, the data being analysed (Patton, [2002](#); Silverman, [2000](#)) and, at the same time, it made it possible to select aspects that should be added or clarified later. The first author of this paper reduced and inductively and deductively analyzed the data, which was then synthesized and reported in order to reflect the themes of the study. A seven-case study format that was written in a factual analytic level, using the natural language of the participants as much as possible, was firstly used. Secondly data was presented in a cross case format in which similarities and/or differences between participants' perspectives were pointed out and interpreted within the context of national and international research and debate.

Establishing trustworthiness

In order to obtain a high credibility of the final results, we applied the techniques of data sources triangulation and peer debriefing, elaborated a reflexive diary, conducted member checks and described the context of the study in an extremely detailed manner, which implied descriptions of participants' personal and professional backgrounds and interests in order to provide a data base that makes transferability judgments possible (Guba & Lincoln, [1989](#); Lincoln & Guba, [1985](#)).

Results

The knowledge that we obtained from data collection and analysis is synthesized and reported in the following paragraphs in order to reflect the themes of the study. Additionally, this knowledge will be discussed across several cultural boundaries, while drawing attention to the different, yet converging, international understandings of learning difficulties.

1. The existence of the learning difficulties as a construct

None of the Portuguese participants questioned the existence of learning disabilities, which implies that there was an absence of post-modern visions. In fact, participant's perspectives were in contrast to the notion that learning difficulties are a function of social, political and educational demands. Assuming the existence of a construct on the part of the scientific community could direct us to the elaboration of an official conceptual definition, which, according to the participants, should include the following components: neurological dysfunction, individual life-span, academic deficits (reading, writing and math), discrepancy between ability and achievement, intra-individual differences and the exclusion of other kinds of special educational needs or disadvantages.

The seven participants used the term *learning difficulties* synonymously with *learning disorders*, *learning disabilities*, *learning problems* and *severe learning problems* to describe students with essentially the same characteristics. Despite the fact that this diversity of terminology exists, there is no unanimity between participants regarding the need to establish a singular term by which to designate this construct. On the one hand, one can put forward a strong argument that in order for a new term to hold legitimacy, it must be better than the existing one, which means it must add more information and something new in order for it to be accepted with the minimum of opposition (Algozzine, [1985](#)). On the other hand, a new term should arise considering that if it is used to refer to a concept for multiple purposes, it should refer to a single entity, allow for a differentiation from other concepts, enhance communication, represent current knowledge and be robust enough in its operationalization (Luckasson & Reeve, [2001](#)). As a result, we suggest that the term *specific learning difficulties* be used in order to describe a group of children who have *specific* learning and cognitive difficulties due to neurobiological dysfunction. *Specific learning difficulties* would meet the above-mentioned criteria and additionally would (1) underlie the fact that *learning difficulties* are specific in the sense that each of these disorders of learning and cognition significantly affect a relatively thin range of academic and performance outcomes (Bradley et al., [2002](#)) as students respond to school and community demands, (2) be restricted to those students whose response to research-based multi-level general education interventions is dramatically inferior to that of class peers (Fuchs, [2002](#)), (3) remind us that there is a small group of students whose learning problems have an intrinsic etiology (Elkins, [2007](#)) and (4) be relevant and less stigmatizing in educational settings and, at the same time, underline the potential severity of this type of academic failure (Algozzine, [1985](#)).

In reference to international terminology associated with this concept, the above-suggested term would be synonymous to the terms *instrumental disabilities* from Belgium, *specific learning disabilities* used in USA legislation, *learning disabilities*, the Canadian term, the *specific learning difficulties* terminology used in the UK and *learning difficulties* and *learning disabilities* used in Australia (Department for

Education and Skills, 2005; IDEA, 2004; Klassen, [2002](#); Louden et al., [2000](#); Oakland et al., [2007](#)). In this last-mentioned country, school systems or school sectors do not generally distinguish between *learning disabilities* and *learning difficulties*. However, in Queensland, an attempt has been made to reserve the former term for a small group of students with literacy and numeracy difficulties with a neurological basis (Elkins, [2007](#); Louden et al., [2000](#)), while the term *learning difficulties* has been used to describe those students who had limitations in accessing the academic curriculum due to short- or long-term problems in one or more areas of literacy, numeracy and learning how to read (Purdie & Ellis, [2005](#)).

2. The political, social and scientific influences on the field of learning difficulties

In Portugal, from the perspectives of the seven participants, the field of learning difficulties is, in essence, more theoretical and scientific than social and political. In fact, unlike what happened in the USA, where in the early-1960s parents organized in associations established the advocacy for funding and legislation for learning disabilities programs (Hallahan, Lloyd, Kauffman, Weiss, & Martinez, [2005](#)), or in Australia, where in 1965 a group of remedial teachers from Melbourne started the field (Jenkinson, 2006a), in Portugal the field was started in the early-1980s by the actions of a researcher who became interested in it due to the influences of Helmer Myklebust and Doris Johnson. Since then, it has been influenced more by researchers, who have provided a contribution to the diffusion and possible scientific advancement of this field according to their academic training, interests and professional duties, than by others. The social context can be understood as the action taken by the members of Portuguese society, especially the parents of students with learning difficulties. This action, which should lead to intervention and social advocacy on the part of the government in order for those students to benefit from an education tailored to their characteristics and needs, was referenced by one of the participants as not being a tradition in Portugal due to its permissive cultural patterns. Two of the participants mentioned that the Portuguese Association of Dyslexia, which was formed by parents and professionals, could promote more public awareness as well as advocacy in the defence of the rights of people with learning difficulties. These actions would then be similar to those observed in the international context, which is characterized by the initial and present efforts of professionals and parents organized in associations to put forward comprehensive definitions, effective educational programming, teacher training, advocacy and public awareness (Hallahan et al., [2005](#); Jenkinson, [2006a](#), [2006b](#)).

When mentioning the political context, we are considering the government's involvement in the effort to promote research and to develop adequate educational policies that help create equal opportunities to those students with learning difficulties. Participants in this study were unanimous, suggesting that the lack of governmental involvement in the design of coherent and scientifically grounded policies have significantly contributed over the years to a slow evolution in the field of learning difficulties, particularly regarding specific support for students in public schools. Internationally, when governments became interested in learning difficulties, they started to come to grips with the recommendations regarding its concept and operationalization, identification and assessment procedures, intervention characteristics and the provision of resources to support students in public schools (Graham & Bailey, [2007](#); Hallahan & Mock, [2003](#)).

The influence of the ideas of several international and national researchers (Correia, [1991](#); Fonseca, [1984](#), [1999](#); Kauffman, Hallahan, & Lloyd, [1998](#); Kavale, [1988](#); Kavale, Forness, & MacMillan, [1998](#)), along with our findings of unanimity on the importance for the growth of this field of governmental and civic involvement, lead us to conclude that in Portugal there is the need to find solutions that reach a balance among the scientific, social and political contexts. Such a balance would then maximize the understanding of what learning difficulties are and thus provide us with the opportunity to design effective educational practices.

3. The identification model of students with learning difficulties

In this study, the participants' perspectives of the concept of learning difficulties led to six different combinations of criteria for identification. Although several participants referred the same criteria, there was great variability in its combination, thus giving rise to the identification of a multiplicity of students with the most diverse learning characteristics.

Participants were reluctant to use formal standardized tests to identify students and did not agree with the use of a mathematical formula or of cut-off scores to determine eligibility for support. Still, one of the participants suggested the use of achievement standards for reading, writing and math for each school year to assess the Portuguese student population. However, he recognized the lack of receptivity of the agents involved in the educational context and the need to design formal instruments for this purpose.

Regarding the use in Portugal of a model of identification based on clinical diagnosis, we should highlight the fact that a clinical judgment is always considered a critical component in any educational system, regardless of the model of identification adopted, which implies that it should be exercised with the utmost responsibility and that teacher training and in-service professional development programs must address clinical judgment skills (Bradley et al., [2002](#)).

Today, due to the movement to include students with special needs in regular schools, many of the premises we have mentioned above are indispensable when one wants to implement an adequate system of identification for students with learning difficulties. In conclusion, although it is necessary to empirically evaluate which of the participants' perspectives would be more appropriate to the Portuguese reality, it is important to bear in mind that the absence of a system of identification makes it difficult to understand the nature of learning difficulties, inhibits decisions concerning the directions to follow in terms of organization and promotion of intervention, hinders communication between professionals, keeps attention away from the students' situation and prevents research (Ariel, [1992](#)).

4. The model for school support for students with learning difficulties

According to the participants, the existence of an ongoing school support system benefits not only students with learning difficulties and their families, but also society. However, their conceptualization of this support varies considerably with respect to: (1) the environment where the support should be provided – in or outside the regular classroom, (2) who should be responsible for the organization and provision of this support – a classroom teacher, a tutor, a special education teacher or a team of professionals and (3) the kind of training that those professionals receive in order to provide adequate and specialized support – in special education, learning difficulties or

in reading. Alongside these differences of perspectives towards specialized support, the participants still mentioned: (1) the need for the educational system to focus on the prevention of school failure, (2) the importance of implementing early intervention programs, (3) the need for students with lower academic and behavior achievement to benefit from a support system, (4) the complex scenarios that arise when the regular classroom teacher has to deal with the diversity of cultural backgrounds, the personal and academic needs and the emotional and behavioural characteristics of students; (5) the difficulty that the regular classroom teacher encounters in the implementation of individualized specific support to those students with learning difficulties and (6) the need for the educational system to be evaluated regarding its efficiency in adequately supporting students with learning difficulties, as well as their families.

Discussion

These diverse opinions allow us to hypothesize that there is no generalized understanding among these participants of what kind of support system should be implemented for students with learning difficulties and what is understood as special education. With respect to an adequate and effective support system, many researchers, both national and international, defend the implementation in schools of multi-level models that progressively implement more intensive interventions, making it possible in a more direct and explicit way to diminish the academic and behaviour needs of students with learning difficulties (Bradley et al., [2002](#); Correia, [1997](#); Lane & Beebe-Frankenberger, [2004](#)). Specifically, Portuguese schools can implement a multi-tier intervention approach, which has been proposed, recommended and used by different educational systems and researchers studying methods to better identify and support students with learning difficulties. For example, in Australia a three-wave literacy instruction has been used for many years in schools as a flexible and responsive approach to early identification, intervention and support for students with significant reading problems (Graham & Bailey, [2007](#)). The first intervention level is high-quality classroom programs, the second is early interventions recovery reading or mathematic programs and the third is ongoing support for those students in the middle and upper primary years who have persistent difficulties and need severely time-limited support (Elkins, [2007](#)). Also, in the USA a *multi-tier response-to-intervention* approach has been applied. In this case, the first level of support again focuses on preventing academic and behavioural problems from occurring by providing all students with classroom instruction based on scientific research and by screening students' academic performance at least three times a year (Fuchs, Fuchs, & Speece, [2002](#); Vaughn, Wanzek, Woodruff, & Linan-Thompson, 2007). Tier two is designed to meet the needs of those students for whom classroom instruction is not sufficient to meet their needs and, as a result, present a level of performance and a rate of improvement (dual discrepancy) dramatically below those of their classroom peers (Fuchs, Fuchs, & Speece, [2002](#)). To promote the academic and behaviour progress of these students, an additional, intensive and small-group instruction is provided on a daily basis with the aim of supporting and reinforcing the skills being taught by the regular teacher within the classroom. Students who continue to show dual discrepancy in acquiring necessary academic skills after this type of intervention enter a tier-three support group, which involves an extended specialized intervention plan, characterized by instruction that is more explicit and intensive and specifically designed to meet their individual academic and behaviour needs (Fuchs & Fuchs, [1997](#), [1998](#); Gresham, [2002](#); Vaughn, Wanzek, Woodruff, & Linan-Thompson, [2007](#)).

The advantages of this multi-tier approach include: (1) early identification and intervention, (2) reduction in the number of students with academic failure, (3) the use of evidence-based instruction in the classroom, (4) the existence of a link between student assessment and instruction, (5) the increase of responsibility for the regular education teacher, (6) the increase of collaboration between professionals and families, (7) the diminishing of bureaucracy, (8) close attention to students' outcomes and needs, (9) the decrease of false positive cases and (10) the reduction of bias in the referral process (Fuchs, [2002](#); Fuchs, Fuchs, & Speece, [2002](#); Graham & Bailey, [2007](#); Grimes, [2002](#); Vaughn, [2002](#); Vaughn et al., [2007](#); Vellutino, [2002](#)).

Since the establishment of the 2004 reauthorization of the Individuals with Disabilities Education Improvement Act in the USA, the response-to-intervention approach can be used by schools not only as a way to support students with academic failure, but also as one of the several procedures for identifying students with specific learning disabilities. It is intended to be used as an alternative for the IQ-achievement discrepancy model, which was considered by researchers to have little empirical justification and contested by parents and professionals (Hallahan & Mercer, [2002](#)). Although, the response-to-intervention approach is far more promising than the IQ discrepancy approach, there are several concerns related to its effectiveness. In fact, the work that has been developed with schools as well as research is showing the challenges that educators are facing as they attempt to make response-to-intervention approaches a reality (Bryant et al., [2008](#)). Some of these concerns are: (1) the existence of appropriately trained personnel as well as physical resources, (2) the knowledge that is necessary to implement a response-to-intervention approach across age and academics, (3) the identification and verification of the implementation of validated and highly effective interventions, (4) the relationship between response-to-intervention and the multiple curriculum found in schools, (5) the costs added to the school system, (6) the inclusion of institutional as well as teacher variables, (7) the adequacy of screening and progress monitoring measures that are used, (8) the change in the roles of teachers and (9) the integration of secondary interventions into the school daily schedule (Fuchs, [2002](#); Gerber, [2003](#); Graham & Bailey, [2007](#); Margolis, [2012](#); Mastropieri, [2003](#); Vaughn, [2002](#)).

An examination conducted by Hughes and Dexter ([2011](#)) of published field studies on the effectiveness of the entire response-to-intervention approach concluded that: (1) students' academic results showed some level of improvement, (2) that most of the research was conducted in early reading and math skills, (3) that almost no research was carried out in higher-level reading or math skills, writing, science or social studies research and (4) that overall rates for special education referral and placement remained fairly constant, with only a few studies showing a small decrease in those rates. The results also show that the existence of extensive and continuing professional development, administrative support, teacher buy-in and sufficient coordination meeting time are factors that support development and sustainability of response-to-intervention approaches. The authors of the study also underlined that more research with better designs is needed to assist professionals who apply this approach.

Conclusion

Our study highlights the universal issues regarding the existence of learning difficulties as a construct, the terminology, the political, social and scientific influences on the field and the models of identification and of school support for students. Apart from the replication to which this study could be subjected, there are other issues needing further research. For example: (1) seeking to realize the impact of the different models of

identification and support on the characteristics of identified students, (2) investigating in what way students with learning difficulties are distinguished from those who exhibit academic failure, (3) examining the impact of different interventions on the academic success of students with learning difficulties and (4) developing and researching evaluation tools as well as effective intervention programs. Therefore, based on the results of this study, we recommend that other groups besides university professors be heard, particularly those constituted by parents and professionals, who can play a critical role in getting lawmakers and the general public to respect and protect the rights of individuals with learning difficulties.

Moreover, taking into consideration that the advances in the knowledge of learning difficulties are the result of a careful, systematic and persistent research (Hallahan, Kauffman, & Lloyd, [1999](#)) and that the need for research has been one of the core issues mentioned by the participants in our study, we propose the formation of a Portuguese learning difficulties research institute, which would be connected with a university research centre funded by Foundation of Science and Technology. Furthermore, the existence of this institute, combined with stable funding during a given period of time and the existence of human and material resources, would also allow researchers to study and carry out some of the aspects mentioned by the participants as being future challenges such as: longitudinal research, production of materials, evaluation of tests and intervention programs based on credible research and the dissemination of information. In this way, one would be able to foster a concerted and credible research program, whose results could make a marketable difference through dissemination of a deeper knowledge of the phenomenon of learning difficulties and in the implementation of appropriate educational practices. Although acknowledging that the creation of a national institute may be a project that would be carried out in the medium and long term, the benefits inherent to its creation would certainly have remarkable repercussions, not only on students with learning difficulties and their families, but also on society at large.

Finally, the most important aspect of this study is its possible contribution to an active debate of parents, students, researchers, policymakers and practitioners over policies and researched-based concepts and practices that provide quality education for students with learning difficulties. In this way, learning difficulties, “although complex, tangled, ambiguous and even poorly defined, are nonetheless real and important to those who engage over them” (Gerber, [2000](#), p. 30).

References

- 1. [Algozzine, B.](#) 1985. Low achiever differentiation: Where's the beef?. *Exceptional Children*, 52(1): 72–75. [[Web of Science ®](#)]
- 2. [Ariel, A.](#) 1992. *Education of children and adolescents with learning disabilities*, New York: Merrill.
- 3. [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 2002. “Specific learning disabilities: Building consensus for identification and classification”. In *Identification of learning disabilities: Research to practice*, Edited by: [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 791–804. Mahwah, NJ: Lawrence Erlbaum Associates.
- 4. [Bravo-Valdivieso, L.](#) and [Muller, N.M.](#) 2001. “Learning disabilities in South America”. In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 311–328. Mahwah, NJ: Lawrence Erlbaum Associates.

- 5. [Bryant, D.P.](#), [Bryan, B.R.](#), [Gersten, R.M.](#), [Scammacca, N.N.](#), [Funk, C.](#) [Winter, A.](#) 2008. The effects of tier-2 intervention on the mathematics performance of first-grade students who are at risk for mathematics difficulties. *Learning Disability Quarterly*, 31(2): 47–63. [[Web of Science ®](#)]
- 6. [Cooper, H.](#) and [Hedges, L.V.](#) 1994. “Research synthesis as a scientific enterprise”. In *The handbook of research synthesis*, Edited by: [Cooper, H.](#) and [Hedges, L.V.](#) 3–28. New York: Russell Sage Foundation.
- 7. [Correia, L.M.](#) 1991. O que são as dificuldades de aprendizagem? [What are learning difficulties?]. *Revista Portuguesa de Educação*, 4(1): 91–109.
- 8. [Correia, L.M.](#) 1992. *Dificuldades de aprendizagem: Uma perspectiva histórica* [Learning difficulties: A historical perspective], Lisboa: Escola Superior de Educação de Lisboa.
- 9. [Correia, L.M.](#) 1997. *Alunos com necessidades educativas especiais na classe regular* [Students with special education needs in the regular classroom], Porto: Porto Editora.
- 10. [Correia, L.M.](#) 2005. *Dificuldades de aprendizagem: Factos e estatísticas* [Learning difficulties: Facts and statistics] Retrieved December, 19, 2005, from www.educare.pt/NEDESP/N_palavra.asp
- 11. [Correia, L.M.](#) and [Martins, A.P.L.](#) 1999. *Dificuldades de aprendizagem: O que são? Como entendê-las?* [Learning difficulties: What are? How to understand it?], Porto: Porto Editora.
- 12. [Correia, L.M.](#) and [Martins, A.P.L.](#) 2007. Specific learning disabilities and the Portuguese educational system. *Learning Disabilities Research & Practice*, 22(3): 161–166. [[CrossRef](#)]
- 13. [Creswell, J.W.](#) 2002. *Educational research: Planing, conducting, and evaluating quantitative and qualitative research*, Upper Saddle River, NJ: Merrill Prentice Hall.
- 14. Department for Education and Skills. 2005. *Data collection by type of special educational need*, Nottinghamshire, UK: DfES Publications.
- 15. [Elkins, J.](#) 2001. “Learning disabilities in Australia”. In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 181–195. Mahwah, NJ: Lawrence Erlbaum Associates.
- 16. [Elkins, J.](#) 2002. Learning difficulties/disabilities in literacy. *Australian Journal of Language & Literacy*, 25(3): 11
- 17. [Elkins, J.](#) 2007. Learning disabilities: Bringing fields and nations together. *Journal of Learning Disabilities*, 40(5): 392–399. [[CrossRef](#)], [[Web of Science ®](#)]
- 18. [Fonseca, V.](#) 1984. *Uma introdução às dificuldades de aprendizagem* [An introduction to learning difficulties], Lisboa: Editorial Notícias.
- 19. [Fonseca, V.](#) 1996. Assessment and treatment of learning disabilities in Portugal. *Journal of Learning Disabilities*, 29: 114–117. [[CrossRef](#)], [[Web of Science ®](#)], [[CSA](#)]
- 20. [Fonseca, V.](#) 1999. *Insucesso escolar: Abordagem psicopedagógica das dificuldades de aprendizagem*, Lisboa: Âncora.
- 21. [Fuchs, L.S.](#) 2002. “Three conceptualisations of “treatment” in a responsiveness-to-treatment framework for LD identification”. In *Identification of learning disabilities: Research to practice*, Edited by: [R. Bradley](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 521–529. Mahwah, NJ: Lawrence Erlbaum.

- 22. [Fuchs, L.S.](#) and [Fuchs, D.](#) 1997. Use of curriculum-based measurement in identifying students with disabilities. *Focus on Exceptional Children*, 30(3): 1–14. [[Web of Science ®](#)]
- 23. [Fuchs, L.S.](#) and [Fuchs, D.](#) 1998. Treatment validity: A unifying concept for reconceptualizing the identification of learning disabilities. *Learning Disabilities Research & Practice*, 13: 204–219.
- 24. [Fuchs, L.S.](#), [Fuchs, D.](#) and [Speece, D.L.](#) 2002. Treatment validity as a unifying construct for identifying learning disabilities. *Learning Disabilities Quarterly*, 25: 33–45. [[CrossRef](#)], [[Web of Science ®](#)]
- 25. [Gerber, M.M.](#) 2000. An appreciation of learning disabilities: The value of blue-green algae. *Exceptionality*, 8(1): 29–42. [[Taylor & Francis Online](#)]
- 26. [Gerber, M.M.](#) *Teachers are still the test: Limitations of response to instruction strategies for identifying children with learning disabilities*. Paper presented at the National Research Center on Learning Disabilities Responsiveness-to-Intervention Symposium.
- 27. [Graham, L.](#) and [Bailey, J.](#) 2007. Learning disabilities and difficulties: An Australian conspectus. Introduction to the Special Series. *Journal of Learning Disabilities*, 40(5): 386–391. [[CrossRef](#)], [[Web of Science ®](#)]
- 28. [Gresham, F.M.](#) 2002. “Responsiveness to intervention: An alternative approach to the identification of learning disabilities”. In *Identification of learning disabilities: Research to practice*, Edited by: [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 467–519. Mahwah, NJ: Lawrence Erlbaum Associates.
- 29. [Grimes, J.](#) 2002. “Responsiveness to intervention: The next step in special education identification, service and exiting decision making”. In *Identification of learning disabilities: Research to practice*, Edited by: [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 531–547. Mahwah, NJ: Lawrence Erlbaum Associates.
- 30. [Guba, E.G.](#) and [Lincoln, Y.S.](#) 1989. *The quality of fourth-generation evaluation*, Newbury Park, CA: Sage.
- 31. [Gunther, O.](#) 2001. “Learning disabilities in Germany: A retrospective analysis current status of future trends”. In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 217–238. Mahwah, NJ: Lawrence Erlbaum Associates.
- 32. [Hallahan, D.P.](#), [Kauffman, J.M.](#) and [Lloyd, J.W.](#) 1999. *Introduction to learning disabilities*, Boston, MA: Allyn and Bacon.
- 33. [Hallahan, D.P.](#), [Lloyd, J.W.](#), [Kauffman, J.M.](#), [Weiss, M.P.](#) and [Martinez, E.A.](#) 2005. *Introduction to learning disabilities: Foundations, characteristics, and effective teaching*, Boston: Allyn and Bacon.
- 34. [Hallahan, D.P.](#) and [Mercer, C.D.](#) 2002. “Learning disabilities: Historical perspectives”. In *Identification of learning disabilities: Research to practice*, Edited by: [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 1–65. Mahwah, NJ: Lawrence Erlbaum Associates.
- 35. [Hallahan, D.P.](#) and [Mock, D.R.](#) 2003. “A brief history of the field of learning disabilities”. In *Handbook of learning disabilities*, Edited by: [Swanson, H.L.](#), [Harris, K.R.](#) and [Graham, S.](#) 16–29. New York: Guilford.
- 36. [Hammill, D.D.](#) 1993. A brief look at the learning disabilities movement in the United States. *Journal of Learning Disabilities*, 26: 295–310. [[CrossRef](#)], [[PubMed](#)], [[Web of Science ®](#)], [[CSA](#)]

- 37. [Hughes, C.A.](#) and [Dexter, D.D.](#) 2011. Response to intervention: A research-based summary. *Theory Into Practice*, 50(1): 4–11. [[Taylor & Francis Online](#)], [[Web of Science ®](#)]
- 38. Individuals with Disabilities Education Improvement Act Amendments (IDEA). 2004. *Public Law* 108–446
- 39. [Jenkinson, J.C.](#) 2006a. A history of learning difficulties Australia: Part 1 – the beginning. *Australian Journal of Learning Disabilities*, 11(1): 45–53. [[Taylor & Francis Online](#)]
- 40. [Jenkinson, J.C.](#) 2006b. A history of learning difficulties Australia: Part 2 – a national identity. *Australian Journal of Learning Disabilities*, 11(2): 63–71. [[Taylor & Francis Online](#)]
- 41. [Kauffman, J.M.](#), [Hallahan, D.P.](#) and [Lloyd, J.W.](#) 1998. Politics, science and the future of learning disabilities. *Learning Disability Quarterly*, 21: 276–280. [[CrossRef](#)], [[Web of Science ®](#)]
- 42. [Kavale, K.A.](#) 1988. “Status of the field: Trends and issues in learning disabilities”. In *Learning disabilities: State of the art and practice*, Edited by: [Kavale, K.A.](#) 3–21. Boston: College-Hill Press.
- 43. [Kavale, K.A.](#) and [Forness, S.R.](#) 1995. *The nature of learning disabilities: Critical elements of diagnosis and classification*, Mahwah, NJ: Lawrence Erlbaum Associates.
- 44. [Kavale, K.A.](#), [Forness, S.R.](#) and [Macmillan, D.L.](#) 1998. The politics of learning disabilities: A rejoinder. *Learning Disabilities Quarterly*, 21(4): 306–317. [[CrossRef](#)], [[Web of Science ®](#)]
- 45. [Kirk, S.A.](#) 1962. *Educating exceptional children*, Boston, MA: Houghton Mifflin.
- 46. [Kirk, S.A.](#) Behavioral diagnosis and remediation of learning disabilities. In: *Proceedings of the annual meeting of the Conference on Exploring into the Problems of the Perceptual Handicapped Child* (pp. 1–7).
- 47. [Kirk, S.A.](#) 1981. Learning disabilities: A historical note. *Academic Therapy*, 17: 5–11.
- 48. [Klassen, R.](#) 2002. The changing landscape of learning disabilities in Canada: Definitions and practice from 1989–2000. *School Psychology International*, 23: 199–219. [[CrossRef](#)], [[Web of Science ®](#)], [[CSA](#)]
- 49. [Krathwohl, D.R.](#) 1998. *Methods of educational and social science research: An integrated approach*, (2nd ed., New York: Longman.
- 50. [Lane, K.L.](#) and [Beebe-Frankenberger, M.](#) 2004. *School-based interventions: The tools you need to succeed*, Boston, MA: Pearson and Allyn Bacon.
- 51. [Lerner, J.W.](#) 2000. *Learning disabilities: Theories, diagnosis and teaching strategies*, (8th ed., Boston, MA: Houghton Mifflin.
- 52. [Lincoln, Y.S.](#) and [Guba, E.G.](#) 1985. *Naturalistic inquiry*, Beverly Hill, CA: Sage.
- 53. [Lloyd, J.W.](#), [Keller, C.](#) and [Li-Yu, H.](#) 2007. International understanding of learning disabilities. *Learning Disabilities Research & Practice*, 22(3): 159–160. [[CrossRef](#)]
- 54. [Louden, W.](#), [Chan, L.](#), [Elkins, J.](#), [Greaves, D.](#), [House, H.](#), [Milton, M.](#), 2000. *Mapping the Territory: Primary school students with learning difficulties: Literacy and numeracy*, Canberra: Department of Education, Science and Training.
- 55. [Luckasson, R.](#) and [Reeve, A.](#) 2001. Naming, defining and classifying in mental retardation. *Mental Retardation*, 39(1): 47 [[CrossRef](#)], [[CSA](#)]

- 56. [Lundberg, I.](#) and [Høien, T.](#) 2001. "Learning disabilities in Scandinavia". In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 293–309. Mahwah, NJ: Lawrence Erlbaum Associates.
- 57. [Margolis, H.](#) 2012. Response to intervention: RTI's linchpins. *Reading Psychology*, 33: 8–10. [[Taylor & Francis Online](#)]
- 58. [Martins, A.P.L.](#) 2006. *Dificuldades de aprendizagem: Compreender o fenómeno a partir de sete estudos de caso [Learning difficulties: Using seven case studies to understand the phenomena]*, Braga, , Portugal: Instituto de Estudos da Criança, Universidade do Minho.
- 59. [Masayoshi, T.](#) 2001. "Learning disabilities in Japan". In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 255–272. Mahwah, NJ: Lawrence Erlbaum Associates.
- 60. [Mastropieri, M.](#) *Feasibility and consequences of response to intervention (RtI): Examination of the issues and scientific evidence as a model for the identification of individuals with learning disabilities*. Paper presented at the National Research Center on Learning Disabilities Responsiveness-to-intervention Symposium.
- 61. [Oakland, T.](#), [Mpofu, E.](#), [Grégoire, J.](#) and [Faulkner, M.](#) 2007. An exploration of learning disabilities in four countries: Implications for test development and use in developing countries. *International Journal of Testing*, 7(1): 53–70. [[Taylor & Francis Online](#)]
- 62. [Patton, M.Q.](#) 2002. *Qualitative research and evaluation methods*, (3rd ed., London: Sage.
- 63. [Purdie, N.](#) and [Ellis, L.](#) 2005. *Literature review: A review of the empirical evidence identifying effective interventions and teaching practices for students with learning difficulties in years 4, 5 and 6*, Camberwell, VIC: Australian Council for Educational Research.
- 64. [Ryan, J.](#) 2007. Learning disabilities in Australian universities: Hidden, ignored and unwelcome. *Journal of Learning Disabilities*, 40(5): 436–442. [[CrossRef](#)], [[Web of Science ®](#)]
- 65. [Seidman, I.](#) 1998. *Interviewing as qualitative research: A guide for researchers in education and the social sciences*, New York: Teachers College Press.
- 66. [Sideridis, G.D.](#) 2007. International approaches to learning disabilities: More alike or more different?. *Learning Disabilities Research & Practice*, 22(3): 210–215. [[CrossRef](#)]
- 67. [Silverman, D.](#) 2000. "Analyzing talk and text". In *Handbook of qualitative research*, (2nd ed., Edited by: [Denzin, N.K.](#) and [Lincoln, Y.](#) 821–834. London: Sage.
- 68. [Stevens, L.M.](#) and [Werkhoven, W.](#) 2001. "Learning disabilities in the Netherlands". In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 273–291. Mahwah, NJ: Lawrence Erlbaum Associates.
- 69. [Tarver, S.G.](#) and [Hallahan, D.P.](#) 1976. "Children with learning disabilities: An overview". In *Teaching children with learning disabilities: Personal perspectives*, Edited by: [Kauffman, J.M.](#) and [Hallahan, D.P.](#) 2–57. Columbus, OH: Charles E. Merrill.

- 70. [Thygesen, R.](#) 2007. Students with learning disabilities: An update on Norwegian educational policy, practice and research. *Learning Disabilities Research & Practice*, 22(3): 176–182. [\[CrossRef\]](#)
- 71. [Vaughn, S.](#) 2002. “Using response to treatment for identifying students with disabilities”. In *Identification of learning disabilities: Research to practice*, Edited by: [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 549–554. Mahwah, NJ: Lawrence Erlbaum Associates.
- 72. [Vaughn, S.](#), [Wanzek, J.](#), [Woodruff, A.L.](#) and [Linan-Thompson, S.](#) 2007. “Prevention and early identification of students with reading disabilities”. In *Evidenced-based reading practices for response to intervention*, Edited by: [Haager, D.](#), [Klingner, J.](#) and [Vaughn, S.](#) 11–28. Baltimore, MD: Paul Books.
- 73. [Vellutino, F.R.](#) 2002. “On the role of intervention in identifying learning disabilities”. In *Identification of learning disabilities: Research to practice*, Edited by: [Bradley, R.](#), [Danielson, L.](#) and [Hallahan, D.P.](#) 555–564. Mahwah, NJ: Lawrence Erlbaum Associates.
- 74. [Vianello, R.](#) and [Moniga, S.](#) 1996. “Introduction to the framework for the experts' group on learning difficulties in Europe: Assessment and treatment”. In *Learning difficulties in Europe: Assessment and treatment*, Edited by: [Renzo, V.](#) 3–14. Bergamo, , Italy: European Association for Special Education.
- 75. [Vogel, S.A.](#) 2001. “The challenge of international research in learning disabilities”. In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.](#) 329–336. Mahwah, NJ: Lawrence Erlbaum Associates.
- 76. [Wedell, K.](#) 2001. “British orientations to specific learning disabilities”. In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 239–254. Mahwah, NJ: Lawrence Erlbaum Associates.
- 77. [Wong, B.Y.L.](#) and [Hutchinson, N.](#) 2001. “Learning disabilities in Canada”. In *Research and global perspectives in learning disabilities: Essays in honor of William M. Cruickshank*, Edited by: [Hallahan, D.P.](#) and [Keogh, B.K.](#) 197–215. Mahwah, NJ: Lawrence Erlbaum Associates.