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Top Dyslexia-Oriented Transcription & Study Methods

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Abstract
Dyslexia is a prevalent learning disorder characterized by difficulties in reading, spelling, and writing, affecting academic performance and self-esteem. This review paper explores top dyslexia-oriented transcription and study methods, emphasizing the need for specialized strategies tailored to dyslexic learners' unique needs. The paper delves into the challenges faced by dyslexic students, including slow reading ability, difficulties in decoding words, and associated anxiety. It discusses various assistive technologies such as speech-to-text software, text-to-speech applications, and digital scanning pens that aid in transcription and study.
Additionally, it highlights the benefits and limitations of these tools. The review also examines effective study methods, including reading assistance techniques, word processing and writing tools, and multisensory learning approaches, which enhance comprehension and retention.
Practical recommendations for educators, parents, and policymakers are provided to ensure successful implementation and integration of these methods. The paper concludes with insights into future directions, emphasizing the importance of emerging technologies and ongoing research in developing more targeted interventions. By adopting these methods, dyslexic students can achieve improved academic outcomes and greater self-confidence.

(Keywords: Dyslexia, Transcription Methods, Assistive Technology, Multisensory Learning)

1. Introduction

1.1 Overview of Dyslexia

Dyslexia is a condition wherein an individual experiences issues (particularly) in regions connected with learning capacities like perusing, composing, and number-crunching or matters connecting with numbers (Izzah Karim, Wahab Abdul, & Norhaslinda Kamaruddin, 2013). This condition isn't the abilities expected of individuals with sequential age and typical insight capacities or level of intelligence (nature of knowledge). This condition is now and again not understood by guardians and just consider their kid somewhat deferred, despite the fact that it is under norm (least) capacities at his age (Ashidiqi, Widaningrum, & Karaman, 2023).

For a long time, research on dyslexia continued on the premise that it was a particular learning disability. The term 'explicit' here alluded to the way that youngsters with dyslexia experience issues in the space of perusing (and spelling) that are 'off the mark' with assumption, given age and intelligence level (Mahmoodin, Mansor, Lee, & Mohamad, 2015). Research was conducted to search for an error among expected and actual reading attainment to 'analyze' dyslexia (Saida et al., 2024). Nonetheless, the inability to track down subjective contrasts in perusing (and the phonological abilities that support it) between children with dyslexia and children with more broad learning issues drove this sort of 'disparity' definition to lose credibility (Jasira, Laila, Jemsheer, & Ahmed, 2023). There are several types of dyslexia, including phonological dyslexia, surface dyslexia, and double deficit dyslexia, each with distinct characteristics (Snowling, Hulme, & Nation, 2020).

1.2 Common Challenges Faced by Students with Dyslexia

Research suggests that dyslexia stems from differences in brain structure and function, particularly in areas responsible for language processing. These differences can affect phonological processing, working memory, and other cognitive functions (Anuradha, 2022). Students with dyslexia often struggle with reading speed and comprehension, spelling, writing, and sometimes math (dyscalculia) (Rauf et al., 2018). These challenges can lead to frustration, anxiety, and lower academic performance if not properly addressed (Livingston, Siegel, & Ribary, 2018).

2. Transcription and Study Methods

Dyslexia is a common learning disorder characterized by difficulties in reading, spelling, and writing, which can significantly hinder a student’s academic performance and self-esteem. As learners with dyslexia often face challenges such as slow reading ability and difficulties in decoding words, it becomes imperative to employ effective transcription and study methods tailored to their unique needs (Bradford, Luke, & Furneaux, 2020). Various strategies and tools can

enhance their learning experience and foster better comprehension and retention of material. This requires the utilization of particular record and study strategies intended to take care of their particular necessities (Braun & Clarke, 2006).

Specialized transcription and study methods are crucial for helping dyslexic students overcome their challenges and achieve their academic potential. These methods can improve reading fluency, comprehension, and writing skills, and reduce frustration and anxiety (Barrett et al., 2015). The reason for this present study is to investigate the best record and study techniques for dyslexic individuals, looking at both their advantages and limits (Beaujean, 2016). The criteria for selecting effective methods should be evidence-based, tailored to individual needs, and easily accessible. They should also be adaptable, allowing for flexibility in different learning environments and accommodating various levels of severity in dyslexia (Fletcher & Miciak, 2019).

A range of assistive technology tools has emerged to support dyslexic learners, particularly in the areas of transcription and study methods (Kennedy et al., 2014). These technologies are designed to mitigate the effects of dyslexia and empower students by providing alternative means to access information (Rose, 2009). Transcription methods for dyslexic students involve converting spoken language into written form. This can be particularly useful for students who struggle with writing due to dyslexia (Saputra, 2015).

3. Tailored Tools and Technologies

3.1.1 Speech-to-Text Software: These tools convert spoken words into text, enabling dyslexic learners to express their thoughts without the burden of spelling restrictions (Kazakou et al., 2015). Examples include Co:Writer Universal and Dragon NaturallySpeaking or Google Voice Typing, which offer voice recognition capabilities which allows students to dictate text, which is then transcribed into written form (Hall et al., 2015). This reduces the cognitive load associated with writing and spelling (Staels & Den Broeck, 2015).

3.1.2 Audio Recording Devices: Devices or apps that record lectures and discussions can help students review material at their own pace, allowing them to focus on comprehension rather than note-taking (Alghabban, Salama & Altalhi, 2017). Text-to-speech (TTS) applications allow students to listen to written content, bypassing decoding challenges (Gooch et al., 2016). Programs such as Speechify and NaturalReader provide auditory support by reading text aloud, often with features like voice customization and reading speed adjustment (Alsobhi & Alyoubi, 2019).

3.1.3 Digital Scanning Pens: These devices scan text and read it back to the user, which can help dyslexic individuals comprehend written material more easily (Athanaselis et al., 2012). Notable examples include the C-Pen Reader and Scanmarker Air, which also facilitate note- taking by scanning handwritten materials (Alnahdi, 2014).

3.1.4 Use of Assistive Technology: Assistive technologies, such as text-to-speech software, e- books with audio narration, and specialized apps like DyslexiaQuest, can provide significant support (Gotesman & Goldfus, 2009). These tools can help students access content, improve reading fluency, and develop study skills (Yusuf, Fakomogbon & Issa, 2012).

While these tools can greatly aid dyslexic students, they also have limitations. For example, speech-to-text software requires training and may not always accurately transcribe complex language or specialized terminology. Audio recordings can be time-consuming to review and may require additional tools for organization (Satapathy, 2019).

3.2 Benefits of Assistive Technology

Assistive technology tools help dyslexic students improve their reading and writing skills by providing alternative methods for accessing and producing text (Caute et al., 2018). This leads to better comprehension, spelling, and overall academic performance. By enabling students to complete tasks independently, assistive technology fosters a sense of autonomy and boosts self-confidence (Worrall et al., 2005). Dyslexic students can engage with the curriculum more fully and participate actively in classroom activities. Assistive technology allows for personalized learning experiences tailored to individual needs and preferences. Students can adjust settings such as reading speed, font size, and background color to optimize their learning environment (Cocks et al., 2013).

3.3 Challenges and Considerations of Assistive Technology

While assistive technology offers significant benefits, accessibility and affordability remain concerns. High costs of software and devices can be a barrier for some families and schools (Chan, Foss & Poisner, 2009). Efforts are needed to make assistive technology more affordable and widely available. Effective use of assistive technology requires adequate training and support for students, teachers, and parents (Alsobhi, Khan & Rahanu, 2015). Continuous professional development and user-friendly resources are essential for successful implementation. Dyslexia manifests differently in each individual, necessitating customized approaches. Assistive technology solutions must be adaptable to meet diverse needs and preferences, ensuring effectiveness for all students (Degirmenci, Baglama & Yucesoy, 2020).

4. Study Methods for Students with Dyslexia

4.1 Reading Assistance Techniques

Reading can be particularly challenging for dyslexic individuals; therefore, tailored reading strategies and tools are vital (Hadhrami et al., 2022).

4.1.1 Reading Guides and Color Overlays: Tools like Beeline Reader and color overlays can help reduce visual stress and enhance focus by altering contrast and highlighting text, making reading a more accessible experience (Khasawneh et al., 2021).

4.1.2 Optical Character Recognition (OCR) Tools: These tools convert printed text into editable digital format, allowing students to scan text for later review, thereby reinforcing learning through repetition (Gupta & Sharma, 2017).

4.1.3 Audiobooks: Audiobooks provide a valuable alternative to traditional reading, enabling students to engage with text aurally while reducing decoding challenges. This approach boosts comprehension and vocabulary levels (Vidyadharan & Tharayil, 2019).

4.1.4 Visual Aids and Graphic Organizers: Visual aids like mind maps, charts, and diagrams can help dyslexic students organize information and see relationships between concepts. These tools leverage visual strengths and aid in memory retention (Torgesen, 2018).

4.2 Word Processing and Writing Techniques

Writing is often a daunting task for dyslexic learners due to difficulties with spelling and grammatical structure. Implementing effective writing tools can facilitate better expression (Hulme & Snowling, 2016).

4.2.1 Chunking and Scaffolding Information: Breaking down information into smaller, more manageable chunks and providing scaffolding—structured support that gradually decreases as the student becomes more competent—can help dyslexic students process and retain information (León, Bravo & Fernández, 2017).

4.2.2 Word Prediction Software: Tools like Read&Write and ClaroRead assist by predicting words as students' type, allowing them to focus on content rather than spelling (Habibian et al., 2015).

4.2.3 Grammar and Spell Checkers: These tools help correct common spelling and grammatical errors, which can enhance confidence in writing. Grammarly and VeritySpell are popular options that offer real-time feedback (Tunmer & Nicholson, 2011).

4.3 Multisensory Learning Techniques

Incorporating multisensory techniques into learning can provide dyslexic learners with concrete methods to absorb and retain information. Multisensory learning involves using multiple senses simultaneously, such as seeing, hearing, and touching. For example, using sandpaper letters to feel letter shapes while saying the sounds aloud can reinforce learning (Supriatna & Ediyanto, 2021).

4.3.1 Kinesthetic Activities: Engaging students in tactile learning, such as writing with sand or manipulating letters, can enhance their phonemic awareness and make learning more interactive (Arnold, 2021).

4.3.2 Visual and Auditory Integration: Using resources that combine visual, auditory, and kinesthetic learning promotes deeper understanding. Students may benefit from pairing reading with listening activities to create a multi-faceted learning experience (Cancer et al., 2022).

5. Recommendations

This section offers practical advice and guidelines for educators, parents, and policymakers.

5.1 Teacher and Parent Training and Support

Effective implementation requires that teachers and parents are adequately trained to use these methods and tools. This includes understanding how to identify dyslexia, how to use assistive technologies, and how to provide ongoing support (Ross, 2020).

5.2 Tips for Educators and Parents

5.2.1 Educators: Incorporate multisensory activities into lessons, use clear and concise language, and provide written instructions alongside verbal ones (Wilmot et al., 2023).

5.2.2 Parents: Encourage reading at home, use technology to support learning, and maintain open communication with teachers (Denton et al., 2022).

5.3 Guidelines for Selecting and Implementing Methods

Educators and parents should consider factors such as the student's specific challenges, learning preferences, and the availability of resources when selecting methods. It is also important to regularly assess the effectiveness of the chosen methods and adjust them as needed (Chan & Mo, 2023).

5.4 Integrating Methods into the Classroom and Home Environments

Successful integration requires collaboration between teachers, parents, and students.

This includes setting clear goals, monitoring progress, and ensuring that the chosen methods are consistently applied in both classroom and home settings (Harding et al., 2023).

6. Future Directions and Innovations

This section explores emerging trends and areas for future research.

6.1 Emerging Technologies and Methods

Technological advancements continue to offer new tools and approaches for supporting dyslexic students. For example, AI-powered personalized learning platforms and virtual reality can provide immersive and customized learning experiences (Smith-Spark, 2020).

6.2 Research Trends and Potential Advancements

Ongoing research into the neurological and cognitive aspects of dyslexia may lead to the development of more targeted interventions. Additionally, studies on the effectiveness of different methods can inform best practices and policy decisions (Paracchini, 2022).

6.3 Implications for Practice and Policy

The findings have significant implications for educators, parents, and policymakers.

There is a need for greater awareness, training, and resources to support the implementation of effective dyslexia-oriented methods (Othman et al., 2020).

7. Summary and Conclusion

Dyslexia poses significant challenges to students, but effective transcription and study methods, particularly those involving assistive technology, can substantially improve their academic outcomes and self-confidence. Tailored tools and technologies such as speech-to-text software, text-to-speech applications, and multisensory learning techniques have demonstrated considerable benefits. By integrating assistive technologies, enhanced note-taking strategies, reading

assistance techniques and multisensory learning approaches, educators and students can foster an empowering learning environment that enhances comprehension and academic success. Investing in these tools is paramount to supporting dyslexic learners and allowing them to flourish academically (Young & MacCormack, 2014).

The landscape of dyslexia-oriented transcription and study methods offers a wealth of resources aimed at addressing the unique challenges faced by dyslexic learners. However, accessibility and affordability remain issues that need to be addressed. Future advancements in technology and research hold promise for more effective interventions. Educators, parents, and policymakers must collaborate to provide the necessary support, training, and resources to ensure that dyslexic students can achieve their full potential (Mossige et al., 2023).

References

1. Alghabban, W. G., Salama, R. M., Altalhi, A. H., 2017. Mobile cloud computing: An effective multimodal interface tool for students with dyslexia. Computers in Human Behavior. 75, 160-166.
2. Alnahdi, G.: Assistive technology in special education and the universal design for learning.
3. Turk. Online J. Educ. Technol. - TOJET 13, 18–23 (2014)
4. Alsobhi, A. Y., Alyoubi, K. H., 2019. Adaptation algorithms for selecting personalised learning experience based on learning style and dyslexia type. Data Technologies and Applications, 53(2), 189-200.
5. Alsobhi, A. Y., Khan, N., & Rahanu, H. (2015). Personalised learning materials based on dyslexia types: ontological approach. Procedia computer science, 60, 113-121.
6. Arnold, J. (2021). Integrating kinesthetic learning activities to phonics learning.
7. Ashidiqi, A. S., Widaningrum, I., & Karaman, J. (2023). Implementation of The Certainty Factor Method in The Expert System For Early Diagnosis of Dyslexia in Childhood. *INTENSIF: Jurnal Ilmiah Penelitian dan Penerapan Teknologi Sistem Informasi*, *7*(1), 18-32.
8. Athanaselis, T., Bakamidis, S., Dologlou, I., Argyriou, E.N., Symvonis, A.: Making assistive reading tools user friendly: a new platform for Greek dyslexic students empowered by automatic speech recognition. Multimedia Tools Appl. 68(3), 681–699 (2012). https://doi.org/10.1007/s11042-012-1073-5
9. Barrett, C. A., Cottrell, J. M., Newman, D. S., Pierce, B. G., & Anderson, A. (2015). Training school psychologists to identify specific learning disabilities: A content analysis of syllabi. School Psychology Review, 44(3), 271–288 10.17105/spr-14-0023.1
10. Beaujean, A. A. (2016). Review of the pattern of strengths and weaknesses approach in specific learning disability identification. Research and Practice in the Schools, 4(1), 18–28 https://www.txasp.org/tasp-journal
11. Bradford, A., Luke, B., & Furneaux, C. (2020). Exploring Accountability in Social Enterprise: Priorities, Practicalities, and Legitimacy. Voluntas, 31(3), 614–626. https://doi.org/10.1007/s11266-020-00215-8
12. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa.
13. Cancer, A., De Salvatore, M., Granocchio, E., Andreoli, L., Antonietti, A., & Sarti, D. (2022). The role of auditory and visual components in reading training: No additional effect of synchronized visual cue in a rhythm-based intervention for dyslexia. Applied Sciences, 12(7), 3360.
14. Caute, A., Cruice, M., Marshall, J., Monnelly, K., Wilson, S., & Woolf, C. (2018). Assistive technology approaches to reading therapy for people with acquired dyslexia.
15. Aphasiology, 32(sup1), 40–42. https://doi.org/10.1080/02687038.2018.1489119
16. Chan, S., Foss, B., & Poisner, D. (2009). Assistive technology for reading. Intel Technology Journal, 13(3).
17. Chan, T. S., & Mo, Y. K. (2023). The socio-cultural interpretation of parental stress of chinese parents of children with dyslexia: implications for social work practice. Child and Adolescent Social Work Journal, 40(1), 131-141.
18. Cocks, N., Pritchard, M., Cornish, H., Thompson, N., & Cruice, M. (2013). A “novel” reading therapy programme for reading difficulties after a subarachnoid haemorrhage.
19. Aphasiology, 27, 509–531. doi:10.1080/02687038.2013.780283
20. Degirmenci, N., Baglama, B. & Yucesoy, Y. (2020). The Use of Technology in Dyslexia: An Analysis of Recent Trends. International Journal of Emerging Technologies in Learning (iJET), 15(5), 30-39. Kassel, Germany: International Journal of Emerging Technology in Learning. Retrieved August 2, 2024 from

https://www.learntechlib.org/p/217140/.
21. Denton, K., Coneway, B., Simmons, M., Behl, M., & Shin, M. (2022). Parents' voices matter: A mixed-method study on the dyslexia diagnosis process. Psychology in the Schools, 59(11), 2267-2286.
22. Fletcher, J. M., & Miciak, J. (2019). The identification of specific learning disabilities: A summary of research on best practices. Austin, TX: Texas Center for Learning Disabilities.
23. Gooch, D., Vasalou, A., Benton, L., Khaled, R., 2016. Using Gamification to Motivate Students with Dyslexia. CHI 2016, San Jose, 7-12.
24. Gotesman, E., Goldfus, C.: The impact of assistive technologies on the reading outcomes of college students with disabilities. In: Chais Conference on Instructional Technologies Research 2009. Israel (2009)
25. Gupta, P., & Sharma, V. (2017). Working memory and learning disabilities: A review.
26. International Journal of Indian Psychology, 4(4), 111-121. https://doi.org/10.25215/0404.013
27. Habibian, M., Roslan, S., Idris, K., & Othman, J. (2015). The Role of Psychological Factors in the Process of Reading. Journal of Education and Practice, 6(29), 114-123.
28. Hadhrami, A. S. A. L., Al-Amrat, M. R., Khasawneh, M. A. S., & Darawsheh, S. R. (2022). Approach to Improve Reading Skill of Students with Dyslexia. Information Sciences Letters, 11(6), 2333-2338.
29. Hall, T. E., Cohen, N., Vue, G., Ganley, P., 2015. Addressing Learning Disabilities With UDL and Technology: Strategic Reader. Learning Disability Quarterly, 38(2), 72-83.
30. Harding, S., Chauhan-Sims, M., Oxley, E., & Nash, H. M. (2023). A Delphi study exploring the barriers to dyslexia diagnosis and support: A parent's perspective. Dyslexia, 29(3), 162- 178.
31. Hulme, C., & Snowling, M. J. (2016). Reading disorders and dyslexia. Current opinion in pediatrics, 28(6), 731. https://dx.doi.org/10.1097%2FMOP.0000000000000411
32. Izzah Karim, Wahab Abdul and Norhaslinda Kamaruddin, "Classification of dyslexic and normal children during resting condition using KDE and MLP", 2013 5th International Conference on Information and Communication Technology for the Muslim World (ICT4M), 2013.
33. Jasira K.T., Laila V., Jemsheer Ahmed P., "DyslexiScan: A Dyslexia Detection Method from Handwriting Using CNN LSTM Model", 2023 International Conference on Innovations in Engineering and Technology (ICIET), pp.1-6, 2023.
34. J. Snowling, M., Hulme, C., & Nation, K. (2020). Defining and understanding dyslexia: past, present and future. *Oxford review of education*, *46*(4), 501-513.
35. Kazakou, M., Soulis, S., Morfidi, E., Mikropoulos, T. A., 2011. Phonological Awareness Software for Dyslexic Children. Themes in Science & Technology Education, 4(1), 33- 51.
36. Kennedy, M. J., Thomas, C. N., Meyer, J. P., Alves, K. D., & Lloyd, J. W. (2014). Using Evidence-Based Multimedia to Improve Vocabulary Performance of Adolescents With LD: A UDL Approach. Learning Disability Quarterly, 37(2), 71–86. https://doi.org/10.1177/0731948713507262
37. Khasawneh, M. A. S. (2021). Developing Reading Skills Among Students with Learning Disabilities in English. Journal La Edusci, 2(5), 1-8. https://doi.org/10.37899/journallaedusci.v2i5.439
38. León, A. M., Bravo, C. B., & Fernández, A. R. (2017). Review of Android and iOS tablet apps in Spanish to improve reading and writing skills of children with dyslexia. Procedia-Social and Behavioral Sciences, 237, 1383-1389. https://doi.org/10.1016/j.sbspro.2017.02.200
39. Mossige, M., Arendal, E., Kongskov, L., & Svendsen, H. B. (2023). How do technologies meet the needs of the writer with dyslexia? An examination of functions scaffolding the transcription and proofreading in text production aimed towards researchers and practitioners in education. Dyslexia, 29(4), 408-425.
40. Othman, E. S., Faye, I., Muthuvalu, M. S., & Saad, M. N. M. (2020, March). EEG neurofeedback for dyslexia treatment: Limitations and future directions. In Journal of Physics: Conference Series (Vol. 1497, No. 1, p. 012028). IOP Publishing.
41. Paracchini, S. (2022). The genetics of dyslexia: Learning from the past to shape the future. The Science of Reading: A Handbook, 491-514.
42. Rose, J., 2009. Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties, DCSF Publications. Nottingham.
43. Ross, H. (2020). “It’s a Battle!”: Parenting and Supporting a Child with Dyslexia. In Dyslexia.
44. IntechOpen.

45. Saputra, M. R., 2015, December. LexiPal: Design, Implementation and Evaluation of Gamification on Learning Application for Dyslexia. International Journal of Computer Applications, 131(7), 37-43. DOI: 10.5120/ijca2015907416.
46. Satapathy, A. (2019). Applications of assistive tools and technologies in enhancing the learning abilities of dyslexic children. TechnoLearn: An International Journal of Educational Technology, 9(2), 117-123.
47. Smith-Spark, J. H. (2020). A review of prospective memory impairments in developmental dyslexia: Evidence, explanations, and future directions. Prospective Memory in Clinical Populations, 76-95.
48. S. K. Saida, Yanduru Yamini Snehitha, Narindi Sai Priya, Avula Srinivasa Ajay Babu, "A Effective Method for Predicting the Dyslexia by Applying Ensemble Technique", Proceedings of Data Analytics and Management, vol.785, pp.151, 2024.
49. Staels, E., Den Broeck, W. V., 2015. Orthographic learning and the role of text-to-speech software in Dutch disabled readers. Journal of Learning Disabilities, 48(1), 39-50.
50. Supriatna, A., & Ediyanto, E. (2021). The implementation of multisensory technique for children with dyslexia. Indonesian Journal of Disability Studies, 8(1), 279-293.
51. Torgesen, J. K. (2018). Phonologically based reading disabilities: Toward a coherent theory of one kind of learning disability. In Perspectives on learning disabilities (pp. 106-135). https://doi.org/10.4324/9780429498381-5
52. Tunmer, W. E., & Nicholson, T. (2011). The Development and Teaching of Word Recognition Skill. In Handbook of Reading Research, Volume IV (pp. 431-457). Routledge. https://doi.org/10.4324/9780203840412-28
53. Vidyadharan, V., & Tharayil, H. M. (2019). Learning disorder or learning disability: Time to rethink. Indian Journal of Psychological Medicine, 41(3), 276-278. https://doi.org/10.4103%2FIJPSYM.IJPSYM_371_18
54. Wilmot, A., Pizzey, H., Leitao, S., Hasking, P., & Boyes, M. (2023). Growing up with dyslexia:
55. Child and parent perspectives on school struggles, self-esteem, and mental health.
56. Dyslexia, 29(1), 40-54.
57. Worrall, L., Rose, T., Howe, T., Brennan, A., Egan, J., Oxenham, D., & McKenna, K. (2005).
58. Access to written information for people with aphasia. Aphasiology, 19, 923–929. doi:10.1080/02687030544000137
59. Young, G., & MacCormack, J. (2014). Assistive technology for students with learning disabilities: An evidence-based summery for teachers, ReserchGate. https://www.researchgate.net/publication/279961941_Assistive_technology_for_students
60. _with_learning_disabilities_An_evidence-based_summary_for_teachers
61. Yusuf, M.O., Fakomogbon, M.A., Issa, A.I.: Availability of assistive technologies in nigerian educational institutions. Int. J. Soc. Sci. Educ. 2, 12 (2012)
62. Z. Mahmoodin, W. Mansor, K. Y. Lee and N. B. Mohamad, "An analysis of EEG signal power spectrum density generated during writing in children with dyslexia", IEEE 11th International Colloquium on Signal Processing Its Applications (CSPA), pp. 156-160, 2015.