**Research Proposal Outline**

**Project Title**

Use of assistive technology in education for hearing and speech impaired children

**Significance/Contribution to the discipline/Research Problem.**

* Introduction to assistive technology (AT).
* Explain what kind of assistive technology devices (ATD) help people with hearing and speech impairment.
* The literature shows that the use of ATD in education helps overcome the barrier of education for children with disabilities.
* However, the use of ADTs in schools is not fully exploited. Furthermore, there is little focus on how it could be more effectively used.

**Research Question.**

How can assistive technology be effectively used in the education of children with hearing and speech impairment?

**Aims and Objectives.**

Aims:

* Outline the types of AT that help hearing and speech impaired children’s education.
* Literature review on research about experiences using AT in education.
* Identify opportunities and challenges with the use of AT in education.
* Outline effective ways to use AT in education.

Objectives:

* Research about access to AT and how it is used across different institutions and countries.
* Identify actionable information that can help professionals in education to improve the implementation of ATDs in teaching disabled children.
* Identify opportunities for future research.

**Key literature related to the project.**

Tamakloe, D. & Agbenyega, J. S. (2017) Exploring Preschool Teachers’ and Support Staff’s Use and Experiences of Assistive Technology with Children with Disabilities. *Australasian Journal of Early Childhood*. 42(2): 29-36. Available from: <https://journals.sagepub.com/doi/10.23965/AJEC.42.2.04>

Torrado, J.C., Gomez, J. & Montoro, G. (2020) Hands-On Experiences With Assistive Technologies for People With Intellectual Disabilities: Opportunities and Challenges. *IEEE Access*, 2020(8): 106408-106424. Available from: <https://ieeexplore.ieee.org/abstract/document/9108280>

**Methodology/Development strategy/Research Design.**

Research will include information about existing research as well as qualitative and quantitative data analysis (possibly based on a survey).

Activities:

1. Review of current research about access and use of AT in education.
2. Design and conduct survey.
3. Review results and finalize findings.
4. Write dissertation.

**Ethical considerations and risk assessment (as part of your ethical approval application).**

Ethical considerations:

To encourage survey participants to accept their participation in the survey without ethical conflict, they will be made aware of the following information:

* Objectives of the research.
* Structure of the survey.
* How the responses are going to be processed.
* Confidentiality of interview responses.

Risk assessment and solutions:

* Survey design not fitted for the research objectives. Solution: Careful survey design using best practices, validation with tutor.
* Lack of participation. Solution: explore what types of surveys and which survey channels get most responses.
* Biased research results.

**Description of artefact(s) that will be created (if applicable).**

The outcome of the research will be a research dissertation. Artifacts for data collection and analysis will have to be designed and implemented. If the results of the analysis allow a framework for how effectively use AT in education of hearing and speech impaired children will be outlined.

**Timeline of proposed activities.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Month | 1 | 2 | 3 | 4 | 5 | 6 |
| Activity 1 |  |  |  |  |  |  |
| Activity 2 |  |  |  |  |  |  |
| Activity 3 |  |  |  |  |  |  |
| Activity 4 |  |  |  |  |  |  |