Remote Learning for Vulnerable Learners

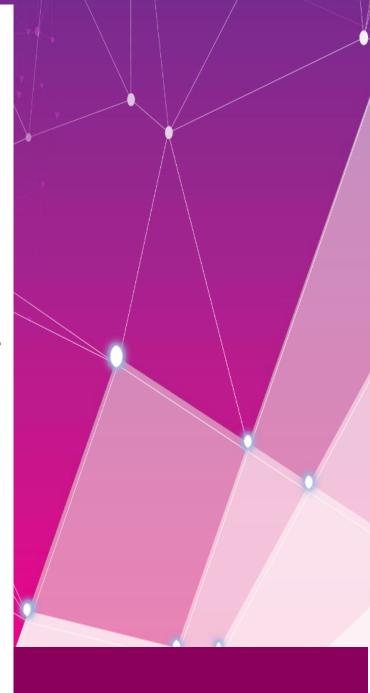
The evidence and the ethics

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Speech Pathology for Schools

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About Speech Pathology for Schools



speech pathology for schools <u>www.speech.edu.au</u>

Speech Pathology for Schools (SPS) provides holistic school-based speech pathology support to Primary and Secondary schools across Melbourne. SPS work collaboratively with schools to improve student outcomes. School data along with speech pathology data is used to target support and monitor progress. SPS brings the science of speech pathology to literacy and oral language education. It is rapidly expanding its service availability and is currently supporting over 6000 students across many schools throughout Melbourne. SPS works with each school to tailor a program to meet the specific needs of each school community.

About the author



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Mala Ferdinando is the founder and director of Speech Pathology for Schools. Mala is passionate about using evidence-based research to support all students to improve their learning outcomes. Mala is a qualified teacher and has worked as a professional speech pathologist in an educational setting for over 25 years. She enjoys working with teachers, students and parents; convinced that collaboration with school communities is the key to improving student literacy & oral language outcomes.

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*Please feel free to use content from this whitepaper for professional development and related discussions, but please acknowledge Speech Pathology for Schools as its source. I would be keen to hear from others on how they have navigated this period.



Supporting vulnerable learners through remote learning - The evidence and the ethics

In 2020 the Coronavirus Pandemic saw school closures and the commencement of remote learning programs for students. This whitepaper considers the importance of ensuring explicit supports are implemented for vulnerable learners. Types of remote learning opportunities are presented along with a five-star rating system on the efficacy of each for supporting vulnerable learners. A detailed literature review on telepractice along with actions to prioritise vulnerable learners are also included.





During this Coronavirus pandemic with schools implementing remote learning it is important to ensure explicit supports are also implemented to target our vulnerable learners. There is strong research telling us that the gap between students increases when explicit supports are not implemented (Ramey & Ramey, 1998). Hattie and colleagues reported that, for these students, early intervention does make a difference (Hattie, Masters, & Birch, 2015). While average learners may continue to make gains with teacher directed learning tasks this is not likely to be the case for our vulnerable learners. The gap is not just going to stay constant, without explicit support it is going to increase.

We may want to see a flattening of the curve in Coronavirus diagnosis numbers or coronavirus death rates; however, we do not want to see a flattening of the curve with student educational outcomes. Without explicit targeted supports for vulnerable learners we run the very real risk of not just flattening the curve but skewing it even further to the left with a greater gap between vulnerable learners and their peers.

2. The evidence

Telepractice (also referred to as telehealth or e-health) is not foreign to Speech Pathology and has become a preferred service delivery model for ensuring continuity of care where face to face interaction is not possible. This has been particularly relevant in 2020 when the Coronavirus pandemic resulted in social isolation which limited traditional face to face service delivery options. Speech Pathology Australia (SPA) Position paper on Telepractice (2014) defines Telepractice as "the application of telecommunications technology to deliver clinical services at a distance by linking clinician to client, caregiver, or any person(s) responsible for delivering care to



RESEARCH

Over many years, studies show telepractice is an effective model for delivery of speech pathology services the client, for the purposes of assessment, intervention, consultation and/or supervision. Integral to telepractice is the delivery of clinical services over any distance that are guided, monitored, or modified by a speech pathologist for each unique client or clinical purpose. Telepractice has the potential to increase access to speech pathology services".

Research into telepractice has been conducted since the 1970s (Meredith, Firmin, & McAllister, 2013) and there has been a significant growth in the number of studies exploring the use of telepractice over the years (Molini-Avejonas, Rondon-Melo, Albuquerque de La Higuera Amato, & Samelli, 2015). Along with video conferencing and internet programs, telephones were also considered in telehealth options and provided a low cost, viable option in the delivery of telehealth (Lowe, O'Brian, & Onslow, 2013).

Several studies including O'Brian, Smith & Onslow (2014) and Bridgman, Onslow, O'Brian, Jones & Block (2016) both found telepractice to be a viable service delivery model. Other benefits included improved accessibility of care; cost effectiveness and improved generalization of treatment effects to other environments (Constantinescu & Dornan, 2014). Research also reported no differences in intervention gains between face to face intervention and telepractice (Bridgman et al., 2016), though some variation has been reported in the number of sessions required to achieve similar outcomes in telehealth versus face to face intervention (McGill, Noureal, & Siegel, 2019).

Overall client satisfaction was also mentioned as one of the positive benefits of telepractice (Constantinescu & Dornan, 2014). There was also limited evidence to suggest a difference between face-to face and telepractice in the relationships formed between speech pathologists and their clients and families (Bridgman et al., 2016). Packman and Meredith, (2011) concluded that there are several regions worldwide where face-to face treatment remains impossible for families therefore making the use of telepractice inevitable and an exciting area for Speech Pathologists to explore.

While telepractice has been shown to be hugely beneficial several factors need to be considered by speech pathologists when implementing it. In addition to ensuring the presence of sufficient internet coverage/bandwidth;





speech pathologists should especially ensure there is no breach of professional standards and ethical codes of conduct (Meredith et al., 2013). The speech pathologist, clients and their families also need to be familiar with technology for it to be successful. Furthermore, intense trialing, evaluation, management and development is further warranted for telepractice and virtual worlds to be rendered practical and ethical alternatives for traditional speech pathologist-client interactions (Meredith et al., 2013).

Speech Pathology Australia (2014) "supports the use of telepractice as a service delivery model where telepractice is based on current evidence-based practice and is at least equivalent to standard clinical care." The SPA position paper on telehealth concludes that it "is critical that the outcomes from speech pathology services using telepractice are at least comparable to current clinical care."

3. The ethics



Given our current 2020 restrictions of social isolation the alternative to telepractice may well be no support. Consideration of telepractice therefore is crucial. The fundamental tenets supporting access to education for students with a disability are still relevant. The United Nations Convention on the Rights of Persons with Disabilities underpins our work in ensuring equal access to education for students with oral language or literacy difficulties. The Salamanca statement (UNESCO,1994), calls on all schools to ensure that they respond to the needs of all students through the use of adjusted curriculum, organizational strategies, good teaching and partnerships. The statement is a call to educators to provide a continuum of support to meet the needs of students. We know that explicit intervention for vulnerable learners is required to prevent the education gap increasing (Ramey & Ramey, 1998; Hattie et al., 2015). We also know that engaging parents in students learning has a positive outcome in greater outcomes (Hattie et al., 2015; Shneider, 2019). Telehealth, during this Coronavirus pandemic we find ourselves in, has the potential to ensure we continue to provide explicit supports to these students and incorporate the additional value of increased involvement of parents.



VIDEO

More than half of SPS schools have adopted real-time video collaboration to support vulnerable learners

4. Remote learning options

School are using their speech pathologists in a variety of ways to support their vulnerable learners. Most schools are using a combination of strategies. The value of each is summarized in Figure 1 below.

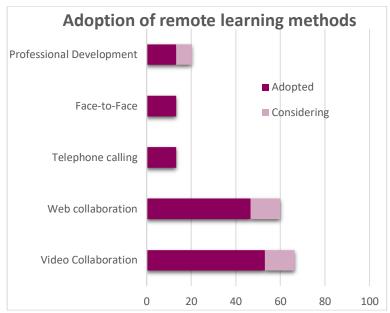


Figure 1: Proportion of Schools adopting remote learning methods

More than half the schools are incorporating real time video conferencing element to support vulnerable learners. Speech pathologist are working with groups of students or with parents and students using different online platforms. A similar number of schools are using web collaborations. Fewer are doing face to face in person sessions at the school or telephone calls. Telephone calls however tended to be in conjunction with other supports such as video conferencing or web collaborations. A few schools have made the decision to focus this time on professional development and resource development to support teachers and Learning support staff.

There are several key considerations when selecting remote learning methodology. Figure 2 shows the efficacy of each remote learning method using a 5-star rating system. There are also a range of issue to be aware of when adopting any method – shown in the column on key issues.





5-STAR RATING

SPS has compiled a rating system for efficacy of remote learning based on:

- Supporting evidence
- 2. Session modelling
- Parent engagement
- 4. Real-time feedback
- 5. Measure progress

The SPS five-star rating system was compiled by considering the following: 1. Strong supportive research evidence 2. The ability to model a session 3. The ability to engage an alternative agent (LSO or parent) who can do repeated practice 4. The ability to provide real time feedback 5. The ability to measure goal progress by collecting data.

Туре	Description	EFFICACY	Key issues
Professional development	Online or video conferenced professional development for school staff	አ አ አ	Professional development with a specialist embedded in the school context has high effect on student outcomes
Face to face	On school site, to instruct parents on intervention techniques to apply at home	☆☆☆☆	Level of school closure. With parent and student. Engages parents to improve generalisation of skills. Social distancing makes this challenging. Not being adopted highly
Telephone calling	Daily check-in call for home learning progress	አ አ	Low fidelity. However, research has indicated that good outcomes can still be achieved.
Web collaboration	On demand content, emails, files or pre-recorded presentations	<mark>ተ</mark> ተተ	One-way. Lack immediate feedback. Can incorporate opportunities for feedback.
Video collaboration	Immersive real time online experience	☆☆☆☆	Interactive. High fidelity. Engages parents to improve generalisation of skills. Potential technical issues.

Figure 2: Efficacy of literacy & oral language supports during school closures

We need to be aware that face-to-face intervention for vulnerable learner is highly effective. There is a potential to increase the opportunities for parents to be part of these sessions in order to better generalize the skills being supported. While most schools have not been able to continue with face-to-face intervention due to social





distancing restrictions, it is something to implement as early as feasible for vulnerable learners as it is a very good option.

Video collaboration also gets 5-stars. What set it apart from other online options is that it is real-time and interactive. This provides the ability to "interact" that is so crucial in providing that real time feedback loop when supporting vulnerable learners with literacy and oral language development.

Video based telehealth in speech pathology is not something new - numerous research papers have been undertaken that indicate positive outcomes.

5. Actions to support vulnerable learners.

There are a range of explicit actions that can be undertaken to support vulnerable learners. The key is to start with the differentiated learning supports that were in place prior to remote learning commencing. From this point determine the best option available to replicate this support and finally consider if there is any way or add value to what was previously offered.



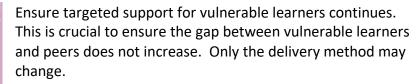
Actions	Insight	
Carry on with targeted support for vulnerable learners	Needed to ensure gap between vulnerable learners and peers does not increase	
Monitor ongoing progress on PLP goals	PLP goals stay the same even in remote learning settings. Data is still needed to modify goals to keep progress on track	
Engage parents	Opportunity exists to engage parents like never before. Multiplicative effect on ongoing generalisation of language skills for vulnerable learners	
Perform Diagnostic Assessments early	Assessment efficacy maintained even in remote setting (Diagnostic language assessments are available for online administering). Doing assessments now will avoid delayed supports once back at school	
Undertake Professional Development	Remote teaching requires more effort than classroom teaching. Use every opportunity to build skills where staff have availability. Customise resources for remote learning (e.g. SPS is developing specific programs and resources to support school staff)	

Figure 3: Action to prioritise vulnerable learners



ELEVATING VULNERABLE LEARNERS

The evidence for remote learning, and the ethics of explicit intervention required to prevent the education gap, shows that vulnerable learners can, and should, be elevated even in remote learning settings



Monitor ongoing progress on education goals. Data is still needed to modify goals to keep progress on track. Speech pathologists and others should continue collecting progress data for students. It will also be of interest to compare this to data from previous years to see the impact the pandemic had on students' outcomes.

Engage parents. There may be an opportunity here to add value to intervention that was offered previously. We may have an opportunity to engage parents like never before. The extra horsepower parents can provide for ongoing generalisation of language skills for vulnerable learners cannot be underestimated.

Perform diagnostic assessments early. The efficacy of online assessments such as diagnostic language assessments is maintained even in a remote setting. There is no need to put off doing assessments. Doing assessments now will avoid backlogs or delayed supports once students are back at school.

Undertake professional development whenever possible. Remote teaching requires more effort than classroom teaching. Use every opportunity to plan with teachers and build skills where staff have availability. Customise resources for remote learning

6. Conclusion

To ensure that the learning gap is not widened it is imperative that targeted supports are implemented to assist vulnerable learners. A continuum of support is availble to meet the needs of *all* students. This has not changed. The evidence is sound; telepractice can be hugely beneficial. Using telepractice there are several actions that can be implemented to provide generalised remote learning as well explicit targeted support as required. The mode of delivery and the actions may vary depending on school communities. There is no reason why differentiated learning should be put on hold through this Coronavirus Pandemic. SPS continues to collaborate with schools to ensure our vulnerable students are supported. We need to ensure that we **do not** flatten the curve for student outcomes.



References:

Bridgman, K., Onslow, M., O'Brian S., Jones M., & Block, S. (2016). Lidcombe Program webcam treatment for early stuttering: A randomized controlled trial. *Journal of Speech, Language, and Hearing Research*, *59*(5), 932-939. doi:10.1044/2016_JSLHR-S-15-0011

Constantinescu, G., & Dornan, D. (2014). International applications of telepractice in speech-language pathology. In K. T. Houston, *Telepractice in speech-language pathology* (261-300). San Diego, CA: Plural Publishing.

Gray, C. (2020). *My story about pandemics and the Coronavirus*. Retrieved from https://carolgraysocialstories.com/wp-content/uploads/2020/03/Pandemics-and-the-Coronavirus.pdf

Hattie, J., Masters, D., & Birch, K. (2015). *Visible learning into action: International case studies of impact.* London: Routledge.

Lowe R., O'Brian, S., & Onslow, M. (2013). Review of telehealth stuttering management. *Folia Phoniatrica et Logopaedica*, *65*(5), 223–238. doi:10.1159/000357708

McGill, M., Noureal, N., & Siegel, J. (2019). Telepractice treatment of stuttering: A systematic review. *Telemedicine and eHealth*, *25*(5), 359-368. doi:10.1089/tmj.2017.0319.

Meredith, G., Firmin, S., & McAllister, L. (2013). Digital possibilities and ethical considerations: Speech-language pathologists and the web. *Journal of Clinical Practice in Speech-Language Pathology*, *15*(1), 44-47.

Molini-Avejonas, D.R., Rondon-Melo, S., Albuquerque de La Higuera Amato, C., & Samelli, A. G. (2015). A systematic review of the use of telehealth in speech, language and hearing sciences. *Journal of Telemedicine and Telecare*, *21*(7), 367-376. doi:10.1177/1357633X15583215

O'Brian, S., Smith, K., & Onslow, M. (2014). Webcam delivery of the Lidcombe Program for early stuttering: A phase I clinical trial. *Journal of Speech, Language, and Hearing Research,* 57(3), 825-830. doi:10.1044/2014 JSLHR-S-13-0094



OECD (2019). PISA 2018 results (volume II): Where all students can succeed. doi:10.1787/b5fd1b8f-en

Schleicher, A. (2019). PISA 2018: Insights and interpretations. Retrieved from http://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.p

Packman, A., & Meredith, G. (2011). Technology and the evolution of clinical methods for stuttering. *Journal of Fluency Disorders*, *36*(2),75–85. doi:10.1016/j.jfludis.2011.02.005

Ramey, C. T., & Ramey, S. L. (1998). Early intervention and early experience. *American Psychologist*, *53*(2), 109–120. doi:10.1037/0003-066X.53.2.109

Speech Pathology Australia (2011). Position statement: Speech pathology services in schools. Available from https://www.speechpathologyaustralia.org.au/

Speech Pathology Australia (2014). Position statement: Telepractice in speech pathology. Available from https://www.speechpathologyaustralia.org.au/

Theorodos, D. (2012). A new era in speech-language pathology practice: Innovation and diversification. *International Journal of Speech-Language Pathology*, *14*(3), 189–199. doi: 10.3109/17549507.2011.639390

UNESCO (1994). *The Salamanca Statement and Framework for action on special needs education.* Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000098427

Carol Gray Social story on the Corona virus Pandemic for children. https://carolgraysocialstories.com/wp-content/uploads/2020/03/Pandemics-and-the-Coronavirus.pdf