

Commentary on “The Benefits of Precision Teaching for Educational Psychologists”

Owen, Kaydee

## Tizard Learning Disability Review

DOI:

[10.1108/TLDR-04-2024-0017](https://doi.org/10.1108/TLDR-04-2024-0017)

E-pub ahead of print: 18/11/2024

Peer reviewed version

[Cyswllt i'r cyhoeddiad / Link to publication](#)

*Dyfyniad o'r fersiwn a gyhoeddwyd / Citation for published version (APA):*

Owen, K. (2024). Commentary on “The Benefits of Precision Teaching for Educational Psychologists”. *Tizard Learning Disability Review*. Advance online publication. <https://doi.org/10.1108/TLDR-04-2024-0017>

### Hawliau Cyffredinol / General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

## Commentary on “The Benefits of Precision Teaching for Educational Psychologists”

*Kaydee Leanne Owen<sup>1\*</sup>*

<sup>1</sup> Collaborative Institute for Education Research, Evidence, and Impact; School of Education, Bangor University.

\*Corresponding email: [kaydee.owen@bangor.ac.uk](mailto:kaydee.owen@bangor.ac.uk)

### **Abstract**

**Purpose** – This commentary aims to reflect on the paper by Kubina et al. (2024).

**Design/methodology/approach:** It offers an overview of the existing evidence base for precision teaching to support individuals with intellectual and developmental disabilities and some of the wider considerations around training for educational psychologists.

**Findings:** Precision teaching approaches can yield positive outcomes when delivered to high levels of fidelity.

**Originality/value:** This paper advocates for training opportunities for educational psychologists so they can use precision teaching strategies with their learners and work effectively with teachers.

**Key words:** Educational Psychologists, Precision Teaching, Fluency, Celeration

**Classification:** Commentary

## **Introduction**

Kubina et al. (2024; this issue) highlight how precision teaching (PT) can help amplify educational psychologists' capacity to support students. By providing operational definitions and pinpoints for observable target behaviour(s), it is possible to adopt a more meaningful approach to assessment. By design, the Standard Celeration Chart (SCC) offers an accurate representation of data change and patterns (Calkin, 2005). Using learning pictures to guide decision making can help educational psychologists to problem solve with their students—that is, they can adopt successive and systematic strategies until they identify an approach that has a positive effect on the target behaviour (Kubina, 2021) and enables learners to retain, endure, and apply skills (Johnson & Layng, 1996). This can help facilitate conversations with school staff around strategies that they can employ to support students' gains between intervention sessions (Kubina et al., 2004; this issue).

## **Understanding the evidence-base**

Reviewing published research can help us to ascertain expected outcomes when using PT within particular contexts (e.g., with different populations, on different scales, within different settings). However, it is important to note that historically PT practitioners have disseminated their work to the wider community through channels other than peer-reviewed journals (Binder, 1996) such as at SCC 'chart share' events in cities, universities, and schools (Lindsley, 1991). Calkin (2002) estimated that by February 2000, practitioners had used over 1-million SCCs to record data—the majority of which have not been published online.

That said, the published evidence base surrounding the use of PT to support individuals with learning and developmental disabilities is largely positive. For example, Ramey's (2016) review of 55 studies highlighted promising outcomes across targeted domains of numeracy, literacy, vocational/daily living skills, and other behavioural repertoires. Since its publication, others have reported similar findings (see for example Vascelli et al., 2023; Vostanis et al. 2020); with assessments suggesting that learners and practitioners view PT approaches positively (see for example Datchuk, 2017). In applied settings, these are pivotal factors in deciding whether to terminate or continue using the approach (McTiernan et al., 2022).

Much of the literature reports on the efficacious use of PT (i.e., those with extensive training/knowledge of charting conventions designing and delivering programmes to high levels of fidelity). In the context of the practice of educational psychologists, these data are useful as they are likely to have a level of background knowledge that will support implementation (Owen et al., 2022). Educational psychologists are also well placed to train/support teachers in more scalable approaches to PT in classrooms (Sundhu & Kittles, 2016), with evidence suggesting that coaching can improve outcomes from educational interventions including PT (Kraft et al., 2018; Owen et al., 2021; Roberts and Norwich, 2010).

### **Considerations for professional training**

In the United Kingdom, the British Psychological Society (2023) outline the standards for the accreditation of doctoral programmes in educational psychology. This aims to uphold training quality beyond the threshold required to register with the Health and Care Professions Council (HCPC) after graduation. Following the ethos that educational psychology programmes should be diverse and respond to local/changing circumstances, the way in which institutions meet the standards is not prescriptive. This means that institutions are not obligated to provide their doctoral students with the knowledge and experience to use PT in their practice. However, educational psychologists registered with the HCPC must engage in continual professional development that will benefit themselves and the stakeholders they work with (Association of Educational Psychologists, 2022). With a growing evidence base in support of the use of PT in mainstream, special education, and alternative settings it is important that practicing educational psychologists have access to (1) high-quality training provision to learn how to apply the principles of PT to fidelity in practice—this includes a comprehensive introduction to charting conventions—and (2) a wider community of precision teachers who they can share best practice with.

### **Conclusion**

From the literature, we can ascertain that when practitioners deliver PT to high levels of fidelity it is a promising approach for supporting skill development. This is not a mandatory requirement at present for trainee educational psychologists to gain experience of PT during their doctoral-level studies. As such, we should consider whether there are enough opportunities for HCPC registered educational psychologists to receive robust training and integrate into the wider

PT community. As the system gains more practitioners with expertise in this approach, we can begin to open communication/training channels with teachers and support learners on a wider scale.

## References

- Association of Educational Psychologists (2022), “HCPC - CPD & Audits”, Read online <https://www.aep.org.uk/support/hcpc-cpd-audits>, accessed 16 April 2024
- Binder, C. (1996), “Behavioral fluency: evolution of a new paradigm”, *The Behavior Analyst*, Vol. 19 No. 2, pp. 163–197, doi: [10.1007/BF03393163](https://doi.org/10.1007/BF03393163)
- British Psychological Society (2023), “Standards for the accreditation of doctoral programmes in educational psychology: England, Wales and Northern Ireland”, Read online <https://cms.bps.org.uk/sites/default/files/2023-12/Educational%20Psychology%20Handbook%20-%20Standards%20for%20Accreditation.pdf>, accessed 16 April 2024
- Calkin, A.B. (2002), “Estimated number of standard celeration charts as of 2000”, *Journal of Precision Teaching & Celeration*, Vol. 18 No. 1, pp. 33-34.
- Calkin, A.B. (2005), “Precision teaching: The standard celeration chart”, *The Behavior Analyst Today*, Vol. 6 No.4, pp. 207–215, doi: [10.1037/h0100073](https://doi.org/10.1037/h0100073)
- Datchuk, S.M. (2017), “A direct instruction and precision teaching intervention to improve the sentence construction of middle school students with writing difficulties”, *The Journal of Special Education*, Vol. 51 No. 2, pp. 62-71, doi: [10.1177/0022466916665588](https://doi.org/10.1177/0022466916665588)
- Johnson, K.R. and Layng, T.J. (1996), “On terms and procedures: Fluency”, *The Behavior Analyst*, Vol. 19, pp. 281-288.
- Kraft, M.A., Blazar, D., and Hogan, D. (2018), “The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence”, *Review of Educational Research*, Vol. 88 No. 4, pp. 547–588, doi: [10.3102/003](https://doi.org/10.3102/003)
- Kubina, R.M. (2021), “Precision teaching and behavior dynamics”, *Behavior Analysis in Practice*, Vol. 14, pp. 577-581, doi: [10.1007/s40617-020-00482-3](https://doi.org/10.1007/s40617-020-00482-3)
- Kubina, R.M., Van, J. and Halkowski, M. (2024), “The Benefits of Precision Teaching for Educational Psychologists”, *Tizard Learning Disability Review*, Vol. 29 No. 3.

Lindsley, O.R. (1991), “B.F. Skinner (1904-1990): Thank you, Grandpa Fred”, *The Journal of Precision Teaching*, pp. 1-17, Read online

[https://binde1.verio.com/wb\\_fluency.org/LabResearch/Lindsley1991.pdf](https://binde1.verio.com/wb_fluency.org/LabResearch/Lindsley1991.pdf)

Mc Tiernan, A., McCoy, A., Mendonca, J., Lydon, H., and Diffley, S. (2022), “The implementation of Precision Teaching for the improvement of academic skills: A systematic review of the literature over thirty years”, *Behavioral Interventions*, Vol. 37 No. 2, pp. 505-528, doi: [10.1002/bin.1852](https://doi.org/10.1002/bin.1852)

Owen, K.L., Hunter, S.H., Watkins, R.C., Payne, J.S., Bailey, T., Gray, C., ... Hughes, J.C. (2021), “Implementation Support Improves Outcomes of a Fluency-Based Mathematics Strategy: A Cluster-Randomized Controlled Trial”, *Journal of Research on Educational Effectiveness*, Vol. 14 No.3, pp. 523–542, doi: [10.1080/19345747.2021.1875526](https://doi.org/10.1080/19345747.2021.1875526)

Owen, K.L., Watkins, R.C. and Hughes, J.C. (2022), From evidence-informed to evidence-based: an evidence building framework for education”, *Review of Education*, Vol 10 No. 1, pp. e3342, doi: [10.1002/rev3.3342](https://doi.org/10.1002/rev3.3342)

Piece, T. (2024), “The Benefits of Precision Teaching for Educational Psychologists”, *Tizard Learning Disability Review*.

Ramey, D., Lydon, S., Healy, O., McCoy, A., Holloway, J. and Mulhern, T. (2016), “A systematic review of the effectiveness of precision teaching for individuals with developmental disabilities”, *Review Journal of Autism and Developmental Disorders*, Vol. 3, pp.179-195, doi: [10.1007/s40489-016-0075-z](https://doi.org/10.1007/s40489-016-0075-z)

Roberts, W. and Norwich, B. (2010), “Using precision teaching to enhance the word reading skills and academic self-concept of secondary school students: a role for professional educational psychologists”, *Educational Psychology in Practice*, Vol. 26 No. 3, pp. 279–298, doi: [10.1080/02667363.2010.495215](https://doi.org/10.1080/02667363.2010.495215).

Sundhu, R. and Kittles, M. (2016), “Precision teaching: does training by educational psychologist have an impact?”, *Educational Psychology in Practice*, Vol. 32 No. 1, pp. 13–23. doi: [10.1080/02667363.2015.1094651](https://doi.org/10.1080/02667363.2015.1094651)

Vascelli, L., Artoni, V. and Berardo, F. (2023), “Using precision teaching to train motor skills to improve the daily living skills of adolescents with intellectual disabilities”, *Journal of Developmental and Physical Disabilities*, Vol. 35 No. 1, pp. 1-16, doi: [10.1007/s10882-022-09842-z](https://doi.org/10.1007/s10882-022-09842-z)

Vostanis, A., Padden, C., Chiesa, M., Rizos, K. and Langdon, P.E. (2020), “A precision teaching framework for improving mathematical skills of students with intellectual and developmental disabilities”. *Journal of Behavioral Education*, Vol. 30 No. 4, pp. 513-533, doi: [10.1007/s10864-020-09394-2](https://doi.org/10.1007/s10864-020-09394-2)