



Evidence-Based Intervention: Instructional Psychology Principles

1. Introduction

Instructional psychology principles are an evidence-based framework for supporting effective teaching and learning across the curriculum. Grounded in research, these principles help school staff design and deliver teaching that supports all learners by focusing on how skills are taught, practiced, and applied.

2. Purpose of Intervention

Instructional psychology principles aim to:

- Improve attainment across the curriculum.
- Support school staff to implement evidence-based teaching strategies.
- Support schools in identifying and addressing learning needs through curriculum and teaching adaptations.

3. Target Audience

All children and young people can benefit from instructional psychology principles.

4. Who Can Deliver the Intervention

Instructional psychology principles are typically used by classroom-based school staff, such as teachers and learning support assistants.

5. Session Structure

Instructional psychology principles are not typically delivered in distinct sessions, but incorporated into existing teaching and learning practices. One example of this would be precision teaching, an intervention which draws on instructional psychology principles.

6. Frequency and Duration

As above, instructional psychology principles are generally incorporated into existing teaching and learning practices.

7. Key Principles

Key instructional psychology principles include:

- **Direct instruction.** Teaching new skills explicitly and unambiguously to reduce misinterpretation.
- **Distributed learning.** “Little and often” practice, spread out over time to enhance retention through repeated exposure and consolidation
- **Haring’s Instructional Hierarchy.** A model of skill acquisition and mastery:
 - Accuracy – Learners perform the skill correctly.
 - Fluency – Learners perform the skill quickly and effortlessly.
 - Maintenance – Learners retain the skill over time without direct instruction.
 - Generalisation – Learners apply the skill in different contexts.
 - Application – Learners use the skill independently in novel situations.
- **Teaching one skill at a time** to support clarity and mastery.
- **Separating easily confused skills** to reinforce correct associations.
- **Interleaved learning.** Mixing new learning with previously taught material to encourage distinction between learning and support consolidation.
- **Contextual diversity.** Teaching skills in a variety of contexts to support generalisation and transfer skills beyond the original learning environment.



- **Teaching meta-cognitive strategies** so that learners can understand how they learn and adjust their strategies to build independence.

8. Training and Implementation

Instructional psychology principles can be incorporated into existing teaching and learning practices once staff have an understanding of what they are. More structured training can also be delivered by professionals such as Educational Psychologists.

9. Evidence and Outcomes

Ward, Crawford and Solity (2017) found that training school staff in principles of instructional psychology led to the following outcomes:

- One school reported an average of 18 months reading progress in 8 months across a whole class.
- Teachers reported:
 - Increased understanding of instructional principles.
 - Improved teaching confidence.
 - Enhanced pupil metacognition.
 - More effective use of teaching assistants.

10. Feedback

Ward, Crawford and Solity (2017) have shared the following feedback in their research paper:

- Teachers valued the evidence-based approach and reflection time.
- Some barriers included time commitment and difficulty disseminating learning to colleagues.
- Suggestions included whole-school twilight sessions for broader implementation.

11. Further Information and Resources

[American Psychological Association – Tools for Teachers](#)

Hattie, J., & Yates, G. C. (2013). *Visible learning and the science of how we learn*. Routledge.

Seabrook, R., Brown, G. D., & Solity, J. E. (2005). Distributed and massed practice: From laboratory to classroom. *Applied cognitive psychology*, 19(1), 107-122.

Ward, J., Crawford, S., & Solity, J. (2017). Applying assessment through teaching and instructional psychology: An alternative model of service delivery to raise attainment in primary schools. *Educational & Child Psychology*, 34(1).