



Universiteit
Leiden
The Netherlands

Computerised dynamic testing: An assessment approach that tailors to children's instructional needs

Touw, K.W.J.

Citation

Touw, K. W. J. (2020, September 17). *Computerised dynamic testing: An assessment approach that tailors to children's instructional needs*. Retrieved from <https://hdl.handle.net/1887/136755>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/136755>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



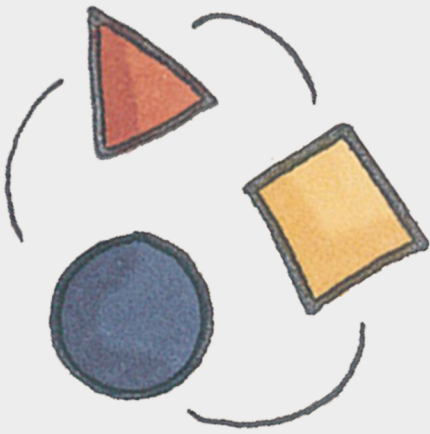
The handle <http://hdl.handle.net/1887/136755> holds various files of this Leiden University dissertation.

Author: Touw, K.W.J.

Title: Computerised Dynamic Testing: An assessment approach that tailors to children's instructional needs

Issue Date: 2020-09-17

References



A

- Alexander, P. A., Willson, V. L., White, C. S., & Fuqua, J. D. (1987). Analogical reasoning in young children. *Journal of Educational Psychology*, 79, 401-408.
- Alloway, T. P. (2007). *Automated Working Memory Assessment (AWMA)*. Amsterdam, The Netherlands: Pearson.
- Azevedo, R., Behnagh, R., Duffy, M., Harley, J., & Trevors, G. (2012). Metacognition and self-regulated learning in student-centered learning environments. In D. Jonassen, & S. Land (Eds.), *Theoretical foundations of student-centered learning environments* (pp. 171-197). New York, NY: Routledge.

B

- Baldo, J. V., Paulraj, S. R., Curran, B. C., & Dronkers, N. F. (2015). Impaired reasoning and problem-solving in individuals with language impairment due to aphasia or language delay. *Frontiers in Psychology*, 6, 1523.
- Bates, D., & Maechler, M. (2010). lme4: Linear mixed modeling using Eigen and Eigen++ (Computer program and manual). Available from: <http://cran.r-project.org/web/packages/lme4/>
- Beckmann, J. F. (2006). Superiority: always and everywhere? – On some misconceptions in the validation of dynamic testing. *Educational and Child Psychology*, 23 (3), 35-49.
- Beckmann, J. F. (2014). The umbrella that is too wide and yet too small: Why dynamic testing has still not delivered on the promise that was never made. *Journal of Cognitive Education and Psychology*, 13(3), 308-323.
- Bennett, R. E. (2011). Formative assessment: A critical review. *Assessment in Education: Principles, Policy & Practice*, 18(1), 5-25.
- Berk, L. E., & Garvin, R. A. (1984). Development of private speech among low-income Appalachian children. *Developmental Psychology*, 20, 271-286.
- Bishop, D. V., Snowling, M. J., Thompson, P. A., & Greenhalgh, T. (2016). CATALISE: A multinational and multidisciplinary Delphi consensus study. Identifying language impairments in children. *PLOS one*, 11(7), e0158753.
- Bishop, D. V., Snowling, M. J., Thompson, P. A., Greenhalgh, T., Catalise-2 Consortium, Adams, C., ... & Boyle, C. (2017). Phase 2 of CATALISE: A multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology and Psychiatry*, 58(10), 1068-1080.
- Bosma, T. (2011). *Dynamic testing in practice: shall I give you a hint?* Doctoral thesis, Leiden University.

- Bosma, T., & Resing, W. C. M. (2008). Bridging the gap between diagnostic assessment and classroom practice. *Journal of Cognitive Education and Psychology*, 7, 174-196.
- Bosma, T., & Resing, W. C. M. (2012). Need for instruction: Dynamic testing in special education. *European Journal of Special Needs Education*, 27(1), 1-19.
- Bosma, T., Stevenson, C. E., & Resing, W. C. M. (2017). Differences in need for instruction: Dynamic testing in children with arithmetic difficulties. *Journal of Education and Training Studies*, 5(6), 132-145.
- Bourke, R., & Mentis, M. (2014). An assessment framework for inclusive education: Integrating assessment approaches. *Assessment in Education: Principles, Policy & Practice*, 21(4), 384-397.
- Breiman, L., Friedman, J. H., Olshen, R. A., & Stone, C. J. (1984). *Classification and regression trees*. Belmont, CA: Wadsworth International Group.
- Brown-Chidsey, R., & Steege, M. W. (2005). *Response to intervention: Principles and methods for effective practice*. New York, NY: Guilford.

C

- Caffrey, E., Fuchs, D., & Fuchs, L. S. (2008). The predictive validity of dynamic assessment: A review. *The Journal of Special Education*, 41(4), 254-270.
- Camilleri, B., & Botting, N. (2013). Beyond static assessment of children's receptive vocabulary: The dynamic assessment of word learning (DAWL). *International Journal of Language & Communication Disorders*, 48, 565-581.
- Campione, J. C., & Brown, A. L. (1987). Linking dynamic assessment with school achievement. In C. S. Lidz (Ed.), *Dynamic assessment: An interactional approach to evaluating learning potential* (pp. 82-109). New York, NY: Guilford Press.
- Campione, J. C., Brown, A. L., Ferrara, R. A., Jones, R. S., & Steinberg, E. (1985). Breakdowns in flexible use of information: Intelligence-related differences in transfer following equivalent learning performance. *Intelligence*, 9(4), 297-315.
- Cattell, R. B. (1963). Theory of fluid and crystallized intelligence: A critical experiment. *Journal of educational psychology*, 54(1), 1.
- Ciampa, K. (2013). Learning in a mobile age: an investigation of student motivation. *Journal of Computer Assisted Learning*, 30, 82-96. doi:10.1111/jcal.12036
- Cito (2012). *Leerling- en Onderwijsvolgsysteem (LOVS)*. Arnhem: Cito.
- Clements, D. H., & Samara, J. (2002). The role of technology in early childhood learning. *Teaching Children Mathematics*, 8(6), 340-343.

- Crick, R. D. (2007). Learning how to learn: The dynamic assessment of learning power. *The Curriculum Journal*, 18(2), 135-153.
- Cromley, J. G., Snyder-Hogan, L. E., & Luciw-Dubas, U. A. (2010). Reading comprehension of scientific text: A domain-specific test of the direct and inferential mediation model of reading comprehension. *Journal of Educational Psychology*, 102(3), 687.
- Cronbach, L. J., & Furby, L. (1970). How we should measure "change" – or should we? *Psychological Bulletin*, 74(1), 68-80.
- Csapó, B. (1997). The development of inductive reasoning: Cross-sectional assessments in an educational context. *International Journal of Behavioral Development*, 20(4), 609-626.

D

- Day, J. D., Engelhardt, J. L., Maxwell, S. E., & Bolig, E. E. (1997). Comparison of static and dynamic assessment procedures and their relation to independent performance. *Journal of Educational Psychology*, 89, 358-368.
- De Beer, M. (2005). Development of the Learning Potential Computerized Adaptive Test (LPCAT). *South African Journal of Psychology*, 35(4), 717-747.
- De Beer, M. (2013). The Learning Potential Computerised Adaptive Test in South Africa. In S. Laher, & K. Cockcroft (Eds.), *Psychological assessment in South Africa: Research and applications* (pp. 137-157). Johannesburg, South Africa: Wilts University Press.
- De Koning, E., & Hamers, J. H. M. (1999). Teaching inductive reasoning: Theoretical background and educational implications. *Teaching and learning thinking skills*, 157-188.
- De Koning, E., Hamers, J. H., Sijtsma, K., & Vermeer, A. (2002). Teaching inductive reasoning in primary education. *Developmental Review*, 22(2), 211-241.
- De Koning, E., Sijtsma, K., & Hamers, J. H. M. (2003). Construction and validation of a test for inductive reasoning. *European Journal of Psychological Assessment*, 19(1), 24-39.'
- De Vries, M.J. (2018) Philosophy of Technology: Themes and Topics. In: de Vries M. (eds) Handbook of Technology Education. Springer International Handbooks of Education. Springer, Cham
- Dixson, D. D., & Worrell, F. C. (2016). Formative and summative assessment in the classroom. *Theory Into Practice*, 55(2), 153-159.
- Domingo, M. G., & Garganté, A. B. (2016). Exploring the use of educational technology in primary education: Teachers' perception of mobile technology learning impacts and applications' use in the classroom. *Computers in Human Behavior*, 56, 21-28.

E

- Elliott, J. G. (2003). Dynamic assessment in educational settings: Realising potential. *Educational Review*, 55(1), 15-32.
- Elliott, J. G., Grigorenko, E. L., & Resing, W. C. M. (2010). Dynamic assessment: The need for a dynamic approach. In P. Peterson, E. Baker, & B. McGaw (Eds.), *International encyclopedia of education* (Vol. 3, pp. 220-225). Amsterdam, The Netherlands: Elsevier.
- Elliott, J. G., & Resing, W. C. M. (2015). Can intelligence testing inform educational Intervention for children with reading disability? *Journal of Intelligence*, 3(4), 137-157.
- Elliott, J. G., Resing, W. C. M., & Beckmann, J. F. (2018). Dynamic assessment: A case of unfulfilled potential? *Educational Review*, 70(1), 7-17.
- Embretson, S. E. (1987). Improving the measurement of spatial aptitude by dynamic testing. *Intelligence*, 11, 333-358.
- Embretson, S. E. (1991). A multidimensional latent trait model for measuring learning and change. *Psychometrika*, 56(3), 495-515.
- Embretson, S. E., & Prenovost, L. K. (2000). Dynamic cognitive testing: What kind of information is gained by measuring response time and modifiability? *Educational and Psychological Measurement*, 60(6), 837-863.
- Embretson, S. E., & Reise, S. P. (2000). *Item response theory for psychologists*. Mahwah, NJ: Erlbaum Publishers.
- Ericsson, K. A., & Simon, H. A. (1984). *Protocol analysis: Verbal reports as data*. the MIT Press.

F

- Fabio, R. A. (2005). Dynamic assessment of intelligence is a better reply to adaptive behaviour and cognitive plasticity. *The Journal of General Psychology*, 132, 41-64.
- Farrington-Flint, L., Coyne, E., Stiller, J., & Heath, E. (2008). Variability in children's early reading strategies. *Educational Psychology*, 28(6), 643-661.
- Feinberg, A. B., & Shapiro, E. S. (2009). Teacher accuracy: An examination of teacher-based judgments of students' reading with differing achievement levels. *The Journal of Educational Research*, 102(6), 453-462.
- Ferrara, R. A., Brown, A. L., & Campione, J. C. (1986). Children's learning and transfer of inductive reasoning rules: Studies of proximal development. *Child Development*, 57, 1087-1099.
- Furio, D., Juan, M. C., Segui, I., & Vivo, R. (2015). Mobile learning vs. traditional classroom lessons: A comparative study. *Journal of Computer Assisted Learning*, 31(3), 189-201.

Fööl, T., Ebner, M., Schön, S., & Holzinger, A. (2016). A field study of a video supported seamless-learning-setting with elementary learners. *Educational Technology & Society*, 19(1), 321-336.

G

Geary, D. C. (2011). Cognitive predictors of achievement growth in mathematics: a 5-year longitudinal study. *Developmental psychology*, 47(6), 1539.

Gerrits, E., Visser-Bochane, M. I., Cohen Tervaert, F. A., Crielaard, R., Van Essen, Y., Sluijmers, J., ... Pallas (2017). *Richtlijn Logopedie bij Taalontwikkelingsstoornissen [Speech therapy guideline for Developmental Language Disorders]*. Woerden, The Netherlands: NVLF.

Gillam, R. B., & Peña, D. (2004). Dynamic assessment of children from culturally diverse backgrounds. *Communication Disorders and Sciences in Culturally and Linguistically Diverse Populations*, 11(1), 2-5.

Gipps, C.V. (1994). *Beyond testing: Towards a theory of educational assessment*. London: Falmer Press.

Glaspey, A., & Stoel-Gammon, C. (2007). A dynamic approach to phonological assessment. *Advances in Speech Language Pathology*, 9(4), 286-296.

Goswami, U. (2002). *Analogical reasoning in children*. Hove, UK: Erlbaum.

Goswami, U. (2012). Analogical reasoning by young children. In N. M. Seel (Ed.). *Encyclopedia of the Sciences of Learning* (pp. 225-228). New York, NY: Springer.

Gotwals, A. W. (2018). Where are we now? Learning progressions and formative assessment. *Applied Measurement in Education*, 31(2), 157-264.

Grigorenko, E. L. (2009). Dynamic assessment and response to intervention: Two sides of one coin. *Journal of Learning Disabilities*, 42(2), 111-132.

Grigorenko, E. L., & Sternberg, R. J. (1998). Dynamic testing. *Psychological Bulletin*, 124, 75-111.

Guthke, J., & Wiedl, K. H. (1996). *Dynamisches Testen [Dynamic testing]*. Göttingen, Germany: Hogrefe.

H

Hannafin, M. J., & Land, S. M. (1997). The foundations and assumptions of technology-enhanced student-centered learning environments. *Instructional Science*, 25(3), 167-202.

Harris, C. W. (1963). *Problems in measuring change*. Madison, WI: University of Wisconsin Press.

Haßler, B., Major, L., & Hennessy, S. (2016). Tablet use in schools: A critical review of the evidence for learning outcomes. *Journal of Computer Assisted Learning*, 32 (2), 139-156.

Hasson, N., & Botting, N. (2010). Dynamic assessment of children with language impairments: A pilot study. *Child Language Teaching and Therapy*, 26, 249-271.

- Hasson, N., Dodd, B., & Botting, N. (2012). Dynamic Assessment of Sentence Structure (DASS): Design and evaluation of a novel procedure for the assessment of syntax in children with language impairments. *International journal of language & communication disorders*, 47(3), 285-299.
- Hayes, B. K., Stephens, R. G., Ngo, J., & Dunn, J. C. (2018). The dimensionality of reasoning: Inductive and deductive inference can be explained by a single process. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 44(9), 1333-1351.
- Hayes, T., Usami, S., Jacobucci, R., & McArdle, J. J. (2015). Using Classification and Regression Trees (CART) and random forests to analyze attrition: Results from two simulations. *Psychology and Aging*, 30(4), 911-929.
- Haywood, H. C., & Lidz, C. S. (2007). *Dynamic assessment in practice: Clinical and educational applications*. New York, NY: Cambridge University Press.
- Hermer-Vazquez, L., Spelke, E. S., & Katsnelson, A. S. (1999). Sources of flexibility in human cognition: Dual-task studies of space and language. *Cognitive Psychology*, 39, 3–36.
- Hessels, M. G. P. (2000). The learning potential test for ethnic minorities (LEM): A tool for standardized assessment of children in kindergarten and the first years of primary school. In C. S. Lidz & J. G. Elliott (Eds.), *Dynamic assessment: Prevailing models and applications* (pp. 109-131). New York: Elsevier.
- Hessels, M. G. P., & Bosson, M. O. (2003). *Hessels Analogical Reasoning Test (HART): Instruction and manual (unpublished)*. Faculty of Psychology and Educational Sciences: University of Geneva.
- Hill, J. (2015). How useful is dynamic assessment as an approach to service delivery within educational psychology? *Educational Psychology in Practice*, 31(2), 127-136.
- Hoge, R. D. & Coladarci, T. (1989). Teacher-based judgments of academic achievement: A review of literature. *Review of Educational Research*, 59(3), 297-313.
- Hollenberg, J., Van der Lubbe, M., & Sanders, P. (Eds). (2017). *Toetsen op School: Primair Onderwijs* [Scholastic Testing: Primary Education]. Arnhem, The Netherlands: Cito B.V.
- Holzman, T. G., Pellegrino, J. W., & Glaser, R. (1983). Cognitive variables in series completion. *Journal of Educational Psychology*, 75(4), 603-618.
- Hosenfeld, B., Boom, D. C. van den & Resing, W. C. M. (1997). New instrument: Constructing geometric analogies for the longitudinal testing of elementary school children. *Journal of Educational Measurement*, 34, 4, 367-372.
- Huang, S. H., Wu, T. T., Chu, H. C., & Hwang, G. J. (2008). A decision tree approach to conducting dynamic assessment in a context-aware ubiquitous learning environment. *Fifth IEEE International Conference on Wireless, Mobile and Ubiquitous Technology in Education*, 89-94.

J

- Janssen, J., Hop, M., & Wouda, J. (2015). *Wetenschappelijke verantwoording van de LVS-toetsen: Rekenen-Wiskunde 3.0 voor groep 4* [Scientific justification of the LVS-tests: Arithmetic-Mathematics 3.0 for grade 2]. Arnhem, The Netherlands: Cito B.V.
- Jeltova, I., Birney, D., Fredine, N., Jarvin, L., Sternberg, R. J., & Grigorenko, E. L. (2007). Dynamic assessment as a process-oriented assessment in educational settings. *Advances in Speech Language Pathology, 9*(4), 273-285.
- Jeltova, I., Birney, D., Fredine, N., Jarvin, L., Sternberg, R. J., & Grigorenko, E. L. (2011). Making instruction and assessment responsive to diverse students' progress: Group-administered dynamic assessment in teaching mathematics. *Journal of Learning Disabilities, 44*(4), 381-395.

K

- Kapantzoglou, M., Restrepo, M. A., & Thompson, M. S. (2012). Dynamic assessment of word learning skills: Identifying language impairment in bilingual children. *Language, Speech, and Hearing Services in Schools.*
- Khandelwal, M. (2006). *Teaching table: A tangible mentor for pre-kindergarten math education* (Master's thesis). Retrieved from <http://synlab.ca/papers/paper/4/>
- Kingma, J. (1981). *De ontwikkeling van quantitative en relationele begrippen bij kinderen van 4-12 jaar* [The development of quantitative and relational concepts in children aged 4-12 years]. Groningen, The Netherlands: Drukkerij van Denderen.
- Klauer, K. J. (2014). Training of Inductive Reasoning - An Updated Meta-analysis. *Zeitschrift für Pädagogische Psychologie, 28*(1-2), 5-19.
- Klauer, K. J., & Phye, G. D. (2008). Inductive reasoning: A training approach. *Review of Educational Research, 78*, 85-123.
- Krom, R., Jongen, I., Verhelst, N., Kamphuis, F., & Kleintjes, F. (2010). *Wetenschappelijke verantwoording DMT en AVI* [Scientific justification of the DMT and AVI]. Arnhem, The Netherlands: Cito B.V.
- Kurth, J. A., Miller, A. L., Toews, S. G., Thompson, J. R., Cortés, M., Dahal, M. H., ... & Fonseca, I. (2018). Inclusive education: Perspectives on implementation and practice from international experts. *Intellectual and Developmental Disabilities, 56*(6), 471-485.

L

- Lauchlan, F., & Carrigan, D. (2013). *Improving learning through dynamic assessment: A practical classroom resource*. London, UK: Jessica Kingsley Publishers.
- Lauchlan, F., & Elliott, J. G. (2001). The psychological assessment of learning potential. *British Journal of Educational Psychology*, 71, 647-665.
- Law, J., Boyle, J., Harris, F., Harkness, A., & Nye, C. (2000). Prevalence and neural history of primary speech and language delay: Findings from a systematic review of the literature. *International Journal of Language & Communication Disorders*, 35, 168-188.
- Leroy, S., Parisse, C., & Maillart, C. (2012). Analogical reasoning in children with specific language impairment. *Clinical Linguistics & Phonetics*, 26, 380-396.
- Lidstone, J. S. M., Meins, E., & Fernyhough, C. (2012). Verbal mediation of cognition in children with specific language impairment. *Development and Psychopathology*, 24, 651-660.
- Lidz, C.S. (1992). Dynamic assessment: Some thoughts on the model, medium and the message. In Carlson, J.S. (Ed.), *Advances in cognition and educational practice, Vol. 1: Theoretical issues: Intelligence, cognition and assessment* (pp. 197–211). Greenwich: JAI Press.
- Loh, W. Y. (2009). Improving the precision of classification trees. *Annals of Applied Statistics*, 3(4), 1710-1737.

M

- Machts, N., Kaiser, J., Schmidt, F. T. C., & Möller, J. (2016). Accuracy of teachers' judgments of students' cognitive abilities: A meta analysis. *Educational Research Review*, 19, 85-103.
- Martin, D. (2015). Dynamic assessment of language disabilities. *Language Teaching*, 48(1), 51-68.
- McGrew, K.S. & Wending, D.P. (2010). Cattell-Horn-Carroll cognitive achievement relations: What we have learned from the past 20 years of research. *Psychology in the Schools*, 47, 651-675.
- Molnár, G., Greiff, S., & Csapó, B. (2013). Inductive reasoning, domain specific and complex problem solving: Relations and development. *Thinking skills and Creativity*, 9, 35-45.

P

- Pameijer, N. (2006). Towards needs-based assessment: Bridging the gap between assessment and practice. *Educational and Child Psychology*, 23(3), 12-24.
- Pameijer, N. (2016). Assessment and intervention: bridging the gap with a practice-based model. *Educational and Child Psychology*, 34(1), 66-82.

- Pamuk, S., Çakır, R., Ergun, M., Yılmaz, H. B., & Ayas, C. (2013). The use of tablet PC and interactive board from the perspectives of teachers and students: Evaluation of the FATİH Project. *Kuram Ve Uygulamada Eğitim Bilimleri*, 13(3), 1815-1822.
- Passig, D., Tzuriel, D., & Eshel-Kedmi, G. (2016). Improving children's cognitive modifiability by dynamic assessment in 3D immersive virtual reality environments. *Computers and Education*, 95, 296-308.
- Passolunghi, M. C., & Lanfranchi, S. (2012). Domain-specific and domain-general precursors of mathematical achievement: a longitudinal study from kindergarten to first grade. *British Journal of Educational Psychology*, 82, 42-63.
- Peltenburg, M., Van Den Heuvel-Panhuizen, M., & Doig, B. (2009). Mathematical power of special-needs pupils: An ICT-based dynamic assessment format to reveal weak pupils' learning potential 1. *British Journal of Educational Technology*, 40(2), 273-284.
- Peng, P., Wang, T., Wang, C., & Lin, X. (2019). A meta-analysis on the relation between fluid intelligence and reading/mathematics: Effects of tasks, age, and social economics status. *Psychological bulletin*, 145(2), 189.
- Perret, P. (2015). Children's inductive reasoning: Developmental and educational perspectives. *Journal of Cognitive Education and Psychology*, 14, 389-408.
- Poehner, M. E., & Lantolf, J. P. (2005). Dynamic assessment in the language classroom. *Language Teaching Research*, 9, 233-265.
- Poehner, M. E. & Lantolf, J. P. (2013). Bringing the ZPD into the equation: Capturing L2 development during Computerized Dynamic Assessment (C-DA). *Language Teaching Research*, 17(3), 323-342.
- Primi, R., Ferrão, M. E., & Almeida, L. S. (2010). Fluid intelligence as a predictor of learning: A longitudinal multilevel approach applied to math. *Learning and Individual Differences*, 20(5), 446-451.
- Pronk, C. M. E. (2014). *Learning trajectories in analogical reasoning: Exploring individual differences in children's strategy paths* (Doctoral thesis, Leiden University, The Netherlands). Retrieved from: <http://hdl.handle.net/1887/24301>

Q

- Quereshi, M. Y., & Seitz, R. (1993). Identical rules do not make letter and number series equivalent. *Intelligence*, 17, 399-405.

R

- Raven, J. (1981). *Manual for Raven's Progressive Matrices and Vocabulary Scales*. Oxford, UK: Oxford Psychologists Press.
- Raven, J., Raven, J. C., & Court, J. H. (1998). *Raven manual: Standard progressive matrices*. Oxford, UK: Oxford Psychologists Press.
- Reed, H. C., Stevenson, C., Broens-Paffen, M., Kirschner, P. A., & Jolles, J. (2015). Third graders' verbal reports of multiplication strategy use: How valid are they? *Learning and Individual Differences*, 37, 107-117.
- Resing, W. C. M. (1993). Measuring inductive reasoning skills: The construction of a learning potential test. In J. H. M. Hamers, K. Sijtsma, & A. J. J. M. Ruijsenaars (Eds.), *Learning potential assessment: Theoretical, methodological and practical issues* (pp. 219-241). Amsterdam, The Netherlands: Swets & Zeitlinger Inc.
- Resing, W. C. M. (1997). Learning potential assessment: The alternative for measuring intelligence? *Educational and Child Psychology*, 14, 68-82.
- Resing, W. C. M. (2000). Assessing the learning potential for inductive reasoning in young children. In C. S. Lidz & J. G. Elliott (Eds.), *Dynamic assessment: Prevailing models and applications* (Vol. 6, pp. 229-262). *Advances in cognition and educational practice* (series editor: J. S. Carlson). Oxford, UK: Elsevier.
- Resing, W. C. M. (2013). Dynamic testing and individualized instruction: Helpful in cognitive education? *Journal of Cognitive Education Psychology*, 12(1), 81-95.
- Resing, W. C. M., Bakker, M., Pronk, C. M. E., & Elliott, J. G. (2016). Dynamic testing and transfer: An examination of children's problem-solving strategies. *Learning and Individual Differences*, 49, 110-119.
- Resing, W. C. M., Bakker, M., Pronk, C. M. E., & Elliott, J. G. (2017). Progression paths in children's problem solving: The influence of dynamic testing, initial variability, and working memory. *Journal of Experimental Child Psychology*, 153, 83-109.
- Resing, W. C. M., Bosma, T., & Stevenson, C. E. (2012). Dynamic testing: Measuring inductive reasoning in children with developmental disabilities and mild cognitive impairments. *Journal of Cognitive Education and Psychology*, 11, 159-178.
- Resing, W. C. M., & Drenth, P. J. D. (2007). *Intelligentie: weten en meten: 2^e, herziene druk* [Intelligence: Knowing and measuring: 2nd revised edition] (pp. 1-189). Amsterdam, The Netherlands: Uitgeverij Nieuwezijds.

- Resing, W. C. M., & Elliott, J. G. (2011). Dynamic testing with tangible electronics: Measuring children's change in strategy use with a series completion task. *British Journal of Educational Psychology*, 81(4), 579-605.
- Resing, W. C. M., Elliott, J. G., & Grigorenko, E. L. (2012). Dynamic testing and assessment. In N. M. Seel (Ed.), *Encyclopedia of the Sciences of Learning* (pp. 1055-1058). New York, NY: Springer Science+Business Media.
- Resing, W. C. M., Elliott, J. G., & Vogelaar, B. (2019, in press). *Assessing potential for learning in school children*. Oxford Research Encyclopedia of Education. New York, NY: Oxford University Press.
- Resing, W. C. M., Steijn, W. M. P., Xenidou-Dervou, I., Stevenson, C. E., & Elliott, J. G. (2011). Computerized dynamic testing: A study of the potential of an approach using sensor technology. *Journal of Cognitive Education and Psychology*, 10(2), 178-194.
- Resing, W. C. M., Touw, K. W. J., Veerbeek, J., & Elliott, J. G. (2017). Progress in the inductive strategy-use of children from different ethnic backgrounds: A study employing dynamic testing. *Educational Psychology*, 37(2), 173-191.
- Resing, W. C. M., Tunteler, E., & Elliott, J. G. (2015). The effect of dynamic testing with electronic prompts and scaffolds on children's inductive reasoning: A microgenetic study. *Journal of Cognitive Education and Psychology*, 14(2), 231-251.
- Resing, W. C. M., Xenidou-Dervou, I., Steijn, W. M. P., & Elliott, J. G. (2012). A "picture" of children's potential for learning: Looking into strategy changes and working memory by dynamic testing. *Learning and Individual Differences*, 22(1), 144-150.
- Ricketts, J., Bishop, D. V. M., & Nation, K. (2009). Orthographic facilitation in oral vocabulary acquisition. *Quarterly Journal of Experimental Psychology*, 62(10), 1948-1966.
- Rizopoulos, D. (2006). ltm: An R package for latent variable modeling and item response analysis. *Journal of Statistical Software*, 17(5), 1 - 25.
- Robinson-Zanartu, C., & Carlson, J. S. (2013). Dynamic assessment. In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J.-I. C. Hansen, N. R. Kuncel, S. P. Reise, & M. C. Rodriguez (Eds.), *APA handbook of testing and assessment in psychology* (Vol. 3, pp. 149-167). Washington, DC: American Psychological Association.
- Rosenthal, R. (1987). Pygmalion effects: Existence, magnitude, and social importance. *Educational Researcher*, 16(9), 37-40.
- Rosenthal, R. (2002). Covert communication in classrooms, clinics, courtrooms, and cubicles. *American Psychologist*, 57(11), 839.
- Rosenthal, R., & Jacobson, L. F. (1968). Teacher expectations for the disadvantaged. *Scientific American*, 218(4), 19-23.

S

- Schmitz, B., Klemke, R., Walhout, J., & Specht, M. (2015). Attuning a mobile simulation game for school children using a design-based research approach. *Computers & Education, 81*, 35-48.
- Shriberg, L. D., Tomblin, J. B., & McSweeney, J. L. (1999). Prevalence of speech delay in 6-year-old children and comorbidity with language impairment. *Journal of Speech Language and Hearing Research, 42*, 1461.
- Siegel, L. S. (1972). Development of the concept of seriation. *Developmental Psychology, 6*(1), 135.
- Siegler, R. S. (2007). Cognitive variability. *Developmental Science, 10*(1), 104-109.
- Siegler, R. S., & Stern, E. (1998). Conscious and unconscious strategy discoveries: A microgenetic analysis. *Journal of Experimental Psychology: General, 127*(4), 377-397.
- Siegler, R. S., & Svetina, M. (2002). A micogenetic/cross-sectional study of matrix completion: Comparing short-term and long-term change. *Child Development, 73*(3), 793-809.
- Siegler, R. S., & Svetina, M. (2006). What leads children to adopt new strategies? A microgenetic/cross-sectional study of class inclusion. *Child Development, 77*(4), 997-1015.
- Simon, H. A., & Kotovsky, K. (1963). Human acquisition of concepts for sequential patterns. *Psychological Review, 70*, 534–546.
- Song, Y. Y., & Lu, Y. (2015). Decision tree methods: Applications for classification and prediction. *Shanghai Archives of Psychiatry, 27*(2), 130-135.
- Sonntag, W. (2006). Do booster sessions increase the effects of an inductive training on intelligence and learning with slightly retarded children in special schools? *Psychologie in Erziehung und Unterricht, 53*(3), 178-187.
- Stad, F. E., Wiedl, K. H., & Resing, W. C. M. (2016). Dynamic testing of children's series completion ability: Cognitive flexibility as a predictor of performance. *Journal of Educational and Developmental Psychology, 6*(2), 143-154.
- Sternberg, R. J., & Gardner, M. K. (1983). Unities in Inductive Reasoning. *Journal of Experimental Psychology: General, 112*, 80-116.
- Sternberg, R. J., & Grigorenko, E. L. (2002). *Dynamic testing: the nature and measurement of learning potential*. New York: Cambridge University Press.
- Sternberg, R. J., & Grigorenko, E. L. (2004). Successful intelligence in the classroom. *Theory Into Practice, 43*, 274–280.
- Stevenson, C. E., Bergwerff, C. E., Heiser, W. J., & Resing, W. C. M. (2014). Working memory and dynamic measures of analogical reasoning as predictors of children's math and reading achievement. *Infant and Child Development, 23*(1), 51–66.

- Stevenson, C. E., Heiser, W. J., & Resing, W. C. M. (2013). Working memory as a moderator of training and transfer of analogical reasoning in children. *Contemporary Educational Psychology, 38*(3), 159-169.
- Stevenson, C. E., Heiser, W. J., & Resing, W. C. M. (2016). Dynamic testing of analogical reasoning in 5- to 6-year-olds: Multiple-choice versus constructed-response training items. *Journal of Psychoeducational Assessment, 34*(6), 550–565.
- Stevenson, C. E., Hickendorff, M., Resing, W. C. M., Heiser, W. J., & De Boeck, P. A. L. (2013). Explanatory item response modeling of children's change on a dynamic test of analogical reasoning. *Intelligence, 41*, 157-168.
- Stevenson, C. E., Resing, W. C. M., Bosma, T., Verdel, R. J., Stad, F. E., Touw, K. W. J., & Slootjes, M. M. A. J. (2011). *Dynamisch testen met Animalogica: onderzoek naar het potentieel om te leren in de klas*. Leiden/Den Haag: Interne publicatie Universiteit Leiden (Ontwikkelings- en Onderwijspsychologie) en Haags Centrum voor Onderwijsbegeleiding.
- Stevenson, C. E., Resing, W. C. M., & Froma, N. (2009). Analogical reasoning skill acquisition with self-explanation in 7-8 year olds: Does feedback help? *Educational and Child Psychology, 26*, 6-17.
- Stevenson, C. E., Touw, K. W. J., & Resing, W. C. M. (2011). Computer or paper analogy puzzles: Does assessment mode influence young children's strategy progression? *Educational and Child Psychology, 28*(2), 67-84.
- Stringer, P. (2018). Dynamic assessment in educational settings: is potential ever realised? *Educational Review, 70*(1), 18-30.
- Südkamp, A., Kaiser, J., & Möller, J. (2012). Accuracy of teachers' judgments of students' academic achievement: A meta-analysis. *Journal of Educational Psychology, 104*(3), 743-762.
- Swanson, H. L. (2011). Dynamic testing, working memory, and reading comprehension growth in children with reading disabilities. *Journal of Learning Disabilities, 44*(4), 358-371.
- Swanson, H. L., & Lussier, C. M. (2001). A selective synthesis of the experimental literature on dynamic assessment. *Review of Educational Research, 71*(2), 321-363.

T

- Tamim, R. M., Bernard, R. M., Borokhovski, E., Abrami, P. C., & Schmid, R. F. (2011). What forty years of research says about the impact of technology on learning: A second-order meta-analysis and validation study. *Review of Educational Research, 81*(1), 4-28.
- Taub, G. E., Floyd, R. G., Keith, T. Z., & McGrew, T. Z. (2008). Effects of general and broad cognitive abilities on mathematics achievement. *School Psychology Quarterly, 23*, 187-198.

- Taylor, K. L., & Dionne, J. P. (2000). Accessing problem-solving strategy knowledge: The complimentary use of concurrent verbal protocols and retrospective debriefing. *Journal of Educational Psychology*, 92(3), 413-425.
- Tiekstra, M., Minnaert, A., & Hessels, M. G. P. (2016). A review scrutinising the consequential validity of dynamic assessment. *Educational Psychology*, 36(1), 112-137.
- Tomblin, J. B., Records, N. L., Buckwalter, P., Zhang, X., Smith, E., & O'Brien, M. (1997). Prevalence of specific language impairment in kindergarten children. *Journal of Speech Language and Hearing Research*, 40, 1245-1260.
- Tomesen, M., Wouda, J., Mols, A., & Horsels, L. (2015). *Wetenschappelijke verantwoording van de LVS-toetsen: Spelling 3.0 groep 4* [Scientific justification of the LVS-tests: Spelling 3.0 for grade 2]. Arnhem, The Netherlands: Cito B.V.
- Tunteler, E., Pronk, C. M. E., & Resing, W. C. M. (2008). Inter- and intra-individual variability in the process of change in the use of analogical strategies to solve geometric tasks in children: A microgenetic analysis. *Learning and Individual Differences*, 18, 44-60.
- Tzuriel, D. (2000). Dynamic assessment of young children: Educational and intervention perspectives. *Educational Psychology Review*, 12(4), 385-435.
- Tzuriel, D. (2011). Revealing the effects of cognitive education programs by dynamic assessment. *Assessment in Education: Principles, Policy and Practice*, 18, 113-131.
- Tzuriel, D. (2013). Dynamic assessment of learning potential. In M. M. C. Mok (Ed.), *Self-directed learning oriented assessments in the Asia-Pacific* (pp. 235-255). Dordrecht, The Netherlands: Springer.
- Tzuriel, D., & Egozi, G. (2010). Gender differences in spatial ability of young children: The effects of training and processing strategies. *Child Development*, 81(5), 1417-1430.
- Tzuriel, D., & George, T. (2009). Improvement of analogical reasoning and academic achievement by the Analogical Reasoning Programme (ARP). *Educational and Child Psychology*, 26(3), 71.
- Tzuriel, D., & Shamir, A. (2002). The effects of mediation in computer assisted dynamic assessment. *Journal of Computer Assisted Learning*, 18(1), 21-32.

V

- Veerbeek, J., Verhaegh, J., Elliott, J. G., & Resing, W. C. (2017). Process oriented measurement using electronic tangibles. *Journal of Education and Learning*, 6, 16.
- Veerbeek, J., Vogelaar, B., Verhaegh, J., & Resing, W. C. (2019). Process assessment in dynamic testing using electronic tangibles. *Journal of Computer Assisted Learning*, 35(1), 127-142.

- Vogelaar, B., & Resing, W. C. (2016). Gifted and average-ability children's progression in analogical reasoning in a dynamic testing setting. *Journal of Cognitive Education and Psychology, 15*(3), 349-367.
- Vygotsky, L. S. (1962). *Thought and language*. Cambridge, MA: MIT Press. (Original work published in 1934).
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes, (1938)* (M. Cole, V. John-Steiner, S. Scribner, & E. Sonberman, Eds.). Cambridge, MA: Harvard University Press.

W

- Wang, M., & Cai, J. (2016). The Application of Pygmalion Effect in Classroom Education. In *2nd International Conference on Arts, Design and Contemporary Education*. Atlantis Press.
- Wendelken, C., Ferrer, E., Ghetti, S., Bailey, S. K., Cutting, L., & Bunge, S. A. (2017). Frontoparietal structural connectivity in childhood predicts development of functional connectivity and reasoning ability: a large-scale longitudinal investigation. *Journal of Neuroscience, 37*(35), 8549-8558.
- White, C. S., Alexander, P. A., & Daugherty, M. (1998). The relationship between young children's analogical reasoning and mathematical learning. *Mathematical Cognition, 4*(2), 103-123.
- Wilkinson, L. (1992). *Tree structured data analysis: AID, CHAID and CART*. Paper presented at the Sawtooth/SYSTAT Joint Software Conference, Sun Valley, ID. Retrieved from [https://datamining.bus.utk.edu/Documents/Tree-Structured-Data-Analysis-\(SPSS\)](https://datamining.bus.utk.edu/Documents/Tree-Structured-Data-Analysis-(SPSS))
- Williams, J. E., & McCord, D. M. (2006). Equivalence of standard and computerized versions of the Raven Progressive Matrices Test. *Computers in Human Behavior, 22*, 791-800.
- Winsler, A., Diaz, R. M., & Montero, I. (1997). The role of private speech in the transition from collaborative to independent task performance in young children. *Early Childhood Research Quarterly, 12*, 59-79.
- Wu, H. M., Kuo, B. C., & Wang, S. C. (2017). Computerized dynamic adaptive tests with immediately individualized feedback for primary school mathematics learning. *Educational Technology & Society, 20*, 61-72.

Y

- Yang, T. C., Fu, H. T., Hwang, G. J., & Yang, Stephen J. H (2017). Development of an interactive mathematics learning system based on a two-tier test diagnostic and guiding strategy. *Australasian Journal of Educational Technology*, 33(1), 62-80.

