

# Multiple Single Case Studies as a Methodological Bridge from Theory to Large-Scale RCT Designs

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## **E-CER Scope:**

To make causal statements about the effects of educational interventions on learning and/or affective outcomes, RCTs in large samples are needed. Notwithstanding the research advantages, RCTs come with significant financial and human resources requirements. In times of budget cuts in research funding and teacher shortages in many countries, with schools very overloaded and not always inclined to engage in educational research anymore, it is very relevant to use research funds in a targeted and cost-efficient way. We therefore propose that large-scale RCTs should be preceded by smaller-scale research that has already been able to study building blocks for the intervention alongside teacher concerns upon implementation. Hence, multiple case studies can function as a bridge between theory on the one hand and RCTs on the other, serving as a methodological go-between and middle ground. However, to date, the potential of the multiple case design has neither been fully spread, nor explored to support the development of high-quality literacy interventions.

In this **E-CER** we aim to explore the potential of multiple single case studies as a promising methodology to increase the quality and efficacy of literacy interventions regarding content, optimal delivery, and duration via intermediate smaller-scale studies. This methodology offers the advantage of delving deeply into the intricate details, providing fine-grained insights into students' literacy learning processes and into teachers' intervention implementation, all prior to and in view of optimizing large-scale and expensive RCTs.



## **E-CER Members:**

#### 1. Oddny Judith Solheim

Oddny Judith Solheim is Professor the Department of Education and Sport Science, University of Stavanger, Norway. She is also co-funder and co-director of Synapse Lab, a cross-disciplinary lab at the UiS conducting large scale field experiments investigating motivation and learning in education and work-life (Synapse Lab | Universitetet i Stavanger (uis.no). Solheims research focuses on instructional practices that can increase student learning and engagement, and how such practices can be implemented by teachers. She has a specific focus on at-risk students and literacy.



#### 2. Hilde Van Keer

Hilde Van Keer is Professor in and chair of the Department of Educational Studies, Ghent University, Belgium. She is coordinator of the research group Language, Learning, Innovation. Her research focuses on three main themes, which are also studied in relation to each other. A first research line focuses on peer learning. A second line of research studies self-regulated learning; both its mapping and promotion in educational contexts are addressed. The third line of research focuses on language didactics, including topics such as reading comprehension, writing, interactive book reading and reading and writing motivation. Intervention research in authentic learning environments are at the core of the studies.



#### 3. Rui A. Alves

Rui A. Alves is Associate Professor of Psychology at the University of Porto. His main research interests are the cognitive and affective processes in writing, which he studies using experimental methods and logging tools. He is also interested in literacy development, writing instruction, and learning disorders. He and his team have studied the development of text production using an own-developed handwriting logging software (HandSpy) and developed many evidence-based writing interventions addressing cognitive, motivational, and self-regulatory aspects of writing (using SRSD). He is the coordinator of the European Literacy Network.



### 4. Vibeke Rønnberg

Vibeke Rønneberg is an associate professor at the National Center for Reading Education and Research at the University of Stavanger, Norway. She is currently part of the <u>SpedAims</u> project where she leads an RCT aimed at children who struggle with both mathematics and reading. Rønneberg's research has mainly focused on writing, in particular writing processes and digital writing. She holds a particular interest for <u>supporting struggling</u> writers and readers.

#### 5. Fien De Smedt

Fien De Smedt is Postdoctoral Researcher at the Department of Educational Studies, Ghent University, Belgium. She is member of the research group <a href="Language">Language</a>, <a href="Learning">Learning</a>, <a href="Innovation">Innovation</a>. De Smedt's research revolves around addressing cognitive and motivational challenges in writing encountered by students across various academic levels, spanning from primary school to higher education. She is particularly interested in how targeted instructional writing practices can significantly enhance both the performance and motivation of students in their writing.



## 6. Erin M. McTigue

Erin McTigue is a Researcher in the National Center for Reading Education and Research at the University of Stavanger, Norway. Previously, she was an elementary and middle school language arts teacher and a Professor of Reading Education at Texas A&M University where she ran the Reading Clinic, overseeing the assessment and tutoring of struggling readers. McTigue continues to hold a particular interest for struggling readers, particularly in how self-efficacy and motivation interact with academic skills and how teachers can promote both academic and non-cognitive skills.



#### 7. Ana Camacho

Ana Camacho is a postdoctoral researcher at the Center for Psychology at University of Porto, Portugal. Her research interests include writing, achievement motivation, and social and emotional learning across grade levels. She has been part of several internationally funded research projects in the field of education (e.g., CARE, ISOTIS, Schools 2030) and has been a member of the organizing committees of international conferences (e.g., SIG Writing, SSSR, and JURE). Ana Camacho is particularly committed to research that informs evidence-based writing instruction.



#### 8. Aline Alves-Wold

Aline Alves-Wold is a PhD Candidate at the National Center for Reading Education and Research at the University of Stavanger, Norway. Previously she taught didactics courses on 'English as a second language' for pre- and in-service teachers, and currently teaches courses on reading and writing difficulties. Her research focuses on motivation to write in

K-5 school settings. She is interested in investigating educational practices that foster motivation to write and that may contribute to students' writing performance, and in helping teachers with implementing these practices.



## 9. Iris Vansteelandt

Iris Vansteelandt is postdoctoral researcher at the Department of Educational Studies, Ghent University, Belgium. She is member of the research group <a href="Language">Language</a>, <a href="Learning">Learning</a>, <a href="Innovation">Innovation</a>. Her research interests include reading education and more specifically reading comprehension, reading motivation, interactive book reading and reading policy. She is particularly interested in how reading and writing education (both at teacher and at school level) could be strengthened by going for a more systemic approach.

