

WERA IRN: Research-Informed Education: Yearly Progress Report

Professor Jana Groß Ophoff, University College of Teacher Vorarlberg, Austria

Professor Chris Brown, Durham University School of Education, United Kingdom

IRN-Activities

On 20 September 2021, we commenced the work of our IRN with a two hour-workshop with experts, using break out sessions and mind mapping approaches to identify key question areas that will help us build the comprehensive picture we require

We then sense checked our list of question areas with our experts and have carried out 24 individual interviews with the members of our IRN between (for Interview Guidelines, see Appendix A).

- 20211008_Aluko
- 20211020_Pushpanadham
- 20211022_vanLommel
- 20211029_Murphy
- 20211029_Ion
- 20211116_Handscomb
- 20211119_Jesacher-Rössler
- 20211112_Rickinson
- 20211112_Coldwell
- 20211203_Amatullah
- 20211105_Cramer
- 20211210_Merk
- 20211213_Schildkamp
- 20211217_Pham-Xuan
- 20211217_Zala-Mezoe
- 20220114_Qvortrup_T
- 20220128_Zumpe
- 20220128_G-Brown
- 20220204_Sogukslu
- 20220204_Maier
- 20220211_Munoz
- 20220211_Schnellert
- 20220214_Malin
- 20220215_Lai

In preparation of the interview analysis, we scheduled a 2-days-meeting in Winchester (4–6 March 2022). We decided to use Qualitative Content Analyse (Mayring & Fenzl, 2019) in order to synthesize the interview data and to develop a comprehensive model of research-informed education (incorporating different levels of the socioeconomic system, different actors and different forms of research engagement). While carrying out the aforementioned interviews, we identified the needs of actors as important barrier or enabler for the use of research. This was the reason, why we decided to apply theoretically-deductive categories based on Self-Determination Theory (Deci & Ryan, 2000) for the analysis of the interview transcripts. Accordingly, the satisfaction of basic psychological needs, that is autonomy, relatedness, and competence, are identified as essential for (professional) development, adjustment, and wellness across cultures.

Currently, we are carrying out the analysis of the interviews, which will probably take time until summer 2022. As publication medium of our results, we are considering the BERA-SAGE Handbook of Research Informed Education Practice and Policy (edited by D. Wyse, V. Baumfield, N. Mockler, & M. Reardon).

Based on our insights, we are going to undertake a systematic review of literature to see how our model deepened, cohered with, and challenged existing knowledge in the field. In parallel, we want to develop a cross-national survey for a small-scale study in each participating country.

In order to discuss and decide on further proceedings, we are going to carry out two virtual meetings with our IRN members (time zones: PDT – MESZ: calendar week 24; MESZ–NZST: calendar week 26) via Zoom.

Further network activities:

- 9 July 2021: participation at the WERA Virtual Focal meeting, International Research Network (IRN)-Convener Meeting
- 22 April 2021: participation at the International Research Network (IRN)-Convener Meeting during the WERA Focal Meeting at the Annual Meeting of the American Educational Research Association in San Diego, USA



During the WERA Focal Meeting in San Diego, we organized and chaired an invitational symposium (Enablers and Barriers to Research-Informed Education: Exploring international Perspectives) with focus on the activities of some of our IRN members with four presentations (full abstract, see Appendix B):

- 1 Georgeta Ion, **Cecilia Ines Suarez**, & Anna Diaz-Vicario (Department of Applied Pedagogy of the Universitat Autònoma de Barcelona, Spain): Steps towards an Evidence informed education in Catalan schools. From policy makers intentions to teachers' practice
- 2 **Colin Cramer** (Tübingen School of Education, University of Tübingen, Germany): Research-informed educational practice in Germany. State of the art.
- 3 **Dominic Wyse** (UCL Institute of Education, University College London, UK): Method X = Value Y? How perceptions of research methodology can be a barrier to research-informed education.
- 4 **Kristin Vanlommel & Elske van den Boom-Muilenburg** (Hogeschool Utrecht, Netherlands). Comparing Drivers and Obstacles for Evidence-Informed Practice in two Educational Systems
- 5 The presentations were then discussed by **Jana Groß Ophoff**.

References

- Deci, E. L., & Ryan, R. M. (2000). The „What“ and „Why“ of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, *11*, 227–268.
- Mayring, P., & Fenzl, T. (2019). Qualitative Inhaltsanalyse. In N. Baur & J. Blasius (Hrsg.), *Handbuch Methoden der empirischen Sozialforschung* (S. 633–648). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-21308-4_42

Appendix

A Interview Guidelines

Introduction: Problematic, that we still don't have a full and comprehensive understanding of what it is that influences teachers' use of evidence. This is an issue if we want to encourage teachers to engage with evidence to improve their teaching and learning

Reason for this problematic: many different potential drivers identified, including the organisational, psychological and sociological, and many models based on these drivers. From our reading of the field we recognise that while each perspective identifies a facet of teacher evidence use, a more comprehensive holistic picture is required if we are to fully understand and attend to all facets of evidence use

Our approach:

Using a DELPHI approach we convened 35 experts from 17 countries across five continents. Experts were all working in evidence use in education but from a variety of different perspectives.

Interview:

- 1 Why are you [interview respondent] interested in this topic?
- 2 What work do you [interview respondent] currently do in this area?
- 3 What is the policy context of the interviewee (social regulation and cohesion), and what policy initiatives and other initiatives have been put in place to facilitate EIP?
- 4 What is evidence/what types of education-related evidence exist? Probe into what is meant by each response
- 5 What is evidence-informed practice?
- 6 What are the properties/characteristics of different evidence types that mean that they will be more or less likely to be used by educationalists?
- 7 What types of transformations are required of different evidence types so that they will be used?
- 8 Who undertakes these transformations?
- 9 What needs do teachers have when trying to improve their practice or outcomes for learners?
- 10 What needs do educators have of evidence?
- 11 What are the characteristics/attributes/dispositions of individuals that mean they likely to engage in EIP?
- 12 What happens to/what change occurs in individuals, teams and organizations where EIP occurs
- 13 What processes are known to be effective in facilitating EIP (e.g. cycles of inquiry)? Which aren't effective?
- 14 What are the characteristics of organizations that support practitioners to engage in EIP? That don't support engagement?
- 15 What and who influences these characteristics?
- 16 What are the characteristics/attributes/dispositions of individuals that support EIP? For instance, that of EIP supportive school leaders?
- 17 What are the relationships that are likely to support practitioners to engage in EIP (within and outside of organizations?)

B Symposium Abstract

RESEARCH-INFORMED EDUCATION WERA IRN

INVITATIONAL SYMPOSIUM PROPOSAL

(SAN DIEGO APRIL '22)

Symposium title: *Enablers and Barriers to Research-Informed Education: Exploring international Perspectives*

Chairs: Jana Groß Ophoff and Chris Brown

Discussant: Jana Groß Ophoff

Abstract: Educators can and should be using research-evidence to improve teaching and learning. Nonetheless, despite evidence attesting to the benefits of Research-Informed Educational Practice (RIEP), RIEP is yet to materialise in the vast majority of schools world-wide. In response, this symposium introduces the work and perspectives of a range of globally situated academics (emerging and experienced) interested in the topic. Each will present what they have learned about REIP for their country or jurisdiction, with the discussant for the symposium providing an overview of lessons that might be learned internationally. The symposium forms part of a broader WERA International Research Network exploring common (cross-context) and context specific factors affecting RIEP, as well as interventions for how this gap might be closed.

Objectives of the session: The aim of the session is to provide both national and cross-cutting perspectives on the factors that aid and hinder Research-Informed Educational Practice (RIEP). Part of a broader comparative study exploring common (cross-context) and context specific factors affecting RIEP, we aim to not only present insights from this study, but also gain further insight by harnessing the wisdom of symposium attendees.

Overview of the presentation: Educators can and should be using research-evidence to improve their practices. For instance, emerging evidence indicates that, if educators engage with research-evidence to make or change decisions, embark on new courses of action, or develop new practices, then this can have a positive impact for both teaching and learning outcomes (e.g. Cain, 2015; Cordingley, 2013; Crain-Dorough and Elder, 2021; Godfrey, 2016; Groß Ophoff, 2020; Mincu, 2014; Rose et al., 2017). Nonetheless, despite evidence attesting to the benefits of RIEP, it is yet to materialise in the vast majority of schools world-wide. In response, this symposium introduces the work and perspectives of a range of globally situated academics interested in the topic. Each will present lessons relating to REIP for their country or jurisdiction, with the discussant for the symposium providing an overview of lessons that might be learned internationally.

Scholarly or scientific significance: RIEP can lead to changed and improved teaching practices and perspectives as well as improvements in students outcomes (Earley & Greany, 2017). When such improvement occurs in disadvantaged areas, it can also lead to reductions in the gap in education outcomes between students from the most and least affluent families (Brown, 2020). It is imperative, therefore, that the extant research-practice gap is closed. With this aim in mind, the symposium will present insights from the WERA International Research Network on Research Informed Education: a comparative study exploring common (cross-context) and context specific

factors affecting RIEP. In addition, however, as well presenting what is currently known, we also hope to gain further insight by harnessing the wisdom of symposium attendees.

Structure of the session: The symposium will be formed of five presentations covering the work and perspectives of five national teams and six contexts (Australia, Catalonia, England, Flanders, Germany and the Netherlands). Teams comprise experienced and emerging researchers interested in the topic, who will present what they have learned in relation to what aids or hinders REIP for their country or jurisdiction (n.b. as part of our commitment to capacity building in this area, we have asked experienced researchers, where possible, to co-present with a PhD student or early career researcher). Our discussant will then conclude by outlining what lessons might be learned internationally. We envisage presentations by national teams lasting no more than 12 minutes each, and the discussant presenting for ten minutes. Accounting for the introduction and hand-overs, this leaves some 15 minutes for audience questions and interactions.

References

Brown, C. (2020). *The Networked School Leader: How to improve teaching and student outcomes using learning networks*. Emerald.

Cain, T. (2015). Teachers' Engagement with Published Research: Addressing the Knowledge Problem, *Curriculum Journal*, 26, 3, pp. 488-509.

Cordingley, P. (2013) The Contribution of Research to Teachers' Professional Learning and Development, *Oxford Review of Education* 41, 2, pp. 234–252.

Crain-Dorough, M. and Elder, A. (2021) Absorptive Capacity as a means of understanding and addressing the disconnects between research and practice, *Review of Research in Education*, 45, 2021, pp. 67-100.

Earley, P., & Greany, T. (2017). The future of Leadership, in P. Earley & T. Greany (Eds) *School leadership and system reform in the 21st Century* (pp. 1-14). Bloomsbury.

Godfrey, D. (2016). Leadership of schools as research-led organisations in the English educational environment: Cultivating a research-engaged school culture. *Educational Management Administration & Leadership*, 44 (2), 301-321.

Mincu, M. (2014). Inquiry paper 6: teacher quality and school improvement ?what is the role of research? In The British Educational Research Association/The Royal Society for the encouragement of Arts, Manufactures and Commerce (Ed.). *The role of research In teacher education: Reviewing the evidence*, available at <https://www.bera.ac.uk/wp-content/uploads/2014/02/BERA-RSA-Interim-Report.pdf>, accessed 20 August 2021.

Rose, J., Thomas, S., Zhang, L., Edwards, A., Augero, A., & Rooney, P. (2017). *Research learning communities evaluation report and executive summary* (December 2017), Available at: https://educationendowmentfoundation.org.uk/public/files/Projects/Evaluation_Reports/Research_Learning_Communities.pdf, accessed 20 August 2021.

PAPER 1

Title: *Steps towards an Evidence informed education in Catalan schools. From policy makers intentions to teachers' practice.*

Authors: Professor Georgeta Ion, Dr. Cecilia Inés Suarez, Dr. Anna Diaz- Vicario

Objectives/purposes: In this presentation, we will explore factors shaping the adoption of evidence-informed practice (EIP): an initiative recently encouraged in the Catalan educational system by both educational administration and private educational bodies.

Perspective(s): To address the study objective, we have explored various factors enabling teachers' use of research evidence through the lens of different explanatory models of research utilization currently coexisting in the Catalan system. These are: the lineal model, the science push model, the demand-pull model, the dissemination model, and the interaction and social activity model (Landry et al., 2001, Best & Holmes, 2010, Brown, 2012). Factors such as: research dissemination and quality of the educational research, strategies used by different stakeholders, teachers' research skills and attitudes, school organization cultures and dynamics were identified and discussed (Gorard, et al, 2020).

Methods, techniques, or modes of inquiry: We conducted semi-structured interviews (Valles, 2009), in an attempt to capture teachers' opinions regarding their conceptions of EIP approach, and the perceived enablers and barriers of EIP uptake at school and system level.

Data sources, evidence, objects, or materials: Ten informants were selected following non-probabilistic convenience sampling (Patton, 2002), using four selection criteria: teachers from primary school level with more than ten years of teaching experience who are developing a leading role at their institutions and were engaged in the innovation process in their schools. The sample comprised three principals, three heads of studies, one secretary, and three teachers who were coordinating innovation processes in their schools.

Results and/or substantiated conclusions or warrants: Our findings show that the use of research in practice is influenced by teachers' perspectives on research, as well as by their ability to understand research language, decode and make sense of research findings and adapt these to their class context. The organisational environment is key, while the creation of an ecosystem favourable to the use of evidence and ensuring the resources required to implement it. School leaders play central role since, they are identified as the main actors stimulating the teachers' engagement with research at the organisational level and create the conditions to enable teachers to reflect on their practice and to promote staff training.

Scientific or scholarly significance: The study has several implications regarding the implementation of an EIP approach. Evidence use in the Catalan context is currently situated at a crossroad between the Science-push Model, as higher education institutions are attempting to influence the research agenda required for evidence-based policymaking. However, looking at the school level, we can find islands of the Social Activity Model. The engagement of teachers can be interpreted as relating to the attitude of school organisations and their members towards research, the political and organisational context likely to promote and favour research transfer and use, and the financial context needed to foster quality results. Supporting teachers' involvement with

research and creating opportunities for direct experience could strengthen teachers' attitudes toward research and enhance its use in practice.

References

Best, A., & Holmes, B. (2010). Systems thinking, knowledge and action: Towards better models and methods. *Evidence & Policy: A Journal of Research, Debate and Practice*, 6(2), 145–159.

<https://doi.org/10.1332/174426410X502284>

Brown, C. (2012). The 'Policy-Preferences Model': A new perspective on how researchers can facilitate the take-up of evidence by educational policy makers. *The Policy Press*, 8(4), 455–72.

Gorard, S., See, B. H., & Siddiqui, N. (2020). What is the evidence on the best way to get evidence into use in education?. *Review of Education*, 8(2), 570-610.

Landry, R., Nabil, A., & Moktar, L. (2001). Climbing the ladder of research utilization: Evidence from social science research. *Science Communication*, 22(4), 396–422. <https://doi.org/10.1177/1075547001022004003>

Patton, M. (2002). *Qualitative research & evaluation methods*. SAGE.

Valles, M. S. (2009). *Entrevistas cualitativas* [Qualitative interviews]. Centro de Investigaciones Sociológicas, CIS.

PAPER 2

Title: *Research-informed educational practice in Germany: state of the art.*

Author: Professor Colin Cramer

Objectives: This contribution addresses the situation of research-informed educational practice (RIEP) in Germany at a glance. Special attention is paid to enablers and barriers of RIEP. Educational policy prerequisites are presented as well as the research-related infrastructure. Finally, the conditions of the actors, especially teachers and school administrators, are highlighted and the paper asks why RIEP has been observed rather hesitantly so far.

Perspectives: Efforts in RIEP are so far rather unstructured. This is due to the full responsibility of each of the 16 federal states for education, but also to a culture of high autonomy of individual schools, of school leaders and teachers (Groß Ophoff & Cramer, accepted). Educational governance partially refers to evidence, but institutions and actors are widely autonomous in their way of implementing RIEP in schools. Although teachers are most often civil servants and bound by instructions, they are professionals and are largely free in their pedagogical work. There are several reasons why they trust or distrust scientific evidence (Rosman et al., accepted). Accountability is ensured by standard-based monitoring.

Data sources: An overview of the German situation of RIEP in the school system as well as in teacher education is provided. Although research on RIEP has become more important, there is currently no nation-wide and consistent system that contributes systematically to RIEP. Teachers' beliefs and attitudes towards RIEP are relevant to when considering how they use evidence to improve teaching and learning processes. Positive affective-motivational dispositions and research literacy are deemed important to support teacher's RIEP. On school level, school culture and leadership clearly have impact.

Conclusions and perspectives: Regarding the German situation of RIEP a more intense dialogue between different actors and professional groups in education is needed and initial and further education systems/processes should strive even more to impart a meta-reflective stance (Alexander, 2017) or enquiry habit of mind (Brown & Malin, 2017) to make (future) teachers aware of the power of research. It appears crucial that teachers are able (and willing) to contrast and relate their decisions and action to professional knowledge, reflective skills and to be open for a professional life-long continuing professional development.

References

Alexander, P. A. (2017). Reflection and Reflexivity in Practice Versus in Theory. *Educational Psychologist*, 52(4), 307–314.

Brown, C., & Malin, J. (2017). Five vital roles for school leaders in the pursuit of evidence of evidence-informed practice. *Teachers College Record*, 21869.

Cramer, C., Bohl, T., & du Bois-Reymond. (2012). Teacher Training in Europe. Comparative Report. Retrieved from <http://www.goete.eu/download/working-papers>.

Groß Ophoff, J., & Cramer, C. (accepted). The engagement of teachers and school leaders with data, evidence and research in Germany. In C. Brown & J. R. Malin (Eds.), *The Emerald International Handbook of Evidence-Informed Practice in Education*. Bingley: Emerald.

Rosman, T., & Merk, S. (accepted). Teacher's reasons for trust and distrust in scientific evidence: Reflecting a 'smart but evil' pattern? *AERA Open*.

Paper 3

Title: Method X = Value Y?: How perceptions of research methodology can be a barrier to research-informed education.

Author: Dominic Wyse

Objectives: To provide insights about the ways in which perceptions about research methodology effect perceptions of how research can and should be used to inform education practice and education policy; to critically explore the idea that adherence to, or use of, a particular research method implies that the researcher or research user holds a particular value position; to consider how research methodology can effect whether particular research findings are used to inform education practice and policy.

Theoretical framework: The theoretical framework for this presentation draws on philosophical debates about epistemology (e.g. Dunne, 1993). More particularly the theoretical perspective draws on philosophical positions evident in methodological debates about the use of quantitative methods to establish robust educational research findings.

Modes of inquiry: The mode of enquiry informing this presentation combines the methods used in an empirical project with critical reflections on some of the published outcomes of the project, published responses to the outcomes of the project, and some consequences of these debates for education research in relation to 'close-to-practice research' (Wyse, Brown, Oliver & Pobleté, 2020). In particular, the presentation interrogates claims made that the use of particular methods in an empirical research project allow readers of that research to infer value positions of the authors of research project reports and other publications.

Data sources: The evidence underpinning the presentation is taken from an empirical project that included a Rapid Evidence Review of relevant published research, and interviews with experienced stakeholders with expertise in how research evidence can and is used to inform practice and policy. Other data sources are published critiques of the empirical project and the response from the research team (Wyse, Brown, Oliver & Pobleté, 2021).

Results and/or substantiated conclusions: The arguments made in this presentation, based on the warrants of the empirical project and relevant published debates related to the work, are that to conflate educational value positions with researchers' selection of research methodology risks practice and policy not being appropriately informed by robust research evidence with consequences for the quality of education.

Scholarly significance of the study or work: The relationships between education practice and policy and education research are complex. One aspect of this complexity is the debates about close-to-practice research and its relationship with education as an academic discipline in universities. Better understanding of research methodology in relation to education value positions may be a productive way to enhance the use of research-informed educational practice and policy.

References

Dunne, J. (1993). *Back to the Rough Ground. Practical Judgement and the Lure of Technique*. Notre Dame, Indiana: University of Notre Dame Press.

Wyse, D., Brown, C. Oliver, S. & Poblete, P. (2021). People and practice: defining education as an academic discipline. *British Educational Research Journal*, DOI: 10.1002/berj.3762

Wyse, D., Brown, C. Oliver, S. & Poblete, P. (2020). Education Research and Educational Practice: The Qualities of a Close Relationship. *British Educational Research Journal*, DOI: 10.1002/berj.3626

Paper 3

Title: Comparing Drivers and Obstacles for Evidence-Informed Practice in two Educational Systems

Author: Kristin Vanlommel & Elske van den Boom-Muilenburg

Purpose: Global challenges and growing diversity require an educational system that is responsive and agile, putting evidence-informed practice (EIP) at the center of the policy and research. Using evidence should lead to better informed policy, higher quality decisions, more effective practices, and, in turn, improved and fairer outcomes. EIP is not a common practice in education (Malin & Brown, 2019) because it is hindered by, among other things, constraints at the system level. Our aim is to describe and explain how educational systems influence the (non) use of EIP. Educational systems of Flanders (Belgium) and the Netherlands were compared. Key lessons for practice and policy are presented, aiming to deliver insights that can be used as a lens when investigating EIP in other educational systems to strengthen EIP worldwide.

Theoretical framework: We used the cohesion/regulation matrix (Hood, 1998) to analyze the systems according to the system-level factors that define it. The 'regulation' axis refers to mechanisms of control and accountability, the 'cohesion' axis is used to categorize norms and networks that bind the educational system and strengthen collective approaches (Hood, 1998). Drawing on institutional theory (Powell & DiMaggio, 1991), facilitators and constraints related to norms, rules and powerful actors are discussed.

Methods: We studied and compared two educational systems (Flanders, the Netherlands) to explore and explain how systems influence EIP. Quantitative and qualitative research findings were investigated to get a fine-grained insight in drivers and obstacles of EIP.

Results: Both educational systems (see Table 1) and a general overview of EIP-factors (see Table 2) are presented below. Flanders scores low on regulation and cohesion, whereas the Netherlands score high on both dimensions. In Flanders the necessary factors for EIP at the school and individual level are not present. The educational culture begets a strong resistance to centralized measures that foster EIP. Together with limited collaboration around data use, this makes education an individual, subjective practice rather than an evidence-informed, collective practice. In the Netherlands, factors for EIP are present at the school level to a certain extent, although there are large differences between schools. At the individual level, teachers use evidence to a limited extent. Lack of competence is seen as the most hindering factor, as well as high trust in intuition.

Significance: Although these systems differ on the regulation and cohesion matrix, the development of human capital is a crucial condition for EIP in both systems. Educators need to be willing and able to use evidence to critically investigate assumptions and practices. EIP thus requires more than data-literacy courses. Policy-makers and researchers need to develop guiding frameworks that enhance professional development towards evidence-informed practice. They need to support a culture of reflective inquiry, collaboration, and ties can be strengthened within the profession. In the light of high-quality, equal education for all pupils, EIP should be a self-evident part of the (teacher) profession.

Table 1. Cohesion/Regulation in Both Flanders and the Netherlands.

	Flanders	The Netherlands
Regulation	Low	Higher

	Decentralized	Centralized framework and policies with decentralized administration and school management
	School autonomy	School autonomy
	Lack of central exams	Central exams
	No public disclosure of results from standardized outcome measures	Public disclosure of results from standardized outcome measures
Cohesion	Low	Higher
	School governing boards hold responsibility over one or more schools	School boards hold responsibility over one or more schools
	Little cohesion between different umbrella organizations	Cohesion between umbrella organizations

Table 2. Overview of Factors that Influence EIP in Both Flanders and the Netherlands.

	Flanders	The Netherlands
School level	Evidence use ad hoc	Systematic evidence use, but large differences between schools (Inspectorate of Education, 2021)
	Policy largely driven by short-term solution-focused actions based on experience and quickly available data	Policy driven by accountability purposes as well as policy development, school improvement planning, teacher development and instructional improvement purposes (Schildkamp et al., 2013)
Individual level	Teachers strongly rely on their expertise	Teachers report feeling overwhelmed by the availability of data, and do not always know where to start (Schildkamp et al., 2013)
	Teachers feel less competent and motivated in using evidence	Teachers use evidence (Inspectorate of Education, 2021), but their data literacy skills can be improved (Kippers et al., 2018).
	Teachers have great faith in information collected spontaneously during daily practice and in intuitive judgments deriving from experience	School leaders are more inclined to make decisions on the basis of ‘tacit knowledge’, such as intuition and personal motivations. But often, this does not lead to improvements in teaching performance (Neeleman, 2019).

