



Name: **Rolf Strietholt**
Address: **Hauert 14a/44227 Dortmund/Germany**
Phone: **+49-231-28219131**
E-mail: **rolf.strietholt@tu-dortmund.de**

PhD Project:

Trends in Reading Assessments over Time – Methodological Challenges

INTRODUCTION: International large-scale assessments not only provide cross sectional comparative information regarding the outcomes of school systems, but can also be used to measure trends in reading achievement within and between countries. This is of great interest in educational research, since effects of educational reforms and other societal changes do typically not show until they are fairly well implemented. However, a number of methodological challenges adhere to such analyses. Therefore, it is particular important to be aware to what degree different methodological approaches affect the results and finally which approaches are most suitable.

RESEARCH QUESTION: A precondition for trend analyses is to measure the students' abilities on the same metric. When the tests in the different studies are not identical, this condition is not fulfilled from the outset. Furthermore, comparison derives from the assumption of having comparable groups in perspectives studies and countries. Regarding this, students' age and time of schooling play a crucial role since the sub-samples cover students that differ in terms of different age, grade and test months. In my dissertation, I address these and other methodological challenges that appear in trend analysis that make use of data from international large-scale assessments.

DATA SOURCES AND METHODOLOGY: In my thesis, I use reading literacy data from previous IEA reading literacy studies, namely the reading comprehension study in 1970, the reading literacy study in 1991 and its repeat in 2001, the Progress in Reading Literacy Study (PIRLS) in 2001 and PIRLS 2006. I apply IRT-technique to link different tests and address the question if the chosen IRT-model (1-, 2- vs. 3-PL) affects the country level achievement estimates with practical relevance. Furthermore, I employ differential item functioning analysis (DIF) on the bridge items that link different test forms, i.e. I analyze to what degree they are sufficient to form a common IRT-scale. In order to establish comparable groups with respect to age and schooling, I compare different approaches, e.g. focus on sub-samples vs. model-based estimation of age and schooling effects.

Curriculum Vitae:

PhD candidate Rolf Strietholt holds a Master's degree in Educational Science. He was born in Haltern am See/Germany in 1982 and studied from 2003 to 2008 Education (major: School Development and School Research), Psychology, Sociology and Economics at the University of Münster. During his studies, he worked in the Progress in International Reading Literacy Study (PIRLS) (Prof. W. Bos), in a project on teacher education (Prof. E. Terhart), and in an evaluation study dealing with graduate schools (Prof. W. Böttcher/H.-H. Krüger); he gave lectures on research methods and evaluation theory in undergraduate and graduate courses. In 2007, Rolf Strietholt worked at the University of Gothenburg (Prof. Jan-Eric Gustafsson/Prof. Monica Rosén). His research interest is empirical educational research with the focus on teacher education, research on instruction, and empirical research.

Publications and Presentations:

Frahm, S., Goy, M., Kowalski, K., Sixt, M., **Strietholt, R.**, Blatt, R. & Bos, W. (2011). Transition and Development from Lower Secondary to Upper Secondary School. In: Blossfeld, H.-P., Rossbach, H.-G., von Maurice, J. Education as a Lifelong Process : The German National Educational Panel Study (NEPS). (14. ZfE-Sonderheft).

Strietholt, R. & Bos, W. (2010). Datensatzdokumentation zu IGLU 2006. Nutzerhandreichung Bos, W., **Strietholt, R.**, Goy, M., Stubbe, T. C., Tarelli, I. & Hornberg, S. (2010). IGLU 2006. Dokumentation der Erhebungsinstrumente. Münster: Waxmann.

Strietholt, R. & Bos, W. (2010). Die Nutzung der Ergebnisse standardisierter Leistungstests und der Zusammenhang zwischen Schülerleistung und Lehrerurteil. In: Böttcher, W., Dicke, J. N. & Hogrebe, N. (ed.). Evaluation, Bildung und Gesellschaft: Steuerungsinstrumente zwischen Anspruch und Wirklichkeit.

Goy, M., Gröhlisch, C., **Strietholt, R.**, Stubbe, T. C., Bos, W. & Kanders, M. (2010). Panelstudien als Antworten auf Forschungsdesiderate in der Sekundarstufe I. In: Jahrbuch für Schulentwicklung 16.

Strietholt, R. (2010). Review on Schwippert, K. (ed.) (2007). Progress in reading literacy: The impact of PIRLS 2001 in 13 countries. Münster: Waxmann. *Journal for Educational Research online*, 22(1), 193-197.

Böttcher, W., Krüger, H.-H., Liesgang, T., **Strietholt, R.** & Walter, K. (2009). Kollektiv promovieren? Ausgewählte Ergebnisse einer Evaluation der Promotionskollegs der Hans-Böckler-Stiftung. *Erziehungswissenschaften*, 20 (36), 49-73.

Strietholt, R. & Terhart, E. (2009b). Referendare beurteilen. Eine explorative Analyse von Beurteilungsinstrumenten in der zweiten Phase der Lehrerbildung. *SEMINAR*, 15 (3), 48-69.

Böttcher, W., Krüger, H.-H., Liesgang, T., **Strietholt, R.**, Walter, K., Kessel, A. W. & Schierner, M. (2009). *Evaluation der Qualität der Promotionskollegs der Hans-Böckler-Stiftung: eine quantitative und qualitative Studie*. Düsseldorf: Hans-Böckler-Stiftung. (Edition der Hans-Böckler-Stiftung; Bd. 234).

Strietholt, R. & Terhart, E. (2009a). Referendare beurteilen. Eine explorative Analyse von Beurteilungsinstrumenten in der zweiten Phase der Lehrerbildung. *Zeitschrift für Pädagogik*, 55 (4), 622-645.

Strietholt, R. & Voss, A. (2009). Auf welchem Leistungsstand steht mein Kind? *Praxis Deutsch*, 36, 58-59.

Strietholt, R. (2008). *Kooperative Doktorandenausbildung. Evaluation der Qualität der Promotionskollegs der Hans-Böckler-Stiftung*. Unveröffentlichtes Manuskript, Münster: WWU

Grewe, M., **Strietholt, R.** & Schwippert, K. (2007). Unterrichtsqualität aus Schülersicht. In K. Möller, P. Hanke, C. Beinbrech, A. K. Hein, T. Kleickmann & R. Schages (ed.), *Qualität von Grundschulunterricht. Entwickeln, erfassen und bewerten*. (S. 179-182). Wiesbaden: VS Verlag für Sozialwissenschaften. (Jahrbuch Grundschulforschung; Bd. 11).

Hömann, K., Grewe, C. M. & **Strietholt, R.** (2007). Ganztägiges Lernen in Deutschland - Ausgangslagen und Rahmendaten. Gründung und Ausstattung. In H.-G. Holtappels, E. Klieme, T. Rauschenbacher & L. Stecher (ed.), *Ganztagschule in Deutschland. Ergebnisse der Ausgangserhebung der "Studie zur Entwicklung von Ganztagschulen" (StEG)*. (S. 70-76). Weinheim: Juventa.

Beiske, B., Flaßbeck, C., Grewe, C. M., Kirsten, J. S., Pallutt, M. & **Strietholt, R.** (2006). *Studentische Lehrveranstaltungs-kritik - Konstruktion eines Kernfragebogens*, Forschungsbericht der Arbeitsgruppe studentische Lehrveranstaltungs-kritik an der Universität Münster.

Strietholt, R. (2011). The New National Educational Panel Study (NEPS) in Germany. Design, Topics and Availability of the Data. at University of Gothenburg, Sweden.

Rosén, M., **Strietholt, R.** & Bos, W. (2011). Trends in Reading Literacy over 35 Years. An International Comparison on a Common IRT Scale. Paper presented at AERA in New Orleans, USA.

Strietholt, R. & Rosén, M. (2010, 25.-27. August-a). Choosing between the 1-, 2- and 3-PL Models in a trend study. Paper presented at the symposium "Modelling Longitudinal Data" at the ECER 2010 "Educational and Cultural Change" in Helsinki, Finland.

Strietholt, R. & Rosén, M. (2010, 25.-27. August-b). Linking reading literacy tests for a 35 year trend study. Analysis of the bridge items. Submitted paper for the symposium "Modelling Longitudinal Data" at the ECER 2010 "Educational and Cultural Change" in Helsinki, Finland.

Goy, M., **Strietholt, R.** & Bos, W. (2010, 25.-27. August). Reading instructions and reading engagement at fourth grade. Results from PIRLS 2006. Submitted paper for the symposium "Towards explaining achievement: Findings from international comparative achievement studies" at the ECER 2010 "Educational and Cultural change" in Helsinki, Finland.

Rosén, M. & **Strietholt, R.** (2010, 01.-03. June-a). On the degree of comparability in trend studies as a function of differences in age and schooling. Paper at the 4th IEA Research Conference, Gothenburg and Oslo.

Rosén, M. & **Strietholt, R.** (2010, 01.-03. June-b). Trends in reading literacy from 1970 to 2006. A comparison on 9-10 year olds in Sweden, Hungary, Italy and the USA. Paper for the 4th IEA Research Conference, Gothenburg and Oslo.

Further Information:

<http://www.ifs-dortmund.de/strietholt>