

# Prof. Dr. Benjamin Nagengast

## Departmental address

Hector Research Institute of Education Sciences and Psychology  
University of Tübingen  
Europastraße 6  
72072 Tübingen  
Germany

Tel +49-7071-29-76089

Email: [benjamin.nagengast@uni-tuebingen.de](mailto:benjamin.nagengast@uni-tuebingen.de)  
Homepage: <http://www.uni-tuebingen.de/en/24954>

## Education

- 07/12                      Habilitation in Education Sciences und Educational Psychology  
University of Tübingen, Germany  
Dissertation: *Substantive and Methodological Advances in Education Sciences and Educational Psychology*
- 05/06 – 06/09            Graduate Studies in Psychological Methodology  
University of Jena, Germany  
Degree: Dr. phil. (Grade: summa cum laude)  
Dissertation: *Causal Inference in Multilevel Designs*  
(Supervisor: Rolf Steyer)
- 10/03 – 04/06            Graduate Studies in Psychology  
University of Jena, Germany  
Degree: Diploma (Grade: 1.0)  
Thesis: *Standard Errors of ACE Estimates: Comparing adjusted group means against the adjusted grand mean. A simulation study.*  
(Supervisors: Rolf Steyer, Ivailo Partchev)
- 09/02 – 07/03            Graduate Studies in Social Psychology and Quantitative Psychology  
The Ohio State University, Columbus, OH, USA
- 10/99 – 08/02            Undergraduate Studies in Psychology  
University of Heidelberg, Germany  
Degree: Pre-Diploma (Grade: 1.0)

## Academic Employment

- 02/22 – 02/24            Visiting Professor  
Department of Education, Brain & Motivation Research Institute (bMRI)  
Korea University, Seoul, Korea
- 10/16                      Offer of Full Professorship of Quantitative Research Methods (declined)  
Faculty of Education, Monash University, Melbourne, Australia
- since 11/12              Full Professor (W3) of Educational Psychology  
Hector Research Institute of Education Sciences and Psychology  
(formerly: Department of Education Sciences and Educational Psychology, Institute of Education), University of Tübingen, Germany
- 09/11 – 11/12            Assistant Professor (W1) of Education Sciences  
Institute of Education, University of Tübingen, Germany
- 12/10                      Offer of Assistant Professor (W1) of Education Sciences with a concentration on Educational Diagnostics (declined)  
Leibniz Institute for Science and Mathematics Education, University of Kiel, Germany

- 03/09 – 08/11 Postdoctoral Research Fellow at the SELF Research Centre,  
Department of Education (Supervisor: Herb Marsh)  
University of Oxford, United Kingdom
- 05/06 – 02/09 Researcher and Lecturer at the Chair of Psychological Methodology and  
Evaluation Research (Supervisor: Rolf Steyer)  
University of Jena, Germany

### **Academic Leadership and Administrative Functions at University of Tübingen**

- since 06/22 Member of the Executive Board of the LEAD Graduate School & Research Network
- 10/20 – 03/21 Acting Deputy Dean for Research of the Faculty of Economics and Social Sciences
- since 10/19 Deputy Head of the Institutional Review Board/Ethics Commission of the Faculty of Economics and Social Sciences
- since 10/19 Member of the Examination Board of the Faculty of Economics and Social Sciences
- since 10/19 Elected Deputy Member of the Faculty Council of the Faculty of Economics and Social Sciences
- 04/16 – 10/18 Deputy Member of the School Board of the Tübingen School of Education (TüSE)
- 12/15 – 09/19 Deputy Head of the Institutional Review Board/Ethics Commission of the Institute of Psychology, the Hector Research Institute and the LEAD Graduate School & Research Network
- since 10/14 Deputy Director of the Hector Research Institute of Education Sciences and Psychology
- 11/12 – 06/22 Co-Director of the LEAD Graduate School & Research Network funded by the Excellence Initiative of the German Federal and State Governments (until 2019) and the State Government of Baden-Württemberg (since 2020)
- 09/11 – 09/14 Member of the Executive Board of the Institute of Education

### **Awards and Scholarships**

- 09/22 Listed among the most productive researchers in Educational Psychology from 2015-2021 (Rank: 11) in the analysis by Fong et al. (2022, Educational Psychology Review)
- 07/19 Teaching Award of the Student Representatives for Education Sciences and Educational Psychology, University of Tübingen
- 04/16 Listed among the most productive researchers in Educational Psychology from 2009-2014 (Rank: 12) in the analysis by Greenbaum et al. (2016, Educational Psychology Review)
- 12/15 Teaching Award of the Student Representatives for Education Sciences and Educational Psychology, University of Tübingen
- 09/07 Award for Best Diploma Thesis in Methodology and Evaluation 2007  
German Psychological Society (DGPs)  
Section "Methodology and Evaluation"
- 09/02 – 07/03 German American Fulbright Commission  
Exchange scholarship for graduate studies in the US, covered tuition, cost of living and travel expenses
- 02/00 – 09/05 German Academic Scholarship Foundation  
Highly selective subsistence scholarship and book allowance

## Third-Party Funding

### Research Structures

- 11/21 – 10/31 Hector Research Institute of Education Sciences and Psychology – Second Funding Period  
Hector Foundation II  
Principal Investigators: Ulrich Trautwein, Benjamin Nagengast
- 10/14 – 10/21 Hector Research Institute of Education Sciences and Psychology – First Funding Period  
Hector Foundation II  
Principal Investigators: Ulrich Trautwein, Benjamin Nagengast, Augustin Kelava
- 10/14 – 09/20 Tübingen Postdoc-Academy of Education Sciences  
Baden-Württemberg State Ministry for Science, Research and the Arts  
Principal Investigators: Ulrich Trautwein, Benjamin Nagengast, Augustin Kelava
- 11/12 – 10/19 Graduate School: Learning, Educational Achievement, and Life Course Development (LEAD)  
Excellence Initiative of the German Federal and State Governments  
Principal Investigators: Ulrich Trautwein and 20 further investigators

### Research Projects

- 09/21 – 08/22 Auswirkungen der Covid-19 Pandemie auf Deutschlehrkräfte in Deutschland und ihre Vertrautheit mit, ihre Nutzung von und ihre Einstellung zu digitalen Medien (GetDime) [Effects of the Covid pandemic on German language teachers in Germany and their familiarity with, use of and views on digital media] (19.360 € + Overhead, only BN's part of total funding shown)  
German Research Foundation (DFG) (NA 984/4-1)  
Principal Investigators: Jörn Brüggemann, Volker Frederking, Benjamin Nagengast, Ulrich Trautwein
- 08/21 – 07/23 Die Bedeutung von Subjektivität und Emotionalität in Gesprächen über Literatur im Deutschunterricht (SEGEL) [The role of subjectivity and emotionality in German literature education] (84.106 € + Overhead, only BN's part of total funding shown)  
German Research Foundation (DFG) (NA 984/3-1)  
Principal Investigators: Jörn Brüggemann, Volker Frederking, Benjamin Nagengast, Ulrich Trautwein
- 01/21 – 12/25 Verbundprojekt: Schule macht stark! Metacluster: Evaluation (SchuMaS) [School makes students stronger! Metacluster: Evaluation] (491.931 € + Overhead, only University of Tübingen's part of total funding shown)  
German Federal Ministry of Education and Research (BMBF)  
Principal Investigators: Kai Maaz (Head of joint project), Benjamin Nagengast, Michael Becker-Mrotzek, Karina Karst, Uta Klusmann, Susanne Prediger, Birgit Reißig, Dirk Richter, Gabriele Bellenberg, Petra Stanat, Anne Sliwka, Isabell van Ackeren, Felicitas Thiel
- 06/20 – 05/26 Individuelle Förderung auf der Basis eines erweiterten digitalen Lehr-Lern-Konzepts für den Fremdsprachenunterricht [Individualized support for second-language acquisition based on a digital teaching-learning-concept] (1.800.000 €)  
AIM Foundation for Innovative Education and Management  
Principal Investigators: Ulrich Trautwein, Detmar Meurers, Benjamin Nagengast, Josef Schrader
- 04/20 – 03/23 Außerschulisches individuelles Lernen und die Schnittstellen zum Schulunterricht: Effektives digitales Üben als Basis für den kompetenzorientierten Fremdsprachenunterricht (Interact4School) [Individualized learning out-of-school and its connection to school-based instruction: Effective digital practice as basis for competency-based

- second-language instruction*](464.323 € + Overhead, only University of Tübingen's part of total funding shown)  
German Federal Ministry of Education and Research (BMBF)  
Principal Investigators: Detmar Meurers, Torben Schmidt, Benjamin Nagengast, Ulrich Trautwein
- 08/18 – 12/21 Wissenschaftliche Begleitung des Modellprojekts "Lesen macht stark/Mathe macht stark" [*Evaluation of the project „Reading makes students stronger/Maths makes students stronger“ for fostering achievement of low-achieving students*] (135.000 €)  
Baden-Württemberg State Ministry of Education, Youth and Sports  
Principal Investigators: Benjamin Nagengast, Tobias Dörfler, Andreas Schulz
- 01/17 – 12/18 Effects of studying abroad – A reanalysis of the LAU study (103.775 + Overhead €)  
German Research Foundation (DFG) (NA 984/1-1)  
Principal Investigators: Benjamin Nagengast, Ulrich Trautwein
- 04/15 – 03/17 Sprachliche Komplexitätsmerkmale von Fragebogenitems: Bedeutung für die psychometrische Qualität von Unterrichtsbeurteilungen aus Schülersicht und die Vorhersage des Lernerfolgs in Large-Scale-Assessments [*Linguistic complexity of questionnaire items: Implications for the psychometric quality of student ratings of teaching and prediction of learning in large-scale assessments*] (80.853 € + Overhead)  
German Federal Ministry of Education and Research (BMBF)  
Principal Investigators: Richard Göllner, Detmar Meurers, Wolfgang Wagner, Karin Berendes, Benjamin Nagengast, Ulrich Trautwein
- 04/15 – 03/17 Konfigurationen von Lerntypen während der Hausaufgabenbearbeitung [*Learning types during homework*] (91.029 € + Overhead)  
German Research Foundation (DFG)  
Principal Investigators: Barbara Flunger, Ulrich Trautwein, Benjamin Nagengast, Oliver Lütke
- 01/14 – 08/15 Wirkungsanalyse von Fördereffekten im Bereich der berufsorientierten individuellen Förderung im Kompetenzanalyse Profil AC [*Evaluation of a program to enhance vocational orientation in middle school*] (85.000 €)  
Baden-Württemberg State Ministry of Education, Youth and Sports  
Principal Investigators: Ulrich Trautwein, Benjamin Nagengast, Katharina Lambert
- 01/13 – 06/16 Determinanten und Konsequenzen von Übergangentscheidungen und Ausbildungsverläufen von Realschulabsolventen – Reanalyse und Nacherhebung der TOSCA-10-Studie [*Determinants and consequences of transition decisions and vocational careers of middle school students – Re-analysis and follow-up of the TOSCA-10 study*] (181.752 €)  
Baden-Württemberg Foundation  
Principal Investigators: Benjamin Nagengast, Katharina Lambert, Ulrich Trautwein
- 04/12 – 09/13 Einflüsse von Effekten der Itemposition und des Itemkontexts auf die Abschätzung von Kompetenzzuwächsen im Rahmen von Item Response Modellen [*Item position and context effects and their relation to competence growth in item response models*] (125.011 € + Overhead)  
German Federal Ministry of Education and Research (BMBF)  
Principal Investigators: Gabriel Nagy, Benjamin Nagengast, Andreas Frey, Michael Becker
- 01/12 – 12/14 Erfassung der Unterrichtsqualität in Large-Scale-Studien: Optimierung der Modellierung und Itemauswahl [*Measuring teaching quality in large-scale assessments: Optimizing statistical models and item selection*] (162.381 € + Overhead)  
German Federal Ministry of Education and Research (BMBF)  
Principal Investigators: Ulrich Trautwein, Oliver Lütke, Eckhard Klieme, Benjamin Nagengast, Wolfgang Wagner

- 01/12 – 12/14 Verbesserung der Hausaufgabenerledigung durch Schüler: Die Rolle von Erwartungs-Wert-Überzeugungen, Persönlichkeitsmerkmalen und hausaufgabenspezifischer Kompetenz der Lehrkräfte [*Improving homework compliance: The role of expectancy and value beliefs, personality traits and homework-related competence of teachers*] (192.429 € + Overhead)  
German Research Foundation (DFG)  
Principal Investigators: Ulrich Trautwein, Oliver Lüdtke, Benjamin Nagengast

### Intramural Funding

- 04/19 – 12/20 Self-regulation, Motivation, and Learning: Developing an Integrated Model (50.000 €)  
Institutional Strategy Funds and Reinhard Frank Foundation  
Cooperation program of University of Tübingen, University of Maryland and University of North Carolina  
Principal Investigators: Benjamin Nagengast, Jeff Greene, Allan Wigfield
- 06/16 – 12/16 Winterschool: Randomized Controlled Field Trials (18.000 €)  
Institutional Strategy Funds, University of Tübingen  
Principal Investigators: Benjamin Nagengast, Hanna Gaspard, Jessika Golle, Isabelle Häfner
- 01/16 – 10/17 Migration und Bildung: Interdisziplinäre Perspektiven auf aktuelle Herausforderungen an das deutsche Bildungssystem [*Migration and Education: Interdisciplinary perspectives on current challenges to the German education system*] (102.000 €)  
Explorations Funds, University of Tübingen  
Principal Investigators: Benjamin Fauth, Thamar Voss and 19 further investigators
- 09/15 – 10/17 Understanding Differences in Motivation Across Cultures. Substantive and Methodological Advances in Measuring Motivation (50.000 \$)  
University of Tübingen and University of Maryland Exchange Program  
Principal Investigators: Benjamin Nagengast, Allan Wigfield
- 10/13 – 09/15 Wo bleibt die Bildung in der Bildungsforschung? [Where are the arts in Education sciences?] (100.000 €)  
Exploration Funds, University of Tübingen  
Principal Investigators: Ulrich Trautwein, Julia Dietrich and 15 further investigators

### Conferences

- 06/08 – 08/08 Symposium on Causality 2008  
International Symposium funded by the German Research Foundation (DFG, 24.062 €) and the Thuringian State Ministry of Science, Education and Culture (TKM, 3.850 €)  
Principal investigators: Rolf Steyer, Benjamin Nagengast

### Research Supervision

#### Postdoctoral Researchers

##### Ongoing (10)

Lisa Bäumle	since 2022
Thomas Gfrörer	since 2021
Marina Pumptow	since 2021
Moritz Fleischmann	since 2021
Cora Parrisius	since 2020
Xiaobin Chen	since 2019
Katharina Wendebourg	since 2018
Sven Rieger	since 2017
Gundula Stoll	since 2014

**Completed (12)**

Nicolas Hübner	2017-2021 (now: Assistant Professor, Institute of Education, University of Tübingen)
Hanna Gaspard	2015-2020 (now: Substitute Professor, Institute for School Development Research, Technical University of Dortmund, Germany)
Jeesoo Lee	2019-2020 (Teach@Tübingen fellow, now: Visiting Professor of Teaching and Research, Office of Academic Affairs, University of Seoul)
Corey Savage	2018-2020 (now: Researcher, American Institutes for Research, AIR)
Eike Wille	2017-2019 (now: Researcher, University of Applied Sciences Nürtingen-Geislingen, Germany)
Norman Rose	2013-2018 (now: Biometrician, University Hospital Jena)
Jessika Golle	2014-2017 (now: Assistant Professor, Hector Research Institute of Education Sciences and Psychology, University of Tübingen, Germany)
Isabelle Häfner	2016-2017 (now: Family and Youth Counsellor, Regional Council Heilbronn, Germany)
Jueyon Song	2016-2017 (Teach@Tübingen fellow, now: Assistant Professor, Department of Education, Korea National University of Education)
Yi Jiang	2016-2017 (Teach@Tübingen fellow, now: Assistant Professor at East China Normal University, Shanghai, China)
Jenna Cambria	2013-2015 (now: Assistant Professor, University of Arkansas, USA)
Barbara Flunger	2012-2015 (now: Assistant Professor, Utrecht University, Netherlands)

**Doctoral Students****Completed****University of Tübingen (23)**

Yeeun Kim	2018-2021 (with Hanna Gaspard, Ulrich Trautwein) <i>Sibling Dynamics in Academic Socialization within the Family Context</i>
Thomas Gfrörer	2018-2021 (with Gundula Stoll, Ulrich Trautwein) <i>Vocational Interest Development in Adolescence—Integrating Insights about Normative Change, Stability, and Influencing Factors</i>
Benjamin Siegmund	2015-2021 (with Doreen Bryant, Detmar Meurers) <i>Sprachbildung im naturwissenschaftlichen Sachunterricht. Eine Interventionsstudie zur Wirksamkeit fachintegrierter Sprachbildung nach dem Scaffolding-Ansatz und mit Focus-on-Form-Strategien [Teaching language in science education in primary school]</i>
Moritz Fleischmann	2017-2020 (with Ulrich Trautwein) <i>Frame-of-Reference Effects on Academic Self-Concept: Addressing Unresolved Issues with New Designs</i>
Cora Parrisius	2017-2020 (with Ulrich Trautwein, Marion Spengler) <i>The Unfolding of Students' Motivation in the Natural Classroom Setting: The Role of Motivational Teaching Behaviors</i>
Laura Braun	2017-2020 (with Ulrich Trautwein, Marion Spengler) <i>Investigating Global Self-Esteem by Integrating Theory and Methods</i>
Hanna Granz	2016-2020 (with Ansgar Thiel) <i>Juggle or Struggle: Vulnerability to Developing Symptoms of Burnout and Depression in Elite Athletes</i>

- Heide Piesch 2016-2019 (with Ulrich Trautwein, Hanna Gaspard)  
*Supporting Adolescents' Career Choices: The Role of Motivational Beliefs and Relevance Interventions*
- Nele Usslepp 2016-2019 (with Ulrich Trautwein)  
*Individuelles Entscheidungsverhalten mit Blick auf Bildungsentscheidungen im Kontext des deutschsprachigen Bildungssystems [Individual Educational Decisions in the German Education System]*
- Adam Ayaita 2015-2018 (mit Kerstin Pull, Marion Spengler)  
*Four Essays on the Role of Personality in the Transition from the Education System to the Labor Market*
- Michèle Suhlmann 2013-2018 (with Kai Sassenberg, Ulrich Trautwein)  
*Towards an integrated model of ethnic majority and ethnic minority university students' well-being, motivation and dropout intention*
- Brigitte Brisson 2011-2018 (with Ulrich Trautwein)  
*How conveying relevance boosts students' motivation to learn mathematics: Effects of teaching strategies, classmates, and scientific interventions*
- Sven Rieger 2014-2018 (mit Ulrich Trautwein, Richard Göllner, Brent Roberts)  
*Facilitating the Understanding of Personality: The Usefulness of Unifying Two Existing Approaches*
- Eike Wille 2014-2017 (with Ulrich Trautwein und Kerstin Oschatz)  
*Gender Differences in Mathematically Intensive STEM Fields: Factors of Influence and Multiple Perspectives*
- Nicolas Hübner 2014-2017 (with Ulrich Trautwein)  
*Educational Effectiveness at the End of Upper Secondary School: Further Insights into the Effects of Statewide Reforms*
- Michael Grosz 2014-2017 (with Marion Spengler, Brent Roberts and Ulrich Trautwein)  
*The Assessment, Dimensionality, and Development of Narcissism in Early Adulthood*
- Miriam Weich 2013-2017 (with Ulrich Trautwein and Jochen Kramer)  
*Hochschultypen und duales Studium: Über Image- und Studierendenunterschiede in einer zunehmend ausdifferenzierten Hochschullandschaft [Higher Education and Dual Studies: Image and Student Differences in a Differentiated Higher Education System]*
- Thomas Lösch 2013-2016 (with Augustin Kelava, Oliver Lüdtke und Ulrich Trautwein)  
*Perceiving Achievement in Schools: How do Self-appraisals, Peer Appraisals and Achievement relate to each other*
- Hanna Gaspard 2012-2015 (with Ulrich Trautwein)  
*Promoting Value Beliefs in Mathematics: A Multidimensional Perspective and the Role of Gender*
- Isabelle Häfner 2012-2015 (with Ulrich Trautwein)  
*Investigating Associations Between Family Background and Students' Academic Outcomes: The Role of Parents' Motivation*
- Alena Friedrich 2011-2014 (with Kathrin Jonkmann und Ulrich Trautwein)  
*Lehrererwartungen im Unterricht : Dimensionalität, Vorhersagekraft für Schulleistungen und die Rolle von Schüler-Selbstkonzepten [Teacher expectations: Dimensionality, relation to achievement and students' self-concepts]*
- Heike Itzek-Greulich 2011-2014 (with Markus Rehm und Ulrich Trautwein)  
*Einbindung des Lernorts Schülerlabor in den naturwissenschaftlichen Unterricht. Empirische Untersuchung zu kognitiven und motivationalen Wirkungen eines naturwissenschaftlichen Lehr-Lernarrangements [Out-of-school laboratories and science education. Evaluation of cognitive and motivational effects of a teaching-learning arrangement in science]*

Anna-Lena Dicke 2011-2013 (with Ulrich Trautwein)  
*Institutionelle Effekte auf Interessensentwicklung [Institutional effects on interest development]*

### University of Oxford (3)

Karolina Retali 2009-2011 (with Herb Marsh)  
*Factors influencing immigrants' achievement in Greece. A comparative study using PISA 2006*

John Fletcher 2009-2012 (with Herb Marsh)  
*Regression artefacts and the measurement of value-added in schools. Research into the consequences of mis-specifying models in multi-level systems*

Ioulia Televantou 2009-2013 (with Herb Marsh)  
*Studying long-term primary school effects: Cross-classified models with measurement error*

### Ongoing (12)

Kimera Schorndorfer	since 2022 (mit Ulrich Trautwein, Jessika Golle)
Julia Walther	since 2021 (with Martin Hecht, Steffen Zitzmann)
Hannah Deininger	since 2021 (with Enkelejda Kasneci, Ulrich Trautwein)
Ines Pieronczyk	since 2020 (with Cora Parrisius, Ulrich Trautwein)
Lucas Stark	since 2020 (with Jessika Golle, Ulrich Trautwein)
Fabienne Kremer	since 2020 (with Jessika Golle, Ulrich Trautwein)
Julia Lange	since 2020 (with Jessika Golle, Ulrich Trautwein)
Markus Kleinhansl	since 2019 (with Jessika Golle, Ulrich Trautwein)
Anna Bareis	since 2019 (with Marion Spengler, Ulrich Trautwein)
David Bräuning	since 2017 (with Katharina Lambert, Korbinian Möller)
Isabelle Fischer	since 2016 (with Pia Schober)
Sophie Vogel (née Rummel)	since 2015 (with Doreen Bryant)

### Referee in Dissertation Committees (10)

Lisa Hasenbein	2021 (University of Tübingen)
Xian Cheng	2020 (University of Tübingen)
Patricia Goldberg	2020 (University of Tübingen)
Julian Etzel	2019 (University of Kiel)
Anne Knauff	2019 (University of Tübingen)
Jan-Eric Schmidt	2018 (University of Tübingen)
Simon Grund	2017 (University of Kiel)
Sandra Moroni	2015 (University of Tübingen)
Norman Rose	2013 (University of Jena)
Hanna Dumont	2012 (University of Tübingen)

### Teaching

#### Design of Courses and Modules

2012 *Master of Education Sciences and Educational Psychology (MSc)*  
 University of Tübingen

- Designed the Curriculum in Research Methods
- Developed lectures and seminars on advanced quantitative research methods and causal inference

since 2011 *Bachelor of Education (BA)*  
 University of Tübingen

- Responsible for the Course Module "Introduction to Research Methods"

#### Courses taught

**Undergraduate (Bachelor-Level)**

- Introduction to Research Methods in Education (University of Tübingen, Lecture and Practical Seminars)
- Quantitative Research Methods (University of Tübingen, Lecture and Practical Seminars)

**Graduate (Master-Level)**

- Methods of Education Sciences and Educational Psychology (University of Tübingen, Lecture)
- Research Design and Causal Inference (University of Tübingen, Seminar)
- How to write your Master's thesis (University of Tübingen, Seminar)
- Structural Equation Modelling and Multilevel Modelling (University of Tübingen, Seminar)
- Multilevel Modelling (University of Jena, Seminar)
- Theories of Psychometric Tests (University of Jena, Seminar)
- Methods of Evaluation Research (University of Jena, Seminar)

**Post-Graduate (Predoctoral- and Postdoctoral-Level)**

- Longitudinal Data Analysis (Workshop, EARLI Jure Conference)
- Advanced Multilevel Modelling (Workshop, University of St. Gallen, University of Zürich)
- Multilevel Structural Equation Modelling (Workshop, University of Zürich)
- Propensity Score Matching (Workshop, University of Oxford, EARLI Jure Preconference, University of Stuttgart)
- Causal Inference in Multilevel Designs (Workshop, German Institute for International Educational Research)
- Advanced Topics in Structural Equation Modelling (Workshop, University of Zürich)
- Structural Equation Modelling with Categorical Indicators (Workshop, University of Zürich)

**Publications****Citation Statistics (as of 19/09/2022)**

Google Scholar: h-Index: 49; Total cites: 10983  
<https://scholar.google.de/citations?user=qpWKIdEAAAAJ>

Web of Science: h-Index: 38; Total cites: 7085 (Researcher ID: M-5168-2016)

**5 Central Publications**

Nagengast, B., & Trautwein, U. (2015). The prospects and limitations of latent variable models in educational psychology. In E.M. Anderman & L. Corno (Eds.), *Handbook of Educational Psychology* (3rd ed.) (p. 41-58). New York: Routledge.

Nagengast, B., Marsh, H.W., Chiorri, C., & Hau, K.-T. (2014). Character building or subversive consequences of employment during high school: Causal effects based on propensity score models for categorical treatments. *Journal of Educational Psychology, 106*, 584-603. doi: 10.1037/a0035615

Nagengast, B., Trautwein, U., Kelava, A., & Lüdtke, O. (2013). Synergistic effects of expectancy and value. The case for a within-person perspective. *Multivariate Behavioral Research, 48*, 428-460. doi: 10.1080/00273171.2013.775060

Nagengast, B., & Marsh, H.W. (2012). Big fish in little ponds aspire more: Mediation and cross-cultural generalizability of school-average ability effects on self-concept and career aspirations in science. *Journal of Educational Psychology, 104*, 1033-1053. doi: 10.1037/a0027697

Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M. K., Hau, K.-T, & Trautwein, U. (2011). Who took the "x" out of expectancy-value theory? A psychological mystery, a substantive-

methodological synergy, and a cross-national generalization. *Psychological Science*, 22, 1058-1066. doi: 10.1177/0956797611415540

### Dissertation and Theses

Nagengast, B. (2012). *Substantive and Methodological Advances in Educational Science and Educational Psychology*. Publication-oriented habilitation dissertation, Faculty of Economics and Social Sciences, University of Tübingen, Germany

Nagengast, B. (2009). *Causal Inference in Multilevel Designs*. Unpublished doctoral dissertation. School of Social and Behavioural Sciences, University of Jena, Germany.

Nagengast, B. (2006). *Standard Errors of ACE Estimates: Comparing Adjusted Group Means against the Adjusted Grand Mean. A Simulation Study*. Unpublished diploma thesis. Institute of Psychology, University of Jena, Germany.

→ Award for best Diploma Thesis in Methodology and Evaluation Research in 2007 by the section "Methodology and Evaluation" of the German Psychological Society (DGPs)

### Articles in Peer-Reviewed Journals

#### In press (1)

Hübner, N., Merrell, C., Cramman, H., Little, J., Bolden, D., & Nagengast, B. (in press). Reading to learn? The co-development of mathematics and reading during primary school. *Child Development*. (Preprint available under <https://doi.org/10.31219/osf.io/v8h29>)

#### 2022 (7)

Gaspard, H., Nagengast, B., Trautwein, U., Jaekel, A.-K., & Göllner, R. (2022). Heterogenität in motivationalen Entwicklungsverläufen in Mathematik und Deutsch in Abhängigkeit von Schulform und Geschlecht. *Zeitschrift für Erziehungswissenschaft*, 25, 293-327. <https://doi.org/10.1007/s11618-022-01092-1>

Hübner, N., Spengler, M., Nagengast, B., Borghans, L., Schils, T., & Trautwein, U. (in press). When academic achievement (also) reflects personality: Using the Personality-Achievement Saturation Hypothesis (PASH) to explain differential associations between achievement measures and personality traits. *Journal of Educational Psychology*, 114(2), 326-345. <https://doi.org/10.1037/edu0000571> (Preprint available under <https://doi.org/10.31234/osf.io/khxp4>)

Rieger, S., Göllner, R., Spengler, M., Trautwein, U., Nagengast, B., & Roberts, B.W. (2022). The persistence of students' perceived academic effort: The unique and combined effects of conscientiousness and individual interest. *Learning and Instruction*, 80, 101613. <https://doi.org/10.1016/j.learninstruc.2022.101613>

Zitzmann, S., Walther, J.-K., Hecht, M., & Nagengast, B. (2022). What is the maximum likelihood estimate when the initial solution to the optimization problem is inadmissible? The case of negatively estimated variances. *Psych*, 4, 343-356. <https://doi.org/10.3390/psych4030029>

Parrisius, C., Gaspard, H., Zitzmann, S., Trautwein, U., & Nagengast, B. (2022). The "situative nature" of competence and value beliefs and the predictive power of autonomy support: A multilevel investigation of repeated observations. *Journal of Educational Psychology*, 114(4), 791-814. <https://doi.org/10.1037/edu0000680> (Preprint available under <https://doi.org/10.31234/osf.io/p2zfr>)

Parrisius, C., Gaspard, H., Flunger, B., Trautwein, U., & Nagengast, B. (2022). Gleiche Wirkung in jedem Klassenzimmer? Moderationseffekte durch Unterrichtsqualitätsmerkmale am Beispiel einer Nützlichkeitsintervention im Mathematikunterricht. [Same effect in every classroom? Moderation of the effects of a relevance Intervention in math classrooms through perceived teaching quality.] *Edition ZfE*, 10, 355-388. (Preprint available under <https://doi.org/10.31234/osf.io/sdg7b>)

Fleischmann, M., Hübner, N., Marsh, H.W., Guo, J., Trautwein, U., & Nagengast, B. (2022). Which class matters? Juxtaposing multiple class environments as frames-of-reference for academic self-concept formation. *Journal of Educational Psychology*, 114(1), 127-143. <https://doi.org/10.1037/edu0000491> (Preprint available under <https://doi.org/10.31234/osf.io/7pbac>)

**2021** (12)

- Stoll, G., Rieger, S., Nagengast, B., Trautwein, U., & Rounds, J. (2021). Stability and change in vocational interests after graduation from high school: A six-wave longitudinal study. *Journal of Personality and Social Psychology*, *120*(4), 1091-1116. <https://doi.org/10.1037/pspp0000359>
- Flunger, B., Trautwein, U., Nagengast, B., Lüdtke, O., Niggli, A., & Schnyder, I. (2021). Using multilevel mixture models in educational research: An illustration with homework research. *Journal of Experimental Education*, *89*(1), 209-236. doi: 10.1080/00220973.2019.1652137
- Savage, C., Hübner, N., Biewen, M., Nagengast, B., & Polikoff, M.S. (2021). Social studies textbook effects: Evidence from Texas. *AERA Open*, *7*(1), 1-9. <https://doi.org/10.1177/2332858421992345>
- Bar-Kochva, I., Vágvölgyi, R., Dresler, T., Nagengast, B., Schröter, H., Schrader, J., & Nuerk, H.-C. (2021). Basic reading and reading-related language skills in adults with deficient reading comprehension who read a transparent orthography. *Reading and Writing*, *34*, 2357-2379. <https://doi.org/10.1007/s11145-021-10147-4>
- Gaspard, H., Parrisius, C., Piesch, H., Kleinhansl, M., Wille, E., Nagengast, B., Trautwein, U., & Hulleman, C.S. (2021). The potential of relevance interventions for scaling up: A cluster-randomized trial testing the effectiveness of a relevance intervention in math classrooms. *Journal of Educational Psychology*, *113*(8), 1507-1528. <https://doi.org/10.1037/edu0000663> (Preprint available under <https://doi.org/10.31234/osf.io/ahj3m>)
- Bräuning, D., Hornung, C., Hoffmann, D., Lambert, K., Ugen, S., Fischbach, A., Schiltz, C., Hübner, N., Nagengast, B., & Moeller, K. (2021). Long-term relevance and interrelation of symbolic and non-symbolic abilities in mathematical-numerical development: Evidence from large-scale assessment data. *Cognitive Development*, *58*, 101008. <https://doi.org/10.1016/j.cogdev.2021.101008>
- Flunger, B., Gaspard, H., Häfner, I., Brisson, B.M., Dicke, A.-L., Guo, J., Parrisius, C., Nagengast, B., & Trautwein, U. (2021). Relevance interventions in the classroom: A means to promote students' homework motivation and behavior. *AERA Open*, *7*(1), 1-20. <https://doi.org/10.1177/23328584211052049>
- Fischer, I., Schober, P.S., & Nagengast, B. (2021). Parental relationship quality and children's behavioural problems: Childcare quality as a protective factor? *Journal of Family Research*, *33*(3), 703-733. <https://doi.org/10.20377/jfr-379>
- Hübner, N., Trautwein, U., & Nagengast, B. (2021). Should I stay or should I go? Predictors and effects of studying abroad during high school. *Learning and Instruction*, *71*, 101398. <https://doi.org/10.1016/j.learninstruc.2020.101398>
- Menkor, M., Sassenberg, K., van Laar, C., & Nagengast, B. (2021). The fit between dignity self-construal and independent university norms: Effects on social belonging, well-being, and academic success. *European Journal of Social Psychology*, *51*(1), 100-112. <https://doi.org/10.1002/ejsp.2717>
- Gfrörer, T., Stoll, G., Rieger, S., Trautwein, U., & Nagengast, B. (2021). The development of vocational interests in early adolescence. Stability, change and state-trait components. *European Journal of Personality*, *35*(5), 1-23. <https://doi.org/10.1177/08902070211035630>
- Fleischmann, M., Hübner, N., Marsh, H.W., Trautwein, U., & Nagengast, B. (2021). Investigating the association between the Big Fish Little Pond Effect and grading on a curve: A large-scale quasi-experimental study. *International Journal of Educational Research*, *110*, 101853. <https://doi.org/10.1016/j.ijer.2021.101853> (Preprint available under <https://doi.org/10.31234/osf.io/w3rz6>)

**2020** (9)

- Gaspard, H., Jiang, Y., Piesch, H., Nagengast, B., Jia, N., Lee, J., & Bong, M. (2020). Assessing students' values and costs in three countries: Gender and age differences within countries and structural differences across countries. *Learning and Individual Differences*, *79*, 101836. doi: 10.1016/j.lindif.2020.101836

- Song, J., Gaspard, H., Nagengast, B., & Trautwein, U. (2020). The conscientiousness × interest compensation (CONIC) model: Generalizability across domains, outcomes, and predictors. *Journal of Educational Psychology, 112*, 271-287. doi: 10.1037/edu0000379
- Herbein, E., Golle, J.K., Nagengast, B., & Trautwein, U. (2020). Förderung von Präsentationskompetenz: Schrittweise Implementation und Effektivitätsüberprüfung eines Präsentationstrainings für Grundschul Kinder [Fostering public speaking skills: Gradual implementation and effectiveness check of a public speaking training program for elementary school children]. *Zeitschrift für Erziehungswissenschaft, 23*, 83-120. doi: 10.1007/s11618-019-00923-y
- Wille, E., Stoll, G., Gfrörer, T., Cambria, J.M., Nagengast, B., & Trautwein, U. (in press). It takes two: Expectancy-value constructs and vocational interests jointly predict STEM major choices. *Contemporary Educational Psychology, 61*, 101858. doi: 10.1016/j.cedpsych.2020.101858
- Parrisius, C., Gaspard, H., Trautwein, U., & Nagengast, B. (2020). The transmission of motivation from math teachers to their ninth-grade students: Different mechanisms for different value dimensions? *Contemporary Educational Psychology, 62*, 101891. doi: 10.1016/j.cedpsych.2020.101891 (Preprint available under <https://doi.org/10.31219/osf.io/c7yrb>)
- Hübner, N., Wagner, W., Hochweber, J., Neumann, M., & Nagengast, B. (2020). Comparing apples and oranges: Curricular intensification reforms can change the meaning of students' grades! *Journal of Educational Psychology, 112*, 204-220. doi: 10.1037/edu0000351
- Piesch, H., Gaspard, H., Parrisius, C., Wille, E., & Nagengast, B. (2020). How can a relevance intervention in math support students' career choices? *Journal of Applied Developmental Psychology, 71*, 101185. <https://doi.org/10.1016/j.appdev.2020.101185>
- Usslepp, N., Hübner, H., Stoll, G., Spengler, M., Trautwein, U., & Nagengast, B. (2020). RIASEC interests and the Big Five personality traits matter for life success—But do they already matter for educational track choices? *Journal of Personality, 88*, 1007-1024. doi: 10.1111/jopy.12547
- Brisson, B.M., Hulleman, C.S., Häfner, I., Gaspard, H., Flunger, B., Dicke, A.-L., Trautwein, U., & Nagengast, B. (2020). Who sticks to the instructions – and does it matter? Antecedents and consequences of intervention fidelity within a classroom-based relevance intervention [Wer hält sich an die Anweisungen – und macht es einen Unterschied? Determinanten und Wirkungen der Reaktion von Schüler\*innen auf eine Motivationsintervention im Klassenzimmer]. *Zeitschrift für Erziehungswissenschaft, 112*, 121-144. doi: 10.1007/s11618-019-00922-z
- 2019 (8)**
- Nagy, G., Nagengast, B., Frey, A., Becker, M., & Rose, N. (2019). A multilevel study of position effects in PISA achievement tests: Student- and school-level predictors in the German tracked school system. *Assessment in Education: Principles, Policy & Practice, 26*, 422-443. doi: 10.1080/0969594X.2018.1449100
- Hübner, N., Wagner, W., Nagengast, B., & Trautwein, U. (2019). Putting all students in one basket does not produce equality: Gender-specific effects of curricular intensification in upper secondary school. *School Effectiveness and School Improvement, 30*, 261-285. doi: 10.1080/09243453.2018.1504801
- Rose, N., Nagy, G., Nagengast, B., Frey, A., & Becker, M. (2019). Modeling multiple item context effects in multidimensional IRT models: Disentangling item position effects, block position effects, and domain order effects. *Frontiers in Psychology, 10*: 248. doi: 10.3389/fpsyg.2019.00248
- Usslepp, N., Baeriswyl, F., Hübner, N., Nagengast, B., & Trautwein, U. (2019). Übergänge nach der Sekundarstufe I: "Korrekturen von zugewiesenen Bildungswegen", aber Resultat langgehegter Bildungsaspirationen? [Transitions after Lower Secondary Education: "Corrections of allocated educational paths," but the Result of Long-Standing Aspirations?] *Zeitschrift für Erziehungswissenschaft, 22*, 695-720. doi: 10.1007/s11618-019-00879-z
- Piesch, H., Häfner, I., Gaspard, H., Flunger, B., Nagengast, B., & Harackiewicz, J.M. (2019). Helping parents support adolescents' career orientation: Effects of a parent-based utility-

value intervention. [Realschule und dann? Effekte einer Nützlichkeitsintervention zur Unterstützung von Eltern und Jugendlichen bei der Berufsorientierung.] *Unterrichtswissenschaft, 47*, 271-293. doi: 10.1007/s42010-018-0024-x

Rieger, S., Göllner, R., Spengler, M., Trautwein, U., Nagengast, B., Harring, J.R., & Roberts, B.W. (2019). The effects of getting a new teacher on the consistency of personality. *Journal of Personality, 87*, 487-500. doi: 10.1111/jopy.12410

Rose, N., Wagner, W., Mayer, A. & Nagengast, B. (2019). Model-based manifest and latent composite scores in structural equation models. *Collabra: Psychology, 5(1)*: 9. doi: <https://doi.org/10.1525/collabra.143>

Golle, J.K., Rose, N., Göllner, R., Spengler, M., Stoll, G., Hübner, N., Rieger, S., Trautwein, U., Lüdtke, O., Roberts, B.W., & Nagengast, B. (2019). School or work? The choice may change your personality. *Psychological Science, 30*, 32-42. doi: 10.1177/0956797618806298

## 2018 (10)

Nagengast, B., Brisson, B.M., Hulleman, C.S., Gaspard, H., Häfner, I., & Trautwein, U. (2018). Learning more from educational interventions studies: Estimating complier average causal effects in a relevance intervention. *Journal of Experimental Education, 86*, 105-123. doi: 10.1080/00220973.2017.1289359

Nagy, G., Nagengast, B., Becker, M., Rose, N., & Frey, A. (2018). Item position effects on a reading comprehension test: An IRT study of individual differences and individual correlates. *Psychological Test and Assessment Modeling, 60*, 165-187.

Suhlmann, M., Sassenberg, K., Nagengast, B., & Trautwein, U. (2018). Belonging mediates effects of student-university fit on well-being, motivation, and dropout intention. *Social Psychology, 49*, 16-28. doi: 10.1027/1864-9335/a000325

Göllner, R., Damian, R., Nagengast, B., Roberts, B.W., & Trautwein, U. (2018). It's not only who you are but who you are with: High school composition and individuals' attainment over the life course. *Psychological Science, 29*, 1785-1796. doi:10.1177/0956797618794454

Marsh, H.W., Guo, J., Parker, P., Nagengast, B., Asparouhov, T., Muthén, B.O., & Dicke, T. (2018). What to do when scalar invariance fails: The extended alignment method for multi-group factor analysis comparison of latent means across many groups. *Psychological Methods, 23*, 524-545. doi: 10.1037/met0000113

Gaspard, H., Wigfield, A., Jiang, Y., Nagengast, B., Trautwein, U., & Marsh, H.W. (2018). Dimensional comparisons: How academic track students' achievements are related to their expectancy and value beliefs across domains. *Contemporary Educational Psychology, 52*, 1-14. doi: 10.1016/j.cedpsych.2017.10.003

Berendes, K., Becker, M., Jacoby, J., Flunger, B., Nagengast, B., & Trautwein, U. (2018). Individuelle Entwicklungsverläufe beim Lesen: Macht das Geschlecht den Unterschied? [Developmental trajectories in reading: Does gender make the difference?] *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie, 50*, 192-208. doi: 10.1026/0049-8637/a000202

Häfner, I., Flunger, B., Dicke, A.-L., Gaspard, H., Brisson, B.M., Nagengast, B., & Trautwein, U. (2018). The role of family characteristics for students' academic outcomes: A person-centered approach. *Child Development, 89*, 1405-1422. doi: 10.1111/cdev.12809

Golle, J.K., Zettler, I., Rose, N., Trautwein, U., Hasselhorn, M., & Nagengast, B. (2018). Effectiveness of a "Grass Roots" statewide enrichment program for gifted elementary school children. *Journal of Research on Educational Effectiveness, 11*, 375-408. doi: 10.1080/19345747.2017.1402396

Wille, E., Gaspard, H., Trautwein, U., Oschatz, K., Scheiter, K., & Nagengast, B. (2018). Gender stereotypes in a children's television program: Effects on girls' and boys' stereotype endorsement, math performance, motivational dispositions, and attitudes. *Frontiers in Psychology, 9*, 2435. doi: 10.3389/fpsyg.2018.02435

## 2017 (16)

- Lösch, T., Kelava, A., Nagengast, B., Trautwein, U., & Lüdtke, O. (2017). Perspective matters: The internal/external frame of reference model for self- and peer ratings of achievement. *Learning and Instruction, 52*, 80-89. doi: 10.1016/j.learninstruc.2017.05.001
- Flunger, B., Trautwein, U., Nagengast, B., Lüdtke, O., Niggli, A., & Schnyder, I. (2017). A person-centered approach to homework behavior: Students' characteristics predict their homework learning type. *Contemporary Educational Psychology, 48*, 1-15. doi: 10.1016/j.cedpsych.2016.07.002
- Itzek-Greulich, H., Flunger, B., Vollmer, C., Nagengast, B., Rehm, M., & Trautwein, U. (2017). Effectiveness of lab-work learning environments in and out of school: A cluster randomized study. *Contemporary Educational Psychology, 48*, 98-115. doi: 10.1016/j.cedpsych.2016.09.005
- Stoll, G., Rieger, S., Lüdtke, O., Nagengast, B., Trautwein, U., Roberts, B.W. (2017). Vocational interests assessed at the end of high school predict life outcomes assessed 10 years later over and above IQ and Big Five Personality traits. *Journal of Personality and Social Psychology, 113*, 167-184. doi: 10.1037/pspp0000117
- Huber, S., Dietrich, J.F., Nagengast, B., & Moeller, K. (2017). Using propensity score matching to construct experimental stimuli. *Behavior Research Methods, 49*, 1107-1119. doi: 10.3758/s13428-016-0771-8
- Weich, M., Kramer, J., Nagengast, B., & Trautwein, U. (2017). Studienstart: Dual gleich genial? Unterschiede in Studieneingangsvoraussetzungen bei Studienanfängern in dualen und nicht dualen Studiengängen an bayerischen Hochschulen für angewandte Wissenschaften. *Zeitschrift für Erziehungswissenschaft, 20*, 305-332. doi: 10.1007/s11618-016-0717-z
- Hübner, N., Wagner, W., Kramer, J., Nagengast, B., & Trautwein, U. (2017). Die G8-Reform in Baden-Württemberg: Kompetenzen, Wohlbefinden und Freizeitverhalten vor und nach der Reform. *Zeitschrift für Erziehungswissenschaft, 20*, 748-771. doi: 10.1007/s11618-017-0737-3
- Rieger, S., Göllner, R., Spengler, M., Trautwein, U., Nagengast, B., & Roberts, B.W. (2017). Social cognitive constructs are just as stable as the Big Five between grades five and eight. *AERA Open, 3*, 1-9. doi: 10.1177/2332858417717691
- Lösch, T., Lüdtke, O., Robitzsch, A., Kelava, A., Nagengast, B., & Trautwein, U. (2017). A well-rounded view: Using an interpersonal approach to predict achievement by academic self-concept and peer ratings of competence. *Contemporary Educational Psychology, 51*, 198-208.
- Hübner, N., Wille, E., Cambria, J.M., Oschatz, K., Nagengast, B., & Trautwein, U. (2017). Maximizing gender equality in STEM by minimizing course choice options? Effects of obligatory coursework in math on gender differences in STEM. *Journal of Educational Psychology, 109*, 993-1009. doi: 10.1037/edu0000183
- Göllner, R., Damian, R., Rose, N., Spengler, M., Trautwein, U., Nagengast, B., & Roberts, B.W. (2017). Is doing your homework associated with becoming more conscientious? *Journal of Research in Personality, 71*, 1-12. doi: 10.1016/j.jrp.2017.08.007
- Brisson, B.M., Dicke, A.-L., Gaspard, H., Häfner, I., Flunger, B., Nagengast, B., & Trautwein, U. (2017). Short intervention, lasting effects: Promoting students' math competence beliefs, effort, and achievement. *American Educational Research Journal, 54*, 1048-1078. doi: 10.3102/0002831217716084
- Häfner, I., Flunger, B., Dicke, A.-L., Gaspard, H., Brisson, B.M., Nagengast, B., & Trautwein, U. (2017). Robin Hood effects on motivation in math: Family interest moderates the effects of relevance interventions. *Developmental Psychology, 53*, 1522-1539. doi: 10.1037/dev0000337
- Rose, N., von Davier, M., & Nagengast, B. (2017). Modeling omitted and not-reached items in IRT models. *Psychometrika, 82*, 795-819. doi: 10.1007/s11336-016-9544-7
- Cambria, J.M., Brandt, H., Trautwein, U., & Nagengast, B. (2017). Frame-of-reference effects on values in mathematics - Evidence from German secondary school students. *ZDM Mathematics Education, 49*, 435-447. doi: 10.1007/s11858-017-0841-0
- Gaspard, H., Häfner, I., Parrisius, C., Trautwein, U., & Nagengast, B. (2017). Assessing task values in five subjects during secondary school: Measurement structure and mean level

differences across grade level, gender, and academic subject. *Contemporary Educational Psychology*, 48, 67-84. doi: 10.1016/j.cedpsych.2016.09.003

**2016** (2)

Guo, J., Nagengast, B., Marsh, H.W., Kelava, A., Gaspard, H., Brandt, H., Cambria, J.M., Flunger, B., Dicke A.-L., Häfner, I., Brisson, B. M., & Trautwein, U. (2016). Probing the unique contributions of self-concept, task values and their interactions using multiple value facets and multiple academic outcomes. *AERA Open*, 2, No. 1, 1-20. doi: 10.1177/2332858415626884

Gaspard., H., Dicke, A.-L., Flunger, B., Brisson, B.M., Häfner, I., Trautwein, U., & Nagengast, B. (2016). Side effects of motivational interventions? Effects of a motivational intervention in math classrooms on motivation in verbal domains. *AERA Open*, 2, No. 2, 1-14. doi: 10.1177/2332858416649168

**2015** (10)

Rose, N., von Davier, M., & Nagengast, B. (2015). Commonalities and differences in IRT-based methods for nonignorable item-nonresponses. *Psychological Test and Assessment Modeling*, 57, 472-498.

Flunger, B., Trautwein, U., Nagengast, B., Lüdtke, O., Niggli, A., & Schnyder, I. (2015). The Janus-faced nature of time spent on homework: Using latent profile analyses to predict academic achievement over a school year. *Learning and Instruction*, 39, 97-106. doi: 10.1016/j.learninstruc.2015.05.008

Friedrich, A., Flunger, B., Nagengast, B., Jonkmann, K., Schmitz, B., & Trautwein, U. (2015). Pygmalion effects in the classroom: Teacher expectancy effects on students' math achievement. *Contemporary Educational Psychology*, 41, 1-12. doi:10.1016/j.cedpsych.2014.10.006

Marsh, H.W., Lüdtke, O., Nagengast, B., Trautwein, U., Abduljabbar, A.S., Abdelfattah, F., & Jansen, M. (2015). Dimensional Comparison Theory: Paradoxical relations between self-beliefs and achievements in multiple domains. *Learning and Instruction*, 35, 16-32. doi:10.1016/j.learninstruc.2014.08.005

Itzek-Greulich, H., Flunger, B., Vollmer, C., Nagengast, B., Rehm, M., & Trautwein, U. (2015). Effects of a science center outreach lab on school students' achievement - Are student lab visits needed when they teach what students can learn at school? *Learning and Instruction*, 38, 43-52. doi: 10.1016/j.learninstruc.2015.03.00

Televantou, I., Marsh, H.W., Kyriakides, L., Nagengast, B., Fletcher, J., & Malmberg, L.-E. (2015). Phantom effects in school composition research: Consequences of failure to control biases due to measurement error in traditional multilevel models. *School Effectiveness and School Improvement*, 26, 75-101. doi: 10.1080/09243453.2013.871302

Marsh, H.W., Abduljabbar, A.S., Parker, P., Morin, A.J.S., Abdelfattah, F., Nagengast, B., Möller, J., Abu-Hillal, M.M. (2015). The internal/external frame of reference model: Age-cohort and cross-national differences in paradoxical relations between TIMSS mathematics and science achievement, self-concept and intrinsic motivation. *American Educational Research Journal*, 52, 168-202. doi: 10.3102/0002831214549453

Marsh, H.W., Abduljabbar, A.S., Parker, P., Morin, A.J.S., Abdelfattah, F., Nagengast, B., Abu-Hillal, M.M. (2015). The Big-Fish-Little-Pond Effect: Generalizability of social comparison processes over two age cohorts from western, asian and middle-eastern islamic countries. *Journal of Educational Psychology*, 107, 258-271. doi: 10.1037/a0037485

Gaspard., H., Dicke, A.-L., Flunger, B., Brisson, B.M., Häfner, I., Nagengast, B., & Trautwein, U. (2015). Fostering adolescents' value beliefs for mathematics with a relevance intervention in the classroom. *Developmental Psychology*, 51, 1226-1240. doi: 10.1037/dev0000028

Gaspard, H., Dicke, A.-L., Flunger, B., Schreier, B., Häfner, I., Trautwein, U., & Nagengast, B. (2015). More value through greater differentiation: Gender differences in value beliefs about math. *Journal of Educational Psychology*, 107, 663-677. doi: 10.1037/edu0000003

**2014** (11)

Nagengast, B., Marsh, H.W., Chiorri, C., & Hau, K.-T. (2014). Character building or subversive consequences of employment during high school: Causal effects based on propensity score

- models for categorical treatments. *Journal of Educational Psychology*, 106, 584-603. doi: 10.1037/a0035615
- Kelava, A., Nagengast, B., & Brandt, H. (2014). A nonlinear structural equation mixture modeling approach for non-normally distributed latent predictor variables. *Structural Equation Modeling*, 21, 468-481. doi: 10.1080/10705511.2014.915379
- Mayer, A., Nagengast, B., Fletcher, J., & Steyer, R. (2014). Analyzing average and conditional effects with multigroup multilevel structural equation models. *Frontiers in Psychology*, 5, 304. doi: 10.3389/fpsyg.2014.00304
- Morin, A.J.S., Marsh, H.W., Nagengast, B., & Scalas, L.F. (2014). Doubly latent multilevel analyses of classroom climate: An illustration. *Journal of Experimental Education*, 82, 143-167. doi: 10.1080/00220973.2013.769412
- Schurtz, I.M., Pfof, M., Nagengast, B., & Artelt, C. (2014). The impact of social and dimensional comparisons on student subject-interest in mathematics and english. *Learning and Instruction*, 34, 32-41. doi: 10.1016/j.learninstruc.2014.08.001
- Schreier, B., Dicke, A.-L., Gaspard, H., Häfner, I., Flunger, B., Lüdtke, O., Nagengast, B., & Trautwein, U. (2014). Der Wert der Mathematik im Klassenzimmer – Die Bedeutung relevanzbezogener Unterrichtsmerkmale für die Wertüberzeugungen der Schülerinnen und Schüler [The value of mathematics in the classroom – The importance of relevance-related instructional characteristics for value beliefs of students]. *Zeitschrift für Erziehungswissenschaft*, 17, 225-255. doi: 10.1007/s11618-014-0537-y
- Dumont, H., Trautwein, U., Nagy, G., & Nagengast, B. (2014). Quality of parental homework involvement: Predictors and reciprocal relationships with academic performance. *Journal of Educational Psychology*, 106, 144-161. doi: 10.1037/a0034100
- Scalas, L.F., Marsh, H.W., Morin, A.J.S., & Nagengast, B., & (2014). Why is support for the Jamesian actual-ideal discrepancy model so elusive? A new latent variable approach. *Personality and Individual Differences*, 69, 62-68. doi: 10.1016/j.paid.2014.05.010
- Scalas, L.F., Morin, A.J.S., Marsh, H.W., & Nagengast, B. (2014). Importance models of the physical self: Improved methodology fails to support the Jamesian model and provides support for a normative importance model. *European Journal of Social Psychology*, 44, 154-174. doi: 10.1002/ejsp.2001
- Thomas, I.T., Marsh, H.W., Gonzalez-Roma, V., Valls, V., & Nagengast, B. (2014). Testing Measurement invariance across Spanish and English versions of the Physical Self-Description Questionnaire (PSDQ): an application of Exploratory Structural Equation Modeling. *Journal of Sports and Exercise Psychology*, 36, 179-88. doi: 10.1123/jsep.2013-0070
- Marsh, H. W., Abduljabbar, A. S., Parker, P. D., Morin, A. J. S., Abdelfattah, F., & Nagengast, B. (2014). The Big-Fish-Little-Pond Effect in Mathematics: A cross-cultural comparison of U.S. and Saudi Arabian TIMSS responses. *Journal of Cross-Cultural Psychology*, 45, 777-804. doi:10.1177/0022022113519858
- 2013 (9)**
- Nagengast, B., Trautwein, U., Kelava, A., & Lüdtke, O. (2013). Synergistic effects of expectancy and value. The case for a within-person perspective. *Multivariate Behavioral Research*, 48, 428-460. doi: 10.1080/00273171.2013.775060
- Nagengast, B., Marsh, H.W., & Hau, K.-T. (2013). Effects of single-sex schooling in high school: A comparison of analysis of covariance and propensity score methods. *Sex Roles*, 69, 404-422. doi: 10.1007/s11199-013-0261-8
- Marsh, H.W., Nagengast, B., & Morin, A.J.S. (2013). Measurement invariance of Big-Five factor structure over the life span: Exploratory structural equation modelling tests of gender, age, plasticity, maturity and La Dolce Vita effects. *Developmental Psychology*, 49, 1194-1218. doi: 10.1037/a0026913
- Marsh, H.W., Lüdtke, O., Nagengast, B., Morin, A.J.S., & von Davier, M. (2013). Why item parcels are (almost) never appropriate: Two wrongs do not make a right—camouflaging misspecification with item parcels in CFA models. *Psychological Methods*, 18, 257-284. doi: 10.1037/a0032773

- Friedrich, A., Jonkmann, K., Nagengast, B., Schmitz, B., & Trautwein, U. (2013). Teacher and student perceptions of self-regulation and math competence: Differentiation and agreement. *Learning and Individual Differences*, 27, 26-34. doi: 10.1016/j.lindif.2013.06.005
- Arens, A.K., Yeung, A.S., Nagengast, B., & Hasselhorn, M. (2013). Relations between self-worth and academic self-concept of German elementary and secondary school students. *Educational Psychology*. doi: 10.1080/01443410.2013.772772
- Scalas, L.F., Marsh, H.W., Nagengast, B., & Morin, A.J.S. (2013). Latent variable approaches to the Jamesian model of importance weighted-averages. *Personality and Social Psychology Bulletin*, 39, 100-114. doi: 10.1177/0146167212465321
- Morin, A.J.S., Maïano, C., Marsh, H.W., Nagengast, B., & Janosz, M. (2013). School life and adolescents' self-esteem trajectories. *Child Development*, 84, 1967-1988. doi: 10.1111/cdev.12089
- Marsh, H.W., Abduljabbar, A.S., Abu-Hilal, M., Morin, A.J.S., Abdelfattah, F., Leung, K.C., Xu, M.K., Nagengast, B., & Parker, P. (2013). Factor structure, discriminant and convergent validity of TIMSS math and science motivation measures: A comparison of USA and Saudi Arabia. *Journal of Educational Psychology*, 105, 108-128. doi: 10.1037/a0029907
- 2012 (4)**
- Nagengast, B., & Marsh, H.W. (2012). Big fish in little ponds aspire more: Mediation and cross-cultural generalizability of school-average ability effects on self-concept and career aspirations in science. *Journal of Educational Psychology*, 104, 1033-1053. doi: 10.1037/a0027697
- Kelava, A., & Nagengast, B. (2012). A Bayesian model for the estimation of latent interaction and quadratic effects when latent variables are non-normally distributed. *Multivariate Behavioral Research*, 47, 717-742. doi: 10.1080/00273171.2012.715560
- Marsh, H.W., Lüdtke, O., Nagengast, B., Trautwein, U., Morin, A.J.S., Abduljabbar, A., & Köller, O. (2012). Classroom climate and contextual effects. Methodological issues in the evaluation of group-level effects. *Educational Psychologist*, 47, 106-124. doi: 10.1080/00461520.2012.670488
- Trautwein, U., Marsh, H.W., Nagengast, B., Lüdtke, O., Nagy, G., & Jonkmann, K. (2012). Probing for the multiplicative term in modern expectancy-value theory: A latent interaction modeling study. *Journal of Educational Psychology*, 104, 763-777. doi: 10.1037/a0027470
- 2011 (8)**
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M. K., Hau, K.-T, & Trautwein, U. (2011). Who took the "x" out of expectancy-value theory? A psychological mystery, a substantive-methodological synergy, and a cross-national generalization. *Psychological Science*, 22, 1058-1066. doi: 10.1177/0956797611415540
- Nagengast, B., & Marsh, H.W. (2011). The negative effect of school-average ability on science self-concept in the UK, the UK countries, and the world: The Big-Fish-Little-Pond-Effect for PISA 2006. *Educational Psychology*, 31, 629-656. doi: 10.1080/01443410.2011.586416
- Marsh, H.W., Nagengast, B., Morin, A.J.S., Parada, R.H., Craven, R.G., & Hamilton, L. (2011). The multidimensional structure of bullying and victimization: An application of exploratory structural equation modelling. *Journal of Educational Psychology*, 103, 701-732. doi: 10.1037/a0024122
- Marsh, H.W., Nagengast, B., Fletcher, J., & Televantou, I. (2011). Assessing educational effectiveness. Policy implications from diverse areas of research. *Fiscal Studies*, 32, 279-295. doi: 10.1111/j.1475-5890.2011.00137.x
- Morin, A.J.S., Maïano, C., Nagengast, B., Marsh, H.W., Morizot, J., & Janosz, M. (2011). General growth mixture analysis of adolescents' developmental trajectories of anxiety: The impact of untested invariance assumptions on substantive interpretations. *Structural Equation Modeling*, 18, 613-648. doi: 10.1080/10705511.2011.607714
- Marsh, H.W., Ginns, P., Morin, A.J.S., Nagengast, B., & Martin, A.J. (2011). Course Experience Questionnaire (CEQ): Use of student ratings to benchmark Australian universities. *Journal of Educational Psychology*, 103, 733-748. doi: 10.1037/a0024221

- Marsh, H.W., Liem, G.A.D., Martin, A.J., Morin, A.J.S., & Nagengast, B. (2011). Measurement fruitfulness of exploratory structural equation modelling (ESEM) in addressing key substantive issues in motivation and engagement research. *Journal of Psychoeducational Assessment*, 29, 322-346. doi: 10.1177/0734282911406657
- Morin, A.J.S., Maïano, C., Marsh, H.W., Janosz, M., & Nagengast, B. (2011). The longitudinal interplay of adolescents' self-esteem and body image: A conditional autoregressive latent trajectory analysis. *Multivariate Behavioral Research*, 46, 157-201. doi: 10.1080/00273171.2010.546731

**2010 (2)**

- Marsh, H.W., Scalas, L.F., & Nagengast, B. (2010). Longitudinal tests of competing factor structures for the Rosenberg self-esteem scale: Traits, ephemeral artefacts, and stable response styles. *Psychological Assessment*, 22, 366-381. doi: 10.1037/a0019225
- Marsh, H.W., Lüdtke, O., Muthén, B.O., Asparouhov, T., Morin, A.J.S., Trautwein, U., & Nagengast, B. (2010). A new look at the Big-Five factor structure through exploratory structural equation modelling. *Psychological Assessment*, 22, 471-491. doi: 10.1037/a0019227

**2009 and earlier (3)**

- Marsh, H.W., Lüdtke, O., Robitzsch, A., Trautwein, U., Asparouhov, T., Muthén, B.O., & Nagengast, B. (2009). Doubly-latent models of school contextual effects: Integrating multilevel and structural equation approaches to control measurement and sampling error. *Multivariate Behavioral Research*, 44, 764-802. doi: 10.1080/00273170903333665
- Walther, E., & Nagengast, B. (2006). Evaluative conditioning and the awareness issue: Assessing contingency awareness with the four-picture recognition test. *Journal of Experimental Psychology: Animal Behavior Processes*, 32, 454-459. doi: 10.1037/0097-7403.32.4.454
- Walther, E., Nagengast, B., & Trasselli, C. (2005). Evaluative conditioning and social psychology: Facts and speculations. *Cognition and Emotion*, 19, 175-196. doi: 10.1080/02699930441000274

**Manuscripts under review**

- Dicke, A.-L., Nagengast, B., & Trautwein, U. (2012). *The many ways supportive teachers matter: Differential effects of teacher support on student engagement.*
- Gaspard, H., Nagengast, B., Trautwein, U., Jaekel, A.-K., & Göllner, R. (2021). *Heterogenität in motivationalen Entwicklungsverläufen in Mathematik und Deutsch in Abhängigkeit von Schulform und Geschlecht.*
- Dicke, A.-L., Trautwein, U., & Nagengast, B. (2012). *Hauptschüler = desinteressiert und faul? Schulformunterschiede in der Entwicklung von Interesse und Anstrengungsbereitschaft.*
- Dicke, A.-L., Trautwein, U., Nagengast, B., & Wagner, W. (2013). *Consequences of mandatory course enrollment for students' interest in the natural sciences: Applying a cohort control design.*
- Usslepp, N., Hübner, N., Nagengast, B., & Trautwein, U. (2019). *Trotz Gymnasialempfehlung auf die Realschule: Eher Zwischenstopp oder Endstation? [Attending the intermediate track despite being recommended for the highest track: Stopover or final station?]*
- Lösch, T., Kelava, A., Nagengast, B., & Trautwein, U. (2015). *"I thought I had an A": The incidence and correlates of students' postdiction bias on a high-stakes exam.*
- Ellis, L., Marsh, H.W., Nagengast, B., & Craven, R.J. (2011). *Benefits of being a peer leader in a high school peer support program.*
- Ayaita, A., Spengler, M., Nagengast, B., & Trautwein, U. (2020). *Field of study and earnings: The role of abilities, personality, and family background.*  
<https://doi.org/10.31234/osf.io/296yp>
- Stoll, G., Rieger, S., Nagengast, B., Trautwein, U., & Lüdtke, O. (2021). *Disentangling different sources of stability and change in vocational interests: Results from three longitudinal studies using STARTS models.*

- Rieger, S., Göllner, R., Spengler, M., Trautwein, U., Nagengast, B., & Roberts, B.W. (2017). *The development of students' academic effort: The unique and combined effects of conscientiousness and individual interest.*
- Fleischmann, M., Hübner, N., Nagengast, B., & Trautwein, U. (2021). *The dark side of detracking: Mixed-ability classrooms hurt low-achievers' math motivation.* <https://doi.org/10.31234/osf.io/kb7we>
- Häfner, I., Hulleman, C.S., Harackiewicz, J.M., Rozek, C.S., Nagengast, B., Trautwein, U., & Hyde, J.S. (2016). *STEM career paths from middle school to college: Parent and student interrelations.*
- Kim, Y., Gaspard, H., Fleischmann, M., Nagengast, B., & Trautwein, U. (2021). *What happens with comparison processes when „the other“ is very similar? Academic self-concept in monozygotic twins.*
- Fleischmann, M., Becker, D., Wessling, K., Nagengast, B., & Trautwein, U. (2020). *Living in the big pond: How socioeconomic neighborhood composition predicts students' academic self-concept.*
- Henke, L., Wagner, W., Bertram, C., Nagengast, B., & Trautwein, U. (2019). *When some students are better off with lessons "as usual": An aptitude-treatment interaction study in the history classroom.*
- Braeuning, D., Lambert, K., Schils, T., Borhans, L., Hirsch, S., Nagengast, B., & Moeller, K. (2021). *Evaluation of criteria for diagnosing mathematics learning disabilities considering large-scale assessment data.*
- Friedrich, A., Trautwein, U., Jonkmann, K., Flunger, B., Ogrin, S., Keller, S., Nagengast, B., & Schmitz, B. (2013). *Students' self-concept, teachers' expectancies and teachers' inferred self-concept: Which competence perception really predicts students' math achievement development?*
- Jüttler, M., Schumann, S., Hübner, N., & Nagengast, B. (2019). *Predicting study choices in higher education: When economic competencies matter.*
- Sassenberg, K., Suhlmann, M., van Laar, C., & Nagengast, B. (2018). *Acculturation at universities: The Impact of majority and minority students' acculturation strategies on ethnic minority students' well-being and academic success.*
- Zitzmann, S., Walther, J.-K., Hecht, M., & Nagengast, B. (2022). *What is the maximum likelihood estimate when the initial solution to the optimization problem is inadmissible? The case of negatively estimated variances.*
- Göllner, R., Marder, J., Wagner, W., Rose, N., Fauth, B., & Nagengast, B. (2017). *Dimensionality of students' perceptions of teaching quality: An integrated data analysis of five large-scale assessments.*
- Braun, L., Rieger, S., Spengler, M., Göllner, R., Rose, N., Trautwein, U., & Nagengast, B. (2020). *Rethinking the elusive construct of global self-concept: A latent composite score as the apex of the Shavelson model.* <https://doi.org/10.31234/osf.io/dbkw6>

### Monograph Chapters (19)

- Trautwein, U., Gaspard, H., Parrisius, C., Bertram, C., Wagner, W., Zachrich, L., Golle, J., Ruth-Herbein, E., Schiefer, J., Jaggy, A.-K., Kleinhansl, M., & Nagengast, B. (in press). Optimierung schulischer Bildungsprozesse: Welchen Beitrag können randomisierte Feldstudien leisten? [Optimization of learning in schools: What is the contribution of randomized field studies? In N. McElvany, M. Becker, F. Laueremann, H. Gaspard & A. Ohle-Peters (Eds.), *Optimierung schulischer Bildungsprozesse – What works? Dortmunder Symposium der Empirischen Bildungsforschung, Band 6* (p. 9-32). Münster: Waxmann.
- Nagengast, B., & Trautwein, U. (in press). Theoretical and methodological disintegration is the most fundamental limitation in contemporary motivation research. In M. Bong, S.-I. Kim & J. Reeve (Eds.), *Motivation Science: Controversies and Insights*. New York: Oxford University Press.
- Trautwein, U., & Nagengast, B. (in press). Digitization will bring profound changes in educational practice and research on motivation. In M. Bong, S.-I. Kim & J. Reeve (Eds.), *Motivation Science: Controversies and Insights*. New York: Oxford University Press.

- Gaspard, H., Nagengast, B., & Trautwein, U. (2019). Erfassung von Wertüberzeugungen [Assessment of Value Beliefs]. In H. Gaspard, U. Trautwein & M. Hasselhorn (Eds.), *Diagnostik und Förderung von Motivation und Volition [Assessment and Enhancement of Motivation and Volition]* (p. 87-100). Göttingen: Hogrefe.
- Gaspard, H., Hasselhorn, M., Nagengast, B., & Trautwein, U. (2019). Motivation und Volition im Schulalter: Einführung und Überblick. [Motivation and volition in school: Introduction and overview] In H. Gaspard, U. Trautwein & M. Hasselhorn (Eds.), *Diagnostik und Förderung von Motivation und Volition [Assessment and Enhancement of Motivation and Volition]* (p. 1-18). Göttingen: Hogrefe.
- Gaspard, H., Parrisius, C., Nagengast, B., & Trautwein, U. (2019). Förderung von Wertüberzeugungen durch Nützlichkeitsinterventionen [Fostering value beliefs with relevance interventions]. In H. Gaspard, U. Trautwein & M. Hasselhorn (Eds.), *Diagnostik und Förderung von Motivation und Volition [Assessment and Enhancement of Motivation and Volition]* (p. 161-176). Göttingen: Hogrefe.
- Trautwein, U., Nagengast, B., Roberts, B.W., & Lüdtke, O. (2019). Predicting academic effort: The conscientiousness x interest compensation (CONIC) model. In K.A. Renninger (Ed.), *Cambridge Handbook on Motivation and Learning* (p. 353-372). Cambridge: Cambridge University Press.
- Nagengast, B., & Rose, N. (2018). Quantitative Bildungsforschung und Assessments [Quantitative educational research and assessments]. In R. Tippelt & B. Schmidt-Hertha (Eds.), *Handbuch Bildungsforschung [Handbook of educational research]* (4th ed.). Wiesbaden: Springer. doi: 10.1007/978-3-531-20002-6\_28-1
- Nagy, G., Nagengast, B., Frey, A., Becker, M., & Rose, N. (2016). Itempositionseffekte in Large-Scale-Assessments [Item position effects in large-scale assessments]. In Bundesministerium für Bildung und Forschung (Ed.), *Forschung in Anknüpfung an Large-Scale Assessments [Research in relation to large-scale assessments]* (p. 121-139). Berlin: Bundesministerium für Bildung und Forschung.
- Göllner, R., Wagner, W., Klieme, W., Lüdtke, O., Nagengast, B., & Trautwein, U. (2016). Erfassung der Unterrichtsqualität mithilfe von Schülerurteilen: Chancen, Grenzen und Forschungsperspektiven [Measuring instructional quality with student ratings: Chances, limits and research perspectives]. In Bundesministerium für Bildung und Forschung (Ed.), *Forschung in Anknüpfung an Large-Scale Assessments [Research in relation to large-scale assessments]* (p. 63-82). Berlin: Bundesministerium für Bildung und Forschung.
- Nagengast, B., & Trautwein, U. (2015). The prospects and limitations of latent variable models in educational psychology. In E.M. Anderman & L. Corno (Eds.), *Handbook of Educational Psychology* (3rd ed.) (p. 41-58). New York: Routledge.
- Trautwein, U., Lüdtke, O., Nagengast, B., & Flunger, B. (2015). Why researchers' time was spent inefficiently. Motivation is the key construct in homework research. In F. Guay, D.M. McInerney, R.G. Craven & H.W. Marsh (Eds.), *International Advances in Self Research (Volume 5). Self-concept, motivation and identity: Underpinning success with research and practice* (p. 151-172). New York: Information Age.
- Marsh, H.W., Möller, J., Parker, P., Xu, M.K., Nagengast, B., & Pekrun, R. (2015). Internal/external frame of reference model. In K. Salmelo-Aro & J.S. Eccles (Eds.), *International Encyclopedia of Social and Behavioral Sciences* (2nd ed.) (p. 425-432). Amsterdam: Elsevier.
- Nagengast, B., & Marsh, H.W. (2014). Motivation and engagement in science around the globe: Testing measurement invariance with multigroup structural equation models across 57 countries using PISA 2006. In L. Rutkowski, M. von Davier, & D. Rutkowski (Eds.), *Handbook of International Large-Scale Assessment: Background, Technical Issues, and Methods of Data Analysis* (p. 317-345). New York: Taylor & Francis.
- Trautwein, U., Nagengast, B., Marsh, H.W., Gaspard, H., Dicke, A.-L., Lüdtke, O., & Jonkmann, K. (2013). From expectancy-value theory to expectancy-values theory? In D.M. McInerney, R.G. Craven, H.W. Marsh & F. Guay (Eds.), *Theory Driving Research: New Wave Perspectives on Self-Processes and Human Development* (p. 233-249). New York: Information Age.

- Marsh, H.W., Hau, K.-T., Wen, Z., Nagengast, B., & Morin, A.J.S. (2013). Moderation. In T.D. Little (Ed.), *The Oxford Handbook of Quantitative Methods – Vol.2* (p. 361-386). New York: Oxford University Press.
- Morin, A.J.S., Marsh, H.W., & Nagengast, B. (2013). Exploratory structural equation modeling. In G.R. Hancock & R.O. Mueller (Eds.), *Structural Equation Modeling. A second course* (2nd ed.) (p. 395-438). Greenwich, CT: Information Age.
- Marsh, H.W., Wen, Z., Hau, K.-T., & Nagengast, B. (2013). Structural equation models of latent interaction and quadratic effects. In G.R. Hancock & R.O. Mueller (Hrsg.), *Structural Equation Modeling. A second course* (2nd ed.) (p. 267-308). Greenwich, CT: Information Age.
- Marsh, H.W., Wen, Z., Nagengast, B., & Hau, K.-T. (2012). Structural equation models of latent interactions. In R.D. Hoyle (Ed.), *Handbook of Structural Equation Modeling* (p. 436-458). New York: Guilford Press.

### Preregistrations

- Parrisius, C., Pieronczyk, I., Blume, C., Wendebourg, K., Pili-Moss, D., Assmann, M., Beilharz, S., Bodnar, S., Colling, L., Holz, H., Middelanis, L., Nuxoll, F., Schmidt-Peterson, J., Meurers, D., Nagengast, B., Schmidt, T., & Trautwein, U. (2021). Using an intelligent tutoring system within a task-based learning approach in English as a foreign language classes to foster motivation and learning outcome (Interact4School): Pre-registration of the study design. *PsychArchives*. <https://doi.org/10.23668/psycharchives.5366>
- Nagengast, B., Rieger, S., Dörfler, T., & Schulz, A. (2019). *Preregistration: Enhancing reading and math skills from grade 5 to 7: A cluster randomized controlled study of the effects of "Lesen macht stark" and "Mathe macht stark" in Baden-Württemberg*. SREE Registry of Effectiveness and Efficacy Studies, #1645.1v1, <https://sreereg.icpsr.umich.edu/>

### Datasets

- Gaspard, H., Brisson, B., Häfner, H., Dicke, A.-L., Flunger, B., Parrisius, C., Nagengast, B. & Trautwein, U. (2021). Motivationsförderung im Mathematikunterricht (MoMa) (Version 1) [Dataset]. Berlin: IQB – Institut zur Qualitätsentwicklung im Bildungswesen. [http://doi.org/10.5159/IQB\\_MoMa\\_v1](http://doi.org/10.5159/IQB_MoMa_v1)

### Publications aimed at practitioners

- Trautwein, U., Golle, J., & Nagengast, B. (2016). Big-Fish-Little-Pond-Effekt: Selbstkonzepte werden durch den sozialen Vergleich beeinflusst [Big-fish-little-pond-effect. Academic self-concepts are influenced by social comparisons]. *News & Science of the Austrian Center for Education of Gifted Students*, 42, 10-12.
- Nagengast, B., Trautwein, U., Warren, C., Bildstein, I., Gaspard, H., & Häfner, I. (2016). Motivationsförderung im Mathematikunterricht [Fostering motivation in mathematics]. In Smolka, D. (Ed.), *Schüler motivieren [Motivating students]* (p.233-239). Hürth: Carl Link.
- Flunger, B., Trautwein, U., Nagengast, B., & Lüdtke, O. (2016). Viel Hausaufgabenzeit – viel gelernt? Lerntypen während der Hausaufgabenbearbeitung und ihr Zusammenhang mit Leistungsentwicklung [Working long on homework – learning a lot? Homework learning types and their relation to achievement]. *Schulmanagement*, 1, 33-35.

### Software

- Nagengast, B., Kröhne, U., & Bauer, M. (2008). Causal Effects Explorer. [Computer software]. Available at <http://www.causal-effects.de/>.

### Organisation of Conferences and Symposia

- Nagengast, B., Gaspard, H., Golle, J.K., & Häfner, I. (2016, December). *Randomized Controlled Field Trials*. WinterSchool at University of Tübingen.

- Nagengast, B. (2016, March). *Analyse kausaler Effekte in der Empirischen Bildungsforschung – Anwendungen und methodische Fortschritte [Analysis of causal effects in Education Sciences: Applications and methodological innovations]*. Symposium at the 4<sup>th</sup> Meeting of the Society for Empirical Educational Research, GEBF 2016, Berlin, Germany.
- Nagy, G., Rose, N., & Nagengast, B. (2015, September). *Itempositionseffekte in Schulleistungstests [Item position effects in large scale assessments]*. Symposium at the 12<sup>th</sup> meeting of the Section "Methodology and Evaluation" of the German Psychological Society, MethEval 2015, Jena, Germany.
- Nagengast, B., & Jonkmann, K. (2012, September). *Anwendungen von Propensity Score Methoden und kausaler Inferenz auf pädagogisch- und differentialpsychologische Fragestellungen [Applications of propensity score methods and causal inference to research questions in educational and differential psychology]*. Symposium at the 48<sup>th</sup> congress of the German Psychological Society, DGPs 2012, Bielefeld, Germany.
- Nagengast, B. (2011, September). *Analyse kausaler Effekte: Fortschritte in Theorie und Anwendung [Analysis of causal effects: Advances in theory and application]*. Symposium at the 10<sup>th</sup> meeting of the Section "Methodology and Evaluation" of the German Psychological Society, MethEval 2011, Bamberg, Germany.
- Nagengast, B., & Steyer, R. (2010, July). *Advances in the analysis of causal effects*. Symposium at the 4<sup>th</sup> Congress of the European Association of Methodology, EAM 2010, Potsdam, Germany.
- Steyer, R., & Nagengast, B. (2008, Juli). *Symposium on Causality 2008*, Dornburg, Germany.

#### **Published Conference Abstracts**

- Nagengast, B., & Steyer, R. (2008). Adjusting for confounding covariates in multilevel designs. *International Journal of Psychology*, 43 (3-4), 55.
- Kröhne, U., & Nagengast, B. (2008). Fair School Comparisons – Using previous knowledge as additional covariate for the adjustment of school achievement scores. *International Journal of Psychology*, 43 (3-4), 282.
- Vallines I., Bodis-Wollner I.G., Nagengast B., Özyurt J., Rutschmann R.M., & Greenlee M.W. (2002). Saccades in the dark: fMRI evidence for separate cortical control of intentional eye movements. *Perception*, 31, Suppl., 178.

#### **Invited Presentations**

- Nagengast, B. (2021, May). *Fostering students' motivation in math with short relevance interventions? Results from two cluster-randomized trials*. Invited Presentation at the Institute of Special Education, University of Linköping, Sweden.
- Nagengast, B. (2017, Oktober). *Institutional and intervention effects on expectancy and value beliefs*. Invited presentation at the 9th bMRI Symposium on Motivation of the Brain and Motivation Research Institute, Korea University, Seoul, Korea.
- Nagengast, B. (2017, January). *Motivationsförderung im Mathematikunterricht durch kurze Nützlichkeitsinterventionen? Ergebnisse einer cluster-randomisierten Studie [Increasing math motivation through short relevance interventions? Results from a cluster-randomized study]*. Invited Presentation at the Institute of Psychology, University of Marburg, Germany.
- Nagengast, B., & Trautwein, U. (2016, January). *Development of Student Motivation and Personality: Evidence from Natural Experiments and Randomized Field Trials*. Invited Presentation at the Department of Economics, University of Maastricht, Netherlands.
- Nagengast, B., & Trautwein, U. (2015, Juni). *Motivation Interventions: The Motivation in Mathematics Study (MoMa)*. Invited Presentation at the "Small Group Meeting on Motivation", University of Heidelberg, Germany.
- Nagengast, B. (2015, February). *When research on motivation meets methodology: Bringing the 'x' back to expectancy-value theory*. Invited Presentation at the Center for Educational Measurement Oslo (CEMO), Oslo, Norway.

- Nagengast, B., & Trautwein, U. (2015, January). *Motivation Interventions: The Motivation in Mathematics Study (MoMa)*. Invited Presentation at the Irvine Network of Interventions on Development, UC Irvine, USA.
- Nagengast, B., & Kröhne, U. (2013, May). *Causal inference in school improvement research. Prospects and problem*. Invited Presentation at the conference "Designs and Methods in School Improvement Research", German Institute for International Educational Research, Frankfurt, Germany.
- Nagengast, B. (2012, August). *Causal inference in multilevel settings*. Invited Presentation at the JURE-Preconference of the 3<sup>rd</sup> meeting of the EARLI-SIG 18 Educational Effectiveness, Zürich, Switzerland.
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., & Hau, K.-T. (2011, April). "Warum ist das 'X' verschwunden?" *Eine kulturvergleichende Analyse des Erwartungs-Wert-Modells der Leistungsmotivation mit nicht-linearen Strukturgleichungsmodellen [Who took the 'X' out of expectancy-value theory of achievement motivation?. A comparative analysis using non-linear structural equation models]*. Invited Presentation at the Institute of Education, University of Tübingen, Germany.
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., & Hau, K.-T. (2010, November). "Warum ist das 'X' verschwunden?" *Eine kulturvergleichende Analyse des Erwartungs-Wert-Modells der Leistungsmotivation mit nicht-linearen Strukturgleichungsmodellen [Who took the 'X' out of expectancy-value theory of achievement motivation?. A comparative analysis using non-linear structural equation models]*. Invited Presentation at the Center of Education Sciences and Educational Psychology, University of Tübingen, Germany.
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., & Hau, K.-T. (2010, October). "Warum ist das 'X' verschwunden?" *Eine kulturvergleichende Analyse des Erwartungs-Wert-Modells der Leistungsmotivation mit nicht-linearen Strukturgleichungsmodellen [Who took the 'X' out of expectancy-value theory of achievement motivation?. A comparative analysis using non-linear structural equation models]*. Invited Presentation at the Leibniz Institute of Science and Mathematics Education, University of Kiel, Germany.
- Nagengast, B., Marsh, H.W., & Fletcher, J. (2010, July). *Doubly-latent contextual effect models: Their potential for school effectiveness research, league tables and causal inference*. Invited Presentation at the 3<sup>rd</sup> "Symposium on Causality", 2010, Dornburg, Germany.
- Nagengast, B., Marsh, H.W., & Fletcher, J. (2010, July). *A multilevel latent variable (MLLV) model to estimate contextual effects*. Invited Presentation at the 4<sup>th</sup> ESRC Research Methods Festival, Oxford, UK.
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., & Hau, K.-T. (2010, June). "Warum ist das 'X' verschwunden?" *Eine kulturvergleichende Analyse des Erwartungs-Wert-Modells der Leistungsmotivation mit nicht-linearen Strukturgleichungsmodellen [Who took the 'X' out of expectancy-value theory of achievement motivation?. A comparative analysis using non-linear structural equation models]*. Invited Presentation at the Institute of Psychology, University of Koblenz-Landau, Germany.
- Nagengast, B., & Steyer, R. (2008, Juli). *Causal inference in multilevel designs - Prospects and problems*. Invited Presentation at the 2<sup>nd</sup> "Symposium on Causality" 2008, Dornburg, Germany.
- Nagengast, B., Steyer, R., & Partchev, I. (2007, September). *Standardfehler von Schätzern des durchschnittlichen kausalen Effekts [Standard errors of average causal effect estimators]*. Invited Presentation at the 8<sup>th</sup> meeting of the Section "Methodology and Evaluation" of the German Psychological Society, MethEval 2007, Gießen, Germany.

### **Conference Contributions (Selection, only first authorship)**

- Nagengast, B., & Rosenzweig, E.Q. (2019, März). *Auswertungsstrategien in randomisierten Feldstudien zu Nützlichkeitsinterventionen: Ein systematisches Review und eine Multiverse-Reanalyse. [Analytical strategies in randomized field studies on relevance interventions: A systematic review and multiverse re-analysis]*. Presentation at the 7<sup>th</sup> meeting of the Society for Empirical Educational Research, GEBF 2019, Cologne, Germany.

- Nagengast, B. (2017, March). *Persönlichkeit(-entwicklung) und Übergänge im Bildungssystem [Personality (Development) and Educational Transitions]*. Discussant at the 5<sup>th</sup> meeting of the Society for Empirical Educational Research, GEBF 2017, Heidelberg, Germany.
- Nagengast, B. (2017, März). *Zusammenspiel von Kompetenzen und Berufs- bzw. Studienorientierung in der Sekundarstufe I und II [Competencies and vocational orientation in middle and high school]*. Discussant at the 5<sup>th</sup> meeting of the Society for Empirical Educational Research, GEBF 2017, Heidelberg, Germany.
- Nagengast, B., Gaspard, H., Häfner, I., & Trautwein, U. (2016, April). *Patterns of subjective task values and cost in five subjects over secondary school*. Presentation at the 2016 Annual Meeting der American Educational Research Association, AERA 2016, Washington, D.C., USA.
- Nagengast, B., Brisson, B.M., Brandt, H., Hulleman, C.S., Gaspard, H., Häfner, I., Kelava, A., & Trautwein, U. (2016, March). *Schätzung von Complier-Average-Causal-Effects in Mehrebenen-Interventionsstudien: Ein Beispiel aus der Motivationsforschung [Estimation of Complier-Average-Causal Effects in multilevel intervention studies: An example from motivation research]*. Presentation at the 4<sup>th</sup> meeting of the Society for Empirical Educational Research, GEBF 2016, Berlin, Germany.
- Nagengast, B., Nagy, G., Rose, N., & Becker, M. (2015, September). *Positionseffekte in den Leistungstests der nationalen Erweiterung der PISA 2006 Studie: Eine Mehrebenenstudie zu individuellen und kontextuellen Prädiktoren von Positionseffekten [Item position effects in the national extension of PISA 2006: A multilevel study of individual and contextual predictors]*. Presentation at the 12<sup>th</sup> meeting of the Section "Methodology and Evaluation" of the German Psychological Society, MethEval 2015, Jena, Germany.
- Nagengast, B. (2014, September). *Neue Entwicklungen in der Selbstkonzeptforschung [New developments in self-concept research]*. Discussant at the 49<sup>th</sup> congress of the German Psychological Society, DGPs 2014, Bochum, Germany.
- Nagengast, B., Trautwein, U., Gaspard, H., Häfner, I., Schreier, B., Dicke, A.-L., Flunger, B. & Lüdtke, O. (2013, März). *Motivationsförderung im Mathematikunterricht – Design und erste Ergebnisse einer cluster-randomisierten Studie mit Neuntklässlern [Enhancing mathematics motivation – Design and first results of a cluster-randomized study in grade 9]*. Presentation at the 1<sup>st</sup> meeting of the Society for Empirical Educational Research, GEBF 2013, Kiel, Germany
- Nagengast, B., Marsh, H.W., Chiorri, C., & Hau, K.-T. (2012, September). *Effekte von Nebenjobs: Eine Anwendung von Propensity Score Methoden für (geordnet)-kategoriale Treatmentvariablen [Effects of part-time working: An application of propensity score methods for (ordered-)categorical treatments]*. Presentation at the 48<sup>th</sup> congress of the German Psychological Society, DGPs 2012, Bielefeld, Germany.
- Nagengast, B., Marsh, H.W., & Hau, K.-T. (2012, April). *Effects of single-sex schooling in high school: A comparison of Analysis of Covariance and propensity score methods*. Presentation at the 2012 Annual Meeting der American Educational Research Association, AERA 2012, Vancouver, Canada.
- Nagengast, B., Marsh, H.W., Chiorri, C., & Hau, K.-T. (2011, September). *Adjustierungsverfahren für geordnet kategoriale Treatments. Ein theoretischer Vergleich und eine empirische Anwendung [Adjustment strategies for ordered-categorical treatment. A theoretical comparison and an application]*. Presentation at the 10<sup>th</sup> meeting of the section "Methodology and Evaluation" of the German Psychological Society, MethEval 2011, Bamberg, Germany.
- Nagengast, B., & Marsh, H.W. (2011, September). *Big fish in a little pond aspire less: Cross cultural generalizability and mediation*. Presentation at the 14<sup>th</sup> Biennial EARLI Conference for Research on Learning and Instruction, EARLI 2011, Exeter, UK.
- Nagengast, B. (2011, September). *Self-processes under the measurement spotlight*. Discussant at the 14<sup>th</sup> Biennial EARLI Conference for Research on Learning and Instruction, EARLI 2011, Exeter, UK.
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., & Hau, K.-T. (2011, June). *Who took the "x" out of expectancy-value theory? A cross-cultural test of the joint influences of self-concept and task value on motivation using structural equation models with latent interactions*.

Presentation at the 6<sup>th</sup> SELF Biennial International Conference, SELF 2011, Quebec City, Canada.

Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., & Hau, K.-T. (2010, September). "Wer hat das 'X' gestohlen?" Eine kulturvergleichende Analyse des Erwartungs-Wert-Modells der Leistungsmotivation mit nicht-linearen Strukturgleichungsmodellen [Who took the 'X' out of expectancy-value theory of achievement motivation?. A comparative analysis using non-linear structural equation models]. Presentation at the 47<sup>th</sup> congress of the German Psychological Society, DGPS 2010, Bremen, Germany.

Nagengast, B., Marsh, H.W., & Morin, A.J.S. (2010, July). *A hybrid-approach to test measurement invariance across continuous and discrete covariates and their interaction with exploratory structural equation modelling*. Presentation at the 4<sup>th</sup> Congress of the European Association of Methodology, EAM 2010, Potsdam, Germany.

Nagengast, B., & Steyer, R. (2009, September). *Generalisierte Kovarianzanalysen für quasi-experimentelle Mehrebenen-Designs* [Generalized analysis-of-covariance in quasi-experimental multilevel designs]. Presentation at the 9<sup>th</sup> meeting of the Section "Methodology and Evaluation" of the German Psychological Society, MethEval 2009, Bielefeld, Deutschland.

Nagengast, B., & Steyer, R. (2009, July). *Generalized ANCOVA for quasi-experimental multilevel designs with treatment assignment at the cluster-level*. Presentation at the 16<sup>th</sup> International Meeting der Psychometric Society, IMPS 2009, Cambridge, UK.

Nagengast, B., & Steyer, R. (2008, February). *Adjustment methods for non-randomized group designs with multilevel structural equation models*. Presentation at the Annual Meeting der Working Group SEM 2008, Duisburg, Germany.

Nagengast, B., & Steyer, R. (2007, September). *Kausale Inferenz in Multilevel-Modellen* [Causal inference in multilevel models]. Presentation at the 8<sup>th</sup> Meeting of the Section "Methodology and Evaluation" of the German Psychological Society, MethEval 2007, Gießen, Germany.

Nagengast, B., Steyer, R., & Partchev, I. (2006, September). *Standardfehler von kausalen Effektschätzern* [Standard errors of causal effect estimates]. Presentation at the 45<sup>th</sup> Congress of the German Psychological Society, DGPS 2006, Nürnberg, Germany.

Nagengast, B., Steyer, R., & Partchev, I. (2006, July). *Standard errors of estimators of the average causal effect: A simulation study*. Presentation at the 25<sup>th</sup> Biennial Meeting of the Society for Multivariate Analysis in the Behavioral Sciences, SMABS 2006, Budapest, Ungarn.

Nagengast, B. (2005, July). *A didactic tool for teaching the theory of individual and average causal effects*. Presentation at the 14<sup>th</sup> international Meeting of the Psychometric Society, IMPS, 2005, Tilburg, Netherlands.

## Reviewing Activities

### Editorial Boards

Journal of Educational Psychology (since 2013)  
Review of Education (since 2017)  
Educational Psychology Review (since 2021)

### Ad-hoc Reviewing

### Journals (english)

Perspectives on Psychological Science  
Developmental Psychology  
Learning & Instruction  
Child Development  
Journal of Personality and Social Psychology  
Psychological Methods  
Teaching & Teacher Education  
Journal of Adolescence  
Journal of Educational and Behavioral Statistics  
British Journal of Educational Psychology

British Journal of Mathematical and Statistical Psychology  
 Learning & Individual Differences  
 AERA Open  
 Collabra:Psychology  
 Educational Psychology  
 Multivariate Behavioral Research  
 Sociology of Education  
 School Effectiveness & School Improvement  
 Journal of Experimental Education  
 PLOS One  
 Frontiers in Psychology  
 Large-Scale Assessments in Education  
 Motivation & Emotion  
 Personality and Individual Differences  
 European Journal of Psychology of Education  
 Oxford Review of Education  
 International Journal of Educational Research  
 Methodology – European Journal of Research Methods for the Behavioral  
 and Social Sciences  
 Educational Review  
 Journal of Psychoeducational Assessment  
 Journal of Economic Inequality  
 ZDM Mathematics Education  
 Journal of Numerical Cognition  
 European Journal of Psychology of Education  
 Empirical Research in Vocational Education and Training  
 Psychology of Sport & Exercise

#### **Journals (german)**

Zeitschrift für Erziehungswissenschaft  
 Diagnostika  
 Zeitschrift für Pädagogische Psychologie  
 Psychologie in Erziehung und Unterricht  
 Zeitschrift für Pädagogik  
 Empirische Pädagogik  
 Klinische Diagnostik und Evaluation

#### **Funding Organizations and Foundations**

German Research Foundation (DFG)  
 Swiss National Funds (SNF)  
 Alexander von Humboldt Foundation  
 Dutch Educational Research Fund (NRO)  
 Flanders Research Council  
 Academy of Finland (Suomen Akatemia)  
 Polish Research Council  
 Einstein Foundation  
 German Academic Scholarship Foundation  
 German-American Fulbright Kommission

#### **Membership in Advisory Boards and Scientific Consortia**

Since 07/19 Advisory Board of the Durham Research Methods Center (DRMC),  
 Durham University, United Kingdom  
 Member

Since 09/18 Advisory Board "Evidence Based Education", Newcastle, United Kingdom  
 Member

Since 01/17 Advisory Board of the Leibniz Institute for Science and Math Education  
 (IPN) at University of Kiel, Germany  
 Member, since 02/19 Deputy Head, since 02/21 Head

- 07/16 – 07/19      Research Advisory Board of the Centre for Evaluation and Monitoring (CEM) at Durham University, United Kingdom  
Member
- Since 04/13        Scientific Consortium "Methodological Issues in Longitudinal Educational Studies (MILES)"  
Associated Member
- 04/12 – 12/17      State Institute for School Improvement of the federal state of Baden-Württemberg  
Member of the Quality Forum
- 12/16 – 05/17      State Institute for School Improvement of the federal state of Baden-Württemberg  
Member of Project Group on Data Reporting
- 03/08 – 07/10      German Psychological Society (DGPs)  
Section "Methodology and Evaluation"  
Member of award committee for best diploma thesis award
- 01/07 – 01/09      German Academic Scholarship Foundation  
Member of selection committee for beginning students

**Membership in Professional Organizations**

German Psychological Society (DGPs)  
Society for Empirical Educational Research (GEBF, founding member)  
European Association of Methodology

Tübingen 19/09/2021