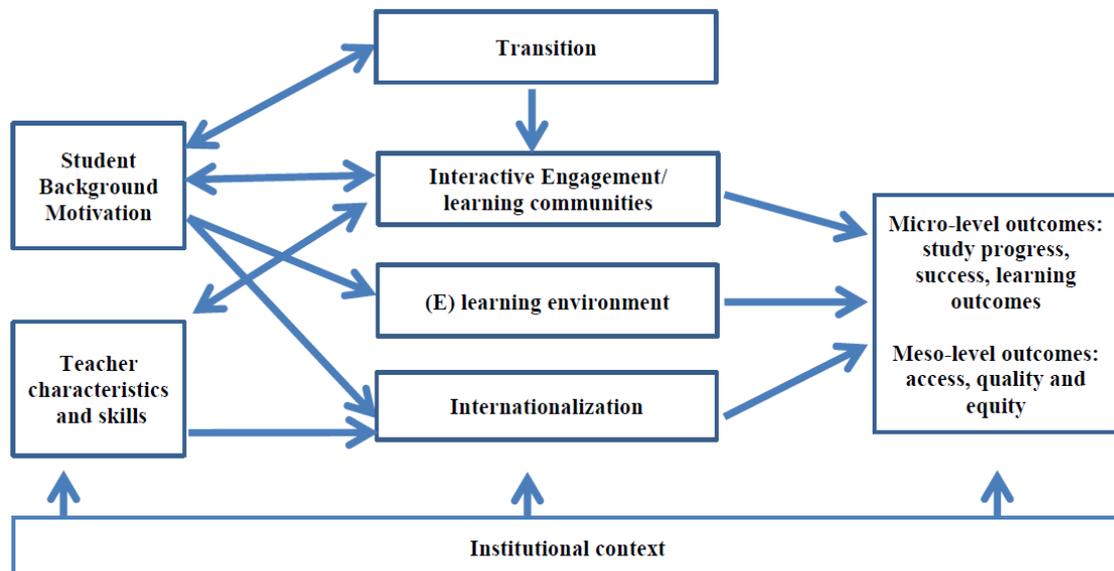


# Determinants of effective Higher Education: inter-related perspectives

Research program Higher Education 2015-2020  
University Groningen - Faculty of Behavioural and Social Sciences

[Adriaan Hofman](#)  
[Ellen Jansen](#)

The crucial role Higher Education plays in fulfilling the demands of national and European policy towards a more high-educated and academic skilled work force justifies a strong focus on quality and effectiveness of higher education. In Figure 1 the basic factor clusters included in the research line on higher education are presented: Transition from secondary to higher education, Interactive engagement, ICT in higher education, Internationalization in Higher Education and the role of Institutional contexts in higher education.



Five interrelated research topics are distinguished:

### **1. Transition from secondary to higher education: the first year experience**

The focus in this research theme is on transition issues from secondary to higher education (the first-year experience). Transition from high school to university is a major event in a student's lifespan. Not only the new responsibilities a student face, like living away from home, less support from the direct family environment and being responsible for their own finances may create difficulties or cause stress, also the new culture in the academic environment to which a student has to adjust, may lead to study delay or dropout. Adjustment is one of the major issues for first-year students. Is this a problem that has to be solved by the higher education teachers and programme developers? Or what can teachers in upper-secondary education do to stimulate students to develop their talents and to improve their skills necessary for a successful start in higher education?

The first-year experience has been and is still an important issue in higher education research. In our programme we approach this from both sides, high school as well as the first year in higher education. Research relates to student characteristics, motivation and emotions, teacher characteristics and the learning environment.

#### **Current/previous research: some key publications**

Brouwer, J., Jansen, E., Hofman, W., & Flache, A. (2016). Early tracking or finally leaving? Determinants of early study success in first-year university students. Research in Post-Compulsory Education

Kamphorst, J.C., Hofman, W.H.A., Jansen, E.P.W.A., & Terlouw, C. (2015). The Effects of Prior Education and Engagement on Success in Engineering Studies: Do Female and Male Students Differ? Journal of Engineering Education, 104(2), 189–211. DOI 10.1002/jee.20071

Jansen, E. , André, S., & Suhre, C. (2013) Readiness and Expectations Questionnaire: a cross-cultural measurement instrument for first-year university students? Educational Assessment, Evaluation and Accountability 25 (2) 115 – 130. Doi: 10.1007/s11092-013-9161-2.

Jansen, E.P.W.A. & Van der Meer, J. (2012) Ready for university? A cross national study on students' perceived preparedness for university. The Australian Educational Researcher, 39(1), 1 -16. doi 10.1007/s13384-011-0044-6

Torenbeek, M., Jansen, E.P.W.A., & Hofman, W.H.A. (2011) How is the approach to teaching at secondary school related to first-year university achievement? School Effectiveness and School Improvement, DOI:10.1080/09243453.2011.577788

Torenbeek, M., Jansen, E.P.W.A., & Hofman, W.H.A. (2011) Predicting the first-year experience: Dominance of attention for skill development over approach to teaching. Teaching in Higher Education. DOI:10.1080/13562517.2011.560378

Torenbeek, M., Jansen, E.P.W.A., & Hofman, W.H.A. (2011). The relationship between the pedagogical fit between secondary school and university and first-year achievement. Educational Studies, DOI: 10.1080/03055698.2010.539780

Jansen, E.P.W.A. & Suhre, C.J.M. (2010) The effect of secondary school study skills preparation on first-year university achievement. Educational Studies, 1-12.

Van der Meer, J., Jansen, E. & Torenbeek, M. (2010). "It's almost a mindset that teachers need to change": first-year students' need to be inducted into time management. Studies in Higher Education, 35(7), 777 – 791.

## **PhD projects**

Marjolein Torenbeek: Hop, skip and jump? : the fit between secondary school and university; Thesis: 2011

Jan Kamphorst: One size fits all? : differential effectiveness in higher vocational education; Thesis: 2013

Jasperina Brouwer The effectiveness and mechanisms of LCs in first-year university students (work title); Thesis 2017

Els van Rooij. Transition from secondary to higher education: which student and teacher characteristics influence students' preparation for university?(work title) Thesis 2017

## **2. Interactive engagement: the role of lecturer-student interaction, learning environment and curriculum organization in student careers.**

We observe strong indications that small-scale, intensive education aiming at enlarging (self-) study time is successful in qualitative (level of interaction, motivation) and quantitative (ects) terms. Small-scale teaching like a.o. problem-based learning, thematic learning, project-steered education, learning communities, excellence programs (e.g. honours and university colleges) show successes. Especially when combined with sequential blockwise education with a limited number of parallel-programmed subjects it seems to increase student careers.

In this research line we prefer to follow students through their educational career, from secondary to higher education, from (professional) bachelor to master programmes and into the labour market. The focus is on three major factor clusters that presumably will play a crucial role in explaining successful careers: the students themselves, their lecturers and the curriculum.

The objective will be to determine what (small-scale) variants of teaching in combination with which specific organizational arrangements will be most successful in terms of interactive engagement, student motivation and study success. Special attention will be given to the role of teacher characteristics and skills.

### **Current/previous research: some key publications**

Jansen, E. P. W. A., & Suhre, C. J. M. (2015). Factors influencing students' perceptions of graduate attribute acquisition in a multidisciplinary honours track in a Dutch university. *Higher Education Research & Development*, 34(6), 1138-1152. DOI:10.1080/07294360.2015.1024626.

Barend van Wyk, Wiecher Hofman & Cecilia Louw (2013): Mathematics: A powerful pre- and post-admission variable to predict success in Engineering programmes at a University of Technology. In: Perspectives in Education, 31(4), 114-128.

Suhre, C.J.M. , Jansen, E.P.W.A. & Torenbeek M. (2013) Determinants of timely completion: The impact of bachelor degree programme characteristics and students' motivation on study progress. *Higher Education Research and Development*, 32(3) 479 – 492. DOI:10.1080/07294360.2012.684374

Torenbeek, M., Jansen, E., & Suhre, C. (2013) Predicting undergraduates' academic achievement: the role of time investment and self-regulated learning. *Studies in Higher Education* 38(9), 1393-1406.

Kamphorst, J.C. Hofman, W.H.A., Jansen, E.P.W.A. & Terlouw, C. (2012): The relationship between Perceived Competence and Earned Credits in competence-based Higher Education. In: Assessment and Evaluation in Higher Education. DOI:10.1080/02602938.2012.680015.

Steur, J.M., Jansen, E.P.W.A. & Hofman, W.H.A. (2012): Graduateness: An Empirical Examination of the Formative Function of University Education. In: Higher Education, 64(6), 861-874.

Roelande, H. Hofman, Jan de Boom, Marieke Meeuwisse & W.H. Adriaan Hofman (2012): Educational innovation, quality and effects: an exploration of innovations and their effects in secondary education. In: Educational Policy, DOI: 10.1177/0895904811429288.

Heijne-Penninga, M., Kuks, J.B.M., Hofman, W.H.A., Muijtjens, A.M.M. & Cohen-Schotanus, J. (2012). Influence of PBL and open-book tests on knowledge retention measured with progress tests. In: Advances in Health Sciences Education. DOI 10.1007/s10459-012-9386-8

Suhre, C.J.M., Jansen, E.P.W.A., Harskamp, E.G. (2007). Impact of degree program satisfaction on the persistence of college students. *Higher Education*, 54 (2), pp. 207 - 226 . DOI: 10.1007/s10734-005-2376-5.

W.H.A. Hofman & M.N. van den Berg (2004): *Highbrows in University Education. Higher Education in Europe, Volume XXIX, Nr. 4, December 2004.*

Jansen, E.P.W.A. (2004) The influence of the curriculum organization on study progress in higher education *Higher Education*, 47 (4), 411-435

### **PhD projects**

Esther Canrinus: Teachers' sense of their professional identity; Thesis: 2011.

Jessica Steur: It makes you think, or does it?; Thesis: 2016

Bruno Oldeboom. Secondary teacher training in classroom management (work title) Thesis 2018

Lidewij van Katwijk. The contribution of practitioner research in teacher education to the professional development of student teachers (work title) Thesis 2018

### **3. ICT in higher education: the impact of virtual learning environments, technologically-enhanced teaching methods, online-learning on teacher roles and student performance.**

This research line aims to set-up studies that contribute to answering the question regarding the existence of significant and relevant effects on student outcomes of the current use of technology in education. There is a clear link with the previous research line in that we suggest that technology encourages interactive engagement inside and outside the classroom, and interactive engagement will improve students' learning.

Several studies have looked globally into interactive engagement methods, enhanced with educational technologies such as clickers, learning management systems and the web (among others). Our basic assumption, though, is that not technology as such but the combination of technology, pedagogy and content knowledge makes these methods effective. From this perspective we will study several e-learning options and look into the effects of online-learning modes like rapidly developing MOOCs. It will be relevant to study current developments in MOOCs and the way this development has an impact on teaching skills and professional development in higher education. We will also aim at the development of (research) instruments – to be used within the MOOCs by the participants – to observe the quality of teaching in the higher education setting (I-CALT in HE).

## **Current/previous research: some key publications**

Malefyane Tlhoale, Adriaan Hofman, Koos Winnips, Yta Beetsma (2015): Exploring the Relationship Between Factors That Contribute to Interactive Engagement and Academic Performance. *Journal of Education and Training*, Vol. 2, No 1.

Malefyane Tlhoale, Adriaan Hofman, Ari Naidoo & Koos Winnips (2013): Using clickers to facilitate interactive engagement activities in a lecture room for improved performance by students. In: *Innovations In Education & Teaching International*. <http://dx.doi.org/10.1080/14703297.2013.796725>

Wieling, M. & Hofman, W.H.A. (2010): Student performance effects of enriched online classroom video recordings. In: *Computers and Education*, 54 (2010), pp. 992-998

## **PhD projects**

Thijs Coetzee: Determinants of first year success in Engineering programs (work title); Thesis: 2016

Malefyane Tlhoale: Technology-enhanced interactive engagement  
Subtitel: A strategy that drives students' learning & academic performance;  
Thesis: 2015

### **4. The role of institutional contexts in higher education: the impact of leadership and governance, 'freedom of choice', faculty/university policies, quality assurance arrangements and ranking systems on the quality of education.**

Teaching and learning takes place in a multi-level context: students work and study together in groups under supervision of university teachers and professors. These student groups and their lecturers function within the context of a faculty and university. Characteristics of faculties and higher education institutes will have an impact on student and teacher performance. 'Institutional context' has come to play an important role in the explanation of differences in 'effectiveness' between higher education institutes. At its centre are a nexus of inter-cutting relationships pertaining to the financial bases on which they are founded (private/public), leadership and governance structures, the quality of networks and their position in these networks (ranking), the extent of 'freedom of choice' available for students (access and programmatic choices within university) as well as variations in decision-making and the 'locus of control' in different countries. Any or all of these factors are viewed as relevant to the functioning of particular educational systems and higher education institutes.

## **Current/previous research: some key publications**

Boahin, P. & Hofman W.H.A. (2013): Competency-based training in International perspective: comparing the implementation processes towards the achievement of employability. In: Journal of Curriculum Studies (doi: <http://dx.doi.org/10.1080/00220272.2013.812680>).

Boahin, P. & Hofman W.H.A. (2012): Implementation of innovations in higher education: the case of competency-based training in Ghana. In: Innovations in Education and Teaching International. Vol. 49, No. 3, August 2012, 313–323.

Hofman, W.H.A., Hofman, R.H. (2011): Smart Management in Effective Schools. Effective management configurations in general and vocational education in the Netherlands. In: Educational Administration Quarterly, Vol. 47, nr. 4, 620-645.

Jansen, E. & Goedhart, M.(2010) (Inter)disciplinary Dublin descriptors? Implementation of the Bologna process in a Dutch University. in : Davies, M.,Devlin, M., & Tight, M.(eds) Interdisciplinary Higher Education: Theory and Practice. Volume 5 of International Perspectives on Higher Education Research. Emerald Group Publishing Limited

Hofman, R.H., Hofman, W.H.A. & Gray, J.M. (2008): Comparing key dimensions of schooling: towards a typology of European School Systems. In: Comparative Education. Vol. 44, No. 1, February 2008, 93-110.

Hofman, R.H., Hofman, W.H.A., Gray, J.M. & Daly, P. editors. (2004): Institutional Context of Education Systems in Europe. A Cross-Country Comparison on Quality and Equity. Kluwer Academic Press (199 pgs).

## **PhD projects**

Emmanuel Newman: Public financing of tertiary education in Ghana; thesis 2012

Peter Boahin: The Effects of higher Education innovations on the performance of HE graduates in the labour market. The case of competence-based training in Ghanaian polytechnics; Thesis 2014

Kwame Dattey: Evolution of accreditation current practices and prospects it holds for the improvement of tertiary education; Thesis 2016

## **5. Internationalization of and in Higher Education.**

This is one of the spearheads of the University of Groningen strategic plan 2015-2020. The new strategic plan of the University of Groningen (2015-2020) strongly addresses the impact of globalisation in terms of the changing labour market,

increased mobility of students and staff, diversification in the classroom, the use of advanced ICT tools and, consequently, the high strategic relevance of internationalisation in higher education. The university has the strong ambition to become a “truly international university” with an excellent reputation and a distinctive research and teaching profile worldwide. In teaching, this requires internationalisation of the curriculum, implementing innovative concepts in an integrated approach, including the flipped classroom, learning communities, employability, and the international classroom. These concepts are connected through an active learning philosophy, group binding and purposeful interaction (RUG Strategic Plan, September 2015).

### **Current/previous research: some key publications**

Jansen, E., Suhre, C., & André, S. (to be published 2016). Transition to an international degree programme: preparedness, first-year experiences and study success of students from different nationalities. In: Eva Kyndt, Vincent Donche, Keith Trigwell, & Sari Lindblom-Ylänne (eds.) Higher Education Transitions: Theory and Research. Routledge

Jansen, E.P.W.A. & Suhre, C.J.M. (2011) Preparedness, first-year experiences and outcomes: A comparison between students in domestic and international degree programmes in a Dutch university. In: Higher Education on the Edge, refereed proceedings of the 33rd HERDSA Annual conference.

Suhre, C. & Jansen, E. (2007) Crossing the border. Internationalization of Dutch Higher Education. Project commissioned by the Higher education and research partnership organisation for network services and ICT in the Netherlands.

### **Methodological notions**

We characterize the higher education research program in methodological terms as multi-level, multi-disciplinary and output oriented. The multi-level character of the research is a natural consequence of the multi-level structure of education processes as it consists of students, within student groups functioning under supervision of teachers in the context of faculties and universities again nested within national education systems. A multi-disciplinary approach implies that beside educational specialists also the input of other disciplines like sociologists and psychologists will be used. The research is basically output oriented as we, in the end, are interested in the added value of education programs. Outcome can be defined as study progress, study success or drop out, but also as the acquisition of academic skills, types of learning approaches or widening participation. Following from the nature of the program as it focuses on the impact of institutional contexts on education performance it will also be international comparative by character.