

To the search committee for the appointment of a professor of Education and Child Studies (professor Lenneke Alink and board secretary Pieter Krol)
To the Board of Leiden Institute of Education and Child Studies (co-director René van der Veer)
To the Board of Faculty of Social and Behavioural Sciences (dean Hanna Swaab)
To the Board of Universiteit Leiden (rector magnificus Carel Stolker)
CC Leiden confidential counsellor (Ingrid Tiekens-Boon van Ostade)
CC President KNAW (Wim van Saarloos, by coincidence also at Leiden)
PDF sent by email

[anonymised as far as relevant]

October 5 2018

Concerning: Vacancy 18-357-5870 for a professor of Education and Child Studies. A problem with the thesis and other work by Marian Hickendorff, if she would apply for the vacancy, and an urgent appeal to not appoint her. Potentially other similar candidates

Dear Sir, Madam,

I am an econometrician (Groningen 1982) and teacher of mathematics (Leiden 2008). Econometrics is no specialisation but a generalisation that encompasses economics, mathematics and statistics – though not necessarily at the level of specialists in these fields. In my case, I applied my expertise on empirical research also to didactics of mathematics, including arithmetic and child development on number sense. Recently, my suggestion for the development of an ISO standard for the mathematical pronunciation of numbers,^{1 2} relevant for studies on child development and also the neural research on number sense, got support from the board of the small German association Zwanzigeins (21) - though this is still far from ISO itself.³ Independently, Dr Stefan Rollnik, now at Universität Rostock, Institut für Schulpädagogik und Bildungsforschung (ISB) / Grundschulpädagogik (GSP), was willing to translate an English text of mine into German.⁴ Henk Boonstra, Dutch orthopedagogue and GZ psychologist, retired and now in France, translated into French.^{5 6} From professor Tiekens I learned that Jane Austen used “three and twenty” instead of “twenty-three”. In 2015, I warned about the current experiment on children in Holland that is in violation of all rules on experiments on human subjects.⁷ I also warned about the fraud by Hans Freudenthal^{8 9} and the current “math war” created by that fraud.^{10 11} Researchers with a less interdisciplinary base may have difficulty in understanding my findings, which causes a gap in communication, including proper respect to take criticism seriously.¹² Richard Gill, now retired professor of mathematical statistics at Leiden, however appreciated two books of mine on education and didactics of mathematics.¹³

(1) There is a vacancy 18-357-5870 for a professorship of Education and Child Studies, see the **Appendix**. The text suggests to me that Marian Hickendorff might be a prospective candidate. I feel forced to write to you.

¹ <https://doi.org/10.5281/zenodo.774866>

² Colignatus (2016), “Tellen en rekenen met tig”, Tijdschrift voor Orthopedagogiek 55, p44, section “Weetwinkels”

³ <https://zwanzigeins.jetzt/infos/normung-der-sprechweise>

⁴ <http://thomascool.eu/Papers/NiceNumbers/2015-08-28-Marcus-in-Deutsch.pdf> (interal update to 2018)

⁵ <http://thomascool.eu/Papers/NiceNumbers/2015-08-28-Marcus-en-Francais.pdf>

⁶ <https://henkboonstra.blogspot.com/2010/01/de-ongelijkheid-van-kansen-in-het.html>

⁷ <http://www.wiskundebrief.nl/721.htm#5>

⁸ <http://www.wiskundebrief.nl/718.htm#7>

⁹ <https://arxiv.org/abs/1408.1930>

¹⁰ https://en.wikipedia.org/wiki/Math_wars

¹¹ <https://boycottholland.wordpress.com/2016/01/24/graphical-displays-about-the-math-war/>

¹² <http://thomascool.eu/Papers/Math/2016-06-28-Letter-to-NVVW-with-Red-Card.pdf>

¹³ <http://www.nieuwarchief.nl/serie5/pdf/naw5-2012-13-1-064.pdf>

Marian Hickendorff has no background in teaching mathematics, didactics of mathematics, and the empirical research in such didactics. Still, she does research on those topics, and claims to present empirical results. It appears that crucial claimed research findings by her are invalid. This disinform policy makers. Her background is in psychology and psychometrics. There might be a confusion of correlation and causality. One must know about the didactics of mathematics for proper inferences on causality. She has no such background. Apparently she thinks that her knowledge of mathematics and statistics for the use of psychometrics suffices, but it doesn't.

When I enquired about aspects on this, Hickendorff answered me by email:

Google Translate 2018: "Dear Thomas Cool, Thank you for your mail. I fear that I can not find the time to view everything you send. In addition, I also wonder if you have come to the right place for me: I am not a didacticist but a psychological researcher, and I also try to stay out of the discussion about didactics as much as possible because I do not believe that that is my expertise. Kind regards, and until a.s Monday, Marian Hickendorff"

Dutch original:

From: "Hickendorff, M." [...]

To: "Thomas Cool / Thomas Colignatus" [...]

Cc: J.A.Bergstra [at] uva.nl, "Craats, Jan van de" [at] uva.nl

Subject: RE: T.b.v. a.s. maandag (KNAW reken-onderwijs)

Date: Fri, 27 Jun 2014 [...]

Beste Thomas Cool, Bedankt voor uw mail. Ik vrees dat ik niet de tijd kan vinden om alles wat u stuurt te bekijken. Daarnaast vraag ik me ook af of u bij mij hiervoor aan het juiste adres bent: ik ben geen didacticus maar psychologisch onderzoeker, en probeer ook zo veel mogelijk buiten de discussie over didactiek te blijven omdat ik niet meen dat dat mijn expertise is. Vriendelijke groeten, en tot a.s. maandag, Marian Hickendorff

I tended to think that this attitude expressed proper modesty. Also, I can imagine that one is wary about the math war by the mathematicians. Yet, in the years after 2014 I discovered that Hickendorff had put on deliberate blinders that invalidated her research, also for the 2009 KNAW report and the 2011 thesis, and she kept on doing so after 2014. The email thus is evasive. This doesn't constitute a mere difference in opinion within science, but there is no statement by Hickendorff or Van Putten who respond to my criticism and this amounts to deliberate burking of this criticism. The situation amounts to an experiment on children in gross violation of ethical standards. Policy makers are disinformed.

Education in arithmetic in elementary school is important for long term memory, because what you learn later in life tends to have the property of "use it or lose it". Thus "remedial teaching" in secondary school is rather too late. But Hickendorff applies her psychometric tests on primary education without regard of what happens later. Education in arithmetic in elementary school is also important for the education in algebra in secondary school. However, the word "algebra" is missing in Hickendorff's thesis of 2011. There appears to be selective reading in 2009 and 2011, by omission of a paper by Liesbeth van de Plas 2009 that Hickendorff must have been aware of because of a conference on the topic in 2008 and the same journal issue on the conference.¹⁴ Thus I cannot accept that thesis with the Ph.D. title given by University Leiden. The thesis should be deleted from the scientific record as invalid.

This is a weblog text.¹⁵

To repeat: my protest on the experiment on children.¹⁶

Since Hickendorff (and others) did not respond, I submitted the case to "Commissie Wetenschappelijke Integriteit" (CWI) at Leiden in 2016.¹⁷ The proceedings fall under confidentiality. At a meta level: CWI Leiden treated the case miserably and LOWI did not want to treat the appeal since it was formulated in English. LOWI's approach is a breach of scientific integrity itself. CvB Leiden accepted LOWI's rejection without checking on criticism. See my warning to the makers of CCSS and TIMSS that the Dutch system of monitoring research integrity is failing.¹⁸

The 2nd edition of my book "A child wants nice and no mean numbers" (CWNN) (2015, 2018)

¹⁴ <https://onderwijstijdschriftenplein.nl/tplein/tijdschrift-voor-orthopedagogiek-jrg-48-mei-2009-nr-5/>

¹⁵ <https://boycottholland.wordpress.com/2015/12/18/algebra-is-a-troubling-word/>

¹⁶ <http://www.wiskundebrief.nl/721.htm#5>

¹⁷ <http://thomascoll.eu/Papers/Math/CWI-Leiden/2016-09-30-Letter-to-CWI-anonimised.pdf>

¹⁸ <https://boycottholland.wordpress.com/2018/06/27/letter-to-the-makers-of-ccss-and-the-makers-of-timss/>

pages 175-204 uses a causal model to clarify Hickendorff's error, selective use of sources, misunderstanding of the use of statistics for empirical observation (distinction between correlation and causality), lack of understanding of the need to study didactics for a proper treatment of her object of study, and unwillingness to answer to accurate criticism.¹⁹ Recently, Hickendorff has succeeded in acquiring research funds from NRO & the Inspectorate of Education^{20 21} and a Veni scholarship from NWO.²² Outwardly this seems like a success, but the research is basically invalid and she pulls along other researchers into the ravine. Perhaps my criticism might not be heard now, but eventually it will, and a major research line at Leiden will have to be retracted from the research record. And there still is this experiment on children.

Let me mention that I was unhappy about the step to CWI.²³ There is a range from minor errors to questionable research practices to deliberate fraud. The new code of conduct of September 14 2018 discusses this likely in a better way than the old code (I haven't closely studied it yet).²⁴ Potentially the Hickendorff thesis falls only under "questionable research practices", and it might suffice to rewrite it and then accept it for the quality of psychometric technique only – but I am no psychometrician though understand IRT and latent variables. However, I felt that the submission to CWI was justified by her unwillingness to respond to criticism, including when I also observed the selective use of sources for the 2009 KNAW report and 2011 thesis. I am afraid there is a lack of awareness of integrity, especially when children are involved. (PM. The new code still is deficient. The code is a tool for employers to guard on the reputation of their institutes,²⁵ and it is not a code developed bottom-up by science itself.²⁶ The KNAW presentation of the code did not include a critical speaker in the forum.)

Personally, I find it remarkable that my concern on this hasn't resonated, and that KNAW, CITO, NRO, Inspectorate, Tweede Kamer and media haven't picked up the analysis. My diagnosis is that there is a "math war" (see the links above) between abstract thinking mathematicians who propound statements on education but who appear to know little about didactics and empirical research but who still get an aura of respectability. The email exchange with Hickendorff in 2014 was CC Jan Bergstra and Jan van de Craats, both now retired research mathematicians, but I found both to be in breach of scientific integrity as well.^{27 28} Apart from applied mathematics, research mathematicians focus on abstraction and do not have the natural world to correct their errors and only have each other to check. This causes a curious attitude to only trust each other and to be hostile against criticism by perceived "outsiders" even when research mathematicians meddle in empirical matters. Also teachers of mathematics may know little about actual empirical research and then delegate this to psychometricians, forgetting that the latter have no study of didactics.²⁹ I wonder about the world of "education studies", given the early critical words by A.D. de Groot (1982), "Academie en forum", Boom.

If Marian Hickendorff would apply for the vacancy, please do not appoint her.

There is no need for me to copy to Marian Hickendorff now, since she knows about my criticism (but might not recognise it for what it is). I trust that you can inform her in due process.

(2) My submission to CWI Leiden applied to the people involved in Leiden: thesis supervisor professor Willem Heiser and Kees van Putten and research mathematician Rob Tijdeman, and now also CvB member Hester Bijl (coming from Delft).³⁰ It is possible that Leiden statistics professor Jacqueline Meulman has implicated herself now too (no online documentation yet,

¹⁹ <https://doi.org/10.5281/zenodo.774272>

²⁰ <https://www.nro.nl/nro-projecten-vinden/?projectid=405-17-920-rekenen%20op%20de%20basisschool>

²¹ <https://www.universiteitleiden.nl/nieuws/2018/05/subsidie-marian-hickendorff>

²² <https://www.universiteitleiden.nl/nieuws/2018/07/veni-beurs-voor-leidse-onderwijswetenschapper-marian-hickendorff>

²³ <https://boycottholland.wordpress.com/2015/11/26/allea-defines-research-integrity-too-narrow/>

²⁴ https://www.knaw.nl/en/news/news/new-netherlands-code-of-conduct-for-research-integrity?set_language=en:

"Compared with the previous version, a number of striking elements of the new Code of Conduct are as follows: (...) Moreover, the new Code of Conduct for Research Integrity distinguishes between research misconduct, questionable research practices, and minor shortcomings."

²⁵ Dutch: "Slagers keuren het eigen vlees."

²⁶ <https://www.knaw.nl/nl/actueel/publicaties/het-forumwaarmark-van-wetenschap>

²⁷ <http://thomascool.eu/Papers/Math/JB/Index.html>

²⁸ <https://boycottholland.wordpress.com/2015/09/19/jan-van-de-craats-tortures-kids-with-fractions/>

²⁹ Quote: "Het idee was dat docentervaring een voorsprong zou bieden ten opzichte van van jongere promovendi, maar de docentonderzoekers moesten gezien hun beta-achtergrond nog leren om sociaalwetenschappelijk onderzoek te doen (Knippels et al., 2008)." (Bakx, Bakker, Beijaard 2014, p163) See op. cit. <http://thomascool.eu/Papers/Math/2016-06-28-Letter-to-NVWW-with-Red-Card.pdf>

³⁰ <http://thomascool.eu/Papers/Math/CWI-Leiden/2016-09-30-Letter-to-CWI-anonimised.pdf>

under confidentiality) – and I would request that any report by her about my work is put in writing and in the public domain and communicated to me (with a possibility to respond), to eliminate potential gossip, to start with this paper that I presented at the Politicologenetmaal, Leiden, June 8 2018, on a new aspect on R-squared.^{31 32}

(3) The 2nd edition of CWNN (2015, 2018) cited above p199 refers also to the work by M.F. Fagginger Auer, e.g. with another thesis supervised by Heiser and Van Putten and now also Hickendorff.³³ I have stated what I have looked at, and I have not been able to e.g. look into this other thesis. Mutatis mutandis for other potential candidates that I may not be aware of. Obviously such researchers are not “guilty by association”. However, it still is likely that such researchers from this research group at Leiden also lack the background in education and didactics of mathematics and their research. I am not aware of criticism on their part about the work of Van Putten and Hickendorff, which is an ominous sign whether they really understand the field. Thus obviously you are warned about other potential mishaps. A.D. de Groot (1914-2006) had a bachelor in mathematics and switched to psychology and was a teacher of mathematics for a while and helped found CITO, and studied on methodology with a famous book on this.³⁴ He found his book on methodology too ideal-typical, and thus proceeded with forum theory on how science works in practice. It seems that the Leiden research group only took the psychology and psychometrics aspect from De Groot’s legacy, and forgot about the other crucial parts in this (interdisciplinary) type of research.

(4) If you would still like to appoint Hickendorff or say another member of this research line, please set up a committee on research integrity, or re-activate CWI, to look into this first, which new handling doesn’t repeat the errors of the earlier CWI handling. Perhaps a formal reason might be the new code of conduct, that allows lawyers more scope to deal with “questionable research practices” (if CWI Leiden doesn’t subscribe to my diagnosis of a breach of integrity of research). I suppose that CWI and LOWI might agree that such a new committee could be given access to all information that currently falls under confidentiality, and let us then have a new hearing with also the use of the causal model in CWNN p175-204, and a public report by Meulman. Thus, redo my original report that something is amiss at Leiden, for all involved, now with extension of the whole research group and also Meulman and the failure at CWI.³⁵ (And make sure that LOWI accepts appeals formulated in English when issues are of an international nature and e.g. when there are no experts in Holland because of the math war here.)

Let me also invite you to inform NRO, Inspectorate, NWO and Tweede Kamer.

(5) For University and Faculty Boards, I must mention that there is also a problem w.r.t. political science, also at Leiden, also in relation to Brexit. Let me mention this here too, so that the Board of the Institute and the search committee can recognise the parallels with math education, so that the mechanism stands out and not the personal aspects.

In 2017 I discovered that “political science on electoral systems” still is locked in the Humanities, so that their statements about reality are invalid and comparable to astrology, alchemy or homeopathy. This is related to Brexit, in that the voters in the UK have been systematically disinformed about their system of district representation (DR) and the role of referenda. My advice is that the UK switches to the Dutch system of equal proportional representation (EPR) with the open list system, has new elections and then let the new House of Commons discuss Brexit or Bremain anew. The EU might allow time to so do.

The proof about the situation of pseudo-science is here.³⁶

A presentation at Politicologenetmaal, Leiden June 2018, is here (not the proof above).³⁷

A summary statement is here.³⁸

I asked the Board of the Dutch Political Science Association (NKWP) to join me in thinking how this finding can be discussed within the field, also for Brexit. They declined to do so.³⁹

A book in Dutch for a general audience (including scientists who haven’t looked at electoral

³¹ <https://doi.org/10.5281/zenodo.1227328>

³² <https://zenodo.org/record/1270381>

³³ <https://openaccess.leidenuniv.nl/handle/1887/40117>

³⁴ https://en.wikipedia.org/wiki/Adriaan_de_Groot

³⁵ <http://thomascool.eu/Papers/Math/CWI-Leiden/2016-09-30-Letter-to-CWI-anonimised.pdf>

³⁶ <https://mpira.ub.uni-muenchen.de/84482/>

³⁷ <https://zenodo.org/record/1270381>

³⁸ <https://boycottholland.wordpress.com/2018/08/13/brexit-deep-roots-in-blindness-by-the-uk-intellectual-community/>

³⁹ <https://boycottholland.wordpress.com/2018/09/29/letter-to-the-board-of-nkwp-the-dutch-political-science-association/>

systems) is here (not the proof above): “Democratie met en door Wetenschap” (DMDW).⁴⁰ University Leiden is affected by its department of political science, and I can mention Ruud Koole as being in breach (see that Dutch book).

The parallels in the loss in abstraction and the lack of empirical acumen are striking. (Abstraction is not necessarily something of high achievement: it is leaving things out.⁴¹)

(6) A view as if this would constitute a mere difference in scientific perspective is false and would be a misrepresentation, see the lack of a statement by Hickendorff on content w.r.t. the criticism, and even the exclusion of references to such criticism, already in 2009 and 2011. A view as if the Dutch system on monitoring scientific integrity is adequate is false too.⁴² Hickendorff and CWI Leiden and LOWI got the opportunity but did not take it. The only protection of science is in the public record. I may publish this letter on my website, anonymised as far as relevant. Obviously I respect the confidentiality of the earlier procedure at CWI Leiden and LOWI, and correct me if you would think otherwise.

Sincerely yours,

Thomas Cool / Thomas Colignatus
Econometrician (Groningen 1982) and teacher of mathematics (Leiden 2008)
[.... Scheveningen, Holland ...]
<http://thomascool.eu>

⁴⁰ <http://thomascool.eu/Papers/DMDW/Index.html>

⁴¹ <https://boycottholland.wordpress.com/2015/05/23/abstraction-vs-eugene-wigner-edward-frenkel/>

⁴² <https://boycottholland.wordpress.com/2015/11/26/allea-defines-research-integrity-too-narrow/>

Appendix. Leiden Vacancy

<https://www.universiteitleiden.nl/en/vacancies/2018/wk31-40/18-357-5870---professor-of-education-and-child-studies>

<https://web.archive.org/web/20181004142612/https://www.universiteitleiden.nl/en/vacancies/2018/wk31-40/18-357-5870---professor-of-education-and-child-studies>

Professor of Education and Child Studies

Vacancy number	18-357-5870
Function type	Academic staff
Hours (in fte)	1,0FTE
External/ internal	Internal, External
Location	Leiden
Placed on	11 September 2018
Closing date	08 October 2018

The Institute Education and Child Studies of the Faculty Social and Behavioural Sciences is looking for a Professor of Education and Child Studies (1.00 fte)

The Institute's research has a strong empirical, evidence-based focus and is organised along six thematic lines: Developmental Psychopathology, Learning and Behaviour Problems in Education, Forensic Family and Youth Care Studies, Parenting, Child Care and Development, Educational Sciences, and Research Methods. The Institute offers a Bachelor's degree programme, a regular Master's degree programme with eight possible tracks, and a Research Master's degree programme in Developmental Psychopathology in Education and Child Studies. A leading principle in the programme's courses is the emphasis on the acquisition and practical application of evidence-based knowledge. The Institute's research has an excellent international reputation.

Key responsibilities

The candidate is expected to have a record of high-level publications on a relevant research theme and to be able to lead and inspire a group of researchers. The candidate should have ample experience in supervising PhD students and should have a strong record in the acquisition of external funds. His or her abilities are further evidenced by the usual indicators of scientific excellence such as; awards, editorships, etc.

The candidate will also contribute to the theoretical, empirical, and ethical foundation of the teaching programme. He or she will teach on all levels and where necessary contribute to the innovation of the teaching programme. For this reason, the applicant should have experience with teaching on all levels and in different formats. The candidate is expected to take his or her share in the management tasks of the Institute and the Faculty. Experience in administrative tasks in academic organizations or international scientific organizations would be an advantage.

Finally, the candidate is expected to play a role in the translation of scientific data to practical advice and policy for professional organizations and institutes.

In sum, the candidate should:

- Stimulate, coordinate, and perform high-quality empirical research, supervise PhD students, and acquire external funds;
- Contribute to the development and implementation of a high-quality teaching programme;
- Take a share in the administrative tasks of the Institute and Faculty;
- Translate scientific knowledge into advice for organizations and people outside academia.

Selection criteria

- A PhD in the behavioural or social sciences;

- No less than 5 years of postdoctoral research experience;
- A strong record of international publications;
- A proven capacity to motivate and guide students at all levels;
- Ample experience in the supervision of PhD students;
- A strong record in the acquisition of external funds;
- Experience with management and administration and a willingness to further improve the abilities in this domain;
- A team builder with good connections with relevant organizations and institutes outside academia.

Our Faculty/institute

The Faculty of Social and Behavioural Sciences comprises four institutes: Education and Child Studies, Political Science, Psychology and Cultural Anthropology & Development Sociology. The Faculty also includes the Centre for Science and Technology Studies. The Faculty is home to 5,000 students and 600 members of staff. Our teaching and research programmes cover diverse topics varying from adoption to political behaviour.

Terms and conditions

This appointment is initially for a period of five years with a view to a permanent contract depending on good performance. The appointment is in line with the collective employment agreement of Dutch universities. Salary range from € 5441.- to € 7921.- gross per month.

Leiden University offers an attractive benefits package with additional holiday (8%) and end-of-year bonuses (8.3%), training and career development. Our individual choices model gives you some freedom to assemble your own set of terms and conditions. For international spouses we have set up a dual career programme. Candidates from outside the Netherlands may be eligible for a substantial tax break. More at <https://www.universiteitleiden.nl/en/working-at/job-application-procedure-and-employment-conditions>.

UTQ

Leiden University requires teaching staff to obtain the University Teaching Qualification (UTQ). If the successful applicant does not already possess this qualification or its equivalent, he/she must be willing to obtain this Qualification within two years.

Diversity

Leiden University is strongly committed to diversity within its community and especially welcomes applications from members of underrepresented groups.

Information

For more information, please contact prof. dr. Lenneke Alink, e-mail alinklra@fsw.leidenuniv.nl.

If you have any enquiries about the procedure, please contact Pieter Krol, e-mail p.c.krol@fsw.leidenuniv.nl, telephone 071 527 6648.

Information about the Faculty of Social and Behavioural Sciences and the Institute of Education and Child Studies can be found at <http://www.universiteitleiden.nl/sociale-wetenschappen> and about Leiden University at <http://www.universiteitleiden.nl/>.

Applications

Please submit your application, which should include a letter of interest accompanied by a CV, online (in English or Dutch) no later than October 8th, 2018 via the blue button of our application system.