Institution: University of York

Unit of Assessment: 23 - Education

Title of case study:
Transforming Teacher Selection Practices in Developed and Developing Countries

Period when the underpinning research was undertaken: 2012-2019

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	**Role(s) (e.g., job title):**	**Period(s) employed by submitting HEI:**
Robert Klassen	Professor	2012 - present
Lisa Kim	Lecturer	2016 - present

Period when the claimed impact occurred: 2017-2020

Is this case study continued from a case study submitted in 2014? No

1. Summary of the impact (indicative maximum 100 words)

Research by Professor Rob Klassen and his University of York team has improved the accuracy and efficiency with which candidates for initial teacher education (ITE) are assessed and selected, in both developed and developing countries. The team's innovative suite of culturally-sensitive, evidence-based selection and development tools, has been adopted for live selection by institutions throughout the UK and Malawi, improving the selection process for student teachers in those countries by reducing the proportion who do not complete their training, and increasing the proportion who go on to perform well as practicing teachers. The tests are currently being trialled in Australia and Bulgaria. Klassen's work has directly inspired a review of the current UK government position on the assessment of teaching applicants, and has been adopted by the World Bank as the model for developing a teacher selection test for Morocco.

2. Underpinning research (indicative maximum 500 words)

Klassen's research began with a focus on understanding teachers' non-cognitive attributes and what 'effective teachers' look like **[A]**. This led him to investigate how we can identify and recruit student teachers, with a view to optimising their professional experience and wellbeing, as well as the outcomes of their pupils.

Teachers' non-cognitive attributes
Drawing on samples of teachers from Europe, North America, Africa, Asia and Australia **[A][C]**, Klassen conducted a series of integrated studies exploring non-cognitive attributes such as adaptability, empathy, and emotion regulation **[B][E]**. In these studies he consistently found robust associations between such non-cognitive attributes and teaching effectiveness. This contrasted with cognitive attributes, and other screening methods, which he and his team have found to be less predictive of teacher effectiveness **[E][F]**.

Teacher selection methods
Klassen and his team observed that the non-cognitive attributes they studied are not reliably evaluated in traditional selection processes for trainee or practising teachers. In fact, they found that unlike professions such as law and medicine which routinely use systematic, rigorous and 'values-based' recruitment and selection methods, education still commonly relied on methods that were not linked to key attributes, were rarely evaluated, and lacked validity evidence (e.g., unstructured interviews, group tasks, personal statements, reference letters and generic personality tests) **[D]**. Given that UNESCO predicts that almost 70,000,000 teachers need to be selected and trained by 2030 (UNESCO, 2016), Klassen and his team concluded that there was a clear need for new, more effective, evidence-based and efficient selection methods **[D]**.

Development of new teacher selection methods
Aiming to address this problem through the application of theory from educational psychology and methods from organisational psychology, Klassen made successful bids for a Canadian SSHRC grant (CAD270,042, 2012-2015), and a EUR1,400,000 European Research Council

Consolidator Grant (2015-2020). He began the next stage of his research by conducting focus groups with practising teachers to identify key attributes and to develop content for situational judgement tests (SJTs). Intended to extend the classic 'what should you do if…?' interview question, SJTs - based on implicit trait policy and behavioural consistency theories - enjoy a robust research base developed over the last 20 years. The tests present test-takers with a standardised series of realistic classroom scenarios, asking them to make quickfire judgements about what they believe they should do **[B]**. Initial evaluation showed that candidates responded favourably to the tests **[B]**, but that different scenarios and desired judgements would be needed for different cultural settings **[C]**.

On the basis of this evidence Klassen and his team went on to design bespoke SJTs for teacher training organisations in Malawi, the UK, Bulgaria and Australia, targeting key non-cognitive attributes. In all cases, teachers and teacher-educators from the host country or institution were involved as co-constructors of the test framework – identifying the desired non-cognitive attributes to be tested and creating the test specification. With support from their international network of collaborating researchers and practitioners, Klassen and his team have now developed a suite of evidence-based selection tools including text-based and video-based SJTs, multiple mini-interview protocols (MMIs), and 'developmental' SJTs (aka 'scenario-based learning') used to assess and develop professionalism/classroom readiness in ITE programmes.

3. References to the research (indicative maximum of six references)

[A] Klassen, R. M., & Tze, V. M. C. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review, 12*, 59-76. https://doi.org/10.1016/j.edurev.2014.06.001 *(peer reviewed publication)*
[B] Klassen, R. M., Durksen, T. L., **Kim, L. E.**, Patterson, F., Rowett, E., Warwick, J., Warwick, P., & Wolpert, M. A. (2017). Developing a proof-of-concept selection test for entry into primary teacher education programs. https://doi.org/10.21449/ijate.275772 *International Journal of Assessment Tools in Education, 4,* 96-114. *(peer reviewed publication)*
[C] Klassen, R. M., Durksen, T. L., Györi, J., Alhashmi, W., **Kim, L. E.**, Longden, K., Metsäpelto, R.-L., & Poikkeus, A. M. (2018). National context and teacher characteristics: Exploring the non-cognitive attributes of prospective teachers in four countries*. Teaching and Teacher Education, 72,* 64-74. https://doi.org/10.1016/j.tate.2018.03.001 *(peer reviewed publication returned to REF 2021).*
[D] Klassen, R. M., & **Kim, L. E.** (2019). Selecting teachers and prospective teachers: A meta-analysis. *Educational Research Review, 26,* 32-51. https://doi.org/10.1016/j.edurev.2018.12.003 *(peer reviewed publication returned to REF 2021).*
[E] Klassen, R. M., & Rushby, J. V. (2019). Can we predict preservice teachers' performance in teaching placements? The validity of ITE selection methods. *TSP Working Paper*
[F] Klassen, R. M., **Kim, L. E.**, Rushby, J., & Bardach, L. (2020). Can we improve how we screen applicants for initial teacher education? *Teaching and Teacher Education, 87*, 102949. https://doi.org/10.1016/j.tate.2019.102949 *(peer reviewed publication).*

4. Details of the impact (indicative maximum 750 words)

Teacher selection and development tools designed by Klassen's Teacher Selection Project (TSP) group have now been trialled in Malawi, the UK, Bulgaria and Australia, with 80,000 potential teachers estimated to have taken the tests to date, and adopted for 'live selection' in the UK and Malawi (~65,000 candidates). This has brought about significant and measurable behaviour change within multiple individual institutions and on a national system-wide basis.

Malawi
SJTs developed by Professor Klassen were endorsed by the Malawian Ministry of Education, Science and Technology in 2017 and have since been used nationally for live selection at all of the country's Teacher Training Colleges (TTCs). This means that the tests are taken by every single one of the country's 12,000 student teacher candidates each year.

The Acting Director of Malawi's Department for Teacher Education and Development writes: *"The work was carried out with representatives from all eight of the public teacher training colleges in Malawi and with representatives from the Ministry of Education, Science, and Technology and specifically the Department of Teacher Education and Development…* [It] *resulted in changed practice; namely, the adoption of situational judgment tests as part of the national 'Aptitude Test' to measure non-cognitive attributes of applicants to primary teacher training colleges across Malawi"* **[1a]**.

Furthermore, Principals of TTCs in Malawi report that this fundamental systemic change in recruitment practice has led to improvements:

> *"The SJT has greatly improved the selection of applicants in our TTCs … For instance, this year out of 777 students who reported for training only four have left* [compared to 20-30 before the SJT was used] *… I am sure (the) SJT has contributed to this, that we have managed to recruit people who have easily adapted to the deplorable condition of the college, committed to the course as well as resilient."* **[1b]**

> "*So far we have been able to include the Situational Judgement Test (SJT) in the last two cohorts and trends are positive … the selection process is capturing those that are interested.*" **[1c]**

United Kingdom
Since Spring 2018 Professor Klassen's SJT has been used in the live selection of 40,000 applicants to Teach First – a teacher training organisation that already offers a particularly systematic and rigorous selection process. Recognising the *"critical need for the development and widespread adoption of research-supported methods to select prospective teachers",* Teach First's Head of Selection says that Klassen's "*innovative approach… is both engaging for the applicant and effective… it provides an accurate depiction of the day-to-day role of a classroom teacher, motivating suitable candidates and allowing unsuitable candidates to self-select"* **[2a]**. Data from Teach First candidates shows that the SJT is a better predictor of assessment centre performance ($r = .48$), than the essays ($r = .22$) that candidates are also asked to write as part of Teach First's screening process. This represents an estimated potential saving of 2,000 staff hours spent essay scoring per recruitment round **[E]**.

In December 2019, after successful trials, Klassen's SJT and MMI tests were adopted for live use by Strathclyde University, Scotland's largest provider of teacher training with around 1,200 candidates per year. In October 2019 SJTs were adopted for use in ITE selection for 200 candidates at the University of York. The MMI tests have also been put to live use by York St John University to assess its annual total of 300 candidates. The academic responsible for candidate selection at York St John, says: *"The MMI has had a very positive impact on recruitment numbers: [Applicants] rated MMIs very highly compared to experiences at other providers. They explicitly stated… that it played a fundamental role in their decision to accept the offer of a place on the YSJ programme"* **[2b]**. Liverpool Hope University also moved from being a trial site **[8d]** to using Klassen's SJTs for live selection, although this has been paused due to COVID-19 restrictions. Analysis of data from Liverpool Hope's selection process has shown that SJTs administered at the point of selection significantly predicted student teachers' performance up to 18 months later, whereas existing selection measures (interview, group activity, Maths and English skills audit) showed no such predictive relationship **[F]**. Trials are on-going at Stranmillis University College in Northern Ireland **[8c]**.

In October 2020, Professor Klassen was invited by the Cabinet Office's Open Innovation Team to present his research and trials data at a workshop with the Department for Education and to serve as editor for a report to the DfE. In a follow-up letter to Professor Klassen, the Head of the Open Innovation Team writes: *"Your research on selecting teachers, your written summary of your thoughts and your editorial role have led to the publication of a new report on assessing the quality of teaching applicants… Your contribution to that deep dive report has led directly to a recommendation to the Permanent Secretary and the consideration to launch a new*

departmental team to assess the quality of teaching applicants. This report has … led to policy meetings and a review of the current government position on assessing applicants" **[4]**.

During the COVID-19 crisis of 2020-2021, developmental SJTs (animated classroom scenarios, participant responses, reflection opportunities, and real-time feedback from experienced teachers, also referred to as Scenario Based Learning (SBL)) were developed and used as a replacement for in-school placements for preservice teachers at Teach First, Cambridge University, and Liverpool Hope University. The Cambridge primary PGCE team reported that developmental SJTs *"enabled the trainees to reflect on their development in a non-threatening environment… we are convinced of the impact of using SBLs within our programme".* One student teacher commented: "*The scenarios helped me think reflectively about my own/future practice with situations that are hard to prepare for when not experiencing them on placement"* **[7a]**. Australia's Macquarie University also trialled Klassen's SBL approach as a replacement for lost classroom visits during COVID-19. They noted that: *"students were placed in 'real-life' classroom situations in a low-stakes setting, with real-time guidance from experienced teachers. This is a rare opportunity"* **[7b]**.

Bulgaria
Bespoke SJTs are currently being developed and trialled by Professor Klassen and Teach for Bulgaria – the team's collaborating partner in Bulgaria. Teach for Bulgaria receives 2,000 applications each year for only 40 places on their training programme. Its Chief Program Officer strongly believes *"there is a need for the development and widespread adoption of research-supported methods to select prospective teachers"* and it is expected that the organisation will use SJTs as part of its live selection process in the near future **[3]**.

Australia
Bespoke developmental SJTs (dSJTs) are also being developed and trialled by Professor Klassen and collaborators in Australia. In 2019, 392 student teachers at the University of New South Wales used dSJTs as an Initial Teacher Education (ITE) programme 'hurdle requirement' to evaluate classroom readiness and professionalism **[8b]**, as did 700 students at Macquarie University **[7b]** and over 100 student teachers at the University of Wollongong **[8a]**.

As well as this immediate behaviour change, there is growing evidence of the impact of the new selection tools on performance during the teacher training programme – the first time that predictive links between selection and PGCE performance have been brought into focus for the institutions responsible for identifying and training future teachers.

A recent Education Commission report on *Strengthening the Education Workforce* highlighted the work of the Teacher Selection Project (Case Study #1), as demonstrating *"innovative and effective approaches to workforce strengthening"*. The TSP work is hailed as *"one of the first international research projects to develop contextualized teacher selection processes supported by robust research evidence"* with the potential of *"increasing the attractiveness of the teaching profession through the rigor and selectivity of the (selection) process"* **[5]**.

Commercialisation
In May 2019 Professor Klassen and his team were awarded a 'Proof of Concept' grant of EUR150,000 by the European Research Council to investigate the commercial potential for their teacher selection tools. The potential sustainability and range of this impact is exemplified by Professor Klassen's new partnership with a UK-based SME to work with the World Bank to develop teacher selection tools for the Moroccan Ministry of Education. In December 2020 the team were selected to join the Aspect Research Commercialisation (ARC) Accelerator programme, designed to support researchers in the social sciences to develop commercial ventures based on their research.

World Bank
[text removed for publication]

5. Sources to corroborate the impact (indicative maximum of 10 references)

[1] Testimonials from Malawi: **(a)** from Acting Director, Dept of Teacher Education and Development, MoE, Malawi, 25/6/18; **(b)** from Head of Student Recruitment, Lilongwe teacher Training College, Malawi, 21/11/18; **(c)** from Head of Student Recruitment, Machinga TTC, Malawi, 07/10/19)

[2] Testimonials from UK teacher training organisations: **(a)** from Teach First, 04/12/18; **(b)** from York St John University, 4/11/20)

[3] Expressions of interest from Canada (4/12/18) and Bulgaria (19/12/19)

[4] Testimonial from the UK Cabinet Office (Open Innovation Team), 24/01/20

[5] Education Commission Report 2019 *Background Paper: Transforming the Education Workforce*

[6] Evidence from the World Bank project: **(a)** Terms of Reference, July 2020; **(b)** email from the World Bank Group, 21/1/21)

[7] Testimonials supporting impact during COVID-19: **(a)** from Primary PGCE Course Manager, University of Cambridge, 11/9/20; **(b)** from School of Education, Macquarie University, Australia, 11/9/20)

[8] Testimonials from ongoing trial sites: **(a)** from University of Wollongong, Australia, 21/9/20; **(b)** from University of New South Wales, Australia, October 2020; **(c)** from Stranmillis University College, 4/12/18; **(d)** from Liverpool Hope University, 3/12/18)