









Research-informed teacher selection

Professor Robert Klassen for GSF March 2020





Grounded in research. Connected to practice

The goal of the Teacher Selection Project is to transform how teachers are selected, with the long-term goal of improving teacher effectiveness and student outcomes.

Our work:

- UK (England, Scotland, Northern Ireland)
- Australia (NSW DoE, UNSW, UoW)
- Canada (University of Alberta)
- Lithuania (Ministry of Education)
- Bulgaria (Teach for Bulgaria)
- Oman (SQU)
- Malawi (Ministry of Education; GIZ)
- Morocco (Ministry of Education; World Bank)
- Peru (Ministry of Education)





Robert Klassen

Lisa Bardach



Liz Maxwell

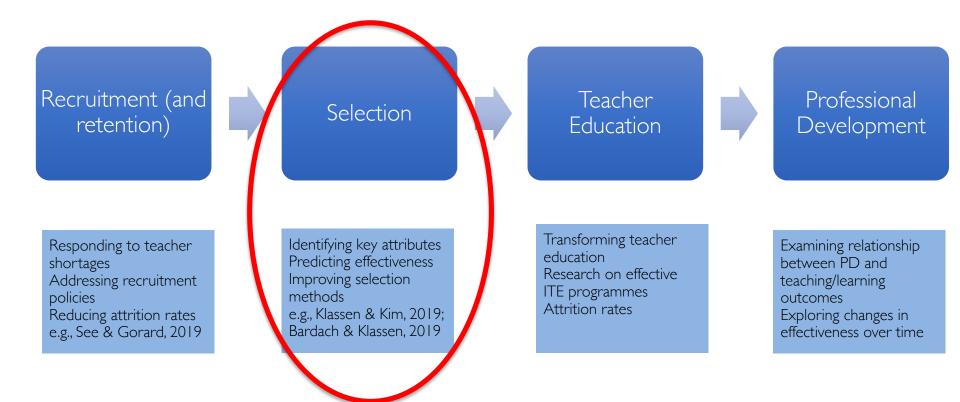






Helen Granger

Ways to improve the quality of the teacher workforce





Getting teacher selection right is important

- Countries will need to select almost 70 million teachers by 2030 (UNESCO, 2016)
- Some teacher attributes develop with training and professional experience (e.g., self-efficacy)
- BUT some attributes (personality, commitment, motivation) are more resistant to change
- Selecting a single teacher represents a \$2 million decision!



Teacher selection involves 'cognitive' and 'non-cognitive' attributes

Cognitive attributes

'Academic skills' such as subject knowledge, intelligence, literacy and numeracy skills (Relatively) easy to measure



Non-cognitive attributes

'Soft skills' such as motivation, commitment, personality, interactions with students (Relatively) difficult to measure



Effective teachers

Three key non-cognitive attributes: UK



Empathy & Communication

 Active listening, open dialogue, building relationships, demonstrates empathy

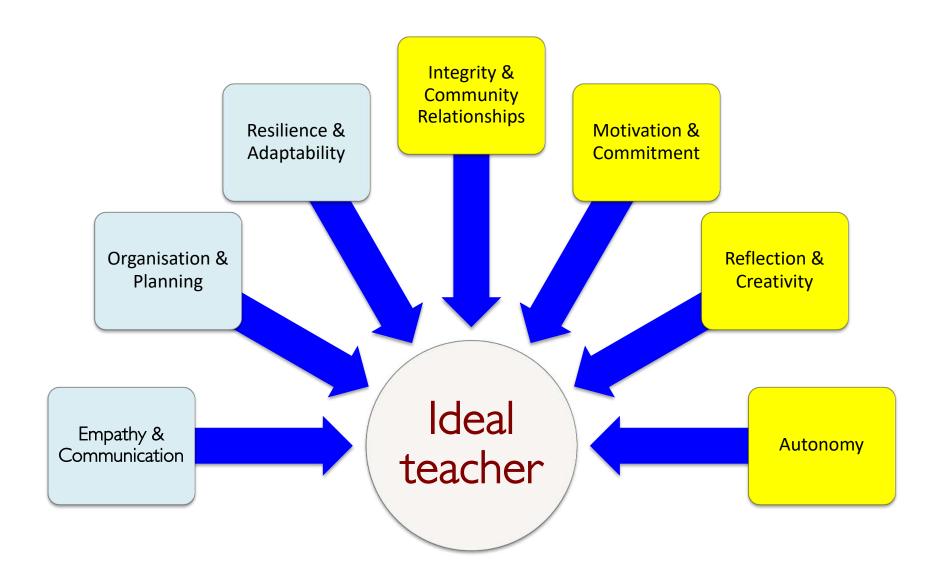
Organisation & Planning

 Manages competing priorities, displays time management, takes short- and long-term view

Resilience & Adaptability

 Resilient under pressure, ability to manage uncertainty, demonstrates judgment under pressure, can change lessons when required, confidence to make independent decisions

Non-cognitive attributes for teachers: Malawi





Research-based selection methods help promote...

- Better candidates (better suited to the classroom)
- Fairness (less unconscious bias in selection)
- Lower attrition in programmes and in professional practice
- Cost efficiencies in recruitment
- Professionalism in selection (candidates rate the experience highly)



Our research on teacher selection is of international interest!

OUR COLLABORATORS (2013 - 2020)









































Review of methods for selection into professional training

| Selection Methods | Implications of the evidence | |
|---|--|--|
| Academic records | Predictive validity is high for success in training programme | |
| Personal statements | Susceptibility to coaching and faking is high | |
| Reference letters | Little evidence of validity or reliability | |
| Situational judgment tests | Provide incremental validity over other measures; cost- effective for high-volume selection | |
| Cognitive tests | Small relation with teaching outcomes (Bardach & Klassen, 2020) | |
| Traditional interviews | Poor predictive validity; prone to bias | |
| Multiple mini interviews and Assessment Centres | With trained interviewers, independent stations, and standardised questions, can be reliable and valid | |

Question: What is the validity of existing teacher selection methods?

(Answer: Quite poor!)

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Contents lists available at ScienceDirect

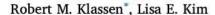
Educational Research Review





Review

Selecting teachers and prospective teachers: A meta-analysis



University of York, United Kingdom



ARTICLE INFO

Keywords: Teacher selection Teacher characteristics Personality Initial teacher education Recruitment

ABSTRACT

The purpose of this review article was to examine the methods used for the selection of teachers for employment and prospective teachers entering initial teacher education (ITE) programs, and to assess the predictive validity of these methods. We reviewed 32 studies reporting selection methods administered in high-stakes conditions and that included an external (not self-reported) teacher effectiveness outcome measure. The overall effect size was small but significant (r = 0.12, p < .001). Moderator analyses showed that academic and non-academic predictors were both significantly associated with teacher effectiveness measures and that effect sizes were small (but significant) for selection into employment and ITE. We conclude the review by proposing a research agenda that has the potential to enhance educational outcomes by improving the selection of prospective teachers.

Best practice: Using situational judgment tests (SJTs)

- SJTs are a measurement method designed to assess judgment in work-relevant situations:
 - Developed to help select medical students
 - Present challenging classroom situations
 - Candidates make judgments about possible responses
 - Scored against a pre-determined key

Text SJTs (paper-and-pencil or computer)

Q1. You are teaching a class you have had for two weeks. After a while, you become aware that the classroom assistant, Mr Beard, is contradicting your instructions as he circulates the classroom.

Rate the appropriateness of each of the options in terms of what a beginning teacher should do (Inappropriate; Somewhat Inappropriate; Somewhat Appropriate; Appropriate).

Speak to your mentor after the lesson to express your concerns regarding Mr Beard's behaviour



- Inappropriate
- Somewhat Inappropriate
- O Somewhat Appropriate
- Appropriate

Quietly discuss the aims of the lesson with Mr Beard and reaffirm your expectations



Ask other members of staff whether they have ever experienced similar behaviour from Mr Beard

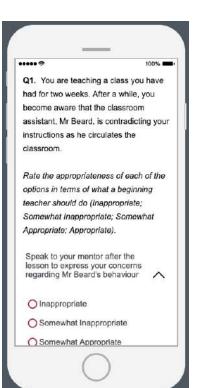


Observe how another teacher, who has Mr Beard as a classroom assistant, communicates with him











Mobile-phone administered SJT

- SJTs can be tailored to a particular cultural context
- An SJT typically takes about 30 minutes for candidates
- Candidates reactions are positive

Context matters: Example SJT (from Malawi)

Scenario: You are teaching a Standard 3 English class. Your class has 90 learners; however, you have only 3 English learner books to use in a reading lesson. You want to make sure that all learners have a chance to read. What should you do?

- A. Give the three books to three of your best learners
- B. Write the reading passage on a chart so that all learners can read
- C. etc.



Hot-off-the-press research on SJTs! (published 2020)

Teaching and Teacher Education 87 (2020) 102949



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Can we improve how we screen applicants for initial teacher education?



Robert M. Klassen*, Lisa E. Kim, Jade V. Rushby, Lisa Bardach

University of York, UK

EUROPEAN JOURNAL OF WORK AND ORGANIZATIONAL PSYCHOLOGY https://doi.org/10.1080/1359432X.2020.1736619







Using video- and text-based situational judgement tests for teacher selection: a quasi-experiment exploring the relations between test format, subgroup differences, and applicant reactions

Lisa Bardach (6), Jade V. Rushby, Lisa E. Kim and Robert M. Klassen

Department of Education, University of York, York, UK

ABSTRACT

The present study examines whether video-based situational judgement test (SJT) formats provide benefits over "traditional" text-based SJTs. Focusing on three SJT conditions - two video-based conditions (with and without text) and a text-based condition - we investigated mean difference

ARTICLE HISTORY

Received 20 June 2019 Accepted 25 February 2020



Multiple mini-interviews (MMIs)

- Three key features: MMIs consist of multiple brief, independent interviews scored systematically
- Target specific attributes (e.g., integrity, professionalism, commitment to the profession)
- Strong evidence base

Used internationally to improve interviewing





Multiple mini-interviews (MMIs)

- Robust track record in other fields (e.g., selection into medical school, nursing, midwifery, pharmacy)
- Strong evidence base: high reliability and predictive validity (e.g., Eva et al., 2009)
- Applicants rate MMIs highly applicants can 'recover' from a bad station

In education, MMIs have hardly been tested and implemented; they are a *leading-edge* selection method with a good research base

***Our research (2019-2020) with over 1000 applicants shows that MMIs are reliable, are rated favourably by applicants, and can be delivered at scale



Top tips for teacher selection

- Spend time on identifying key attributes that you want to measure during selection
- 2. Collect ongoing data on selection methods base your methods on the best possible evidence
- 3. Do not rely on cognitive measures only non-cognitive attributes are <u>at least</u> as important!
- 4. Use evidence-based selection methods

RESEARCH-BASED TEACHER RECRUITMENT, SELECTION AND DEVELOPMENT

Until now, there has been little research focused on attracting, recruiting, and selecting the best possible new teachers. Our team at the Teacher Selection Project and EduSelect works with teachers and teacher educators to develop, test, and implement innovative attraction, selection, and development tools.

KEY PHASES

| 0 | ur | |
|------|------|--|
| proj | ects | |

- Selection methods for Initial Teacher Education (ITE)
 - Online text and video situational judgment tests (SJTs) for screening applicants
 - Multiple mini-interviews (MMIs) for face-to-face selection
- Scenario-based tools for teacher recruitment and development

What have we learned?

- SJTs are better screening tools than interviews, group activities, math and language skills
- Video/text SJTs produce similar results (video SJTs reduce gender gap)
- MMIs can be successfully implemented for teacher selection with positive reactions from applicants and interviewers
- Scenario-based learning tools help trainees feel more prepared for classroom teaching

What NEW projects are we working on?

- Testing scenario-based learning (SBL) tools to develop classroom readiness in trainees
- Developing online 'person-environment fit' interventions for teacher attraction and recruitment











Interested in finding out more?

- Using SJTs for teacher selection
- Using MMIs for teacher selection
- Scenario-based learning tools

Our website: https://www.teacherselect.org/

Email: robert.klassen@york.ac.uk