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Title: A comparison of the teaching quality perspectives of school inspectors, students, and teachers

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Abstract

Little is known about how student perceptions of the teaching quality in a lesson relate to the teaching quality perceptions of teachers and school inspectors of the same lesson. In a collaborative project with the Dutch School Inspectorate, the three perspectives, measured by means of the digital Impact! tool, were studied to obtain a rich picture of teaching quality in Dutch secondary schools. Including the student perspective in the assessments provided an opportunity to clarify how students from different achievement levels perceive the quality of their lessons. The concurrent validity of the three perspectives was calculated by comparing the scores from inspectors, students and teachers. The results showed that the perceptions of students, inspectors and teachers differ significantly from each other. The same applies to low-, average and high-performing student's ratings of teaching quality.

Extended summary

Introduction

In this study, the concurrent validity of student perceptions of teaching quality, measured by means of the digital Impact! tool, was investigated by analysing to what extent the ratings of teaching quality by students, inspectors and by the teacher himself/herself are similar, or differ from each other.

Theoretical Background

The impact of quality teaching on student learning makes it relevant for the Dutch school inspectors to evaluate the quality of teaching in secondary schools in the Netherlands. Until recently, inspectors used written classroom observation questionnaires for rating teachers' teaching quality in lessons. However, assessing teaching quality based on observing only one lesson causes reliability and validity problems. For the statistical reliability of the judgements, it would be preferable to have several lessons of a teacher assessed by several inspectors (Hill et al., 2012; Muijs, 2006), however, this is often not feasible in practice.

Another way to measure the quality of teaching is to use student perceptions of teaching quality. If students rate the same lessons, then a large number of raters is available, which leads to statistically more reliable scores (Cohen, 1988; Ellis, 2010). Moreover, the teacher can also evaluate his/her own lesson by filling out a questionnaire in which (s)he rates the quality of the lesson (s)he taught. Each of the three measures has its advantages and disadvantages, which are discussed in the literature.

The Dutch school inspectors chose to investigate the perspectives of students, inspectors and teachers of a lesson just taught and decided to collect the data by means of the digital Impact! tool. Combining the three methods for measuring teaching quality can be very relevant for a number of reasons. For

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example, some aspects of teaching quality are probably best assessed by students, such as whether students feel that the teacher has high expectations of them and whether students experience the classroom climate as safe. Including the student perspective provides an opportunity for investigating how students from different achievement levels perceive teaching quality. This can provide insight into teachers' differentiation skills: how well they fulfil the needs of different kinds of students in their lessons?

For other quality aspects, another perspective might be more relevant. For example, does the inspector, based on his/her professional standards, think that the explanation of subject matter by the teacher is correct? Moreover, as far as teachers' perspectives of their lessons is concerned, it is interesting to know how they perceive their teaching quality as this may impact their opinion about the need for improvement of teaching quality.

Earlier research by De Jong and Westerhof (2001) and by Maulana and Helms-Lorenz (2016) into the correlation between student perceptions of teaching quality and teaching quality ratings by external observers showed low levels of agreement between the two. Yet, in both studies, student perceptions were measured by means of items that differed from the items that observers used to rate the lessons, which could explain the low correlation. Another explanation may be that in both studies student perceptions of teachers' *general* (across lessons) teaching quality was compared with observers' ratings of one or a few lessons.

Research into teachers' perceptions of teaching quality suggests that teachers, students and observers can have different views on the quality of teaching (Barkhuizen, 1998; Block, 1994, 1996; Kumaravadivelu, 2003). All these studies however were of a rather qualitative nature and conducted in higher education.

Research question

In this presentation, the following research will be answered: How do the ratings of teaching quality from inspectors, students and teachers relate to each other?

Methods

In a collaborative project of the University of Twente with the Dutch School Inspectorate, the Impact! tool was used to collect the three teaching quality perspectives of 462 lessons in Dutch secondary schools. Students, teachers and inspectors used the same items (adapted according to the type of respondent) to rate the lesson just taught. The items reflected teaching quality aspects that have been proven to affect student learning. For the analyses, an item response theory model and a generalizability model were combined (Shavelson & Webb, 2005).

Findings

In this study, the reliability of the student scores was high (.92) and sufficient for inspectors (.60). It should be kept in mind that one teacher only assesses his/her own lesson which makes it impossible to calculate the reliability of his/her ratings. Nevertheless, their subjective perspective on the quality of their teaching still is interesting for studying how their self-perceptions relate to other perceptions. Our findings showed the following correlations: inspectors/students = .33; inspectors/teachers = .27; students/teachers = .15. Regarding the analysis on low-, average and high-performing students we found that some teaching quality aspects were rated significantly lower by low-performing students

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compared to average and high-performing students (e.g., whether the teacher had high expectation of them). In the presentation, the findings will be discussed, including how the different teaching quality perspectives may be combined in the research and practice of school inspectors.

Theoretical and educational significance

Each of the three ways of measuring teaching quality (students, teachers and inspectors) has advantages and disadvantages, none of them is perfect. This presentation provides insight into how the measures relate to each other. This is important for researchers and practitioners like school inspectors when they choose to use one or more of these measures. Furthermore, measuring low-, average and high-performing students' perceptions of aspects of teaching quality digitally offers the opportunity to measure differentiated instruction within classrooms as challenges for educational effectiveness and improvement.

Relevance to the QUINT ambition

QUINTs research projects fit seamlessly well with the focus of this presentation and with other research published by the author of this submission. In QUINTs research projects, teaching quality is predominantly measured using classroom observations of video-taped lessons. The paper presented here also focuses on measuring teaching quality, but uses student, teacher and inspector perceptions. Presenting and discussing this paper during the QUINT conference will broaden knowledge and skills of methods for measuring teaching quality and gives insight into teaching quality and research on it in other countries.

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