Chapter 3

Advantages and Disadvantages of Different Text Coding Procedures for Research and Practice in a School Context

Astrid Neumann

Abstract

This chapter aims to give an overview of relevant questions related to the measurement of first language written text quality. Referring to the relevance of standardized assessment in current educational research, various formats of measurement are introduced. Focusing on the field of writing research, the question of text quality is depicted as depending on the particular discipline and theoretical grounding. Using different text assessment studies as examples, advantages and disadvantages of numerous coding procedures (e.g. holistic, analytical, mixed models) will be discussed. Possible applications of the different methods are examined in the light of the corresponding research contexts and questions (e.g. large-scale assessment vs. individual learning support), methodical issues of measurement and cost–benefit aspects. Also, desiderata and possibilities for integrating information from formative assessment into educational settings, that is, instructional support, are considered, indicating ideas for future theory and praxis in writing research, assessment and teaching.
Introduction

Examining how students of different educational systems perform in the so-called key competencies, that is, natural science, mathematics, languages (mother tongues and foreign languages) and media literacy, has been one major focus of educational research and neighbouring disciplines, such as didactics, psychology, pedagogical diagnostics. Results of these studies, most of them conducted with large samples, serve as important empirical bases for improving different aspects of the complex educational process, for example teaching and learning conditions with respect to teachers and/or individual students.

Given the broad range of disciplines and purposes of assessment, one can observe various task formats: Most studies use closed and half-open formats, that is, **multiple choices** of given answers or tests in which numbers, figures, single words or phrases have to be added. Half-open formats have several advantages: the ticked boxes are easily and quickly read by computer programmes, which means that data entry can be done very reliably without practically any person-based influences. The same holds for data analysis which can be done software-based in a very short time. So, most research questions can be analysed without big measurement errors in a quick and differentiated manner, almost regardless of sample size.

Only few studies use **open-answer formats**, in which pupils can be prompted to produce a range of utterances: from single sentences up to coherent texts. Compared to closed formats, the process of data entry and analysis is much more time-consuming and less reliable. Here, data entry, that is, turning words into numbers, is a very lengthy and complex process which involves a lot of qualified human workload. Also, the process of coding is always a combination of quantitative and qualitative considerations, which has to specify questions like

- Is there one global competence underlying text production or are we dealing with separate abilities for the different sub-tasks of text production?
- Which relevance has to be given to either systemic parameters on class level (with instructional features) or to individual features of text production and development?
- When considering these aspects, what does a good text look like?

Specifications of these aspects, the actual research questions and possible answers are always closely connected to and shaped by the respective discipline and/or field, resulting in differing approaches. Representatives of text linguistics and functional pragmatics might ask ‘What is a good text and how can it function in reality?’ From a more production- and reception-oriented perspective, one might be interested in: ‘How is a good text written and understood?’ Psycholinguists and cognitive-psychologists might wonder: ‘What does the writing process look like?’ Representatives of developmental psychology, sociology and writing didactics could inquire: ‘How do children and young students acquire these abilities?’ Different theoretical groundings also result in practical consequences, that is research and task design or adequate methods of measurement, for collecting and analysing data.