

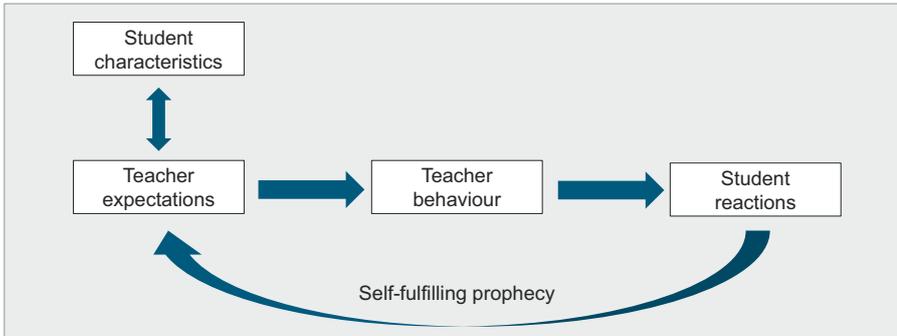
# A2.4 Competence Acquisition and Learning Preconditions



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## Research Questions



- 1) Are teacher expectations associated with gender, social, or ethnic background of the students?
- 2) How do teachers communicate their expectations to the students?
- 3) In what way do students react to expectations that teachers place on them?
- 4) Do teacher expectations affect the competence development in terms of a self-fulfilling prophecy?

## Previous Research

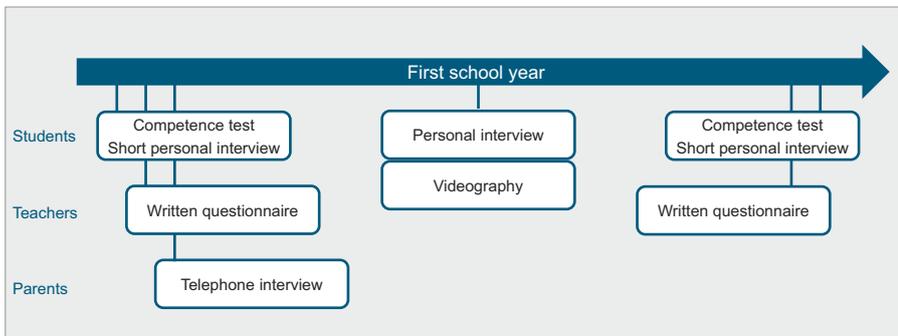
In their classic experiment 'Pygmalion in the classroom', Rosenthal and Jacobson (1968) found that experimentally induced high teacher expectations towards randomly selected students were associated with enhanced learning. Although this experiment was subject to severe criticism, subsequent research supported the hypothesis that teacher expectancy effects do exist.

Furthermore it has been shown that

- expectancy effects tend to be small but significant.<sup>1</sup>
- teachers hold lower expectations towards children from disadvantaged or migration backgrounds.<sup>2</sup>
- effects of negative teacher expectations on educational achievement tend to be stronger for students of lower socio-economic status or belonging to ethnic minorities.<sup>3</sup>
- socio-emotional climate and input are the most important factors in the transmission of expectations from teachers to students.<sup>4</sup>

## Research Design

- Pretest (school year 2012/2013): 2 classes in Cologne
- Main survey (school year 2013/2014): ~60 first-grade classes in Bochum, Dortmund and Essen
- 7 data collection phases during the first school year



Research strategy - answering the research questions:

- 1) The assessment of teacher expectations as well as student characteristics and competencies at the beginning of the school year enables us to analyse whether initial expectations are biased by students' gender, social, or migration background.
- 2) Videotaped lessons in German and mathematics provide information on transmission processes in student-teacher-interactions, i.e. how teachers communicate their expectations in the classroom.
- 3) By analysing students' perception of differential teacher treatment as well as changes in motivation and academic self-concept it can be seen how students react to teacher expectations.
- 4) Repeated measurements of students' competencies as well as teachers' expectations towards each of their students allow to examine the effects of teacher expectations on the competence development of the students and thereby whether a self-fulfilling prophecy exists.

## Research Instruments

Competence test	<ul style="list-style-type: none"> <li>■ Linguistic competencies: reading skills, reading comprehension, phonetics, picture vocabulary (FIPS, ELFE 1-6)</li> <li>■ Mathematical competencies: preparatory and school-related math skills (FIPS, Krajewski, DEMAT 1+, MBK-1)</li> <li>■ Non-verbal cognitive ability (FIPS, CFT1)</li> </ul>
Student interview	<ul style="list-style-type: none"> <li>■ Motivational factors</li> <li>■ Attitudes towards the class teacher and school in general</li> <li>■ Academic self-concept</li> <li>■ Perceived differential teacher treatment</li> </ul>
Videography	<ul style="list-style-type: none"> <li>■ Recording of two lessons in German and two lessons in mathematics</li> </ul>
Teacher questionnaire	<ul style="list-style-type: none"> <li>■ Assessment of students' abilities and expected future development</li> <li>■ Teacher characteristics and attitudes (e.g. gender role orientation)</li> <li>■ Socio-demographic details (e.g. migration and social background)</li> </ul>
Parent interview	<ul style="list-style-type: none"> <li>■ Learning environment, homework assistance, activities at home</li> <li>■ Cultural and social capital</li> <li>■ Educational aspirations, attitudes</li> <li>■ Socio-demographic details of children and parents</li> </ul>

## Contribution

The project is innovative in several ways:

- The study focuses on the examination of the Pygmalion effect not in an experimental setting but in real-life situations.
- It deals with the subject of teacher expectancy effects in the German school context.
- The longitudinal character of the study enables comprehensive analyses of the dynamic processes involved in the emergence of self-fulfilling prophecies.
- Detailed data of students, teachers and parents including videotaped lessons give deep insight into mechanisms that affect the competence development of students during the first school year.

In addition to the project team's own substantive research contributions, the data will be made available to the research community as scientific use files.