Figure 1: The steps of development for the Multiple-choice SQL Misconception Instrument

Multiple-choice Questions for Identifying SQL Misconceptions

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SQL and relational databases are ubiquitous in industry, and thus database designing and querying through SQL are core elements of Computer Science bachelor degrees. Over the past decades, many researchers have examined the various problems that students run into while learning SQL [1, 5]. Recent work has focused on the underlying causes of these errors by identifying misconceptions [4, 2]. Recently, we have developed and validated an instrument to measure whether students have these misconceptions called MSMI1[4]. The setup of the study was as shown in Figure 1. We also used this instrument to measure the prevalence of a subset of misconceptions. In a population of 250 students from six different universities from four different countries on three different continents, we found prevalence scores between 1 and 28% [3]. This shows that previous work is on the right track, and identifies problems that teachers should pay more attention to in the classroom.

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