THE BOUNDARIES OF USING STUDENT SUBJECTS IN DIAGNOSTIC REASONING TASKS: THE ROLE OF DOMAIN-SPECIFIC KNOWLEDGE

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ABSTRACT: This study examines and reconciles prior conflicting results in the area of student diagnostic reasoning, namely Mehle et al.’s (1981) positive results on a “guess the student’s major” task and Heiman’s (1988) negative results on an auditing analytical review task. I propose that these apparently conflicting results can be explained by the presence/absence of domain-specific knowledge, which will vary depending on the setting. To test this, I conduct a controlled experiment utilizing tasks in two domains (auditing and tutoring), and hypothesize that, based on their life experiences, students will have the domain-specific knowledge to perform diagnostic reasoning with self-generated alternative explanations in the tutoring domain, but not in the auditing domain. The results from my experiment are consistent with these predictions. This study contributes to the literature on diagnostic reasoning (by students), by reconciling prior conflicting results and by demonstrating the role of domain-specific knowledge in diagnostic reasoning tasks. This study also has implications for researchers by providing evidence on the appropriateness of using student subjects in diagnostic reasoning research studies.