Assessing Change in Learners’ Causal Understanding Using Sequential Analysis and Causal Maps

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Abstract
New methods and software tools are needed to assess the quality of learners’ causal maps (maps that convey a learner’s understanding of complex phenomena) and the quality of learners’ discourse used to help justify changes and refinements in learners’ causal maps. New methods and software tools are needed to assess the dialog move sequences observed in group discourse that trigger changes in causal maps and to measure and visualize across time the extent to which changes in causal maps of the individual or collective group progress toward group consensus and target maps. The software tool called jMAP was developed to enable learners to individually produce and submit causal maps, download and aggregate the maps of other learners. It also generates aggregated maps to reveal similarities between individual/group maps, the percentage of maps sharing particular causal links, average causal strength assigned to each link, and degree of match between the maps of the collective group and the target/expert diagram. jMAP also supports the use of sequential analysis to measure and visualize (with transitional state diagrams) how learner’s causal maps change over time and how dialogic processes of argumentation conducted in online discussions trigger changes in learner’s causal maps. This paper presents findings from two case studies to illustrate how jMAP can be used to support the assessment of causal understanding, and to identify areas for future research and development.

Citation

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Differences in the Relationship of Oral Reading Fluency and High Stakes Measures of Reading Comprehension

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Abstract
The study examined the predictive validity of oral reading fluency measures across first, second, and third grades for two reading achievement measures at the end of third grade. Oral reading fluency measures were administered to students from first to third grade. The Texas Assessment of Knowledge and Skills and the Stanford Achievement Test (Harcourt, 2003) were also administered in third grade. Oral reading fluency was a reliable predictor of student success on both measures. Data suggest greater student growth in oral reading fluency is needed through the grade levels to ensure high probabilities of success on the nationally-normed measure than is needed for the state-normed measure. Implications for practice and future research are discussed.

Practical Application
The findings provide information for teachers on appropriate levels of reading growth in the beginning reading stages. In addition, practitioners engaging in data-based decision-making about instruction need to be aware of the differences in growth trajectories that predict success on various outcome measures. If student response to instruction is evaluated with progress towards passing the state assessment, students may appear to be responding when they are actually still at-risk in terms of their overall reading achievement. The rate of growth needed through second and third grades to achieve proficiency on SAT-10 is more than double that needed to achieve success on the state test, suggesting a higher level of reading achievement for those students proficient on the SAT-10 measure.

Citation

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First Graders’ Literacy and Self-Regulation Gains: The Effect of Individualizing Instruction

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Abstract
In this study, we examined the effect of individualizing student instruction (ISI, n = 445 students in 46 classrooms) on first graders’ self-regulation skill gains compared to a randomly assigned business as usual control group. Accumulating evidence reveals that students’ self-regulation, conceptualized as a constellation of executive skills (i.e., working memory, attention, and task switching/inhibition), is positively associated with academic development. We hypothesized that the ISI intervention’s emphasis on teacher planning and organization, classroom management, and the opportunity for students to work independently and in small peer groups would promote development of students’ self-regulation. Hierarchical linear modeling revealed no main effect of treatment on self-regulation gains. However, for students with weaker initial self-regulation, participation in ISI classrooms was associated with greater self-regulation gains compared to peers in control classrooms. The ISI effect on self-regulation was greater when the intervention was more fully implemented. Taken together, these results demonstrate ways in which changing classroom environments can impact at-risk students’ self-regulation, with implications for their overall academic success.

Practical Application
Our results indicate that first grade students’ self regulation may be malleable and can improve when students are provided classroom environments that are organized and provide opportunities for self-regulated behavior. Accumulating evidence indicates that self regulation is a consistent predictor of academic outcomes.

Citation

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Legal Case Brief: American Needle vs. National Football League

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Abstract
If the U.S. Supreme Court’s recent decision in American Needle v. National Football League, et al. were to be summarized in a single sports headline, it might well read, “American Needle Kicks Three Field Goals; Shuts Out NFL 9–0.” In a relatively rare venture into antitrust permissibility in the sports industry, the nine Supreme Court justices handed plaintiff American Needle a unanimous win and gave a small Illinois embroidery company a chance to try its case against the National Football League (NFL) in federal court on remand. At the crux of the case lay an issue central to all of sports law—whether a league, in this case the NFL, should be (a) deemed a “single entity” and granted antitrust immunity for certain claims arising under Section 1 of the Sherman Act or (b) characterized as a joint venture of individual teams that compete against each other.

For many years, American Needle had a contract to produce apparel for NFL teams. The contract was not renewed when the NFL partnered with a sole licensee, Reebok, in 2000. American Needle filed suit alleging that the exclusive NFL–Reebok merchandising contract represented an illegal restraint of trade under antitrust laws. The NFL defended against the lawsuit by arguing that the league, its affiliates, and teams were a single entity and, in turn, shielded from such antitrust inquiry. The purpose of this legal case brief is twofold. First, it will provide an overview of the decision and summarize the underlying legal rationale and doctrines. Second, it will discuss how the American Needle opinion may affect the sports industry.

Citation

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