Title: Estimating the Effect Sizes of Interventions Used to Increase the Student Participation during IEP Meetings

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Introduction: Individualized Education Plan (IEP) meetings are a cornerstone of special education. Although the IEP should reflect student interests and preferences, students are often left out of this important planning process (Martin et al., 2006). Research indicates that student participation in IEP meetings is linked to positive outcomes, including increased self-determination (Wehmeyer, 2005); however, the skills required to participate in IEP meetings are not innate and must be explicitly taught to students with disabilities (Martin, Marshall, & Sale, 2004). Several interventions have been developed to teach students the skills needed to meaningfully participate in their IEP meetings. The purpose of this study was to examine (a) the quality of existing studies on this topic and (b) the effectiveness of interventions used to increase the quantity of student participation during IEP meetings.

Method: A systematic literature review was conducted to determine existing literature on this topic. All eligible studies were coded for content, quality, and effect size. To determine the rigor of research on this topic, between group studies were coded using a system based on special education experimental research quality indicators outlined by Gersten and colleagues (2005). Similarly, single case design (SCD) studies were coded using a system based on single case design standards (Kratochwill et al., 2013) and quality indicators specific to special education research using SCDs (Hornern et al., 2005). Because there are currently no statistically proven ways to accurately combine effect sizes from a set of between-group studies and a set of SCD studies (Pustejovsky, under review); separate effect size analyses for between-groups studies and SCD studies were conducted. Outcome variables from between-groups studies were transformed into standardized mean differences (Hedges’ g), then synthesized using a random-effects meta-analysis. Results from SCD studies were first examined using visual analysis, then analyzed at both the participant-level and the design-level using log response ratio (LRR; Pustejovsky, 2015), a mean-based effect size metric.

Results: A total of 13 studies (6 between-groups studies; 7 SCD studies) met inclusion criteria and were included in analyses. In each of the studies, self-advocacy curriculums were used as the independent variable, while the quantity of verbal contributions made by students during IEP meetings served as the dependent variable. The methodological quality of this set of studies, as a whole, was subpar; several threats to internal validity existed amongst studies. However, participating in self-advocacy curricula did increase students’ participation during IEP meetings. The meta-analysis examining between-groups studies found that students who participated in self-advocacy curriculums participated significantly more during IEP meetings compared to students in control groups ($g = 1.35, 95% CI [0.70, 2.00])$. In terms of effect sizes for SCD studies, participant level LRR values were all positive, ranging from 0.01 to 4.68; design-level LRR values ranged from 0.35 – 3.23. Visual analysis revealed a clear functional relation between self-advocacy curricula and student participation during IEP meetings in 3 of the 7 SCD studies; the lack of functional relation in the remaining 4 studies was primarily due to insufficient data points (i.e., less than 3 data points per condition).

Discussion: While this set of studies did not demonstrate the most rigorous research, findings were still promising – the vast majority of students across these studies did increase their participation in the IEP process. By learning to take part in their educational planning and contribute during IEP meetings, students can share their thoughts, preferences, and goals for the future with instrumental IEP team members. When students attend their IEP meetings and contribute to the educational planning process, there is a greater likelihood that the students’ interests and preferences will be incorporated into the educational plan. Given this information, school districts should consider implementing one of these interventions and making student attendance at IEP meetings a top priority.
References/Citations: