Abstract

Evidenced-based decisions in schools are dependent on quality data and affect decision-making frameworks. However, many teachers struggle to interpret, understand, and use data. This project investigates teacher perception and attitudes toward data meetings as part of the Path to Reading Excellence in School Sites (PRESS) partnership. Survey questions addressing teacher experience in data meetings include preference of meeting format, ability to interpret and make decisions of different types of data, and involvement in decisions. Results indicate most teachers prefer individual meetings, and graphical representations of data are more mixed about measures they find most meaningful and roles they would like in data meetings. Potential implications for training and practice are included.

Introduction

- Data inform teaching and improve student skill acquisition and proficiency (McNaughton, Kuhn Lai, & Hsiou, 2012). Evidenced-based decision-making using data is a core feature of response to intervention (RtI) and can lead to fewer students requiring special education services (Kovaleski & Pederson, 2008).
- Teachers need rationale behind data meetings with a clear mechanism for using data (Young, 2006). Therefore, a social collaborative process with explicit instruction on how to use, and make decisions with data is imperative (Wayman, Jimerson, & Cho, 2012; Coburn & Turner, 2011).
- Teachers have indicated they are looking for relevant and content imbedded data directly related to skills taught in class (Wayman et al., 2012).
- Many teachers struggle with how to interpret, understand and use data presented in meetings. Furthermore, there’s little research on how teachers perceive the format and presentation of data. Therefore, research is necessary to understand how teachers perceive data meetings and how best to focus the meetings.

Current Study

This study examines teachers’ perceptions and attitudes toward data and data meetings as part of the first year of a three-year implementation project. This current study assessed teachers through surveys in order to answer several questions:

- What format of data do teachers prefer?
- What student measures do teachers perceive as useful?
- What format of data meetings do teachers prefer?
- What role do teachers have and desire to have in data meetings?

Method

Participants. Participants include K-3 teachers from three different schools participating in the PRESS project partnership (N=29). These were all urban schools with diverse participants, primarily East African. Participants from each grade Kindergarten (n=3), First grade (n=12), Second grade (n=10) and Third grade (n=9) were included.

PRESS, Path for Reading Excellence in School Sites (PRESS) is a three-year partnership among six urban schools, the University of Minnesota, Minnesota Center for Reading Research, and Target. The goal of this partnership is that all students in grades K-3 meet or exceed their grade level reading benchmarks. This goal is achieved through quality core instruction and targeted interventions in phonemic awareness, phonics, fluency, vocabulary and comprehension with data-based decision making. At the end of this three-year partnership, it is expected that schools and teachers will continue to use the interventions based on student data.

Data Meetings. Data meetings occurred throughout the school sites in individual, small group and large group (across grade level) meetings with the Literacy Coach assigned to the site. The Literacy Coach presented student data and discussed the data with teachers to make subsequent intervention placement decisions. The data discussed in meetings included specific skill measures and general outcome measures (GOMs). Skill measures target a specific area of literacy explicitly worked on in the intervention, such as nonsense word fluency (NWF) for a student working on decoding consonant-vowel-consonant (CVC) words. GOMs are broader and encompass student’s general literacy skill. GOMs include phoneme segmentation fluency (PSF) for kindergarten students and oral reading fluency (ORF) for first- through third-grade students.

Survey. Teachers were given surveys addressing their preferences and attitudes toward data meetings. Questions included attitudes and preferences of data meeting format, ability to interpret and make decisions of different types of data (graphs, data points, etc.), involvement in placement decisions, and future direction of data meetings. The survey included multiple choice, ranking, rating scale, and open ended items.

Results

- **Format of Data.** Teachers reported on the formats of data that were both the hardest and easiest to interpret. Choices included numerical data, line graph, bar graph, and numerical slope. Based on responses, teachers grouped according to numerical representations of data (data in a row and slope) or graphical representations of data (bar and line graph).

- **Student Measures.** Teachers reported on the type of student measures they found most meaningful: skill measures or GOMs.

- **Format of Data Meetings.** Teachers reported on their most preferred format of data meeting from the choices of Individual, grade level or across grade levels.

Discussion

- Teachers generally prefer using graphical data from skill measures. This is consistent with evidence that teachers prefer using data that closely matches content directly related to skills being taught (Wayman et al., 2012). Because teachers may prefer graphical data over numerical data, teachers may be in need of further training to understand how to use and make decisions from numerical data. Previous research found that teachers made more accurate decisions with numerical data when compared to graphical data (Burns, Scholl, Koscielik, & Livingston, 2010).

- Many teachers preferred a moderate, collaborative role, which is consistent with research indicating the need for a social collaborative process in data team meetings (Wayman et al., 2012; Coburn & Turner, 2011). However, only about half of teachers indicated that their desired role, matched their current role. This indicates more care needs to be taken when conducting data meetings to not only create a social collaborative process, but also to emphasize the importance of it.

Limitations & Future Research

- **Limitations.** Responses are from a small population of teachers from urban settings.
- **Future Research.** Although this study indicated preferences, future research is needed to see how well teachers can make decisions from graphical or numerical data and if this matches their preferences.
- **Future studies could also explore methods to instruct teachers on how to interpret and use different forms of data.**
- **Frameworks for how best to conduct data meetings could be further explored.**