

Professional Development to Improve Communication and Reduce the Homework Gap in Grades 7-12 During COVID-19 Transition to Remote Learning

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Inservice teachers have had to engage in professional development to successfully make the transition to remote learning during the COVID-19 pandemic. While there has been considerable focus on preparing content, access to devices, and connectivity, less attention has been paid to how professional development is preparing teachers to improve communication between the school, teachers, students and families. In this paper we describe the efforts of one 7-12 public school to support their teachers. Following initial time and resources to prepare for remote learning, teachers identified a homework gap developing among students who were not completing assignments. A survey was developed to identify students falling into this gap. Results from the survey are now being used to develop new professional development for teachers targeting communication strategies and building relationships between teachers and families.

Keywords: inservice teacher professional development, community and school communication, remote learning, COVID-19

INTRODUCTION

With approximately 55.1 million K-12 students affected by school closings due to the COVID-19 pandemic, school districts are racing to transition to remote learning (Education Week, 2020). Due to this shift, districts are faced with challenges related to the preparedness of teachers to teach online, technology infrastructure so content and interactions can take place at a distance, and equity and access to specific technologies so that students can maintain academic progress. School districts and professional organizations are answering these challenges in a variety of ways and generating creative solutions to provide professional development (PD) for teachers so they can deliver instruction and stay connected to their students (International Society for Technology in Education, 2020; Vile, 2020). Inservice teacher PD is vital for teaching remotely, but also in building communication strategies to help students and families stay connected with the classroom community.

School districts have elicited help from private businesses and organizations to improve availability to school materials, provide devices, and wireless internet access to those in need (Ali & Herrera, 2020). Although much has been done to provide content and devices to students, social and economic disparities have been highlighted by the pandemic. Initial reports reveal significant numbers of students are not accessing online materials or turning in assignments (Goldstein, Popescu, and Hannah-Jones, 2020; Watson, Thompson, 2020). While the digital divide has demonstrated that a lack of access to computers and broadband wireless negatively impacts communities of color, rural communities, and those in lower socio-economic groups (Anderson & Perrin, 2018; Perrin, 2019), student difficulty completing online work illustrates an aspect of the digital divide known as “the homework gap” (Anderson & Perrin, 2018; Auxier & Anderson, 2020; Wong, 2018). The homework gap can also be evidenced by the frequency students access course materials because of limited connectivity at home, a single shared device among family members, or the device being a smart phone (Meyer, 2016). Lack of communication between teachers and families may also contribute to the homework gap experienced by many K-12 districts. Therefore, it is critical to provide teacher training in communication technology tools so they can reach students and families and avoid negative consequences in their educational experience (Olmstead, 2013; Vlachopoulos & Makri, 2019).

Communication strategies between teachers, students, and families are key components for learning, especially in the formalized and remote formats (Mete & Eunbae, 2018). These strategies can lead to essential interac-

tions that build classroom community online and enhance learning. Interactions among learners and instructors can motivate students to learn and can influence the effectiveness of the learning process which can assist in narrowing the homework gap in K-12 remote learning. The next step for K-12 districts is to create PD for teachers that supports communication with students and families to improve educational performance (Metz & Eunbae, 2018; Olmstead, 2013). Professional development is essential for teachers to learn about new technologies for communication and expanding their knowledge and expertise in using these tools (Olmstead, 2013). In this paper we share how PD in a public K-12 district has addressed the transition to remote learning during COVID-19 and, through teacher feedback, is developing new strategies to combat the homework gap.

SCHOOL CONTEXT

This school corporation has 1,731 students enrolled in 2019-2020 (Indiana Department of Education). The enrollment is 87% white, 10% Hispanic, 1% Black, and 2% Multi-racial, with 40% free lunch and 8% reduced (IDOE). This corporation has been a 1:1 laptop district since 2013 and previously adopted a learning management system (LMS) to accommodate eLearning days for weather-related closings. The LMS provides students with access to content needed to complete required assignments.

PROCESS

On March 13, 2020, the district announced they would utilize five waiver days prior to spring break to give teachers time to prepare for ten eLearning days following the break. This created a two-week gap before students were expected to begin coursework. Between March 16 and March 30, school leaders developed an alternative schedule transitioning from seven classes to three or four classes per day. The technology department explored multiple avenues to expand communication among stakeholders by ensuring all user accounts had Zoom access and encouraging the use of Google Suite for Education, specifically Google Hangouts and Meet. In addition, teacher leaders created “how-to” videos, such as different methods to send emails to students from their gradebooks, tips and tricks of using Zoom meetings, Google Classroom, and LMS tools teachers discovered during this remote learning time period. This engagement fostered additional conversations about technology resources and provided support to

teachers navigating these resources. The technology department also opened up the call forwarding feature for school phones so teachers and other staff could call from their personal devices while keeping their numbers private.

At the end of the first two weeks of eLearning, a number of teachers at the junior-senior high school (grades 7-12) contacted the administration with concerns about students who completed few or no assignments. This begged the question, why were students not turning in assignments? A short survey (Appendix), created using Google Forms, was sent to teachers to collect information about students who were of concern in an attempt to provide guidance to the district in future communication. The survey asked teachers to consider those students who had not completed work, and to provide the grade level, the student's name, course, and if the teacher had been successful in making contact with the student or parent/guardian. Responses to the survey helped identify whether students had been contacted and how the teacher had attempted to make contact. This information could then be used to inform future PD and improve homework submission.

RESULTS

Forty-four of fifty-eight teachers responded to the survey. Results of the survey (Table 1) provided a student list that the administration could use to establish contact, encourage completion of the work, and gain a better understanding of why the student was not completing their work.

Table 1
Students of Concern Teacher Survey Results

Grade Level	Total number of students	Unique students of concern	Percentage of unique students of concern	Students identified by multiple teachers	Percentage of students identified by multiple teachers
Seventh	129	50	38.8%	30	23.3%
Eighth	137	54	39.4%	37	27.0%
Ninth	145	52	35.9%	20	13.8%
Tenth	155	41	26.5%	21	13.5%
Eleventh	134	50	37.3%	29	21.6%
Twelfth	119	32	26.9%	13	10.9%
Total	820	279	34.0%	150	18.3%

Note. $N = 44$

Results from the survey indicated that teachers were unsuccessful in making contact with 59% of the students. The administration reached out via email or phone call to all 279 students and their families. In many cases, parents/guardians were unaware of assignments, how to check for them, or when they were due, which demonstrated more PD was needed to help teachers communicate with families.

IMPLICATIONS

How will this data impact PD and continued efforts to connect with students and families? While Olmstead (2013) has emphasized the importance for PD about technologies to improve communication with families, more is needed. In this case, proactive PD supported teachers' ability to create and deliver course content, as well as increase the opportunity for more communication between teachers, students, and families, but it did not eliminate the homework gap. Planning for future PD will prioritize a comprehensive communication strategy between schools and families before remote learning begins. A focus on building relationships will help identify who has access before it is needed, as well as create PD opportunities that focus on community engagement through communication technologies. These may include communication apps, class websites, email, texts, and social media (Mete & Eunbae, 2018; Olmstead, 2013; Waterford UPSTART, 2018). Table 2 provides examples of tools which school districts may consider as they seek to improve communication.

Table 2
Examples of Additional Communication Tools

Resource	Website	Description/Features
Google Suite for Education	https://edu.google.com/teaching-resources/?modal_active=none&topic=family-engagement	A variety of tools and resources for family engagement. Resources include family guides and additional tools. While schools may have district accounts, individuals may also use applications like Forms and Meet to collaborate and communicate with students and families.
Big Blue Button	https://bigbluebutton.org/	Web Conferencing, sharing of audio, screen, chat, and slides in real time with students. Also includes multiuser whiteboard, breakout rooms and polling. Open source and cross platform.

Resource	Website	Description/Features
Audacity	https://www.audacityteam.org/	Audio recording for teacher and students. Can be used for creating podcasts, announcements, etc... Open source and cross platform.
Seesaw	https://web.seesaw.me/	Create student portfolios that are easily and securely shared with families. Start conversations with individual parents/guardians about their kids' classwork. Seesaw offers a personalized way for teachers and parents/guardians to connect.
Bloomz	https://www.bloomz.net/	Connect with parents/guardians to keep them informed. Coordinate the class and school calendar with parents. Communicate privately and securely in real-time communication with parents/guardians.
Remind	https://www.remind.com/	Teachers can send messages and updates to an entire class (or a group of classes). The app offers more opportunities for teachers, students, and families to interact.

FUTURE RESEARCH

With the K-12 community finding itself entering a new era of teaching and learning, communication is key, but can suffer due to time and physical separation (Vlachopoulos & Makri, 2019). Therefore, research into how schools use technology communication tools to build bridges with families, and engage families about their needs, will help teachers develop strategies that can support students during remote learning. This would also contribute to existing research on school/community relations and culturally responsive pedagogies (Gay, 2002; Villegas & Lucus, 2002). Similar to the work by Olmstead (2013), additional research into the way's schools are offering PD and staying current with changing communication tools is beneficial as technologies continue to develop and become more integrated into existing school infrastructures. Research into the creative use of specific technologies to improve communication between families and schools would also benefit the field of online and distance education.

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APPENDIX

Students of concern teacher survey information

Teachers were asked to provide information on all students within each of their classes, if a particular student had been in contact with the teacher, and to provide any additional notes on the student that might be helpful to administration.

The following information was gathered in the survey.

- Student Name (Last Name, First Name)
- Student Grade Level (7-12)
- Teacher Name
- Subject/Course Name
- Have you had contact with this student? (Yes/No)
- Has the student missed assignments? (Yes/No)
- Additional Notes

After data was collected from the teachers, administration compiled the information in a number of ways.

- The unique number of students of concern identified by teachers
- The number of students reported by grade level
- The number of students reported by multiple teachers
- If the student had been in contact with one or more teachers

Administration then developed a process to reach out to students and families, and to follow up on whether missing work was received by the teacher.

- Administrator call and email family of a student who was missing work
- Identify whether the administrator had made contact (Yes/No)
- Check with teacher if missing work was turned in (Yes: date/No)