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To cite this article: Penny A. Bishop (2021) Middle Grades Teacher Practices during the COVID-19 Pandemic, RMLE Online, 44:7, 1-18, DOI: [10.1080/19404476.2021.1959832](https://doi.org/10.1080/19404476.2021.1959832)

To link to this article: <https://doi.org/10.1080/19404476.2021.1959832>



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Published online: 18 Aug 2021.



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Middle Grades Teacher Practices during the COVID-19 Pandemic

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Abstract

As of March 31, 2020, the closure of schools in 192 countries due to the COVID-19 pandemic had resulted in over 1.6 billion learners being temporarily forced out of school buildings. New educational inequities arose, and existing ones were exacerbated. Acknowledging that disruption may also stimulate innovation, the purpose of this qualitative research was to identify possible improvements in middle grades teachers' practices as they enacted emergency remote instruction. Through narrative responses provided to an online survey administered between May 27 and June 19, 2020, 332 middle grades educators self-identified aspects of their teaching practice that improved while teaching remotely. Findings included deepened knowledge of individual learners; increased individualized instruction; greater opportunities for student choice and self-pace; more timely assessment feedback; enhanced family engagement; and increased technology skills. Implications of this study for educational practice, and for school scheduling in particular, are examined.

Keywords: middle school, teacher practice, pandemic, Covid-19, middle grades, middle school teachers

In response to the COVID-19 outbreak, educators around the world shifted their practice from in-person delivery to emergency remote teaching in a matter of days. As of March 31, 2020, the closure of schools in 192 countries had resulted in over 1.6 billion learners being temporarily forced out of school buildings (UNESCO, [n.d.](#)). In the US, schools' approaches to distance learning varied widely by district and state, exacerbating inequitable educational conditions across the country (Garet et al., 2020; Hamilton et al., 2020). Teachers faced challenges for which many were not prepared, including delivering instruction online, troubleshooting students' inequitable internet access, and addressing families' food insecurity (Gross & Opalka, 2020; Hamilton et al., 2020; Malkus et al., 2020). Parents and guardians expressed concerns about the quality of instruction and the amount of schoolwork students did while at home (Bailey & Shaw, 2020). Students self-reported declines in emotional well-being, and increased feelings of social isolation and loneliness (Bertling et al., 2020).

While declines in social and emotional health are unsurprising, given that social distancing can heighten anxiety, stress, and loneliness for people in general (Centers for Disease Control and Prevention, 2020), the effects of quarantine or isolation on children and youth are

particularly great (Brooks et al., 2020). Students' physical and mental health can be negatively affected by lengthy school closure and home confinement (Brazendale et al., 2017; Brooks et al., 2020). Physically, during vacations and weekends, youth are more sedate, demonstrate less regular sleep patterns, and adopt less favorable diets, all behaviors that lead to negative, long term, health conditions (Brazendale et al., 2017). These effects are likely to be even more pronounced when students are confined to their homes without interaction with peers, such as during a pandemic (G. Wang et al., 2020).

Students' mental health is also adversely affected by such conditions. Stressors including "fears of infection, frustration and boredom, inadequate information, lack of in-person contact with classmates, friends, and teachers, lack of personal space at home, and family financial loss can have even more problematic and enduring effects on children and adolescents" (G. Wang et al., 2020, p. 946). In fact, posttraumatic stress scores have been found to be four times higher in quarantined children than in those who were not quarantined (Sprang & Silman, 2013). Home confinement, deferred return-to-school, or similar lifestyle changes often render emotional support from teachers, extended family members, and other significant adults unavailable (Sprang & Silman). Youth who have experienced disasters suffer from greater stress and trauma often due to a lack of effective coping strategies (Duan et al., 2020; Roussos et al., 2005), strategies that adults often help students to identify, develop and manage.

For middle grades students ages 10 to 14, these disruptions of pandemic-induced isolation occur at the same time as considerable cognitive and socioemotional development, potentially layering on additional challenges for at-home learning. Cognitively, "uneven acceleration" may be the best way to characterize neurobiological development among young adolescents' (Williams et al., 2019, pp. 6–7). This unpredictable range of timing and intensity may introduce new factors to already challenging circumstances. For example, learning tasks may not always align with developmental readiness and at-home learning may lack the strategic scaffolding teachers enact in more typical conditions. Learning in a more isolated context may also be markedly disruptive to their social and emotional development, as many middle schoolers prize affiliation and belonging (Williams et al.) and benefit from forming meaningful relationships with peers (Bishop & Harrison, 2021; M. L. Smith et al., 2018). These aspects of young adolescent development, along with others, may present unique challenges to teaching and learning in the middle grades during the pandemic.

Prior research has demonstrated, however, that "disruption can be a powerful avenue for growth" (Gilbert, 2003, p. 27), at times giving birth to new forms of innovation. Emergency remote teaching during international conflicts, for example, has mitigated disparities in equity and access (Bertling et al., 2020). In Afghanistan, when schooling was interrupted by significant security threats, distance education was found to promote education for girls (Davies, 2011). In Bosnia and Herzegovina, civic unrest gave rise to secular programs for internally displaced persons, providing an important alternative to exclusionary religious denomination schools and enabling social reintegration (Davies, 2011). With the potential for innovation in mind, I wondered, might the COVID-19 pandemic have served at all as a "disruption for good" (Arrillaga-Andreessen, 2015) in middle grades education? Did teachers leverage any aspects of emergency remote schooling to strengthen their pedagogy? If so, what are the implications of these for the design of quality learning opportunities during prolonged school closures? How might we use what we learn to amplify the positive effects of a challenging time?

The purpose of this qualitative research was to identify possible improvements in middle grades teacher practice during emergency remote teaching (ERT) during the COVID-19 pandemic. ERT is a term that describes the pandemic-related temporary shift of instructional delivery, in contrast to online learning that has been designed and planned in advance (Cowden et al., 2020; C. Hodges et al., 2020). In the following section, I provide an overview of existing research into teachers' pedagogy during prior schooling disruptions, including pandemics and natural disasters. I then outline the study's research design, describing the sample and survey method. Next, the paper's findings emphasize teachers' expanded knowledge of individual learners, increased individualized instruction, greater opportunities for student choice and self-pace, more timely and detailed assessment feedback, enhanced family engagement, and improved technology skills. Finally, I explore the implications of these findings for teacher practices, school scheduling, and future research.

Related Research

Historically, educational institutions have been affected by risks of many kinds, including epidemics and pandemics, and natural disasters such as earthquakes, tornadoes, and floods. These circumstances challenge more conventional ways of teaching and learning, while their accompanying risks may open up new opportunities. Research on how schools and educators have responded to prior crises,

then, is an important foundation to this study of middle grades teachers' practice during COVID-19-related emergency remote teaching.

Pedagogy and Prior Pandemics

Modifying educational practices due to a pandemic or epidemic is not new for schools in the US. In 1905, the tuberculosis epidemic spurred an increase in outdoor classrooms (Bellafante, 2020), for example, and, in 1937, the polio epidemic gave birth to a novel "radio school" in Chicago (Foss, 2020). However, the majority of empirical research on disease outbreaks and schooling has examined health-related, rather than pedagogical, practices (e.g., Viner et al., 2020). During the 1918 H1N1 outbreak (also known as the Spanish Flu), archival research documented compulsory school practices, including the use of masks, large space, open windows, and outdoor classrooms (Battenfield, 2020; Copeland, 1918). During the 2009 H1N1 outbreak (sometimes called Swine Flu), research on Canadian primary teachers' experiences similarly focused on teachers' role in infection control. These educators expressed great concern for their students' well-being and experienced an elevated sense of fear and anxiety as they balanced this responsibility with the unpredictability of the disease and worries for their own safety (Howard & Howard, 2012). In general, pandemic-related research on schooling has explored the effectiveness of school closures to contain the outbreaks, along with educators' emphasis on safety and health, but includes little documentation of the pedagogy employed. While such research has documented schools' increasing and critical role in the public health arena (Stern et al., 2010), it has less often portrayed or examined how the complex processes of teaching and learning have ensued during crisis.

One noteworthy exception is Kingsley and Dressler (1916) international study of the Open-Air Schools movement. Inspired by the German Waldschule (Forest Schools), in which children were taught in natural environments, the Open-Air Schools model was increasingly adopted in the early 1900s to prevent further spread of tuberculosis by providing maximal ventilation and fresh air. In the context of their larger work, Kingsley and Dressler included case descriptions of several Open-Air Schools' organization and curricula, detailing the length of sessions, the content of recitations, the size of classes, and the flexibility of grades. The researchers asserted that, in contrast to the more common traditions of the era, these teacher practices were intended to "allow the children more freedom of self-expression, and to cultivate their ability for doing and making" (p. 204). These researchers

concluded that "programs and activities should always be based on a thorough knowledge of individual children's capacities and needs" in Open-Air Schools (p. 196).

Pedagogy and COVID-19

Most recently, studies on youth and schooling during the COVID-19 pandemic have begun to emerge. While it appears that children may be less prone than adults to coronavirus infection (Hong et al., 2020), research also suggests that they may be more fragile from a psychological viewpoint, presenting anxiety, behavioral problems, and fear as a consequence of pandemic-induced isolation (Jiao et al., 2020). Specific to early adolescence, researchers explored the emotional resilience of middle school students in China and the impact of this resilience on students' learning management skills during the pandemic (Zhang et al., 2020). Their survey of almost 900 young adolescents indicated that emotional resilience was positively correlated with learning management skills and that positive emotional ability predicted learning management skills. Unfortunately, it also demonstrated that students' ability to recover emotionally from trauma declined during the study period. These findings underscore the importance of emotional resilience in adolescents' mental health and learning, as well as the challenges of such resilience during pandemics. Yao et al. (2020) also focused their research on a middle school student population in China. In their quasi-natural experiment based on over 1000 middle school samples, these researchers found live video lessons to be more effective for student learning than prerecorded videos. They underscored the centrality of human connection and noted that the live teacher-student relationship promoted communication and instant feedback, enabling teachers to "truly assume the role as a mentor and a companion" (p. 523).

Within the US, approaches to the pandemic have differed widely across districts and states (Garet et al., 2020). Students in high poverty districts have been affected differently from those in low poverty districts, with regards to the distribution of learning materials; the availability of live teacher instructional support; and the exposure to new academic content, each of which has exacerbated educational inequities (Garet et al.). Middle grades education scholars have illuminated opportunities within the larger crisis, such as enhancing university-school-family partnerships (T. S. Hodges et al., 2020); building community partnerships (Burgess & Anderson, 2020); embracing a globally oriented curriculum (Yoon, 2020); and

elevating creativity and compassion (Eisenbach et al., 2020). They have also highlighted the importance of trauma-informed practice at this time (e.g., Crosby et al., 2020). Students themselves have also provided important insights during remote learning. Schaefer et al.'s (2020) collaborative autoethnography examined the experiences of adolescents learning at home due to COVID-19 and highlighted the importance of establishing “a rhythm that includes boundaries and rules,” particularly regarding teachers’ communication, expectations, and timing in relation to assignments. Overall, more research on teachers’ practices during significant school disruptions could help inform effective educational responses.

Pedagogy and Natural Disasters

While research on pandemic pedagogy is relatively scarce, literature on teachers’ responses during natural disasters is somewhat more plentiful. Preston (2012) noted that, “Whether human or anthropogenic in origin, the designation of ‘threat’ or ‘disaster’ implies a discontinuity with previous social relations (Clausen et al., 1978)” (p. 2). This social discontinuity, a condition so prevalent during the COVID-19 pandemic, suggests that pedagogical responses to natural disasters are also relevant to this study. The role of schools as community hubs for disaster response and as important sites for individual and collective social and emotional recovery is well established (e.g., Mutch, 2014). While teacher pedagogy has been less documented than school role, existing research reveals an emphasis on two practices: community-based service-learning, in which teachers and students responded to community needs brought on by disasters, and reflection, in which educators constructed narrative opportunities for learners who personally experienced disaster-related trauma to heal from such hardship.

Community-based service-learning integrates meaningful community service with instruction and reflection to enhance learning, promote civic engagement, and strengthen communities. It appears as an oft-implemented approach to responding to the needs brought on by disasters, although it appears to be more studied within higher education than in PK-12 settings. Baumgartner and Discher (2007) described their cross-institutional Post-Hurricane Katrina project as a co-created, contribution-based, pedagogy “in which the dynamic content fosters meaning, empathy, and, conceivably, agency” (p. 188). They found their wiki-based approach concentrated students’ engagement at the community

level and invited the examination of traditional power and knowledge relations as part of pedagogy (Baumgartner & Discher, 2007). O’Steen and Perry (2012) and Pawson (2016) also examined post-disaster pedagogy, applying case study methodology in this case to the community-based learning practices that were developed in response to Aotearoa New Zealand’s Canterbury earthquake sequence of 2010–2013. Pawson (2016) observed that new questions arise when “existing certainties are overturned and routines disrupted in situations of chronic or sudden change. Even teaching for some weeks in a tent after a major earthquake . . . forces re-consideration of pedagogic practices and the social relations of the classroom” (p. 15). Clear communication, student ownership and engagement, and management of stakeholder expectations emerged as key factors for success.

Narrative reflection also appears in the research literature as a post-disaster, pedagogical practice. Chansky (2019), for example, documented the use of auto/biography as a means for students to relive and resituate themselves after facing natural and/or national disasters. Reflecting on schooling after the 9/11 attacks on the World Trade Center in New York, and in the wake of Hurricane Maria in Puerto Rico, Chansky observed that such a strategy enabled her as a teacher “to create a self-reflexive space that had most likely been denied to the students up to this point due to our need to keep in constant motion simply to survive” (p. 5). O’Connor (2013) noted a similar effect when students were invited to narrativize their experiences after the Canterbury earthquakes. “One child remembered “it was really good how we had to write two pages about the earthquake, I was shaking because it was so sad to write about it. But it was still good to write about it”” (p. 429). In both studies, narrative reflection was found to be a powerful post-disaster practice.

Open-Air Schools, narrative reflection, and community-based learning are a few promising pedagogies that have been studied during and after significant school disruptions. Past studies such as these offer emergent guidance regarding how educators effectively manage teaching and learning during crisis events in general. However, the field remains relatively understudied and, as Sprang and Silman (2013) noted, “Because pandemic disasters are unique and do not include congregate sites for prolonged support and recovery, they require specific response strategies to ensure the behavioral health needs of children and families.” Additionally,

technology's rapid evolution renders societal and educational contexts different over time.

Overall, what Howard and Howard (2012) observed nearly a decade ago remains accurate and relatively unrealized today:

Pandemic preparedness and response at the national, provincial and local levels could benefit from ongoing research designed to better understand the experiences and function of classroom teachers to ensure that they, who play a vital role in the efficacy of pandemic response efforts, have the levels of support and education they require. (p. 32)

As educators respond to pandemic-related challenges, understanding what teaching practices are helpful in supporting students and their families can inform both current and future school planning. While the negative outcomes of the COVID-19 pandemic are increasingly well documented (e.g., Garet et al., 2020), considerably less is known about practices that have proved useful. Examining what aspects of middle grades teachers' practice improved or were strengthened during the context of ERT may provide insight into future educational response efforts. This understanding may also suggest approaches to retain during post-pandemic times. Accordingly, the purpose of this research was to identify possible improvements in middle grades teacher practice during ERT during the COVID-19 pandemic.

Methods

To examine how middle grades teachers' practice may have improved during ERT, I added an open-ended, qualitative prompt to an otherwise quantitative survey that had been previously scheduled to be administered at the conclusion of the school year to middle grades teachers. The quantitative survey was designed to capture teachers' personalized learning practices (Olofson et al., 2018). The added prompt invited teachers to identify an improvement to their teaching practice during remote instruction. Identified based on their involvement in school-university partnerships in northern New England, participants received a survey link within an emailed invitation that was forwarded to them by their principals, district administrators, or professional development coordinators.

Sample and Data Collection

All teachers in the study had been teaching remotely for a minimum of nine weeks prior to completing the survey; their schools had shifted to remote learning by March 20, 2020 and teachers completed the survey between May 26–July 2, 2020. Out of 352 total respondents, 337 responded to the following prompt: "Please describe an aspect of your teaching practice that has been strengthened since the shift to remote instruction."

Most of the sample self-identified as White and female, largely reflective of the region and the national teacher labor force (Hussar et al., 2020), with an average age of 45.8 years and average teaching experience of 16.25 years. All participants taught some configuration of grades five through eight. Twenty-five percent of the educators taught English language arts; 24% taught mathematics; 20% taught science; 19% taught social studies; 12% taught special education. The remainder taught various unified arts and exploratory classes. The teachers stemmed from 30 rural and suburban schools that reflected limited racial/ethnic diversity and considerable socioeconomic diversity, with Free and Reduced Lunch school percentages ranging from 8% – 83% (see Figure 1 in Appendix A).

Data Analysis

I began by reading through all responses to the open-ended prompt to ascertain if there was sufficient response to warrant further analysis. Determining that the vast majority of respondents completed the item, I then employed an open coding process, using an inductive approach to identify meaning units (Catanzaro, 1988), or individual units that contained insights that addressed the research question. Because the participants' responses were generally brief, I focused on manifest rather than latent analysis (Bengtsson, 2016; Catanzaro, 1988) and applied a basic code to each meaning unit, such as "family communication" or "technology use." After completing the first round of initial open coding, I tightened language from codes that were similar, in some instances merging codes for stronger alignment. I then examined patterns in the data and generated categories based on these patterns. This led to grouping codes into larger domains or categories. In many cases, initial codes became sub-codes of broader categories (e.g., grouping "family communication," "family collaboration," and "family needs" under the umbrella code of "family engagement"). After categorizing the data, I reviewed the coding to ensure the categories were both

internally consistent and externally divergent. Where I found overlap, I adjusted the framework. I then tested my emergent understandings by seeking out negative cases (Bengtsson, 2016). The penultimate stage of data analysis consisted of a collegial research consult in which a fellow qualitative researcher served as a critical friend (Kember et al., 1997; Stenhouse, 1975) to strengthen the trustworthiness of the findings by applying an outsider perspective to an audit of the data, coding scheme, negative cases, and categories. Finally, to illuminate possible implications of the study, I considered the main findings in relation to existing research on the identified practices.

Limitations

As with most studies, the design of this study is subject to limitations. While the nature of the research question was an appropriate match for qualitative methods, the findings cannot be generalized to other settings or circumstances. Given the numerous references to technology and online learning within the data, and the presence of only one reference to a student's lack of internet access, it is reasonable to infer that the majority of these respondents' students had some form of internet access, despite the rural nature of many of their communities. Teachers' experiences were likely influenced by this circumstance, as research has documented educational challenges related to the unreliability of Internet connections and lack of necessary electronic devices (Ferri et al., 2020). Moreover, teachers' experiences were also likely affected by the fact that the 30 schools in which they taught were predominantly White, representing little ethnic/racial diversity. The effects of the pandemic are well documented to affect Black, Indigenous, and People of the Global Majority (BIPOC) more negatively than their White counterparts, given the structural racism that routinely advantages White people and leads to cumulative and chronic inequities for BIPOC (Gamblin & King, 2020). Additionally, the study relied solely on a self-report measure; therefore, the findings could be subject to various shortcomings, including social desirability bias (Edwards, 1953).

Findings

Despite the challenging times, 332 (94% of survey completers) middle grades educators identified at least one aspect of their teaching practice as having improved during the ERT that began in mid-March, 2020 and lasted through late June, 2020. Ultimately, I identified six themes within the teachers' reported

improvements: 1) knowing their learners individually, 2) teaching to individual student needs, 3) adopting student-directed strategies, 4) assessing student learning, 5) partnering with families, and 6) using technology (see Figure 2 in Appendix B). In this section, I describe how teachers viewed their practices as improving in these six areas.

Knowing Learners Individually

Many teachers in this study reported meeting and working individually with their students to a greater extent than they had prior to the pandemic. Some respondents felt that this increase in individual meeting time enabled them to build stronger relationships with the young adolescents in their care. Comments such as "personal relationships with students have strengthened" and "I got to know individual students more and the life circumstances that they bring to the classroom" conveyed this within the data. One teacher explained:

Creating connections beyond the classroom by having weekly Google Meet check-ins with my students to see how they are doing, and talk about what the weekly expectations are, as well as talk about their concerns. I think having this weekly meeting time has helped strengthen my connections to my students, and also get to know them beyond the time we would spend together in the classroom . . . and it helped me to tailor assignments/projects to meet their needs better.

Some educators contrasted the one-on-one opportunities during remote instruction with the less equitable time and access that was common in their classrooms prior to the pandemic. For example, one respondent offered:

I feel like I have a better idea of where all of my students are socially and emotionally at this time. It seems odd, but having deliberate 15 minute check-ins with students over video was incredibly helpful. Where this would have occurred for specific units or assignments in the classroom, there was never an intentional time for every student to have a "check-in" in my classroom before remote learning. Before, some students received an exorbitant amount of "face time" and others had relatively little one on one time with me.

Along with increased time, some respondents felt that the content of what their students shared during the individual meetings was more substantive. The

confidentiality offered through one-on-one meetings appeared to afford the young adolescents a comfortable space for greater disclosure. As one teacher explained, “Due to the individual nature of online learning, students have been more open and vulnerable with sharing how they’re doing.” A few teachers noted that this enhanced sharing went both directions, as they also found themselves disclosing more personally. Another respondent wrote, “I am able to be more vulnerable with students and don’t have the distractions of the noisy classroom in the way of being able to make these connections.” Overall, the increase in individual meeting time, combined with greater privacy and focus, helped many teachers come to know their learners better.

Teaching to Individual Student Needs

Some teachers felt that this increased knowledge about and understanding of their students positioned them to respond more effectively to students’ individual needs. As a respondent described, “Because I was working 1:1 with students I was able to see what skills they needed in reading more clearly and focus my instruction accordingly.” Teachers used different terms to describe this improved instruction, including individualization, differentiation, and personalization. Some teachers noted that they now individualized for all students, rather than the few they had adapted for previously. For example, one respondent wrote, “I have really had to think about an individual plan for each student when assigning work, instead of thinking about the main lesson and how I could just tweak it for individual students.” Others relied more on differentiation, such as the teacher who explained, “One aspect that has been strengthened is my ability to create a learning task that is approachable by students of all levels and then further differentiate with students as they complete it.” Still others stressed aspects of personalization; for example, a teacher noted, “Realizing that I like remote teaching because I can highly personalize it to a student’s needs or interests.” In these ways, descriptions of individualization, differentiation and personalization appeared throughout the data.

A few respondents described this more customized instruction within the context of their particular teaching assignment or content area. One commented, “I am a reading intervention teacher, so the remote learning has allowed me to work one-on-one with students rather than small group, which has allowed me to cater the lessons directly to the students’ strengths and weaknesses.” A physical education

teacher wrote, “The students are getting different exercises/ activities during the stay at home order . . . a personalized workout plan.” And an English language arts teacher offered, “My ability to use individual reading and writing conferences have improved through this remote learning period.” Some teachers commented specifically on their improved connections with middle schoolers who receive special education services. For example, “I have been able to engage students with learning disabilities in a one-on-one format for extended periods of time, which has been very beneficial for them. It is a level of engagement that has not had many opportunities in a traditional classroom.” These changes in instructional approach did not appear to be specific to any particular discipline or student population. Again, the confidentiality afforded by an online environment was identified as a benefit. One respondent explained, “I found ways to differentiate for groups and individuals within Google Classroom and kids were unaware that they were getting modified work because when we are in school they know they are getting something different.” Another teacher’s depiction resonated in many of the responses, noting, “I have been able to be more attentive to the individual needs of students through the necessity of being on line.” Teachers also described how they attended to these individual needs by adopting student-directed strategies, which is explored in the following section.

Adopting Student-Directed Strategies

Teachers described an increase in their use of two particular student-directed strategies: enabling students to proceed at their own pace and empowering them to make more choices about their learning. Both are summarized succinctly in this educator’s response: “I have been able to give the students more opportunities to work at their own pace, on work that interests them.” Below I outline how pace and choice arose as important areas of improved teacher practice during ERT.

Pace. Several teachers identified enabling students to work at their own rate of speed as an improved practice. As one described, “I have allowed more students to move at their own pace and allowed them to submit work through different forms of technology.” Another explained, “I have been able to allow for more flexibility for students to work at their own pace.” Still another observed, “I have been able to create opportunities for students to easily extend

their math learning and push themselves to learn new topics on their own time.”

Teachers implemented specific strategies to enable this more personalized pace, such as using checklists and communicating assignment expectations farther in advance than pre-pandemic pedagogy. One offered, “Students have had the opportunity to move at their own pace through material with assignment checklists that are at least a week long and are flexible.” Some respondents observed that a newly adopted, week-long, orientation was particularly supportive for students, as in, “I think having a weekly schedule given to kids has allowed them to work at their own pace more than when we were in the classroom.” Teachers also described holding new perspectives on deadlines, such as, “Students working at their own pace. Deadlines are not static, kids were allowed to complete the work indefinitely.”

The sub-theme of confidentiality afforded through one-on-one meetings again emerged, this time within the discussion of pace. For example, some teachers attributed the success of a self-paced approach to a lack of peer awareness. One offered, “My students were able to work at a pace that met their needs without peer pressure and social woes. They consistently produced work they were proud of.” Another educator observed, “I have been able to cater to individual students better and to help them move at their own pace without having to worry where they are in relation to their peers.” Finally, some teachers articulated a desire to continue fostering self-paced progress in a post-pandemic context. One teacher explained, “I learned new ways (i.e., hyperdocs) to allow students to work at their own pace towards common goals and wish to bring this into the classroom.” Versions of wanting to “bring this practice into the classroom” appeared in numerous responses, as teachers articulated an interest in implementing this student-directed strategy upon their return to a physical classroom setting.

Choice. Offering students greater choice was a second student-directed strategy teachers identified adopting during ERT. Some noted this as a general observation, stating, “Providing more choices to student learning has been strengthened during this time” and “Providing students with variety and opportunities. More ways for them to pursue their learning and demonstrate their learning.” Others were more specific, such as the physical education teacher who explained,

The PE teachers in the district created a website together to load options for students. While choice is great, it’s not always an option in each lesson to allow for that. I like that all kids had choices to work on, as we went online and put lots of skill options to work on.

A science teacher similarly observed:

One shift that has been strengthened is allowing the students more control over what they choose to do and how they choose to show their learning. While still trying to do some form of science labs, I have asked students to use materials/provided options around the house that could be used to demonstrate principles. Some students have gotten creative, others have taken the option of looking it up online.

Some teachers connected the increased choice to greater student involvement, such as the one who noted, “The use of choice/menu boards for students has been strengthened. Giving the students choice, I had more involvement in my classes.” Finally, as was the case with individualized pace, several teachers expressed interest in carrying these practices forward into the physical classroom upon their return. One offered, “Creating menus of choices for activities for middle school—I would love to continue this when we return next school year. Always having multiple options of projects for students to do.” Another described, “As an art teacher, I had to give students much more choice about their remote learning projects than I had given them in the middle school art classroom. Though the results were very uneven, I don’t think the students who loved the freedom will allow me to go back:).” Overall, these teachers reported increasing student choice to be a helpful strategy during a challenging time.

Assessing Learning

The strengthening of assessment practices was another prominent theme in the data. Teachers in the study identified several approaches to assessment improved with their shift to remote instruction. They reported inviting and accepting a wider range of evidence to document learning. One teacher asserted, “I have more evidence of what each individual is able to do by using flipgrid, Nearpod, Seesaw, and Edpuzzle and at the same time have given more individual feedback.” This attention to increased feedback appeared as an emphasis in numerous responses, such as the one teacher who offered, “I have been better able to provide feedback to each of the students as to how

they are progressing on the learning proficiencies.” Another educator commented on providing “feedback to students on every single assignment to help them understand their strengths and weaknesses.”

Some teachers noted the range of modalities through which they were now offering feedback, such as in this response:

Since remote learning, I have really worked hard on focused, valuable feedback in order to provide students with very specific, targeted details about their strengths and challenges. I have spent COUNTLESS hours providing written, audio, video feedback in order to be as present for my kids as possible.”

Another offered, “Wide range of types of feedback delivery . . . I have created videos for students to give them feedback instead of writing something they may not read.” In these ways, respondents in this study reported an awareness of their assessment practices having improved during emergency remote teaching.

Several teachers attributed their stronger assessment practices to having more time to devote to the task. As one respondent explained, “I have been able to give more thoughtful feedback due to having more dedicated and structured time to complete that work.” Others were even more specific, attributing the opportunity to provide heightened feedback to the reduction in time spent on classroom management. Comments in the data that conveyed this idea included “Less classroom management/ other duties meant more time for thoughtful feedback” and “I feel my connections and feedback with students and to students was better because I could look individually at their work while not trying to manage the other 20 students.”

Respondents emphasized formative assessment, in particular, as they acknowledged its important role in informing instruction. One teacher described:

Remote instruction has given me the opportunity to be more thoughtful in my planning for lessons. I have had more time available to utilize/analyze data to inform my next lessons. I have had more opportunity to keep thoughtful notes and reflections on what students are learning.

Another stated, “I have been able to spend more time working on providing detailed, meaningful feedback to students and providing students with opportunities to immediately use that feedback to improve.” In many

ways, these teachers felt their ability to provide useful feedback in a timely way improved during ERT.

The provision of student choice and enhanced clarity of learning targets were additional areas of importance in the assessment findings. Teachers described offering a wider range of options for how students could demonstrate their learning. One teacher created a “variety of end-of-unit assessments—lots and lots of choice and a modified version that was available to everyone. Some students chose to push themselves to do high-quality projects, others would do the basic 4 question doc to show their learning.” Another attributed the increased choice to a more thorough understanding of the learning targets, acknowledging, “I am much clearer in my learning targets so as to allow multiple ways for students to demonstrate mastery.”

Relatedly, this enhanced clarity was part of a larger trend attributing improved feedback as to a more acute sense of learning objectives, competencies or proficiencies. One teacher offered, “I have been better able to provide feedback to each of the students as to how they are progressing on the learning proficiencies.” Another elaborated, “I think we have done a much better job providing meaningful, actionable feedback to students and clearly articulating where they are in their progression of learning for specific targets.” One educator observed, “I think I have gotten much more focused on what proficiency means and does not mean.” Still another reflected, “I feel more educated in the language of proficiencies and how they can be used to support deeper student learning.” In these cases, clarifying the focus of learning objectives helped these teachers strengthen their assessment practices.

Finally, as with several other improvements, some teachers reflected upon the value of their improved assessment practices for longer term implementation. One teacher summarized, “I hope to develop systems that will make this more manageable when we return to the classroom.” Several expressed the desire to continue the ongoing feedback and enhanced choice in assessment tasks upon the return to physical classroom setting.

Engaging Families

Educators identified family engagement as another aspect of improved practice during ERT. Numerous teachers identified knowing families better than they did prior to the pandemic, as evident in this response:

“Another aspect that has strengthened is my connections to students and their families. We know each other even more now.” Teachers also spoke of family engagement in terms of familial needs,

recognizing the potential for family circumstances to have shifted during the pandemic and expressing an increased commitment “to be more conscientious of families’ needs during this time.” This strengthened family engagement took several forms within the data, from enhanced communication to increased collaboration.

For many teachers, taking families’ needs into account was accomplished by enhancing communication, making it both more regular and more frequent. One teacher described focusing on “more communication with families and how to best not only meet the needs of the student, but the family as a whole. How to incorporate live and recorded teaching to meet the needs of various families.” Others made similar references, such as, “One of the aspects of my teaching practice that has strengthened since the shift to remote instruction is the communication between myself and the families. It happens on a much more frequent basis.” Another educator described, “The communication that I have had with families has improved. It is more regular, and really seeks to include them in their child’s education.”

In addition to communication, respondents also highlighted an increase in collaboration between themselves and families. One teacher illuminated a focus on inviting parental input, offering, “Even more than I did before, I have been reaching out to parents to see how things are going from their perspective.” Another explained, “My partnerships with families have strengthened. I have far more communications with home and see caring adults as partners in learning.” Yet another observed, “I found myself creating stronger bonds with families as we shifted instruction to the home. We became more of a team than we had been during in person instruction.” Using terms like “partners” and describing their new emphasis on “including families as part of the learning team,” numerous teachers identified family collaboration as an improvement in their teaching practice.

Some teachers also described how parents and guardians were being placed increasingly in a teaching role. These respondents emphasized the importance of building “relationships with parents, understanding in-depth their struggles to attempt to be ‘teachers’ to their children.” Some noted sharing specific resources, such as, “There were moments (like after the murder of George Floyd) where I sent resources home for families to explore together—this was the first time

I had considered sending my resources to everyone in the home.” One teacher summarized, “Collaboration with families, and the ability to ‘circle the wagons’ and provide a unified front for children is one huge thing that has changed for the better for me as a teacher.” In this way, educators in the study supported family members who found themselves suddenly adopting a teaching role.

Employing Technology

The most pervasive—and perhaps least surprising—theme of improved teacher practices was technology use. That teachers identified their technology skills as improving was to be expected, given the context of remote learning during COVID-19. As one respondent pointed out, “I have had to learn how to do a lot of technology-related things that I was unable to do and in some cases unaware even existed before we had to start remote learning.” Another related, “The shift to remote learning forced me to become more confident with the use of technology.” While this technology-related finding was largely anticipated, teachers’ responses nevertheless illuminated several important practices in this area, particularly as they were leveraged to achieve the practices outlined earlier in the findings.

First, teachers reported improvements in the use of specific applications for a wide range of instructional and assessment purposes. For example, one identified “using technology to develop and deliver research based reading intervention.” Another highlighted the “use of NEO—using the ‘discussion’ assignment feature has been a great way to have students ‘discuss’ a topic at the beginning of a lesson.” Similarly, some teachers connected their use of video and screencasting tools to increased effectiveness of communication, such as noting improvements in “using Screencastify etc. to provide explanations to kids” and becoming “much more fluent at creating my own videos for students and hosting video meetings with students and colleagues.” Another candidly reflected on the shift in personal biases related to technology and communication, divulging:

Frankly, before the remote learning, I deliberately was avoiding using “too much” technology in my classroom just because of the fear of “overusing” it. To reach proficiency EL students need to develop strong communication skills and technology could potentially obstruct it. However, this was my own bias that I realized was not always true. I have learned that if you use technology in a right way it could actually enhance communication with EL

students. This was my big “A-ha” moment during the distance learning.

In addition to instructional usage, some teachers observed that their enhanced technology skills affected their assessment and evaluation practices. One mentioned, “I have started using technology more . . . to track student progress (Seesaw).” Several described how technology expanded their assessment repertoire, such as, “I learned how to use Google Forms to create assessments” and “I have taken the opportunity to learn a couple of new programs to allow students to communicate evidence of their learning (ie flipgrid).” In each of these examples, teachers conveyed the important role technology played during ERT, while echoing the earlier emphasis on improved instruction and assessment practices.

Finally, as with several other findings, teachers’ responses indicated their hopes and plans to continue these practices upon returning to the physical classroom. One identified, “The use of technology and implementing google classroom. I plan to use it when we are back in the building next fall.” Another elaborated,

I have become more proficient and fluent with creating work online, meaning remote-learning menus, over-views, padlets, castify videos, etc. I feel like this will be something that will make my classroom more fluid next year, and that they are bit of technology to incorporate into school-based learning as well as remote learning.

Not surprisingly, the theme of improved educational technology integration cut across many of the other themes in the study. The context of emergency remote teaching required teachers to rapidly acquire skills that they then leveraged to customize and assess learning and to engage students and their families.

Outliers

Not all respondents identified an aspect of their practice as having improved. Of the 352 teachers who completed the questionnaire, 15 did not respond to the open-ended item. This could have been due to many factors, such as survey fatigue or disinterest, or it may have been that they could not identify an aspect to report. Five of the remaining 337 responses expressed negative impact. One likened remote schooling to “busy work,” commenting, “I doubt if I have strengthened any part of my teaching. It was more trying to get something to the students to do.” Another noted the shortcomings of poor internet access, observing, “Zoom and Google Hangout have

been frustrating as more than half of my students have poor internet.” One teacher commented that remote schooling kept students from receiving extra support, and another wrote simply, “Are you kidding me?” Finally, one response detailed how personal circumstances detracted from teaching effectiveness:

I do not think this shift has strengthened my teaching at all. I was not able to provide the amount of instruction and attention to my students as usual. I have three young children at home, ages 8, 6 and 2. Their own online learning needs, as well as daily activities, are far from independent. I could not devote time to my teaching as I am able to when they are in school or daycare.

During the analysis, I was surprised not to find more responses like the one from the teacher with three young children at home, given the considerable challenges and associated educational inequities of the COVID-19 pandemic (Garet et al., 2020). The fact that most middle grades teachers in this study identified at least one improvement in their practice does not diminish the grave realities faced by teachers, students, and families. It does, however, suggest potential leverage points for educators and policymakers who seek to create more supportive and equitable schooling conditions.

Discussion and Implications

Prior research has indicated that disruption can also be an avenue for growth (Bertling et al., 2020; Davies, 2011; Gilbert, 2003). The COVID-19 pandemic has caused significant disruption, exacerbating educational inequities for many students across the United States (Hamilton et al., 2020). Faculty providing ERT during sudden school closures have been characterized as “instructional MacGyvers, having to improvise quick solutions in less-than-ideal circumstances” (C. Hodges et al., 2020, p. 2). Students in high poverty and rural districts have experienced less access to live teacher instructional support and less exposure to new academic content (Garet et al., 2020), and students from lower-income households often live in conditions that make home schooling difficult (Van Lancker & Parolin, 2020). Indeed, many scholars agree that ERT falls far short of the kind of high-quality, online experience that results from careful instructional design and planning (Branch & Dousay, 2015). During these harsh realities of pandemic teaching and learning, might ERT during the COVID-19 pandemic served in any way as

a “disruption for good” (Arrillaga-Andreessen, 2015)? Within this challenging context, the research described here points to ways in which middle grades educators continued to develop and grow professionally in response to the shift to ERT.

The Efficacy of Teachers’ Identified Practices

After at least nine weeks of employing ERT, teachers in this study identified several ways in which their teaching practices were strengthened during pandemic conditions: 1) knowing their learners individually, 2) teaching to individual student needs, 3) adopting student-directed strategies, 4) assessing student learning, 5) partnering with families, and 6) using technology. All six strengthened practices are supported by national recommendations and educational research on promoting equitable and positive outcomes for young adolescents.

First, teachers’ knowing learners individually promotes students’ sense of school belonging, which has been linked to higher academic achievement, student motivation, and engagement (Korpershoek et al., 2020). Building a full understanding of individual students also is crucial for employing culturally responsive or sustaining pedagogy (Gay, 2018; Paris & Alim, 2017). Second, teaching to individual student needs is similarly well supported by research, with studies showing positive relationships between individualized instruction and academic achievement, knowledge application and problem-solving ability (Alexandre & Enslin, 2017). Third, student choice has been found to promote motivation, engagement, and learning across a variety of subject areas and student populations (Boatright & Allman, 2018; Evans & Boucher, 2015), with the Association for Middle Level Education calling for young adolescents to “have ongoing and meaningful input into what and how they learn” (Bishop & Harrison, 2021, p. 39). Fourth, research on formative assessment is similarly positive, demonstrating improved outcomes for students (Bennett, 2011; Dini et al., 2020). Fifth, family engagement in education, a key factor influencing young adolescents’ outcomes, has been predictive of academic performance over time (Hill & Tyson, 2009; M. T. Wang et al., 2014). Finally, strategic use of educational technology in the middle grades can further enhance many these practices (e.g., Bishop & Downes, 2013; Downes & Bishop, 2015; Spires et al., 2012; Storz & Hoffman, 2013).

That teachers in this study felt they strengthened these key practices, especially within pandemic conditions, offers potential implications for educational improvement in general, and for

addressing inequities in particular. In reference to the COVID-19 pandemic, the National Academies of Sciences, Engineering and Medicine’s Committee on Guidance for K-12 Education on Responding to COVID-19 cautioned, “Without careful attention to equity and inequity, (schools) run a very real risk of exacerbating the existing inequities in ways that could have serious long-term, detrimental consequences for students, families, and communities” (Bond et al., 2020, p. 30). This study points to potential areas of leverage for addressing such disparities and invites consideration of the conditions that enabled these practices.

The Role of the Asynchronous Schedule

One condition appears to have been particularly instrumental for these respondents: access to an (at-least -partially) asynchronous schedule. Many of the strengthened practices were contingent upon a teacher’s capacity to meet individually with learners. Teachers came to know their students better and to provide instruction aligned with their particular needs through the affordance of one-on-one meetings. The one-on-one meeting enabled greater focus for the teacher, who was not simultaneously managing the learning and behavior of a classroom of students. And it offered greater privacy for the students, many of whom could be vulnerable to social pressure and judgment during early adolescence (Williams et al., 2019). In particular, teachers noted their improved work with students with special needs, who are especially prone to regression when services are eliminated, reduced, or modified (Frederick et al., 2020). These individual meetings, and their accrued benefits, were facilitated by the asynchronous schedule.

According to respondents, the asynchronous schedule also contributed to deeper collaboration with families. Teachers had time during the school day to reach out to families, time that typically would have been devoted to whole class instruction. While family engagement has long been understood as critical to positive student outcomes (T. E. Smith et al., 2019; Mo & Singh, 2008), involving caring adults in the education of learners continues to be a source of struggle for many communities (Fenton et al., 2017; Hornby & Lafaele, 2011; Wassell et al., 2017). For teachers and parents of young adolescents, this can be a particular challenge, as family involvement tends to decline through middle school (Hill & Tyson, 2009). Yet understanding family contexts are crucial to culturally responsive teaching (Gay, 2018) and successful middle schools promote home-school partnerships (Bishop & Harrison, 2021). That middle grades teachers in this study articulated

improved practices in family engagement suggests another important area of future research. Understanding more about how to support families, both during and beyond a pandemic, could help to address existing and future disparities. Although this study was not designed to identify mechanisms leading to enhanced family engagement, further research into how this was manifested, as well as how families themselves perceived it, could be beneficial.

The asynchronous schedule is not a panacea, however. For example, while teachers reported their relationships with students were enhanced, there was no mention in the data of strengthening the overall learning community. The increased asynchronous time afforded some teachers more opportunities to connect personally with students; however, it also may have resulted in fewer student-to-student interactions. A reduction in peer-to-peer opportunities could present its own challenges, as peer relationships impact students' adjustment in school (Kiefer et al., 2014) and can run counter to the social and emotional needs of many young adolescents (Williams et al., 2019). Future research should examine how educators might achieve possible benefits of greater one-on-one time with students while maintaining or even strengthening peer-to-peer relationships and the classroom community overall.

Moreover, even teachers whose schedules did feature asynchronous time may have been unable to use it for promoting student and family relationships. Many teachers were balancing work expectations with family needs for child or elder care, for example. While it would be inappropriate to associate increased one-on-one time directly with asynchronous schedules based on this study, future research into how various schedules and instructional modalities may or may not influence practices such as relationship development, individualized instruction, and family collaboration, particularly in relation to possible differential effects on rural and urban, sufficiently-resourced and under-resourced schools, could help inform middle school scheduling policies in future times of prolonged school closures. This study invites middle grades educators, administrators, and policy makers to examine scheduling norms and reimagine how schedules might maximize positive student development, both during school closures as well as in non-crisis times.

Conclusion

Research on isolation and extended school closures has documented the need for teachers to be less focused on outcomes and more focused on

a “pedagogy of love and care” (O’Connor, 2013, p. 289). At the same time, research suggests the negative impacts of the pandemic will be experienced disproportionately by the most vulnerable and marginalized students, thus further exacerbating existing disparities within the education system (UNESCO, n.d.). Finding structural conditions—such as scheduling—that touch *all* student populations and hold promise to strengthen teacher-student relationships, facilitate individualized instruction, and deepen family collaboration is paramount.

After the tuberculosis pandemic of 1908 gave rise to the Open-Air Schools movement, researchers Kingsley and Dressler (1916) concluded that learning opportunities and environments should be based on a deep understanding of the individual child’s needs and capacities. This conclusion resonates powerfully over a century later. The middle grades educators in this study responded to challenging instructional circumstances by increasing their knowledge of individual learners and applying that information to promote learning. Some wrote of knowing their students better, and of using that knowledge to respond more effectively to students’ learning needs. Others described customizing learning more often, by enabling greater access to choice and self-paced learning. Some named their assessment practices as an area of improvement and still others highlighted enhanced relationships and collaboration with families.

That these teachers did so amidst great stress and uncertainty is noteworthy. Teaching long has been identified as one of the most stressful and taxing professions (Johnson et al., 2005) and the shift to ERT added a multitude of new stressors to that context (MacIntyre et al., 2020). Yet, research also points to potential psychological benefits for those who reflect on positive outcomes during an otherwise challenging time (Jarnebrant et al., 2009). In addition to providing potential leverage points for educators and policy makers, this study’s findings may reinforce to teachers that, even during a crisis, their actions can give birth to relationships that are deeper, learning that is more personal, and families that are more connected.

Disclosure statement

I have no conflicts to disclose.

Funding

This research was reviewed and fully approved by the University of Vermont’s Institutional Research Board and Human Subjects Committee, Study # B07-139.

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Appendix A

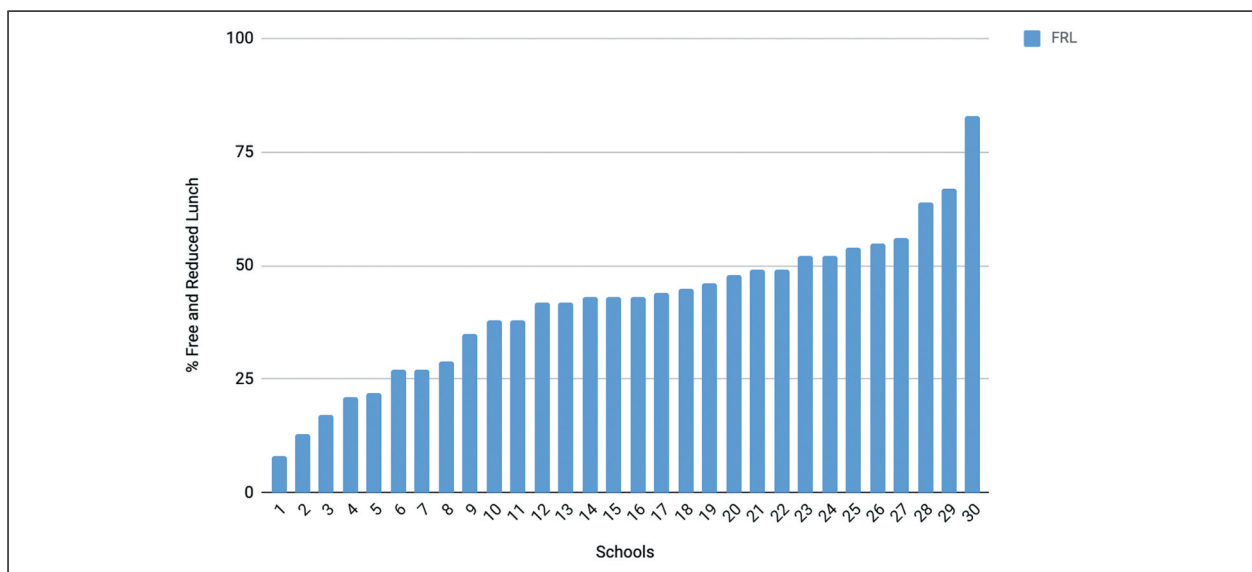


Figure 1. Range of % of students eligible for FRL at participants' schools

Appendix B

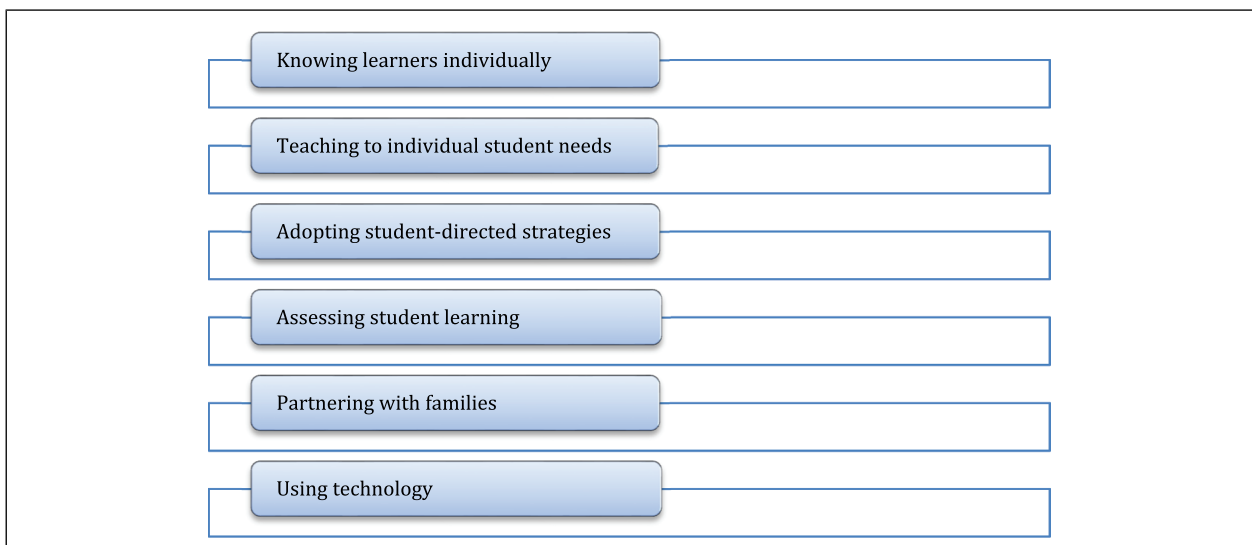


Figure 2. Summary of teachers' strengthened practices