TIER 2 AND 3 VIRTUAL LEARNING

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INTRODUCTION

The multi-tiered system of supports (MTSS) presents a framework for supporting students with varying academic and behavioral needs. Students receive either academic and behavioral support through Response to Intervention (RTI) or behavioral supports through Positive Behavioral Interventions and Supports (PBIS).¹ Both approaches include five key components:²

- Universal screening of all students early in the school year;
- Tiers of intervention that can be amplified in response to levels of need;
- Ongoing data collection and continual assessment;
- Schoolwide approach to expectations and supports; and
- Parent involvement.

As indicated in the second bullet point, MTSS, whether RTI or PBIS, outlines tiers of support that align with student needs: Tier 1, Tier 2, and Tier 3. These tiers and summative descriptions appear in Figure ES 1.



Source: PBIS Rewards³

During a time of virtual learning, Tier 2 and Tier 3 students, general education students needing greater support, and students identified as English language learners (ELs) and economically disadvantaged, may need more tailored and intensive instruction. To support partner districts transitioning to virtual learning as a result of the COVID-19 pandemic, Hanover Research (Hanover) presents the following report, which identifies best practices for students who need Tier 2 and Tier 3 instruction in Grades PK-8. Given the speed at which virtual learning and remote services continue to evolve during the COVID-19 pandemic, secondary research is limited regarding *virtual* MTSS elements and necessary teaching skills. Therefore, the following report incorporates MTSS components, virtual learning strategies, and virtual learning elements that align with supporting struggling students where possible. To do so, this report includes three sections:

¹[1] "What Is RTI?" RTI Action Network. http://www.rtinetwork.org/learn/what/whatisrti[2] "What Is PBIS?" PBIS Rewards. https://www.pbisrewards.com/blog/what-is-pbis/

² Bulleted text reproduced verbatim from: "What Is MTSS?" PBIS Rewards. https://www.pbisrewards.com/blog/what-is-mtss/

³ Figure text reproduced verbatim with modifications from: Ibid.

- Section I: Providing Virtual Academic Support presents effective strategies for supporting Tier 2 and Tier 3 students with academic needs and strategies that teachers can use when facilitating virtual learning. This section also includes academic accommodations for students with targeted needs while learning outside of a classroom;
- Section II: Providing Virtual Behavioral Support presents effective strategies for supporting Tier 2 and Tier 3 students with behavioral needs and strategies that teachers can use when facilitating virtual services. Additionally, this section highlights the importance of and strategies for engaging students, setting expectations, and ensuring students receive behavioral and counseling services; and
- Section III: Exploring Teacher Resources and Skills presents key resources and skills that teachers may draw upon to enhance their support of students with targeted needs. These resources and skills include professional development and communication strategies.

KEY FINDINGS

- Elements of in-school Tier 2 and Tier 3 MTSS appear to transfer to virtual learning, though the tools that teachers use to implement interventions differ. For example, traditional Tier 2 supports often use small-group instruction to provide increased monitoring and feedback. Such small groups still meet during virtual learning, but students interact through virtual conferences and online breakout rooms. These groups continue to interact and receive support through discussion groups, guided design, role-playing, and games. Additionally, students at Tier 3 continue to receive specialized services and counseling, but again, services, such as telepsychological counseling, take place remotely through virtual conferencing.
- Communication presents a key element of MTSS support during virtual learning as students, parents, and teachers learn new approaches to instruction and lose in-person connections. Because many people within school communities do not have experience with virtual learning, teachers and districts should consider creating communication plans. These plans clarify how parents stay informed about their child's education and services. These plans may also describe how teachers stay informed about school processes and maintain collaboration. Additionally, communication supports students, particularly ELs, who may feel increasingly disconnected from teachers and peers during virtual learning.
- Communication between teachers and students may take place synchronously or asynchronously. Synchronous communication occurs when teachers and students converse or interact at the same time. This form of communication allows students to receive services in their home environment, has few infrastructure requirements, and incurs few equipment and connection costs. However, synchronous communication also demonstrates potential disadvantages, such as privacy, security, and confidentiality risks; little infrastructure; ongoing costs; poor sound or image quality; and technology problems. Alternatively, teachers and students may use asynchronous communication—when teachers and students respond to one another at different times.
 - Virtual learning may strongly impact student behavior as students cope with environmental, technological, and social changes, but teachers should continue to set clear expectations and use positive reinforcements. Changes in behavior may relate to levels of engagement, time-on-learning, input during group discussions, technology use, and task completion. To support changes in behavior, teachers can promote clear expectations through virtual behavior matrices, use positive reinforcements, implement a points or rewards system, or integrate a similar intervention strategy.



Professional development sessions and mentoring programs strongly support virtual MTSS delivery, and districts should consider offering these opportunities to all teachers, regardless of whether they have experience with virtual learning. Professional development sessions should incorporate five main components: active learning, coherence, collective participation, content focus, and duration. Furthermore, mentoring programs may promote new teaching skills and resources to support virtual instruction and services. Implementing a new mentorship program also allows districts to observe initial outcomes and use results to inform future programs.

SECTION I: PROVIDING VIRTUAL ACADEMIC SUPPORT

In this section, Hanover presents effective strategies for supporting Tier 2 and Tier 3 students with academic needs and strategies that teachers can use when facilitating virtual learning. This section also includes academic accommodations for students with targeted needs while learning outside of a classroom.

TIER 2 SUPPORTS

Tier 2 supports within the MTSS framework can take place virtually to reach the same goals as in-class interventions, which often use small group instruction (i.e., three to five students) and attend to student engagement. These goals include:⁴

- Remediating skills deficits;
- Pre-teaching and reviewing skills for Tier 1 lessons;
- Providing multiple opportunities to practice; and
- Providing immediate corrective feedback.

As education and interventions move to virtual formats, immediately transferring in-person levels of support to online support may not be possible. Notably, a recent publication by the authors from the University of Minnesota and the Minnesota Foundation indicates that districts should modify learning and development expectations because of the rapid shift to virtual learning and associated changes. Additionally, the authors recommend that districts:⁵

- Maintain research-based curricula and intervention materials for target populations (including all subgroups); and
- Provide training and support to staff responsible for delivering instruction.

During virtual Tier 2 interventions and as stated in the third goal above, **teachers may rely on a variety of methods that allow students to practice skills and demonstrate learning**. Tests and quizzes present a common strategy for having students demonstrate learning and engage with certain content. According to one education writer and former teacher, quizzes through Google Forms provide opportunities for practice with instant feedback and avoid time-consuming hand grading.⁶ However, not all students perform well on tests, and certain students may benefit from other activities and practice options.⁷ Figure 1.1 presents specific virtual options for practicing concepts and engaging with difficult content, as suggested by teachers on social media. An education blog, Cult of Pedagogy, compiles these options into the categories below but notes that **teachers must choose activities that align with instructional goals**.⁸

⁴ Bulleted text reproduced nearly verbatim from: "Effective Instruction at Tier 2." IRIS Center Peabody College Vanderbilt University. https://iris.peabody.vanderbilt.edu/module/rti03/cresource/q4/p11/

⁵ Bulleted text reproduced verbatim from: Alexander, N. et al. "Implementing Principles of Reimagine Minnesota in a Period of Remote Teaching and Learning: A Response to COVID-19." University of Minnesota, April 2020. p. 3.

https://conservancy.umn.edu/bitstream/handle/11299/212407/Reimagine-COVID19-Response.pdf?sequence=1

⁶ Gustafson, J. "The Distance-Learning Era: Translating and Adapting Effective Principles of Instruction." Jon Gustafson, April 9, 2020. https://mrgmpls.wordpress.com/2020/03/21/the-distance-learning-era-translating-and-adapting-effective-principles-ofinstruction/

⁷ Gonzalez, J. "Distance Learning: A Gently Curated Collection of Resources for Teachers." Cult of Pedagogy, March 30, 2020. https://www.cultofpedagogy.com/distance-learning/

⁸ Ibid.

OPTION	DESCRIPTION
⊡ Book	Students create a children's book, mini-textbook, handbook, comic, or other kind of book. These can be on paper or created with apps like Book Creator.
Google Tour	Using Google Tour Builder, students can create customized tours that combine photos, text, and targeted locations on Google Earth. These could be used to create tours that explore current events, historical periods or phenomena, science or geography topics, global research topics, students' personal histories or future plans, or completely fictionalized stories that take place in various locations around the world.
Infographic	On paper or using a tool like Piktochart, have students create an infographic to represent or teach an idea or set of data.
Lesson	Have students write their own lesson. Provide them with the basic structure of a lesson to follow, including objectives, direct instruction, guided practice, and an of assessment to measure their success.
Model	Students can create a physical model representing an aspect of your curriculum, then photograph it from various angles or create a video tour of the model with their own narration.
Museum or Multimedia Collection	Have students curate a collection of artifacts representing a curricular concept, along with their own written captions, in a Google Slides presentation.
((ार्षे क्रि.)) Podcast	Have students use recording tools or an app like Anchor to record a podcast where they express an opinion, tell a story, or teach about a content-related topic. If students have a lot of material, they can break their podcast into multiple episodes and do a series instead.
C Scavenger Hunt	Have students participate in a content-based scavenger hunt and take photos to record their findings. Students may enjoy this activity through an app like GooseChase.
Sketchnote	Have students create a sketchnote to represent a content-related topic using paper or with a drawing app like Sketchpad.
<mark>⊗.⊗</mark> . Video	Students can create their own videos as creative, informative, persuasive, or reflective pieces. These can be public service announcements, commercials, mini-documentaries, instructional videos, short feature films or animations, or TED-style talks. Tools for creating these can range from quick response platforms like Flipgrid, to screencasting tools, a tool that creates stop motion videos like Stop Motion Studio, or simple online video creators like Adobe Spark.
Website Source: Cult of Pedagoes	Using tools like Weebly, Wix, or Google Sites, have students develop a website to document a long-term project or teach about a particular idea.

Figure 1.1: Opportunities for Practicing Skills and Demonstrating Learning

⁹ Figure text reproduced nearly verbatim from: Ibid.

SMALL-GROUP INSTRUCTION

Tier 2 interventions often use small group instruction to support a select group of students with similar needs both in classrooms and during virtual learning. Certain virtual learning platforms, such as Zoom, support small group instruction as groups can work synchronously under teacher observation.¹⁰ Step-by-step instructions on how to set up breakout rooms through Zoom are available on the platform's website, <u>here</u>.¹¹ Additionally, teachers can respond to a small group's questions directly without addressing an entire class, as they could in classroom-based small groups.¹² These virtual small groups can incorporate a variety of activities with various levels of teacher engagement, including four approaches identified by the University of Illinois Springfield, as shown in Figure 1.2.

ACTIVITY	DESCRIPTION
Discussion groups	Learners reflect on a subject under discussion and present their views. Discussion within the small group may vary from low, to very high levels of intellectual discourse.
Guided design	Participants work to solve open-ended problems which require outside class work to gather information. This format encourages learners to think logically, communicate ideas, and apply steps in a decision-making process. Learners must apply what they have learned, exchange ideas, and reflect on suggested solutions. The instructor's role is to act as a consultant to the groups.
Role playing	Participants recreate a situation relating to a real-world problem. This promotes understanding other people's positions and attitudes, as well as the procedures useful for diagnosing and solving problems. Role playing can be used to simulate real-life group work situations and can help learners gain an understanding of a problem or situation.
Games	Two or more groups compete to meet a set of objectives. The game follows rules and procedures. The instructor provides information that requires decision-making. Most instructional games reflect typical real-life situations. The rules, procedures, and objectives of the game must be clear and concise.

Figure 1.2: Small Group Activities for Virtual Learning

Source: University of Illinois Springfield¹³

Furthermore, the education nonprofit Center for the Collaborative Classroom provides best practices for teaching reading through virtual small groups, as shown in Figure 1.3.¹⁴ Although the Center for the Collaborative Classroom presents these best practices for a specific reading program, teachers can adapt these practices for other programs and curricula as well.

Figure 1.3: Best Practices for Small Group Reading Instruction



Use a "gallery view" so that you are able to see all your students at once as you would sitting at a small-group table.



Teach (reteach) your students how to engage in the lesson in the new virtual setting. Students may not transfer the in-person procedures they know to the new environment. For example, you may need to reteach the visual cues that are essential for ensuring choral responses.

¹⁰ "Enabling Breakout Rooms." Zoom Help Center. https://support.zoom.us/hc/en-us/articles/206476093-Enabling-breakout-rooms
¹¹ Ibid.

¹² "Instructional Strategies for Online Courses." University of Illinois Springfield.

https://www.uis.edu/ion/resources/tutorials/pedagogy/instructional-strategies-for-online-courses/

¹³ Figure text reproduced verbatim from: Ibid.

¹⁴ Fugnitto, G. and A. Kohn. "Best Practices for Teaching Being a Reader Small-Group Reading Sets 1-5 Remotely." Center for the Collaborative Classroom, March 27, 2020. https://www.collaborativeclassroom.org/blog/best-practices-for-teaching-being-areader-small-group-reading-sets-1-5-remotely/

Spend instructional time reviewing known skills, practicing reading words as a group, and engaging in lots and lots of individual reading and rereading. Select snippets of instruction and use the instructional cues to support students' review of: Phonological Awareness; Spelling-Sounds; Decodable Words/Reading a Mixed List; High-Frequency Words; Guided Spelling; and Text reading. Tip: Be sure to include the Reteaching Books from previous sets. Consider how to provide corrective feedback in an authentic way. Tip: Know that you might not "catch" every student move or error as you would sitting at a small-group table. Consider how you will gather Group Progress Assessment data. Reflect on the data and determine the implications to planning and instruction. Set up 1:1 sessions with students 2-3 times per week. These sessions will give you an opportunity to connect with the student by listening to them read, conferring about their reading, and providing any support necessary. Tip: These 1:1 sessions are going to be your verification of instruction. Set-up 1:1 sessions with students to administer Mastery Tests as necessary. Tip: These 1:1 sessions will provide you Mastery Test data, whereas the 1:1 sessions in which you listen to the students read and confer

Source: Center for the Collaborative Classroom¹⁵

TIER 3 SUPPORTS

Tier 3 intervention strongly depends on individual student needs and requires tailored supports but should communicate similar, positive messages to all students receiving Tier 3 supports. Unlike Tier 2 goals which group students together according to needs, Tier 3 goals reflect specific student trajectories and may not align with grade-level standards. Additionally, Tier 3 interventions change based on progress monitoring and include more intensive instructional sessions (e.g., longer sessions, more frequent sessions).¹⁶ However, despite these individualized supports, students needing Tier 3 interventions should receive additional positive reinforcement. Teachers should consider sending the following four messages during virtual learning:¹⁷

with them will provide comprehensive information about mastery and application.

- You Are Important;
- What We are Learning Is Important;
- We Will Not Give Up on You; and
- You CAN Do It.

Teachers can use a variety of strategies to ensure that struggling students and their families receive these messages during virtual learning, despite potential barriers to technology or a lack of familiarity with virtual resources.¹⁸ Figure 1.4 presents a selection of potential strategies.

¹⁷ Bulleted text reproduced verbatim from: Ferlazzo, Op. cit.

¹⁵ Figure text reproduced verbatim with emphasis added from: Ibid.

¹⁶[1] "Effective Instruction at Tier 3." IRIS Center Peabody College Vanderbilt University.

https://iris.peabody.vanderbilt.edu/module/rti03/cresource/q4/p12/#content [2] Ferlazzo, L. "Strategies to Support Some of Our Most Vulnerable Students Through Distance Learning." Education Week, April 12, 2020.

http://blogs.edweek.org/teachers/classroom_qa_with_larry_ferlazzo/2020/04/strategies_to_support_some_of_our_most_vulnerab le_students_through_distance_learning.html?cmp=SOC-SHR-FB

¹⁸ Ibid.

YOU ARE IMPORTANT	WHAT WE ARE LEARNING IS Important	WE WILL NOT GIVE UP ON You	YOU CAN DO IT
 Reach out to these families regularly Use communication apps like Talking Points or Remind Gather ideas from Immigrants and Refugees and Schools Conduct a book drive and distribution 	 Be explicit about why the work is important Get training in the basics of balanced literacy to be able to infuse reading and writing support in virtual lessons Get training in the basics of second-language acquisition and techniques for 	 Check in regularly and continue to offer ideas for reading and writing Remind students to read as much as possible (in any language) Remind/show students that YouTube videos can be slowed down, include closed captions in different 	 Show students their progress often Create a video to show students how to use Chrome extensions for text-to-speech, voice-typing, etc. Make sure students understand growth
uistribution	working with ELs	languages, etc.	mindset

Figure 1.4: Strategies for Sending Supportive Messages to Vulnerable Students and Families

Source: Education Week and Immigrant Connections¹⁹

COMMUNICATION

Communication between teachers and students and receiving prompt, corrective feedback remain important during virtual learning. Teachers often use video conferencing to communicate and meet with students, though other approaches include discussion boards or backchannel discussions (e.g., a chat room).²⁰ This communication may be asynchronous (i.e., the teacher and student respond at different times) or synchronous (i.e., the teacher and student converse at the same time). A 2016 literature review of synchronous and asynchronous online communication indicates that "instructors must examine course content, learner motivation and needs, and learning outcomes before deciding on the types of interaction to be woven into course work."²¹ Teachers may use a mix of *synchronous* and *asynchronous* communication for supporting special education students and should consider the advantages, disadvantages, and applications of both methods. For example, the Oklahoma State Department of Education (OSDE) highlights potential advantages and disadvantages of synchronous communication, as shown in Figure 1.5.²²

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ADVANTAGES	DISADVANTAGES
 Service provision within the natural context (e.g., home, school, community) Minimal infrastructure requirements Lower cost for equipment and connectivity 	 Privacy Security Confidentiality risks Lack of infrastructure Recurring expense Diminished sound or image quality Technology challenges
Source: Oklahoma State Department of Education ²³	

¹⁹[1] Figure text reproduced verbatim with modifications from: Ibid. [2] Link obtained from: "English Learner Family Engagement During Coronavirus." ImmigrantConnections, March 26, 2020. https://www.immigrantsrefugeesandschools.org/post/englishlearner-family-engagement-during-coronavirus

²⁰ Gonzalez, Op. cit.

²¹ Watts, L. "Synchronous and Asynchronous Communication in Distance Learning: A Review of the Literature." Quarterly Review of Distance Education; Charlotte, 17:1, 2016. p. 30. Retrieved from ProQuest.

²² "Distance Learning Guidance for Special Education." Oklahoma State Department of Education, March 26, 2020. p. 3. https://sde.ok.gov/sites/default/files/DistanceLearningGuidanceforSpecialEducation.pdf

²³ Figure text reproduced nearly verbatim from: Ibid.

Additionally, Figure 1.6 reproduces tables from a 2017 report published in Advanced Science and Technology Letters about synchronous and asynchronous communication tools, their uses, and associated limitations.²⁴

COMMUNICATION Tool	USABILITY	LIMITATIONS
Synchronous Communication		
Video Conferencing	 Real time interaction Seeing the person that you are communicating with can give important visual clues 	 Quality is dependent on bandwidth There may be short time lag between speaking and receiving a response that can disrupt the natural flow of a conversation Documents and other presentations can only be shared through the presenter's camera
Web conferencing	 Real time interaction Permits sharing of presentation, documents, and application demonstration 	 Quality is dependent on bandwidth There may be short time lag between speaking and receiving a response that can disrupt the natural flow of a conversation
Audio conferencing	 Real time interaction Collaborative discussions that involve a certain number of people 	 Quality is dependent on bandwidth There may be short time lag between speaking and receiving a response that can disrupt the natural flow of a conversation Does not incorporate visual learning
Live chat	 Real time interaction Text and graphics capabilities are available for information sharing of low complexities Provides documentation of student interaction 	 Mostly text based and as such slows down communication rate May lead to misinterpretation of expressions
White boarding	Real time interactionDemonstration and co-development of ideas	 Bandwidth based, and at times effective with audio conferencing
Application sharing	 Real time interaction Demonstration and co-development of documents 	 Bandwidth based, and at times effective with audio conferencing
	Asynchronous Commur	ication
Discussion forum	 Collaboration and sharing of ideas can occur over a certain time period More time for reflection on the topic of discussion Easy to form and control the level of participation 	 May lead to misinterpretation of other people's ideas May take longer to have feedback

Figure 1.6: Communication Tools and Limitations During Virtual Learning

²⁴ Lim, F.P. "An Analysis of Synchronous and Asynchronous Communication Tools in E-Learning." Advanced Science and Technology Letters, 143, February 12, 2017. pp. 232–233.

https://www.researchgate.net/profile/Francis_Lim7/publication/313673458_An_Analysis_of_Synchronous_and_Asynchronous_C ommunication_Tools_in_e-Learning/links/5c441688299bf12be3d55625/An-Analysis-of-Synchronous-and-Asynchronous-Communication-Tools-in-e-Learning.pdf

COMMUNICATION Tool	USABILITY	LIMITATIONS
Web logs	 Dissemination of ideas, comments, images, and other documents is easy and open to all More time for reflection on the topic of discussion Provides documentation of student interaction 	 May lead to misinterpretation of other people's ideas May take longer to have feedback May require technical knowledge in forming web logs
E-mail messaging	 Distribution of course materials on one-to-one or one-to-many basis Privacy in communication 	 It is difficult to get instant reply to e-mail messages especially with large classes
Social media messaging	 Message delivery such as important announcements Group chat may serve as discussion forum Personal messaging may be utilized by the teacher for mentoring purposes Provides documentation of student interaction 	 If the receiver is not online, you will have no immediate feedback Difficult to control the level participation Messages in the group chat cannot be deleted, thus inappropriate or unnecessary participation can't be controlled

Source: Advanced Science and Technology Letters²⁵

Although feedback and communication represent key elements of interventions and virtual learning, too many messages and platforms may overwhelm students. Therefore, teachers should use one platform for sending updates and direct messages. This approach prevents students, and potentially parents, from overlooking messages.²⁶

STUDENT RESOURCES

Teachers must support struggling students during virtual learning by ensuring that each student has online and physical resources and accommodations that fit their learning needs. Teachers and school staff must review students' Individualized Education Plans (IEPs) to ensure that virtual learning continues to meet each student's goals. This understanding then allows teachers to identify, select, and distribute virtual or physical resources and materials to specific students.²⁷ Students and families may receive and return physical resources (e.g., paper assignments, Chromebooks) at food pick-up stations. Alternatively, families may scan and e-mail paper assignments to teachers.²⁸ Additionally, teachers may also provide certain virtual accommodations, such as the accommodations in Figure 1.7 recommended by the Indiana Department of Education (IDOE). A more comprehensive list is available on the IDOE website <u>here</u>.²⁹

https://www.doe.in.gov/sites/default/files/news/april-10-continous-learning-and-accommodations-final-version-1.pdf?utm_content&utm_medium=email&utm_name&utm_source=govdelivery&utm_term

²⁵ Figure reproduced verbatim with modifications from: Ibid.

²⁶ Gonzalez, Op. cit.

²⁷ Spalding, N. ^aCoronavirus and Teaching Special Education: 10 Tips to Support Working Remotely and Online.^a Connections Academy, April 15, 2020. https://www.connectionsacademy.com/support/resources/article/teaching-special-education-10-tips-workingremotely

²⁸ Ferlazzo, Óp. cit.

²⁹ "Continuous Learning and Accommodations." Indiana Department of Education.

DAILY ACCOMMODATIONS	VIRTUAL ACCOMMODATIONS
Student needs directions and content read aloud	 Ask parents to read aloud directions and content Call the student and offer a virtual lesson to read directions and content Record themselves reading the directions and content and providing the recording to the student Provide parents and students text-to-speech options (e.g., Built-In Screen Readers, Bookshare, Snap and Read, Google Docs)
Student uses a calculator for classwork, homework assignments, and assessments	 Provide access to the appropriate online calculator (i.e., four function calculator, scientific calculator, graphing calculator) Consider mailing or delivering an appropriate calculator to the student if a virtual device is not available
Student receives additional time	 Inform parents of appropriate time allocations for tasks Check time settings within Learning Management Systems (LMS) to ensure that the student receives an appropriate amount of time for assignments and assessments In various applications, disable or adjust time settings to meet the student's needs or offer an alternative assignment that meets the same learning objectives with appropriate time restrictions

Figure 1.7: Virtual Learning Accommodations

Source: Indiana Department of Education³⁰

Despite virtual resources and teacher accommodations supporting students, one international study finds that access to online resources and a human tutor or educator benefits learning outcomes, rather than online resources or a human tutor. The study, published in 2006 in *Instructional Science*, uses a sample of 120 university students to study the impact of access to human and online supports on students' use of help tools. Results show that having a human tutor encourages the use of online help tools and resources and positively impacts help tool use; however, human tutors as resources themselves do not significantly affect student outcomes. Ultimately, human tutors and online resources benefit students when used together, and tutors should select help tools to support individual student needs.³¹

³⁰ Figure reproduced verbatim with modifications from: Ibid.

³¹ De Lièvre, B.et al. "The Relationship between Tutoring Mode and Learners' Use of Help Tools in Distance Education." *Instructional Science*, 34:2, March 2006. pp. 97, 107, 126. Retrieved from EBSCOhost.

SECTION II: PROVIDING VIRTUAL BEHAVIORAL SUPPORT

In this section, Hanover presents effective strategies for supporting Tier 2 and Tier 3 students with behavioral needs and strategies that teachers can use when facilitating virtual services. Additionally, this section highlights the importance of and strategies for engaging students, setting expectations, and ensuring students receive behavioral and counseling services. Given the shift from classroom to virtual learning, behavioral challenges shift in meaning, too. *In a virtual learning setting, behavioral challenges may pertain to levels of engagement, time-on-learning, responses during group discussions, technology use and etiquette, and task completion.*³²

TIER 2 AND TIER 3 SUPPORTS

As with academic supports, behavioral supports at Tier 2 provide more intensive supports than Tier 1 and often take place in a group setting. Additionally, PBIS at Tier 3 align with RTI at Tier 3 in that teachers and specialists deliver supports on an individualized level. Figure 2.1 presents typical Tier 2 and 3 systems and practices, according to PBIS Rewards, that districts may translate into a virtual learning setting.³³ The systems in the following figures show which teams and processes factor into tiered supports, and practices show what actions teachers and staff take to meet small-group or individual needs.

KEY SYSTEMS	KEY PRACTICES*
Tie	er 2
 Intervention team with coordinator Behavioral expertise Fidelity and outcome data collection Screening process to identify students Access to training and technical assistance 	 Increased instruction and practice with self-regulation and social skills Increased adult supervision Increased opportunity for positive reinforcement Increased pre-corrections Increased focus on possible function of problem behavior Increased access to academic supports
Tie	er 2
 Multi-disciplinary team Behavior support expertise Formal fidelity and outcome data collection 	Function-based assessmentsWraparound supportsCultural and contextual fit

Figure 2.1: Tier 2 and 3 PBIS Systems and Practices

* Tier 2 Key Practices are compared to Tier 1 supports Source: PBIS Rewards³⁴

Teachers should **consider how they frame instruction during the COVID-19 period of virtual learning** and integrate pandemic-specific behaviors into lessons and supports. Framing targeted supports in this way provides focus and context, which comprise key practices in MTSS interventions. Potential strategies for contextualizing tiered supports include the recommendations from the Center on PBIS in Figure 2.2. Additional details are available through the <u>Center on PBIS website</u>.³⁵

³² "Distance Learning Guidance for Special Education," Op. cit., p. 10.

³³ "What Is Tier 2 Support?" PBIS Rewards. p. 2. https://www.pbis.org/pbis/tier-2

³⁴ Figure text reproduced verbatim from: [1] "What Is Tier 2 Support?" Op. cit. [2] "What Is Tier 3 Support?" PBIS Rewards. https://www.pbis.org/pbis/tier-3

³⁵ "Responding to the Novel Coronavirus (COVID-19) Outbreak Through PBIS." Center on PBIS, March 2020. https://assetsglobal.website-

files.com/5d3725188825e071f1670246/5e713cc6a814d74f2453520c_Responding%20to%20the%20Novel%20Coronavirus%2 0(COVID-19)%20Outbreak%20through%20PBIS.pdf

Figure 2.2: PBIS Strategies During COVID-19

Prompt, teach, and reinforce "wash, cover, clean, and maintain distance behaviors"	Emphasize respect and sense of community	Support and engage families
Plan for disruptions	Emphasize the continuum of support	Maintain health and safety as a priority

Source: Center on PBIS³⁶

Teachers may **consider continuing screening, assessment, and data collection processes virtually**. However, authors from the University of Minnesota and the Minnesota Foundation report advise that teachers "ensure that standardized aspects of the assessment (e.g., reading directions verbatim)" still occur virtually and review assessment materials for detailed information.³⁷ Alternative solutions for virtually assessing students include parents assessing students with remote support from the district as well as teachers assessing students once schools reopen. For example, San Francisco Unified School District notes both alternative strategies during school closures in its webpage <u>Special Education Frequently Asked Questions (FAQs)</u>.³⁸ If continuing to assess students remotely, districts should consider the following data-based decision-making practices:³⁹

- Establish an inventory of available data and assessment resources to identify and align student needs with support;
- Create conditions to support timely data entry and graphical data displays for decision making;
- Decision-making teams should virtually involve a broad base of stakeholders;
- The process for making decisions should be operationalized with clear, established decision rules; and
- Demonstrate caution in comparing data obtained during a temporary transition to distance learning with previous data obtained in a traditional format. Using local standards is advised.

When tracking and assessing individual students' behaviors as well as interactions between students, teachers should consider acknowledging positive behaviors. One PBIS management product that uses a points system, PBIS Rewards, offers the following strategies for positive reinforcements in a virtual setting:⁴⁰

- Acknowledge students with points and comments when students:
 - Complete assignments by the deadline;
 - Complete assignments before the deadline;
 - Participate in photo or cooking challenges;
 - Complete an online visit to a museum or zoo; or
 - o Participate in a Spirit Day activity (e.g., Monday: wear pajamas, Wednesday: wear crazy socks).

³⁶ Figure text reproduced verbatim from: Ibid., pp. 3–4.

³⁷ Alexander et al., Op. cit., p. 3.

³⁸ [1] Ibid. [2] "Special Education Frequently Asked Questions (FAQs)." San Francisco Unified School District.

https://www.sfusd.edu/services/health-wellness/covid-19-coronavirus-resources-families-students/faqs/special-education-frequently-asked-questions-faqs

³⁹ Bulleted text reproduced verbatim from: Alexander et al., Op. cit., p. 3.

⁴⁰ Bulleted text reproduced nearly verbatim from: "Student Acknowledgement." PBIS Rewards. p. 1. https://www.pbisrewards.com/wpcontent/uploads/pbis-student-acknowledgement-distance-learning.pdf

- Create a Reward Event using video conferencing tools (e.g., Google Hangout, Zoom) that gives students points after attending the event, such as:
 - Attending an online drawing class; or
 - Attending an online book reading.
- Create a raffle for a digital gift card.

EXPECTATIONS AND ENGAGEMENT

At Tiers 2 and 3, students receive additional supervision and oversight to promote positive behaviors, and these supports remain key as **virtual learning environments may strongly impact typical behaviors**.⁴¹ For example, "coping with the unknown, abrupt changes in routine, [and] the loss of connections with teachers and friends" during virtual learning may change behaviors.⁴² Additionally, a 2009 report published in the *Journal of Educational Technology & Society* analyzes student attentiveness during virtual learning using a sample of 60 Grade 6 students. The study uses computer webcams to assess student attentiveness and provide positive or warning feedback depending on attention level and demonstrated fatigue. Researchers find that the feedback mechanisms and notifications support student attentiveness, though virtual supports cannot change behaviors resulting from mental fatigue.⁴³

To minimize challenging behaviors, OSDE recommends setting expectations and providing structure in a virtual learning environment, along with behavioral interventions.⁴⁴ Figure 2.3 presents strategies suggested by OSDE that teachers may adapt to their virtual classrooms.

STRATEGY	DETAILS
Establish expectations	 Determine how students are expected to participate in a virtual learning environment Consider expectations for participation, time spent in the course, use of technology, group discussion rules, online etiquette, and work completion
Token economy	 For reinforcement/reward, consider what can be offered in a distance learning environment (e.g., homework pass, extra credit, special note to the caregiver, video call with a friend, etc.) Some computer and smartphone apps, like Class Dojo, provide technological and interactive methods for tracking student behaviors and assigning "tokens"
Consistent scheduling	 Although students in virtual environments may participate in instructional activities asynchronously, consistent schedules are still important to maintain, especially for students with disabilities Maintain a consistent schedule to increase predictability, structure, and behavioral compliance
Create instructional routines	 Use consistent teacher behaviors and instructional routines to maintain teacher-student relationships and student engagement in the virtual classroom
Frequent feedback	 Provide students with "success criteria" for assignments, and provide ongoing, frequent, timely, and specific feedback for student work Feedback can be in the form of individual student conferencing, rubrics, checklists, and formative evaluation

Figure 2.3: Strategies for Engagement and Positive Academic Behaviors

⁴¹[1] "What Is Tier 2 Support?," Op. cit., p. 2. [2] "What Is Tier 3 Support?," Op. cit. [3] "Distance Learning Guidance for Special Education," Op. cit., p. 10.

⁴² "Distance Learning Guidance for Special Education," Op. cit., p. 10.

⁴³ Hwang, K.-A. and C.-H. Yang. "Automated Inattention and Fatigue Detection System in Distance Education for Elementary School Students." *Journal of Educational Technology & Society*, 12:2, 2009. pp. 22, 28, 34. https://www.jstor.org/stable/jeductechsoci.12.2.22

⁴⁴ "Distance Learning Guidance for Special Education," Op. cit., pp. 10–11.

STRATEGY	DETAILS	
Appropriately challenging home assignments	 Provide multiple modes of instruction and scaffold home assignments so students can experience success. If students are unable to complete assignments or access the necessary support independently, they are less likely to engage in work completion behaviors 	

Source: Oklahoma State Department of Education⁴⁵

Additionally, to clearly define and illustrate virtual learning expectations, teachers may **consider creating a PBIS behavior teaching matrix for virtual learning** and posting it to their chosen online platform. According to the Center on PBIS, defining, teaching, and practicing positive behaviors is important in a virtual setting because students may be unfamiliar with virtual learning technology or misunderstand how to interact with others online. Therefore, creating and posting visuals that describe virtual learning expectations and clarify how students can fulfill expectations promote positive behaviors and learning environments.⁴⁶ To create a virtual learning teaching matrix, teachers can follow the general steps in Figure 2.4 and review an example by the Center on PBIS, available <u>here</u>.⁴⁷

Figure 2.4: How to Create a Behavior Teaching Matrix for Virtual Learning



Source: Center on PBIS⁴⁸

BEHAVIORAL SERVICES

Ensuring that students **maintain access to multi-disciplinary teams**, **behavioral specialists**, **and wraparound supports** represents another important aspect of PBIS during virtual learning as students lose direct access to many targeted and individualized services. These supports, emphasized by PBIS Rewards and shown in Figure 2.1, may not occur in traditional formats, such as in a classroom or in a counselor's office. Instead, one online school recommends using creative approaches to ensure that districts meet IEP needs, such as therapy sessions through video conferencing platforms.⁴⁹ Behavioral services specialists, such as psychologists and counselors, may adapt <u>this checklist</u> from the American Psychological Association to support Tier 2 and Tier 3 students virtually.⁵⁰ Alternatively, if a district cannot provide specific services virtually, the district should consider planning make-up sessions now for when schools reopen.⁵¹

Students, teachers, and parents can also take responsibility for services and supports, as demonstrated in Placentia-Yorba Linda Unified School District's wraparound services tables, which are available at the

⁴⁵ Figure text reproduced nearly verbatim from: Ibid.

⁴⁶ [1] "Creating a PBIS Behavior Teaching Matrix for Remote Instruction." Center on PBIS, March 2020. p. 4. https://assetsglobal.website-

files.com/5d3725188825e071f1670246/5e7e5a79378fc458723ddf4f_Creating%20a%20PBIS%20Behavior%20Teaching%20M atrix%20for%20Remote%20Instruction.pdf [2] Mazur, E.L. et al. "Behavioral Expectations Tip Sheet." Tennessee Behavior Supports Project at Vanderbilt University. p. 2. https://vkc.mc.vanderbilt.edu/assets/files/resources/tbsp-behaviorexpectationstips.pdf

⁴⁷ "Creating a PBIS Behavior Teaching Matrix for Remote Instruction," Op. cit., p. 4.

⁴⁸ Figure text reproduce verbatim from: Ibid., pp. 3–4.

⁴⁹ Spalding, Op. cit.

⁵⁰ "Office and Technology Checklist for Telepsychological Services." American Psychological Association. https://www.apa.org/practice/programs/dmhi/research-information/telepsychological-services-checklist

⁵¹ Spalding, Op. cit.

<u>elementary</u>, <u>middle school</u>, and <u>high school</u> levels.⁵² These tables provide behavior services categories and actions that students, teachers, and parents can take to maintain behavioral support during virtual learning. Figure 2.5 provides an example of actions under the "Assess" category for elementary school students.

CATEGORY	STUDENT	TEACHER	PARENT
Assess	 Reach out to your teacher if you have concerns about assignments Reach out to your teacher for feedback on assignments, quizzes, and tests Abide by the academic honesty policy 	 At least once per week, gather student learning assessment data. This can be through online tools, work submissions, or other formative tools Teachers may assign longer assignments that may take multiple days 	 Ensure your student is aware of deadlines for assignments Help your student understand and reflect on teacher feedback Provide a quiet space for your student to work

Figure 2.	.5: Wraparou	nd Supports at	t the Elementary	Level
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Source: Placentia-Yoruba Linda Unified School District⁵³

On an international scale, Estonian education providers ensure wraparound services for special education students by partnering with regional counseling centers. According to the National Center on Education and the Economy, these centers offer free services for students with special needs and their families (e.g., psychologists, speech therapists, guidance counselors, coordinators). The counseling centers provide these services remotely and operate on extended hours to ensure health safety and ensure that parents also have access to supports. Additionally, the centers and Estonian schools work together to develop virtual learning strategies so that the school supports all students' needs.⁵⁴

Additionally, teachers should **consider behavioral supports and social-emotional learning (SEL) assistance for ELs** as online education may negatively impact these students' feelings of connectedness.⁵⁵ Figure 2.6 presents potential strategies for teachers, according to a TESOL International Association blog.

STRATEGY	DETAILS
Set up your teaching space to help students feel connected	 Use familiar classroom objects to decorate one's teaching space Ensure that ELs have WiFi access to maintain contact and continue connections
	 Treat the online classroom as if it were the first day of your school year so that your ELs can feel secure in the virtual learning environment
Build a (new) connection to	 Address your students at the beginning of each session about how they are feeling
, cal stadonts	 Teach students live on a video conferencing platform
	 Support certain students in groups and others in a one-to-one setting depending on student needs

Figure 2.6: Behavioral and Social-Emotional Supports for ELs

⁵²[1] "Placentia-Yorba Linda Unified School District Wraparound Distance Learning Support for Elementary Students." Placentia-Yorba Linda Unified School District. https://4.files.edl.io/80d5/04/17/20/145948-9d29da54-e248-454c-8861-5284ba50b7a6.pdf [2] "Placentia-Yorba Linda Unified School District Wraparound Distance Learning Support for Middle School Students." Placentia-Yorba Linda Unified School District. https://4.files.edl.io/b204/04/14/20/203500-116e732e-d088-4de0a594-82f0900a7bb0.pdf [3] "Placentia-Yorba Linda Unified School District Wraparound Distance Learning Support for High School Students." Placentia-Yorba Linda Unified School District. https://4.files.edl.io/8124/04/13/20/230252-637be7d0-d565-4fb4-b90b-311883f52c97.pdf

⁵³ Figure reproduced verbatim with modifications from: "Placentia-Yorba Linda Unified School District Wraparound Distance Learning Support for Elementary Students," Op. cit., p. 1.

⁵⁴ Pfister, M. "Wraparound Supports During the Coronavirus Pandemic: How Estonia Is Reaching Students and Families." National Center on Education and the Economy, April 23, 2020. http://ncee.org/2020/04/wraparound-supports-during-distance-learning/

⁵⁵ Haynes, J. "Supporting ELs' Social-Emotional Learning in a Virtual Classroom." TESOL International Association, April 9, 2020. http://blog.tesol.org/supporting-els-social-emotional-learning-in-a-virtual-classroom/

STRATEGY	DETAILS
Link SEL to academic topics	 Introduce flexible tasks, such as journaling, that allow ELs to work at their own English language development level Develop activities that help students detach themselves from their anxieties (e.g., ask them what they would do to help someone who is anxious about COVID-19)
Develop positive self-talk	 Model your own self-talk and show how you flip negative thoughts by looking at the positives; Let students know that it's okay to make mistakes and that you'll all learn how to do this together Express how excited you are to learn a new skill Help ELs write their own positive script
Give you ELs brain breaks during your online sessions	 Incorporate breaks, such as whole-body movement, a group activity or game, a mental challenge, music playing, stretching, or jumping jacks Create a strategy to get your virtual students back on task
Practice teacher self-care	Take time every day for yourself to safeguard your own social-emotional health
Source: TESOL International Accession	

Source: TESOL International Association⁵⁶

⁵⁶ Figure text reproduced verbatim and adapted from: Ibid.

SECTION III: EXPLORING TEACHER RESOURCES AND SKILLS

In this section, Hanover presents key resources and skills that teachers may draw upon to enhance their support of students with targeted needs. These resources and skills include professional development and communication strategies.

COLLABORATION AND COMMUNICATION

When facilitating virtual learning, districts and teachers should follow communication plans that address parent and staff needs and concerns. These plans should answer two main questions:⁵⁷

- How will parents/caregivers be informed and involved?
- How will staff be informed and given opportunities for collaboration?

Although some state-level resources advise districts to establish communication plans with local health departments, parents, or community members, districts should also consider communication plans specifically for special education students and parents.⁵⁸ According to Louisiana Believes, Louisiana's department of education, families with special education students and schools should form a communication plan that ensures that districts.⁵⁹

- Identify the most appropriate platforms to provide remote special education, therapy services, ECSE, and activities (e.g., high-tech or low-tech);
- Verify whether providing remote special education and therapy services and activities through hightech or low-tech platforms is appropriate;
- Establish a plan to answer student questions, submit assignments, and exchange feedback; and
- Provide technology support, which is especially critical for young children and students with significant cognitive disabilities who are novice technology device users (e.g., computer, iPad, mobile phone).

One online school recommends that teachers also plan for communicating with individual parents. Initial communication should involve a discussion regarding the student's supports or IEP and what supports can occur virtually. Additionally, teachers and parents should discuss a plan for providing specialized instruction and services and future communication platforms and frequency.⁶⁰

Teachers should also collaborate with parents to ensure that parents gain familiarity with virtual learning technology. Figure 3.1 presents steps for teachers to support parents of special education and struggling students with technology.

⁵⁸[1] "School (PreK-12) Guidance: COVID-19." New York State Education Department, March 9, 2020. pp. 6, 12.

⁵⁷ Bulleted text reproduced verbatim from: Alexander et al., Op. cit., p. 4.

http://www.nysed.gov/common/nysed/files/programs/coronavirus/nysed-covid-19-first-guidance-3-9-20.pdf [2] "Planning Tool in the Event Novel Coronavirus (COVID-19) Impacts Connecticut Public Schools." Connecticut State Department of Education, March 5, 2020. pp. 1, 3. [3] "Continuous Education for Students with Disabilities, Direct Services." Louisiana Believes, April 23, 2020. p. 3. https://www.louisianabelieves.com/docs/default-source/covid-19-resources/continuous-education-for-students-withdisabilities---direct-services.pdf?sfvrsn=db0e9b1f_8

⁵⁹ Bulleted text reproduced verbatim from: "Continuous Education for Students with Disabilities, Direct Services," Op. cit., p. 3. ⁶⁰ Spalding, Op. cit.

Figure 3.1: Actions to Support Parents with Virtual Learning Technology

Help families and students become comfortable with virtual learning.

- Before you dive in with instruction, start with a fun orientation lesson that allows the student and parent to adjust to the online format. You may choose to do a real-time lesson using your webcam or another activity to explain engagement and instruction remotely.
- Begin with lessons that review mastered material or are easy for the student, to allow comfort and success before jumping into more difficult tasks or subjects.

Encourage student engagement by using chat and webcam.

Be patient and understand this is a process.

• For students with transitional, behavioral, and/or emotional needs, more time may be needed to adjust to virtual education.

Recognize and understand that comfort with learning online may vary among families and students.

- Review the supplementary aids and services that a student currently has in their IEP and consider services that may need to be added to access the instruction.
- Identify students who may not have home access to virtual learning or who are unable to access virtual learning due to their disability. Follow your school, district, or state's guidance on addressing these instances.
- Identify families who may need assistive equipment/access and work with your district on possible solutions.

Modify delivery based on how each family and student adapts to this new learning environment and school setting.

- Consultation/collaborative services are a great way to encourage implementation of a distance learning plan.
- Consider options for delivering [Specialized Designated Instruction] through technology, such as phone, Google Hangouts, or other means.
- Track all communication with families during the closure, including consulting with families to plan services.

Source: Connections Academy⁶¹

Teachers may also use specific communication resources and strategies when communicating with ELs and their parents, such as translator or interpreter services, handouts in English and the student's native language, or communication apps (e.g., <u>Talking Points</u>, <u>Remind</u>).⁶²

PROFESSIONAL DEVELOPMENT

When shifting from classroom to virtual MTSS, teachers may also benefit from virtual learning professional development (PD) resources, mentoring, and the skills obtained from these staff supports. The Center on Response to Intervention at American Institutes for Research states that continuous PD supporting MTSS reflection and improvement "is essential for implementing a multi-tiered system of support."⁶³ When shifting to MTSS during virtual learning, teachers and districts may consider continuing MTSS PD through an online learning lens.

⁶¹ Figure text reproduced verbatim from: Ibid.

⁶²[1] Ferlazzo, Op. cit. [2] "Reach All Your Students' Families." TalkingPoints. https://talkingpts.org/ [3] "Reach Students and Parents Where They Are." Remind. https://www.remind.com/

⁶³ "What Does It Take to Implement MTSS? Finding Professional Development Resources to Support Implementation." Center on Response to Intervention at American Institutes for Research. https://rti4success.org/resource/what-does-it-take-implementmtss-finding-professional-development-resources-support

Districts may align virtual learning PD with the five main features identified in the <u>Handbook of Research on K-12 Online and Blended Learning (Second Edition)</u>: active learning, collective participation, coherence, content focus, and duration.⁶⁴ Although the handbook does not recommend these PD areas for virtual special education and MTSS specifically, teachers and districts may still adapt these components, described in Figure 3.2, to virtual learning PD.

CORE FEATURES	DEFINITION	ADDITIONAL CONSIDERATION FOR PD FOR K-12 Online/blended learning educators
Content focus	PD programs should emphasize both subject matter content and how students learn the content.	PD programs should also emphasize the varying roles encompassed in virtual contexts (i.e., administrators, designers, counselors, etc.).
Active learning	PD programs should actively involve teachers in the learning process.	There are likely more options for active learning during [PD] for online teachers because of the variety of media typically used during online instruction.
Coherence	What is taught in the PD programs should align with state and district goals and standards for students learning.	PD programs should also align with standards for online teaching (i.e., iNACOL standards) and learning, with the type of media teachers will use when teaching in the online context and with content area standards.
Duration	PD programs of longer duration should be emphasized over short-term workshops.	A mix of short and long-term [PD] opportunities based on the content of the sessions may be appropriate for online teachers given the importance of preparing online teachers for the more technical, skills-based knowledge necessary to effectively teach online.
Collective participation	Teachers should work together during PD programs.	PD programs for online teachers are particularly well-suited for development of professional learning communities because of online teachers' comfort working and collaborating in online environments and because of the geographical distance often separating online teachers.

Figure 3.2: Features of Virtual Learning PD

Source: Carnegie Mellon University: ETC Press⁶⁵

Additionally, a 2017 analysis of MTSS coaching and PD references a collection of empirical studies that find MTSS coaching effective in supporting teachers' implementation. Researchers note that single PD sessions alone may not strongly impact MTSS, but ongoing "coaching serves an important function in facilitating the transfer of knowledge and skills from professional development to classroom implementation."⁶⁶ Similarly, teachers supporting students through virtual learning also benefit from coaching and mentoring programs, as noted in the *Handbook of Research on K-12 Online and Blended Learning (Second Edition).*⁶⁷ To implement mentoring effectively in a virtual setting, districts should consider the mentoring program practices in Figure 3.3.

⁶⁴ Dawson, K. and N. Fichtman Dana. "Professional Development for K-12 Online Teachers." In Handbook of Research on K-12 Online and Blended Learning (Second Edition), edited by K. Kennedy, Pittsburg, Pennsylvania: Carnegie Mellon University: ETC Press, 2018. p. 253. https://kilthub.cmu.edu/articles/Handbook_of_Research_on_K-12_Online_and_Blended_Learning_Second_Edition_/6686813

⁶⁵ Figure reproduced verbatim from: Ibid.

⁶⁶ Freeman, J. et al. "MTSS Coaching: Bridging Knowing to Doing." *Theory Into Practice*, 56:1, Winter 2017. p. 35. Retrieved from EBSCOhost.

⁶⁷ Dawson, K. and N. Fichtman Dana. "Mentoring for Online Teachers." In Handbook of Research on K-12 Online and Blended Learning (Second Edition), edited by K. Kennedy, Pittsburg, Pennsylvania: Carnegie Mellon University: ETC Press, 2018. p. 266. https://kilthub.cmu.edu/articles/Handbook_of_Research_on_K-12_Online_and_Blended_Learning_Second_Edition_/6686813

Figure 3.3: Considerations for Virtual Learning Mentorship Programs



Source: Carnegie Mellon University: ETC Press⁶⁸

⁶⁸ Figure text reproduced nearly verbatim from: Ibid., p. 267.

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