# Model Dimensions

**Program Design Decisions: Model Dimensions and Related Considerations**

As you design a tutoring program, you will have numerous decisions to make that influence and impact one another. On the left column of the table below are Model Dimensions of tutoring programs; on the right are corresponding Considerations that allow you to contemplate how interactions among model design decisions may impact your tutoring program. No choice can be made in isolation: while there are no "right" answers, not all options for a given dimension are easily compatible with all options for other dimensions. This table will help you weigh tradeoffs intentionally and thoughtfully in advance.

| PROGRAM FOCUS | | |
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| **Model Dimensions** | | **Considerations** |
| **Target**<br><br>*What is your rationale for why tutoring is needed?* | **Needs-Driven**: Tutoring is targeted to students who are struggling and perform below particular benchmark thresholds.<br><br>**Curriculum-Driven**: Tutoring is provided at critical moments when students generally tend to fall behind.<br><br>**Universal**: All students receive tutoring. | • **Tutor Type**: Any decision about the program's target audience will ultimately impact the number of students who receive tutoring. When determining their target students, programs will need to consider whether they can recruit enough of the desired tutor type to serve the number of students in the program.<br>• **Setting**: If the target is universal, the setting will typically need to be in-school (or at a school-affiliated after-school or summer program with required take-up). If the target is needs-driven or curriculum-driven, tutoring can occur in any setting.<br>• **Data Use**: If the program is not universal, benchmark data should be combined with other measures to identify eligible students. |
| **Content Area/ Grade Level**<br><br>*What subject and grade* | **Content Area**: Most tutoring interventions have focused primarily on producing learning gains in literacy and math, but many voluntary programs offer tutoring in all content areas. | • **Tutor Type**: If the content area or grade level is more advanced, the program will need to consider the best way to select tutors with existing content knowledge or determine how to train new tutors to build up the relevant content knowledge. |

| *level are the target areas?* | **Grade Level**: Grade 1 & below; Grades 2-5 (Elementary School); or Grades 6-12 (Middle & High School). | • **Dosage**: Programs should consider both these elements when deciding dosage. Research indicates that a dosage of 30-60 minutes 3-5 times a week has the most impact, but if the target grade level is elementary school or below, these younger students may benefit from shorter but more frequent sessions (i.e. 20 minutes, 5 times a week).<br>• **Instruction**: Any decision about grade level and subject area will necessarily impact the tutoring curriculum and/or materials. Programs should leverage research-backed best practices for their target grade level and content area. |

| **TUTORS** | | |
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| **Model Dimensions** | | **Considerations** |
| **Tutor Type**<br><br>*Who will conduct the tutoring?* | **Teachers**: Certified classroom teachers provide tutoring. Evidence suggests that teachers are consistently the most effective type of tutor, but also the most costly.<br><br>**Paraprofessionals**: School staff members, master's or doctoral students, service program fellows (e.g., AmeriCorps fellow), or community organization staff provide tutoring. Tutoring interventions led by paraprofessionals can be as effective as those led by teachers when tutors receive adequate training.<br><br>**Volunteers**: Unpaid volunteers provide tutoring. Programs using these tutors display positive average effect sizes on student learning outcomes, but consistently smaller effects than programs relying on teachers or paraprofessionals. | • **Dosage**: Any decision about tutor type will influence the dosage a program can provide. For example, if the tutor type is volunteers, it may be more challenging to require any given volunteer to serve 5 days a week when not getting paid, with the result that either dosage or consistency must be sacrificed.<br>• **Student-Tutor Ratio**: If the tutor type is teachers or paraprofessionals, small-group instruction becomes more feasible, as these tutors often already have skills (or have more time to be trained) in leading small groups. For other tutor types, if the student-tutor ratio is greater than one-on-one, the program must |

**College Students**: Students who volunteer or are paid through work study and/or recieve class credit provide tutoring. Programs using these tutors display positive average effect sizes on student learning outcomes, but consistently smaller effects than programs relying on teachers or paraprofessionals.

**Private Tutors**: Individuals who operate (or are employed by) for-profit or non-profit tutoring organizations provide tutoring. There is little rigorous research on the impact of programs using these tutors.

**Families**: Almost all family-focused tutoring programs involve parents acting as tutors. These programs typically provide parents with training and materials to tutor their child in their own home. Parent tutoring interventions appear to be about as effective as volunteer-based efforts.

**Peers and Cross-Age Tutoring**: Students tutor other students at their own grade level (peer tutoring) or those in grades below them (cross-age tutoring). Peer and cross-age tutoring programs have displayed an effect size similar to volunteer-based efforts. These student-centric programs may also provide other benefits, such as developing students' social-emotional skills.

provide additional facilitation training to tutors.

- **Tutor Recruitment & Selection**: Any decision about tutor type and tutor responsibilities will necessarily determine both the program's strategy for tutor recruitment and selection, and the depth of training that the program must provide.
- **Tutor Training**: The less pedagogical training a tutor already has, and the greater the responsibilities of the tutor role, the more training the tutor will need. If the tutor type is teachers or paraprofessionals, the program will likely only need to provide training on its own specific requirements. But if the tutor type is college students, volunteers, private tutors, or especially families and peers, the program will need to provide more intensive training.
- **Tutor Support**: The less pedagogical training a tutor has, the more support they will need. If the tutor type is not teachers or paraprofessionals, the program will need to invest more resources into tutor support and performance management.

| INSTRUCTION | | |
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| **Model Dimensions** | | **Considerations** |
| **Delivery Mode** | **In-Person**: Students receive tutoring from a tutor in the same physical location. The most rigorous evidence of impact comes from in-person tutoring programs; whether virtual and | - **Tutor Type**: Any decision about delivery mode will impact the talent pool from which a program can recruit tutors. Virtual tutoring |

| How will tutoring be conducted? | blended tutoring interventions can be as effective as those conducted purely in-person remains an open question.

**Virtual**: Students receive tutoring on their computers or other digital devices from a tutor over the internet. Virtual tutoring has the opportunity to provide more equitable access given the wide range of geographical regions that a virtual program can serve. While research is limited, a recent small-scale evaluation of an online math tutoring program found promising results for this approach.

**Blended**: Students receive tutoring through some combination of in-person and virtual methods. Research on blended tutoring programs also remains scant; however, a recent evaluation of a tutoring program using a blended approach (i.e., alternating between face-to-face tutoring and students engaging in computer-assisted learning) found that a blended model was equally effective at increasing student learning while reducing the higher financial cost of purely in-person tutoring. | typically provides the widest range of options due to the location flexibility of virtual tutoring.

- **Dosage**: If the delivery mode is virtual or blended, the program can scale back the amount of face-to-face time needed for tutoring by providing targeted practice to students and useful insights to the tutor to help prepare before each session.
- **Learning Integration**: If the delivery mode is virtual or blended, the program may require more active participation from stakeholders (families at home or teachers at school). The program must engage stakeholders to ensure students attend tutoring sessions and are familiar with how to use the virtual tutoring platform or software.
- **Setting**: If the delivery mode is virtual or blended, the program will need to consider the technological infrastructure available to conduct the tutoring in its chosen setting. If a virtual or blended program takes place in an in-school setting, the program will need to ensure schools have the internet bandwidth needed to run the program and up-to-date devices available. If a virtual program takes place in an out-of-school setting, the program should consider how students without reliable internet connections or up-to-date devices at home will be able to access the virtual tutoring.
- **Tutor Support**: If the delivery mode is virtual, many platforms can record sessions to be sent to program administrators, as well as track the degree to which the tutor is using key tutoring strategies or software. This information can be |

| | | used to provide feedback and support to virtual tutors. |
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| | | • **Student Safety**: If the delivery mode is virtual, the program can establish creative ways to ensure safety including screening sessions for inappropriate interactions.<br>• **Tutor Training**: If the delivery mode is virtual or blended, the program will need to train tutors on how to use the virtual platform and/or blended software.<br>• **Data Use**: If the delivery mode is blended, the program can provide a wealth of data to tutors so that sessions can truly be customized to target each student's individual academic needs.<br>• **Session Facilitation**: If the delivery mode is virtual, the program can provide wider access to multimedia materials to enable more engaging instruction.<br>• **Session Content**: If the delivery mode is blended, the program can provide additional rigorous materials for students by using high-quality software. |
| **Dosage**<br><br>*How often will tutoring take place?* | **1-2 times per week**: While tutoring is still effective at this dosage, tutoring tends to be more effective the more frequently it takes place.<br><br>**3-5 times per week**: Tutoring tends to be most effective when conducted 3-5 times per week.<br><br>**Choice**: For programs where take-up is voluntary, families and/or students typically choose the dosage. | • **Target (Grade Level & Content Area)**: Programs should consider both these elements when deciding dosage. Research indicates that a dosage of 30-60 minutes 3-5 times a week has the most impact, but if the target grade level is elementary school or below, these younger students may benefit from shorter but more frequent sessions (i.e. 20 minutes, 5 times a week).<br>• **Delivery Mode**: To maintain tutoring dosage consistency, programs may want to consider coupling face-to-face tutoring with |

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| | | a blended learning experience using high-quality software.<br>• **Session Content**: Any dosage decision will have a major impact on the curriculum and sequencing of tutoring. If the dosage is the same for all students, for example, sessions can build on each other over time. But if students (or parents) choose different dosages, then sessions should be more self-contained. |
| **Student-Tutor Ratio**<br><br>*How many students will each tutor work with at a time?* | **One-on-One**: The effect size for tutoring is the largest when tutors work with one student at a time.<br><br>**Small Groups (2:1 - 4:1)**: However, once tutors are working with more than one student, the impact differences between programs with 2:1 and 4:1 ratios were statistically small. | • **Tutor Type**: If tutors will work with small groups, the program will need to consider tutor type to determine whether training will be necessary for tutors to deliver effective small-group tutoring.<br>• **Tutor Training**: If tutors will work with small groups, the program may need to provide tutors with training for how to facilitate small groups and manage student behavior.<br>• **Data Use**: If tutors will work with small groups, the program will need to leverage student data to group students intentionally and set the content focus for each small group. |
| **Tutor Consistency**<br><br>*Will a given student consistently work with the same tutor across sessions?* | **Consistent**: A student will return to the same tutor repeatedly from session to session.<br><br>**Inconsistent**: It is not guaranteed that a student's tutor will remain the same from session to session. | • **Relationship-Building**: If a student's tutor is consistent across multiple sessions, the program may want to consider specific strategies for pairing students with specific tutors.<br>• **Relationship-Building**: If a student's tutor is consistent across multiple sessions, the program may want to invest more time in relationship-building to leverage that consistency.<br>• **Data Use**: If a student's tutor is inconsistent, the program may instead need to invest in more |

| | | centralized methods for communication, logging student data, etc., to ensure all tutors can access the same information (e.g. student progress, curriculum, and curriculum alignment, etc.) about each student. |
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| LEARNING INTEGRATION | | |
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| **Model Dimensions** | | **Considerations** |
| **Setting**<br><br>*Where will tutoring take place?* | **In-School**: Tutoring happens during separate class time (without actually replacing class). Because attendance is less of an issue, in-school programs tend to have greater impact.<br><br>**Out-of-School**: Tutoring happens after school, on weekends, or during school breaks. While still delivering a positive effect, out-of school tutoring tends to have a small effect size. | • **Dosage/Duration**: The setting of the program will impact the dosage and duration and should be taken into account when planning. Programs in-school may find it easier to offer a higher dosage as sessions can be embedded directly within the school day.<br>• **Grade Level**: If the setting is out-of-school, the program should be mindful of the additional time commitments and obligations that older students may have outside the official school day. While both settings may be employed at any grade level, out-of-school programs may be more challenging for older students to attend.<br>• **Learning Integration**: If the setting is in-school, the program will find it easier to align its content with the school curriculum and ensure integration with school and teachers. If the setting is out-of-school, the program may need to consider creative ways (online communication tools, etc.) to maintain alignment. |

| **Take-Up**<br><br>*How will the program be taken up by students?* | **Required**: Students can be required by their school to receive tutoring. In this case, students tend to have tutoring sessions embedded in their school-day schedule.<br><br>**Voluntary**: Students or parents choose to enroll or opt-out of enrolling their students. In this case, students typically receive tutoring during lunch periods or after the official school day is over. | • **Dosage**: If the take-up is required, the program may find it easier to maintain a high weekly dosage. If the take-up is voluntary and the dosage is rigorous, the program will need to determine strategies to ensure students and families can meet those requirements.<br>• **Learning Integration**: Whether take-up is required or voluntary, the program will need to consider how a program is communicated within the school and with family members to reduce stigma and provide ongoing updates about progress. |