

Inputs

What does an ideal tutoring session do to support and supplement student learning?

Activities

How does TutorMe deliver on providing impactful tutoring sessions for all students?

Outcomes

What does the research tell us about the potential benefits of TutorMe when it is used to support effective instructional practices?

Provide Differentiated Instructional Supports for All Students

A tutor's role is to operate alongside a school's structure of support to supplement a student's classroom learning by filling in gaps of knowledge or challenging students to push further.

Deliver High-Quality Instructional Support

In a one-to-one setting, tutors have the opportunity to deliver engaging and rigorous instructional support that puts students at the center of the learning experience.

Give Students Tools to Learn Beyond the Session

One of the most powerful ways tutors can impact students is in building their capacity, desire, and ability to learn. Whether a student is struggling in Algebra or ELA, or not feeling challenged enough by their current class schedule, helping them evaluate their own learning and reflect on their knowledge can set students up for future success – success that reaches well beyond their tutoring sessions.

References

1. McCombs, J.S., Whitaker, A.A., & Yoo, P. (2017). The value of out-of-school time programs. Santa Monica, CA: Rand Corporation. 2. Toropova, A., Myrberg, E., & Johansson, S. (2021). Teacher job satisfaction: the importance of school working conditions and teacher characteristics. *Educational Review*, 73(1), 71-97. <https://doi.org/10.1080/00131911.2019.1705247> 3. Hughes, G. (2012). Teacher Retention: Teacher Characteristics, school Characteristics, Organizational Characteristics, and Teacher Efficacy. *Journal of Education Research*, 105(4), 245-255. <https://doi.org/10.1080/00220597.2011.584922> 4. Dietrichson, J., Bøe, M., Fløes, T., & Klint, Jørgensen, A.-M. (2017). Academic Interventions for Elementary and Middle School Students With Low Socioeconomic Status. *Review of Educational Research*, 87(2), 243-282. <https://doi.org/10.3102/0034654316687026> 5. Knopf, J. A., Hahn, R. A., Proia, K. K., Truman, B. L., Johnson, R.L., Muntaner, C., Fielding, J. E., Jones, C.P., Fullilove, M. T., Hunt, P. C., Ou, S., Cattopadhyay, S. K., Milstein, B., & Community Preventive Services Task Force (2015). Out-Of-School-Time Academic Programs to Improve School Achievement: A Community Guide Health Equity Systematic Review. *Journal of public health management and practice* : JPHMP, 21(6), 594-608 <https://doi.org/10.1097/PHH.0000000000000268> 6. Margolis, H., & McCabe, P.P. (2006). Improving self-efficacy and motivation: What to do, what to say. *Intervention in school and clinic*, 41(4), 218-227. 7. Harbour, K. E., Evanovich, L. L., Sweigart, C. A., & Hughes, L. E. (2015). A brief review of effective teaching practices that maximize student engagement. *Preventing School Failure: Alternative Education for Children and Youth*, 59(1), 5-13. 8. Wenglinsky, H. (2002). The link between teacher classroom practices and student academic performance. *Education policy analysis archives*, 10, 12, 9. Fresh, E. M., Westler, B. (2019). Keeping Students from Going AWOL: The Link between Pedagogy and Student Retention. *Journal of Political Science Education*, 15(3), 318-345. <https://doi.org/10.1080/15512169.2018.148763> 10. Nelson Laird, T. F., Chen, D., & Kuh, G. D. (2008). Classroom Practices at Institutions with Higher-than-Expected Persistence Rates: What Student Engagement Data Tell Us. *New Directions for Teaching and Learning*, 2008(115), 85-99. <https://doi.org/10.1002/rl.327> 11. Mayer, R. E., & Alexander, P. A. (Eds.). (2016). *Handbook of research on learning and instruction*. Taylor & Francis. 12. Lauer, P. A., Akiba, M., Wilkerson, S. B., Apthorp, H. S., Snow, D., & Martin-Glenn, M. (2004). The Effectiveness of Out-of-School-Time Strategies in Assisting Low-Achieving Students in Reading and Mathematics: A Research Synthesis. 13. Richey, J., & Nettee-Malach, E. (2015). Comparing Four Instructional Techniques for Promoting Robust Knowledge. *Educational Psychology Review*, 27(1), 181-218. <https://doi.org/10.1007/s10648-014-9248-0> 14. Pashler, H., Bain, P. M., Bottey, B. A., Gresser, A., Koedinger, K., McDaniel, M., & Melville, J. (2007). Organizing Instruction and Study to Improve Student Learning. IES Practice Guide. NCER 2007-2004. National Center for Education Research, 15. Desautel, D. (2009). Becoming a Thinking Thinker: Metacognition, Self-Reflection, and Classroom Practice. *Teachers College Record*, 111(8), 1997-2020. <https://search.proquest.com/docview/21362471/16> 16. Matthews, S., & Lowe, R. (2011). Classroom environments that foster a disposition for critical thinking. *Learning Environments Research*, 14(1), 59-73. <https://doi.org/10.1007/s10984-011-9082-2> 17. Martin, A. J., Burns, E. C., Collier, R. J., Bostwick, K. C. P., Flesken, A., & McCarthy, I. (2021, June 28). GrowthGoal Setting in High School: A Large-Scale Study of Perceived Instructional Support, Personal Background Attributes, and Engagement Outcomes. *Journal of Educational Psychology*. Advance online publication. APA PsycNet.

On-Demand Support for Students and Teachers

- TutorMe can support schools and districts as a tool in their intervention structure.
- Teachers have the ability to use TutorMe to supplement in-class learning when students need more direct support.
- Through leveraging tools like TutorMe's Writing Lab, teachers can reallocate time originally spent on reviewing and correcting first-draft writing assignments towards higher-impact activities, like deeper content exploration in the classroom.
- Through their school's partnership with TutorMe, students can access a tutor anytime, from anywhere, and for any academic need – whether they need homework assistance, an extra challenge, or a personalized support plan.

Scaffolded Sessions and Learning Goals

- TutorMe sessions provide differentiated 1:1 support focused on assessing a student's prior knowledge in order to build towards an accurate student model and keep students in their zone of proximal development.
- With TutorMe's collaborative digital tools, tutors can utilize evidence-based learning strategies, such as a Modeling-Scaffolding-Fading approach.

Growth-Mindset-Oriented Experiences

- TutorMe tutors deliver personalized, process-oriented feedback and process praise to continuously encourage student persistence.
- Within a TutorMe session, tutors facilitate the creation of a clear, goal-oriented session plan to aid students in accomplishing their learning goals.

Student-Centered Session Designs

- TutorMe tutors keep students as the drivers of a learning experience by prompting students to demonstrate their understanding and regularly use self-explanation.
- TutorMe sessions emphasize metacognitive strategies by encouraging students to evaluate their own reasoning and reflect on the learning process,
- Tutor guidance and feedback delivered through TutorMe focuses on student autonomy. It is never prescriptive or controlling.

Emphasis on Higher-Order Thinking Skills

- TutorMe sessions regularly prompt higher-order thinking through questioning techniques and application tasks.
- TutorMe reinforces critical thinking, problem solving, and decision-making techniques by engaging students in active discussion throughout the session.

Teacher Satisfaction and Retention

- Teacher self-reports indicate that use of out-of-school-time (OST) resources, such as access to tutoring services, can result in increased student work completion, satisfaction, and greater reports of readiness to learn in the classroom.¹
- Research of variables impacting teacher outcomes found self-report measures of workload to be predictive of job satisfaction ratings and teacher retention rates.^{2,3}

Equitable Learning

- A large meta-analysis of academic interventions with elementary and middle school students from a low SES background found that access to tutoring resources and feedback had a statistically significant impact on achievement.⁴
- A systematic review of OST academic programs found that focused academic supports, such as structured intensive tutoring, can improve academic outcomes for at-risk students, most of whom are from low-income and racial/ethnic minority families.⁵

Academic Achievement and Engagement

- Administering tasks at appropriate levels of cognitive difficulty for students has been shown to have positive effects on the maintenance of engagement and motivation in learning.⁶
- Higher rates of timely and effective feedback have been linked with increased engagement and motivation, and has been cited as one of the most effective practices for improving learning and achievement.⁷
- Studies suggest that learning experiences that focus on higher-order thinking skills see gains in the academic achievement of low and high-performing students.⁶
- Interactive lesson experiences — like modeling — have been shown to make learning more accessible, increasing academic engagement and achievement outcomes.⁷
- Student-centered lessons that include active learning elements, such as discussion, interaction, and student response technology, have been linked to improved engagement in learning and higher classroom retention rates.^{9,10}
- Tutoring sessions marked with reflection prompts have been shown to aid deep learners, while sessions with scaffolding have been shown to aid learners with more shallow knowledge.¹¹
- A meta-analysis analyzing the impact of access to OST tutoring resources found significant positive achievement gains for low-achieving or at-risk K-12 students in reading and mathematics.¹²

Metacognitive Techniques and Confidence

- Implementing metacognitive techniques such as reflection, goal-setting, and self-explanation has been shown to improve students' ability to self-monitor their own learning, engage in deep conceptual understanding, utilize critical-thinking skills, and succeed in transfer-of-knowledge tasks.^{11,13,14,15,16}
- Process-oriented feedback techniques have been shown to support persistence in learning and challenge-seeking behaviors as measured by growth-goal setting.¹⁷
- Higher rates of timely and effective feedback have been shown to result in increased levels of self-efficacy and self-reported feelings of competence in students.⁷