Painting Portraits of Effective Post-COVID Tutors: Co-Designing the Future of Tutor Training & Dashboards

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Abstract: High-quality tutoring has shown to be effective in countering learning loss created by the COVID-19 pandemic. However, the qualities of effective tutoring are vague with anticipated roles of impactful tutors transforming to accommodate students' changing needs and proliferation of technology. First of a three-part series, the goal of this work is to gain a better understanding of what educators want in relation to what we are designing surrounding tutoring technology platforms. We describe a community-driven, co-design session comprising 12 diverse participants of varying roles (i.e., educators, administrators, students, and caregivers). Using Affinity Clustering, participants reflected on their recent learning experiences, traits of effective tutors, and, most importantly, described characteristics of impactful tutor training. We conclude effective tutors are perceived as *learners* themselves— a promising finding for tutor training developers, as opposed to teachers who are often viewed as "engagers." Participants conclude non-teachers rely on modeling and teachers lean toward fostering engagement as effective student learning strategies. We plan on leveraging this preliminary work to guide subsequent future sessions (1) co-designing tutor training and (2) collaboratively critiquing prototypes of tutor dashboards.

Introduction

High-quality tutoring has shown to be effective in countering learning loss created by the COVID-19 pandemic. However, the qualities of effective tutoring are vague with anticipated roles of impactful tutors transforming to accommodate students' changing needs and proliferation of technology. We describe a community-driven, co-design session tapping diverse perspectives of recent learning experiences, traits of effective tutors, and, most importantly, we expand on characteristics of impactful tutor training. The goal of this work is to gain a better understanding of what educators and students want in relation to what we are designing surrounding tutoring technology platforms.

Designing tutor training, dashboards, and technology platforms

Significance and objectives

This work is significant because diverse stakeholder perspectives are needed to determine the qualities of effective tutoring, in reference and comparison to teaching. First in a three-part series, this information will be used in the design of tutoring platforms to ensure ease of use and optimization regarding virtual meeting and engaging methods of building relationships in hybrid or virtual tutoring spaces. Our goals are twofold: 1) to gain clearer view into stakeholder's thoughts and opinion into what makes an effective tutor and 2) to leverage the information gained to assist with future tutor training development and creation of a tutor-student dashboard.

Method

The 3.5 hour, in-person session consisted of 12 participants containing two participants for each of the following roles: teachers, parents, students, undergraduate tutors, school administrators, and tutoring organization administrators. To ensure a wide range of educational experiences and varied perspectives, participants were ethnically diverse and spanned a wide age range from a sixth-grade student to senior citizen. Participants were split evenly into two groups with one person from each role present in a group. The session consisted of four parts tapping personal and collaborative brainstorming and reflection.

Part 1: Personal reflection of learning experiences

Each group was given one of the following prompts:

- *Reflect on a highly effective teacher that you had. Who was it? What qualities made them highly effective. (Teacher group)*
- *Reflect on someone who helped your learning that was not a formal k-12 teacher. Who was it? What made them highly effective? (Non-Teacher group)*

Both groups mentioned the importance of teachers and non-teachers to be knowledgeable, easy to talk to, funny, rewarding the correct answers and the errors, and holding them, as students, accountable. The teacher group reported passion for math and immediate feedback as important to being an effective educator which was not mentioned by the non-teacher group. Themes unique to the Non-Teacher group were explicitly evident related to the importance of modeling and breaking down the learning into steps. It is important to note that all examples of learning shared by the non-teacher group were related to performance-based learning (i.e., playing the guitar, learning to dance). The Non-Teacher group discussed effective non-teachers as fellow participants in a ballroom dance group that would model the steps and break down the learning, or a guitar teacher who would first play the music as a method of modeling and then break the music down into steps. Modeling was discussed heavily in the Non-Teacher group but not mentioned in the Teacher group.

Part 2: Affinity cluster

First, participants reflected individually on the following prompt: *"Learning during the pandemic upended traditional notions of learning. It challenged when, where, and how learning takes place. Reflect on your experiences with learning and education over the last two years. Lean into your own personal and professional experiences (as a teacher, school leader, parent, student, etc.)."* They participated in the Rose, Thorn, and Bud activity by individually identifying 3-4 things that are positive *(Rose)*, negative (*Thorn*), and places of hope, or areas that have potential to grow (*Bud*). Participants recorded each thought on colored Post-Its: pink (*Rose*), blue (*Thorn*), green (*Bud*), respectively. Then they worked together for 25 minutes on creating an Affinity Cluster by sorting all Post-Its into similar areas to identify themes.

Figure 1: The two diverse groups work collaboratively on sorting items according to similarity using the Affinity Cluster technique.

(a) Group A (b) Group B

Group A identified six themes (in order roughly ranging from perceived primarily positive to negative): *relationships/connections, technology innovation/adaptations, teaching/educator implementation, student behavior/outcomes, access/marginalized groups,* and *mental health socialization.* The latter three were found to be negatively associated upon personal participant reflection of learning during the pandemic, with all items related to *mental health/socialization* having a negative impact on learning experiences. All items under *technology innovation/adaptation* were perceived as positive and an area of potential. One interesting finding was the similarity in positives and negatives for both the sixth-grade and undergraduate students were almost identical, however the specific details regarding the positive and negative aspects were not shared.

Figure: Group A's Affinity Cluster highlighting an even mixture of positive and negative items related to *student behaviors/outcomes* and all items related to *mental health/socialization* negatively impacting learning.

Group B isolated seven key themes (in order roughly ranging from perceived primarily positive to negative): *choice, technology benefits, raised awareness/intentionality, collaboration/relationships, interpersonal challenges, individual trauma,* and *technology challenges. Choice* was a positively-associated theme with participants stating personalization and asynchronous learning related to homeschooling and hybrid learning as a positive impact of post-pandemic learning. All items under *technology challenges* and *individual trauma* were obviously listed as negative because the theme was coded as negative indicated by the terms "challenges" and "trauma." *Technology benefits* contained many perceived positive outcomes that were strictly beneficial to teachers (i.e., revisiting recorded PD, Zoom-in option when sick in hybrid classrooms). According to Group B, pandemic-related learning raised awareness of mental health needs and re-examination of current school structures and problems.

Figure: Group B's Affinity Cluster showcasing perceived positive aspects regarding the themes of *choice* and *technology benefits*. Negative associations between technology and mental health warranted their own clusters identified as *technology challenges* and *individual trauma.*

Part 3: Portrait of a tutor

The facilitator explained the concept of creating a *portrait of a tutor* by explaining and illustrating examples of *portraits of a graduate* from local schools. Participants began by individually identifying what traits, skills, and mindsets a teacher or tutor needs to be successful. Both groups were prompted to provide an explanation of either *teacher* or *tutor* and give a detailed explanation of each trait. Unknowingly to each other, Group A created a *portrait of a tutor* and Group B created a *portrait of a teacher*, respectively. Each group had 15 minutes to brainstorm by listing effective traits and another 15 minutes to select their top six traits of a successful teacher or tutor. The K-12 student in each group had to give approval of their respective group's final portrait.

The six main traits of a *portrait of a tutor* were determined as: personable, collaborative, learner, prepared, respectful, and adaptable, with *tutor* defined as "fostering holistic learning for student success." Group A represented their portrait as a wheel with each of the six traits equally important to successful tutoring. The six main traits encompassing the *portrait of a teacher* were identified as: innovative, objective, strategic, student-focused, inclusive, and passionate, with the last trait explaining a teacher as "all-encompassing passion for students, content, and profession." Group B expressed upon discussion the importance of passion among successful teachers, both passion for math as a subject and passion for teaching itself. A key difference among perceived successful teachers and tutors upon analysis of portraits and group discussion is the emphasis of a tutor as a learner, with tutors needing to be active listeners, effective communicators, and learners themselves. Oppositely, teachers were not described as learners but as "engagers," which aligns with the beginning discussion of highly effective teachers having strong engagement skills.

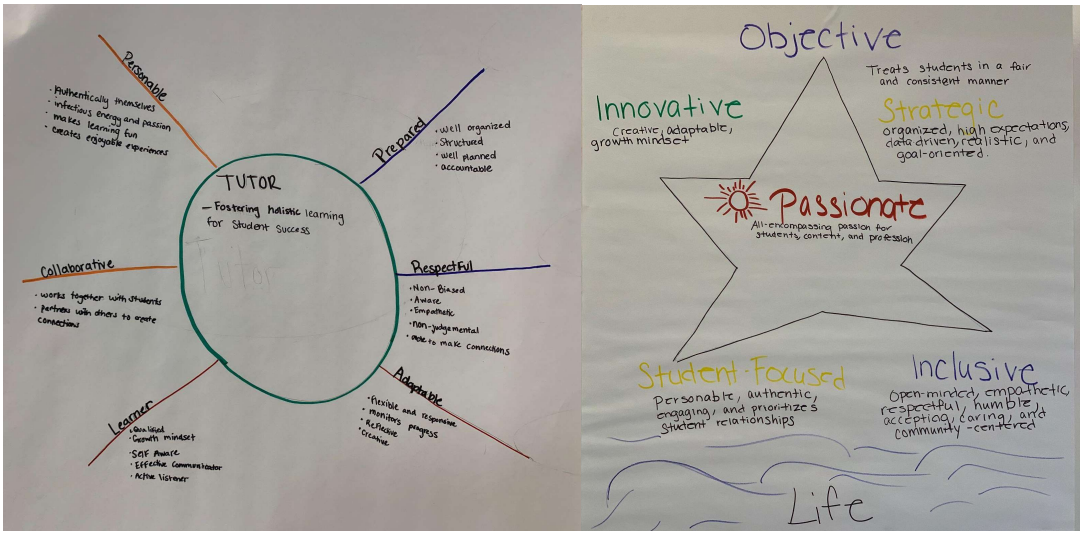

Figure: Portrait of a Tutor (a) and Portrait of a Teacher (b)

Part 4: Tutor training brainstorm: How to teach passion?

Both groups presented their portraits of a teacher or tutor with follow up discussions comparing and contrasting the two portraits. There were many similarities between the two with a few key differences. Effective teachers were described as passionate, both for their content and for teaching. Effective tutors leverage collaboration and are perceived as learners themselves. Successful teachers were not mentioned to be learners themselves.

Further discussion was suggested with Group A given the prompt of "how do you teach someone to be personable?", and Group B was given the prompt of "how do you teach someone to be passionate?" The latter was sparked from the idea that passion was threaded throughout the session within the portrait of a teacher, group discussions, and share outs. Upon group discussion, it is apparent the teaching of being *personable* and *passionate* is multifaceted and complex with possible performance-based models, such as a "library of situations" for tutors to "choose their own adventure" as a brainstorm idea. More time is needed to formulate clear means of teaching.

Discussion

We conclude a key difference between perceived highly effective teachers and non-teachers is the role of modeling in being successful in teaching. Successful non-teachers model how to perform or complete a task and break it down into steps as a method of teaching another person. Regarding effective teachers, modeling was not mentioned as an important skill or trait. For teachers, a primary skill of being highly successful was involving engagement and passion for the content and teaching.

We suggest several modifications to improve the effectiveness of future community co-design sessions. First, to ensure authenticity of youth opinion the session host should be intentional in encouraging and reiterating the importance of equal participation and voice. Second, to establish and maintain inclusivity, the session should begin with a warm-up activity introducing norms of successful co-design sessions (i.e., equal participation, active listening). We noticed participants of color were slower to warm-up and share their ideas and conclude warm-up activities focusing on inclusivity would assist with contribution among all participants. Last and most importantly, we suspect the introduction activity with each participant explaining their experiences and roles in education hindered active participation from youth, and perhaps participants of color or those with less direct experience in education. For example, teachers and educational administrators introduced themselves and, for some, discussed their extensive career experiences. We hypothesize this may have intimated some of the participants creating perceived power imbalances among some participants (i.e., K-12 and undergraduate students, parents).

Recent learning experiences in the post-pandemic environment involve the theme of technology which contain many positive aspects and areas of potential. The positive and promising role of technology from all stakeholders is encouraging in regards to developing tutoring technologies. Flexibility for teachers and non-traditional students through hybrid learning was expressed positively with negative association regarding technology related to Zoom fatigue and lack of student engagement in a remote learning environment. Two key themes perceived as having a negative impact on personal and professional learning experiences over the last two years were related to mental health from all roles (i.e., teacher, student) and challenges building relationships using technology. This information will be used in the design of tutoring platforms to ensure ease of use and optimization regarding virtual meeting and engaging methods of building relationships in hybrid or virtual tutoring spaces.

Effective tutors were perceived as learners themselves, as opposed to effective teachers who are viewed as “engagers.” The perception of effective tutors as active “learners” is promising regarding the creation of effective tutor training suggesting that tutors will have the mindset to embrace new ideas and methods of tutoring and mentoring students. We plan on leveraging this preliminary work as the first session of a three-part co-design session series. The second session will focus on the creation of methods of tutor training attending to the key traits of effective tutorship identified through this session. The initial brainstorm idea of tutors accessing a “library of situations" or “choosing their own adventure” sparked much discussion and will be revisited in this subsequent session. We plan on facilitating a third session on critiquing and providing feedback on possible prototypes of tutoring technology platforms and training. The painting of tutor portraits in this co-design session will fuel future design discussions and shape the development of tutor training.

Conclusion & Future Work

Endnotes

[1]Link to view the co-design presentation here:

References

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