An Evaluation of Perceptions Regarding Mentor Competencies for Technology-based Personalized Learning

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Introduction

- Increased achievement gaps among marginalized students

- Wider diversity of need among students

- Shortage of mentors/tutors

- Lower level of experience among current mentors/tutors

- More students needing social-emotional support

Mentors are becoming **primary players** in the teaching and learning process, particularly in an online setting.

Literature Review

- Less research regarding **perceptions of mentor supervisors and educational practitioners** about effective mentorship and their related competencies (Kelvan et al. 2020; Wyre et al. 2016).

- **Successful mentorship includes** mentors' personal attributes, curriculum alignment, data-informed decisions, high-quality sessions, school integration, innovative technology, affordable cost, and high-quality tutors (Hansman, 2003; Hudson, 2016).

- **Existing research on one-to-one tutoring** to help remedy the increasing opportunity gap (Ander et al., 2016; Kraft & Falken, 2021).

- **Data-driven research** using platforms for **mentor training** can support some specific competencies (Martin & Dowson, 2009; Oreopoulos & Petronijevic, 2018).

Research Questions

1) What competencies do mentors and mentor-supervisors consider most beneficial for successful mentoring?

2) Why do certain mentor competencies take precedence over others?

3) In what ways can prioritization of mentor competencies shape the technology-based personalized learning environment, similar to PL^2?

Methods: Partner Survey of Mentor Competencies

- Surveyed 18 PL^2 partners on the most impactful competencies to successful mentorship

- Respondents from different organization types
  - Tutoring organizations (5)
  - Public schools (4)
  - Ed support agencies (7)
  - College (2)

- Respondents had varying roles
  - Organization administrator (6)
  - School principals (3)
  - Managers (3)
  - Trainers (3)
  - Teaching staff (3)

4-point modified Likert scale
[1] low priority
[2] medium priority
[3] high priority
[4] urgent

Mentor Competencies in PL^2 Training

The Competencies

Social-Emotional Learning
1. Apply Social-Emotional Learning Practices
2. Engage and Motivate Students
3. Foster Independent Learning
4. Manage the Learning Environment

Mastering Content
1. Demonstrate Content Understanding
2. Understand Educational Policies and Norms

Advocacy
1. Use Culturally Responsive Teaching Practices
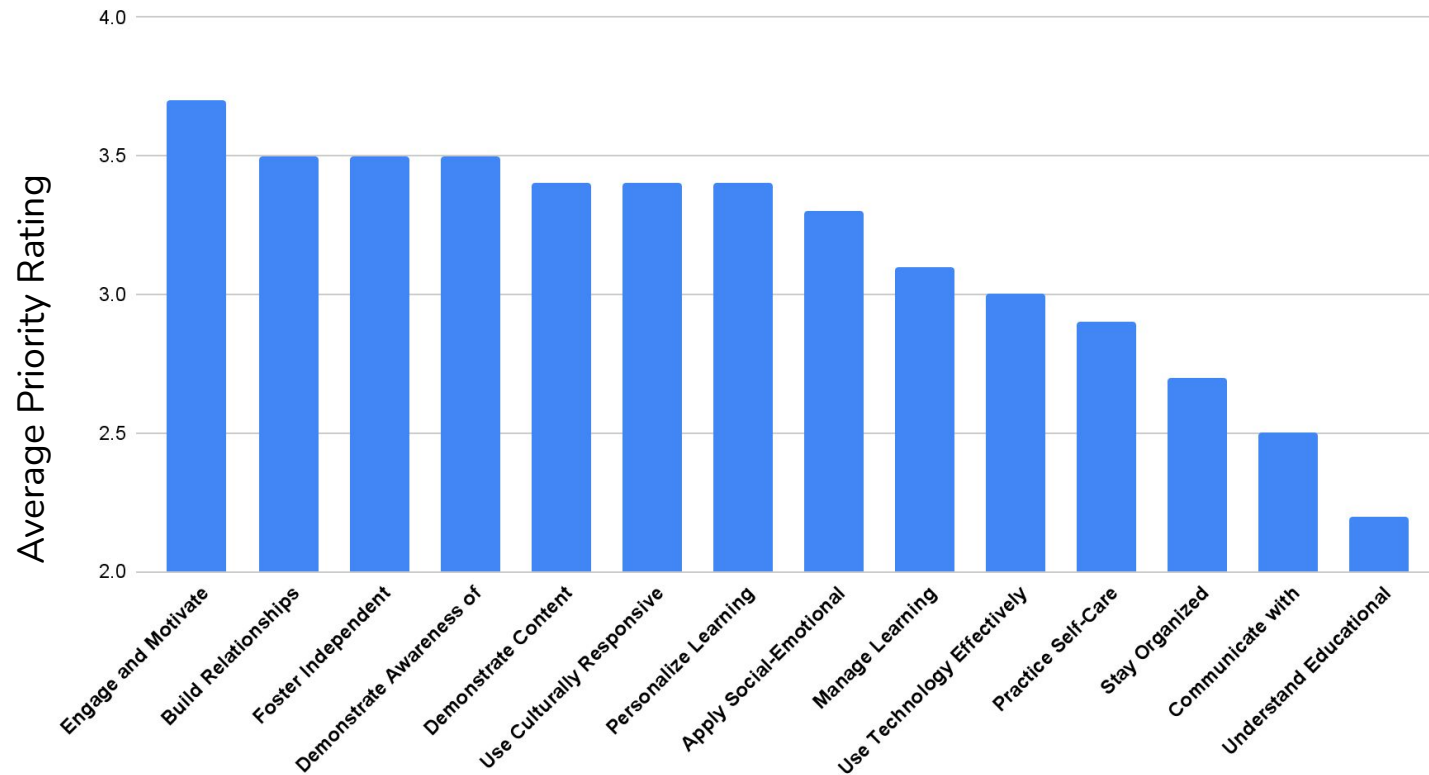2. Demonsrate Awareness of Bias
3. Practice Self-Care

Relationships
1. Build Relationships with Students
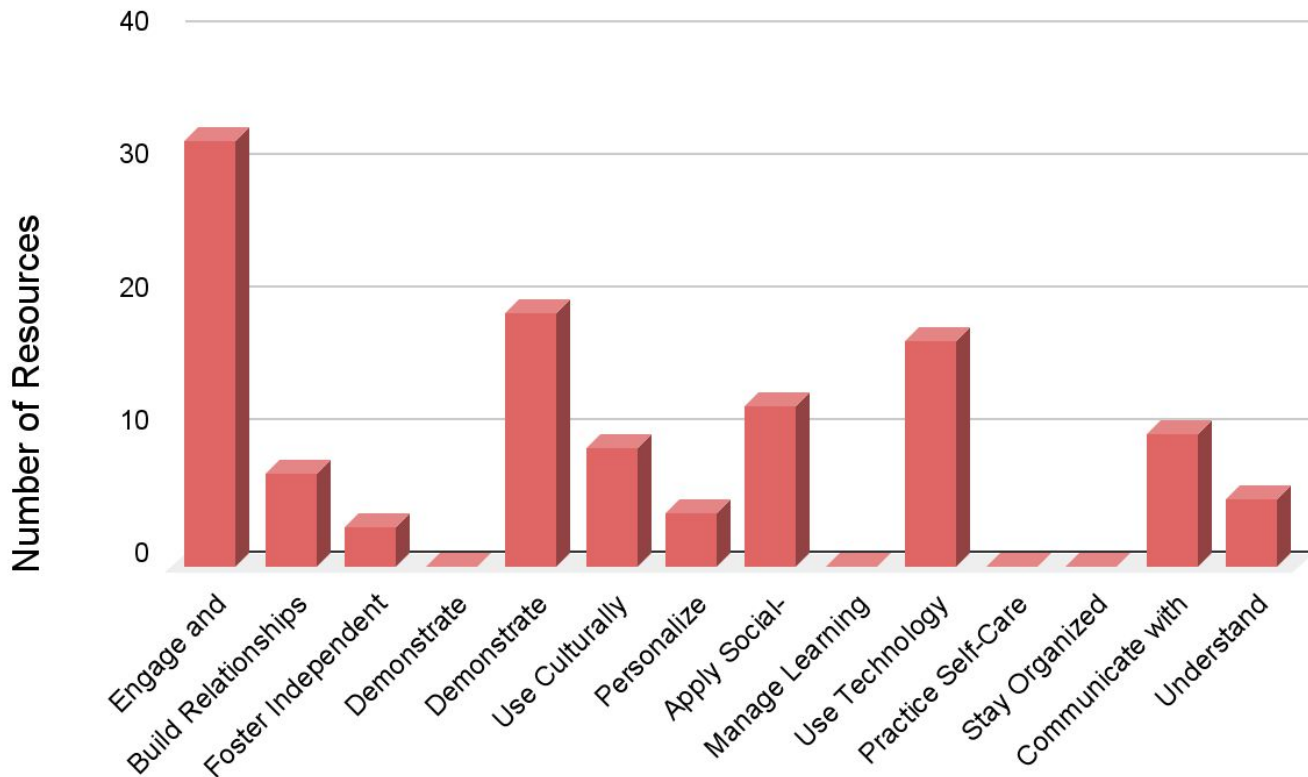2. Communicate with Caregivers

Technology
1. Use Technology Effectively
2. Stay Organized

S.M.A.R.T.

Results: Survey of Mentor Competencies

Current Resources in PL² by Competency

Personalized Learning²

Addressing the opportunity gap for marginalized students through personalized mentoring and tutoring with artificial intelligence learning software

What is Personalized Learning²?

Conclusion

- Optimize **development of online tutor-training** and technology-enhanced learning systems

- S**upport training on a large scale**, particularly volunteers and new tutors

- **Support tutors** to promote students' learning effort and achievement

- Use AI to recommend tutors resources and strategies based on students' learning data.

- **Develop content** and **implement an interactive instructional technique** to assist tutors in expanding their knowledge, as well as new and volunteer tutors become effective math mentors.

Future Work

- Evaluate the **usage of competencies** related resources

- **Address issues** related to engagement and motivation

- Analyze the success of the PL2 platform through **asynchronous training**

- **Survey feedback from students** to help determine what/why students feel when they are less engaged.

Our Institutional Partners

A partnership to train and equip community-based tutors and other paraprofessionals to contend effectively with COVID-related learning loss in urban schools, focusing initially on math.
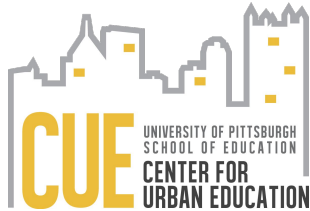
Our Software Partners

Our web application connects with and combines data from many different products.
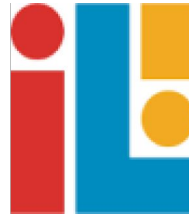
For questions, comments, or suggestions:

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