

# Latent Preferences: Friendship and Peer Tutoring Networks

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## Extended Abstract

Learning in higher education emerges not only from formal instruction but also from informal social and academic interactions. In Malaysia, women have outnumbered men in tertiary education for two decades, a trend termed the "Lost Boys" phenomenon, a trend especially visible in mathematics where female students and lecturers are the majority, challenging global stereotypes that associate mathematical ability with males.

This study investigates the social dynamics within this unique, female-majority educational context. We employ social network analysis to uncover the hidden structure of student interactions, seeking to understand how the interplay of gender, race, and academic performance shapes friendship and peer tutoring choices.

Our findings reveal a clear hierarchy of factors shaping student connections. Race consistently emerged as the strongest driver of both friendship and tutoring choices, underscoring the persistence of ethnic homophily in diverse learning environments. Gender, while generally less influential than race, displayed complex effects: female students often preferred male peers as tutors sometimes despite achieving higher academic results. Over time, academic performance gained salience, becoming more important than gender in structuring peer tutoring relationships in later years of study.

These results complicate narratives of male underrepresentation in higher education. While men are numerically fewer, they may occupy influential positions in academic support networks. The primacy of race highlights challenges for multicultural education, while the persistent preference for male tutors suggests subtle cultural biases endure even in female-majority settings. Together, these insights reveal the hidden architecture of student interactions, showing how social structures can both reinforce and challenge educational equity.

## References

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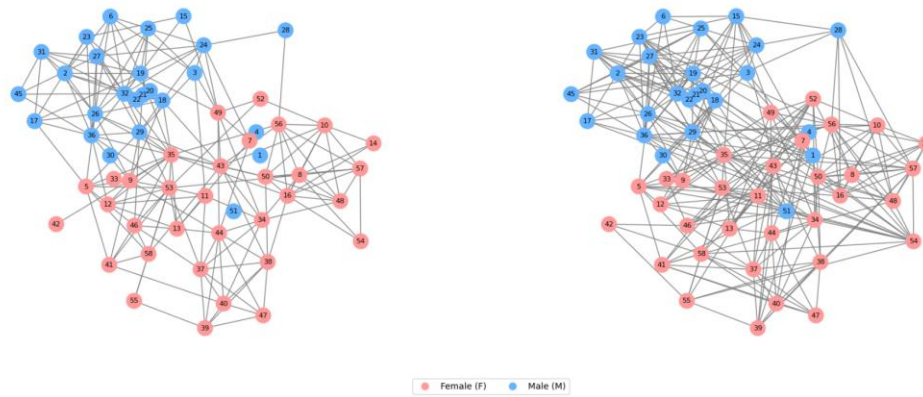


Figure 1. **Friendship Networks vs Peer Tutor Networks colored by gender.** Networks built from student surveys. All students participated voluntarily and provided informed consent. Responses were anonymous, and data were handled securely to ensure confidentiality and maintain research integrity.