Introduction

Individuals with disabilities are poorly represented in STEM. This is mainly because STEM education is often inaccessible and students with disabilities are frequently discouraged from pursuing STEM.

Concerns from Literature

Stigma around disability in STEM
- People are afraid to disclose their disability
- Disabled students are discouraged from pursuing STEM
- Few role models with disabilities

End of statutory support under IDEA
- Faculty lack the training to design accessible classes and materials
- Disability services may lack power to make change on a larger scale
- Poor visibility of services and resources
- Campus buildings are not accessible

Disabled students are not prepared for college
- Students don't know available resources or how to get accommodations
- Students lack the necessary social and academic skills to succeed in college
- Students are not used to the independence and lack of support
- Gaps impact first generation students disproportionately

To increase accessibility and reduce the negative stigma around people with disabilities, STEM institutions must find ways to help students with disabilities transition from high school and make them feel welcome.

Institutions are thinking of innovative ways to increase accessibility on their campuses. This poster highlights some of the concerns for accessibility in STEM and some innovative programs being implemented.

What Can Be Done?

Give disabled students a voice
- Student organizations
- Advocacy groups

Create mentorship programs
- Mentees and mentors can learn together

Use Technology to increase accessibility
- Drones that help navigate campus
- BreakThru a Second Life world made for mentoring students with disabilities
- Photovoice highlights disabled student experiences on campus
- 3D printed materials provide tactile access to visual resources

Advocate for broad change
- Legislative support for accommodation in post-secondary education

Transition programs
- Teach students college prep skills
- Help students make a plan

Universal Design for Learning
- Provides equal opportunities to learn

References

https://tinyurl.com/ASEEReferences

Conclusion

There are many ways to increase accessibility in STEM and help students transition from high school to college. It is important to remember all disabilities are different, even if several students have the same disability, they may have different needs. To ensure an institution is helping the most students possible, they must offer a variety of services and listen to their student's needs.

Next Steps

1. Survey high school professionals to learn about accommodations and student support at that level
2. Survey Mines students to learn about challenges and persistence
3. Use the data to find ways to make Mines more accessible