Leveraging Students' Assets for Academic Success

Dr. Erika Mein

Associate Dean of Undergraduate Studies and Educator Preparation College of Education, University of Texas at El Paso <u>elmein2@utep.edu</u>

UTEP & STEM Education

UTEP Context

- Large, public Hispanic Serving RI Institution
- Enrollment: >25,000
 >80% Hispanic
 ~5% Mexican National
 >50% First-generation



INTENTIONALITY

UTEP EDGE

Holistic, asset-based framework for student success based on three core principles:

- Talented Students
- Enriching Experiences
- Lifelong Success



Talented students. Enriching experiences. Lifelong success.

What does it mean to adopt an asset-based approach?



Framing the Change Process

Needs-based

Focused on an imposed standard and deficits

Views community members as having things done to them

Minimizes community resources

Reactive

Sees community as in need of external experts

Asset-based

Focuses on existing capacity and resources

Views community members as assets/contributors

Maximizes and recycles

Proactive

Sees community as expert

Kretzmann, J.P. & McKnight, J.L. (1993). Building communities from the inside out. Chicago: Acta Publications.

DEFINING "ASSETS"

Assets = Talents, skills, capacities, and strengths of individuals, associations, and communities that can be mobilized for action/change





Talented students. Enriching experiences. Lifelong success.

UTEPEDGE

Asset-Based Pedagogy



Mein, E. (2018). Asset-based teaching and learning with diverse learners in postsecondary settings. Departmental Technical Reports (CS). 1271. <u>https://scholarworks.utep.edu/cs_techrep/1271/</u>

UTEP STUDENT RESPONSES

ASSET INVENTORY

I. Reflect on and identify your assets. Assets are your unique talents, skills, capacities, and strengths as an individual. Assets can be academic, social, athletic, cultural/linguistic, technical, artistic, etc.

ortistic	accomidating
creative	retiable
responsible	guick learner
musical	detailed oriented
blingual	cunous
driven	openmindness
persistent	initiative
hard working	Derseverance
diverse/millicultura	Understanding
Caring	
motivated	
passionate	
problem solver	
determined	
time-management	
Loving	

ASSET INVENTORY

I. Reflect on and identify your assets. Assets are your unique talents, skills, capacities, and strengths as an individual. Assets can be academic, social, athletic, cultural/linguistic, technical, artistic, etc.

Problem - Solver	
critical/anytic thinker	
cang	
Observant	
adaptive	
Shinewilled	
- Controls	
collaborative	
community-on-ented	
Positive	
Sense of human	
social media sariny	

UTEPEDGE

Talented students. Enriching experiences. Lifelong success.

ASSET-MAPPING: UTEP STUDENTS



Talented students. Enriching experiences. Lifelong success.

UTEPEDGE

RESEARCH BASE: ASSET-BASED APPROACHES

Research on Asset-Based Approaches

Conceptual Frameworks

- Funds of Knowledge (Gonzalez, Moll, Amanti, 2005)
- Community Cultural Wealth (Yosso, 2005)
- Bilingualism as a Resource (Garcia, 2009)

Studies by UTEP Researchers

Bilingualism in STEM (Mein & Esquinca, 2017) Transfronterizx Literacies & Knowledge (de la Piedra, Araujo, & Esquinca, 2018) Identity Resources of Latinx in Engineering/CS (Mein et al, 2019, 2021) Latinx Voices in STEM (Villa, 2018; Villa et al., 2016)

Theories of Learning

Conceptual Frameworks

- Learning as a social process (Vygotsky, 1978)
- Learning as situated in activity/practice (Lave & Wenger, 1991)
- Emphasis on development

Studies by UTEP Researchers

Affinity Research Group (Gates et al., 2014; Villa et al, 2013)

REFERENCES

de la Piedra, M. Araujo, B. & Esquinca, E. (2018). Educating across borders. Tucson: University of Arizona.

González, N., Moll, L., and Amanti, C. (2005). Funds of Knowledge: Theorizing Practices in

Households, Communities, and Classrooms. New Jersey: Lawrence Erlbaum Associates, Publishers.

García, Ofelia. 2009. Bilingual education in the 21st century: A global perspective. Oxford,

UK: Blackwell.

Gates, A., Villa, E., and S. Salamah (2014). Developing Communities of Practice to Prepare Software Engineers with Effective Team

Skills," in Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills, (L. Yu, ed.), IGI Global.

Lave, J. and Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Mein, E., & Esquinca, A. (2017) The role of bilingualism in shaping engineering literacies and identities. *Theory into Practice*, 56(4),

282-290.

Mein, E. (2018). Asset-based teaching and learning with diverse learners in postsecondary settings. Departmental Technical Reports (CS). 1271. <u>https://scholarworks.utep.edu/cs_techrep/1271/</u>.

Mein, E. and Muciño-Guerra, H. (2019). Key sociocultural influences shaping Latinx

students' pathways to engineering/CS: An ethnographiclens. *American Society for Engineering Education Annual Conference Proceedings*. Washington, DC: American Society for Engineering Education

Mein, E., Esquinca, A., & Muciño Guerra, H. (2021). Identity capital and persistence among Latinx engineering/Computer Scien ce undergraduates on the US-Mexico border. ASEE Collaborative Network for Engineering & Computer Diversity

Annual

Conference.

- Villa, E., Gates, A., Kephart, K., Hug, S., and H. Thirty, "Affinity Research Groups in Practice: Apprenticing Students in Research," Journal of Engineering Education, July 2013, 102(3), pp. 444-466. DOI 10.1002/jee.20016
- Villa, E. Q., Wandermurem, L., Hampton, E. M., & Esquinca, A. (2016). Engineering education through the Latina lens. *Journal of Education and Learning*, *5*(4), 113-125. Doi: 10.5539/jel.v5n4p113

Villa, E. Q. (2018). Minority voices: Interrupting the social environment to retain undergraduates in computing. *Inroads, 9*(3), 31-33.

Vygotsky, L. (1978). *Mind and society*. Cambridge, MA: Harvard. SATEL PAS Yosso, T.J. (2005). Whose culture has capital? *Race, Ethnicity and Education*, 8(1), pp. 69–91.

Thank you!

