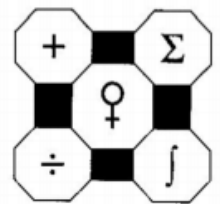


Math Academic Self-Concept

A webinar on behalf of
Women and Mathematics Education

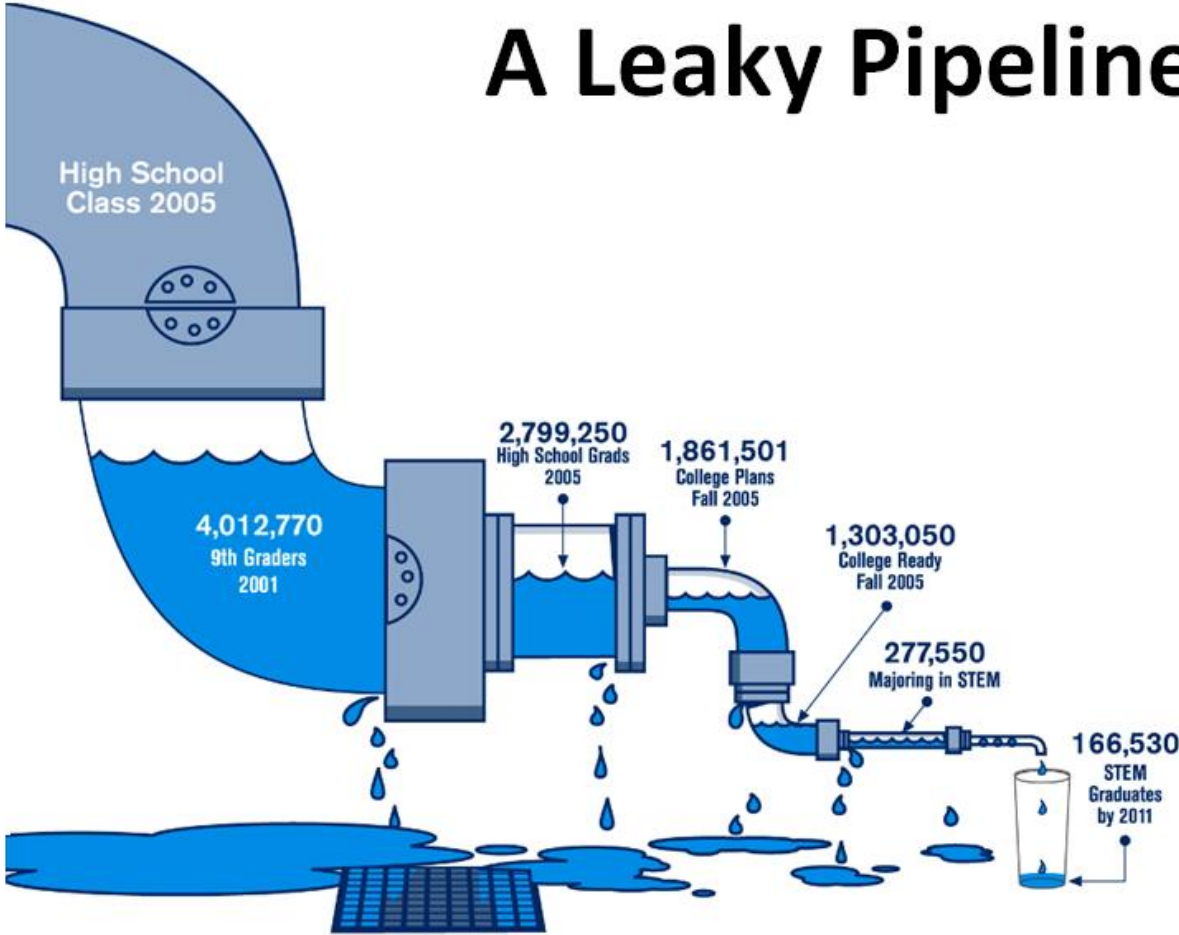


Jacquelyn Kelly, PhD

**Why is mathematics
education important?**

**Mathematics education
provides an opportunity
for students to succeed
in careers**

A Leaky Pipeline



Source: NCES Digest of Education Statistics; Science & Engineering Indicators 2008

The Draw a Scientist Test



Chambers, D.W. (1983). Stereotypic images of the scientist: The draw-a-scientist test. *Science Education*, 67(2), 255-265.

3rd Grade Student



Tucker-Raymond, E. & Pappas, C.C. (2007). "They probably aren't named Rachel": Young children's scientist identities as emergent multimodal narratives. *Cultural Studies of Science Education*, 1(3), 559-592.

7th Grade Student



Steinke, J., Lapinski, M.K., Crocker, N., Ziestman-Thomas, A., Williams, Y., Evergreen, S.H., & Kuchibhotla, S. (2007). Assessing Media Influences on Middle School-Aged Children's Perceptions of Women in Science Using the Draw-A-Scientist-Test (DAST). *Science Communication*, 29(1), 35-64.

7th Grade Student



Steinke, J., Lapinski, M.K., Crocker, N., Ziestman-Thomas, A., Williams, Y., Evergreen, S.H., & Kuchibhotla, S. (2007). Assessing Media Influences on Middle School-Aged Children's Perceptions of Women in Science Using the Draw-A-Scientist-Test (DAST). *Science Communication*, 29(1), 35-64.

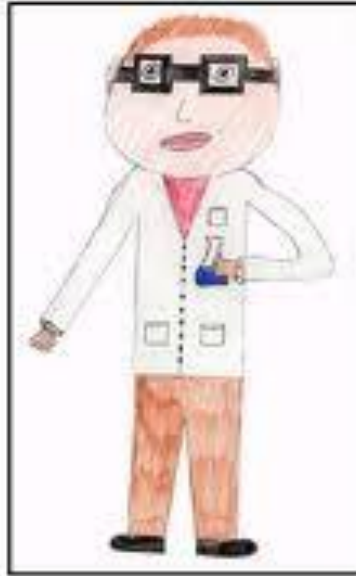








BEFORE



AFTER



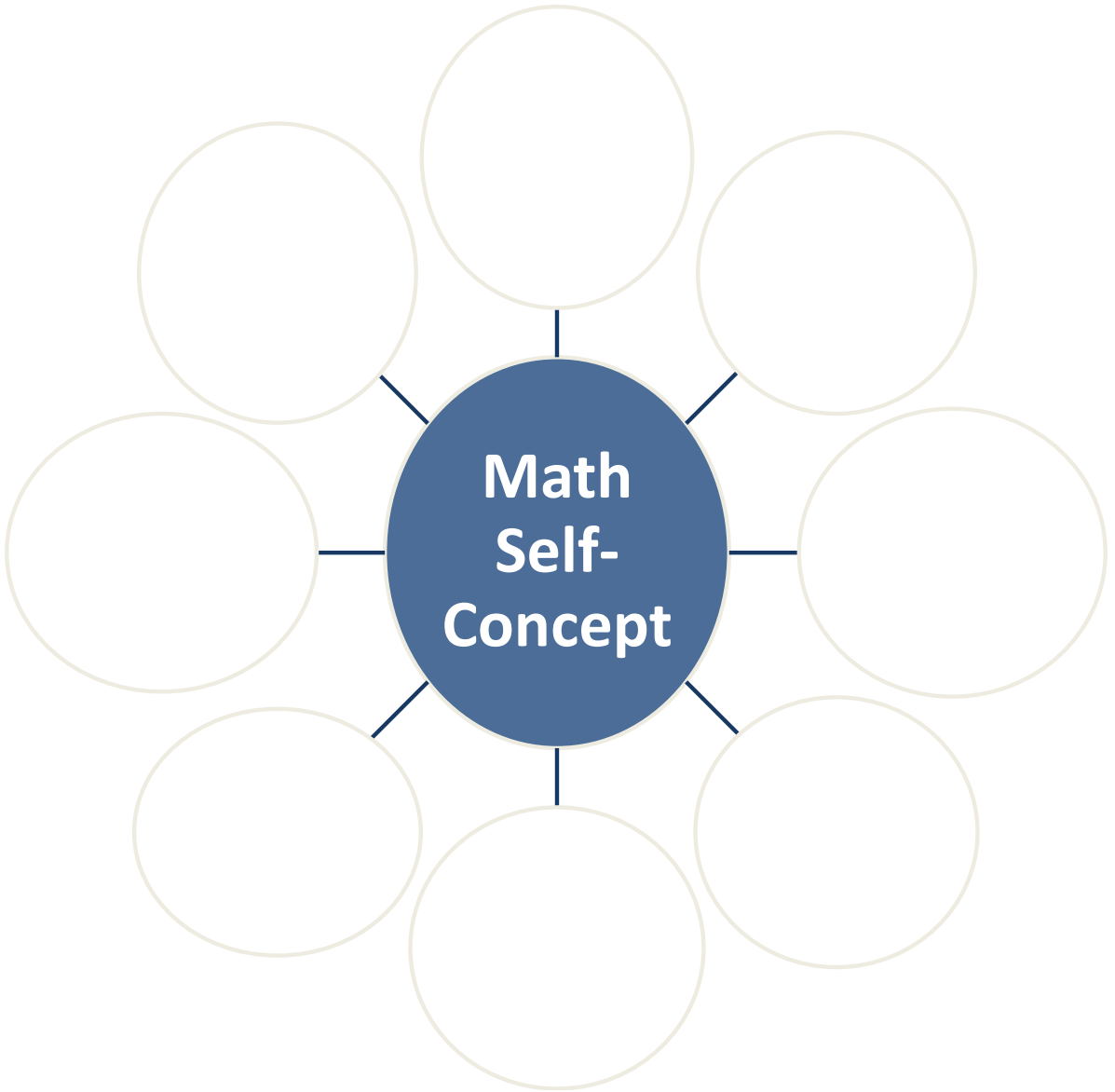
So, what.....???

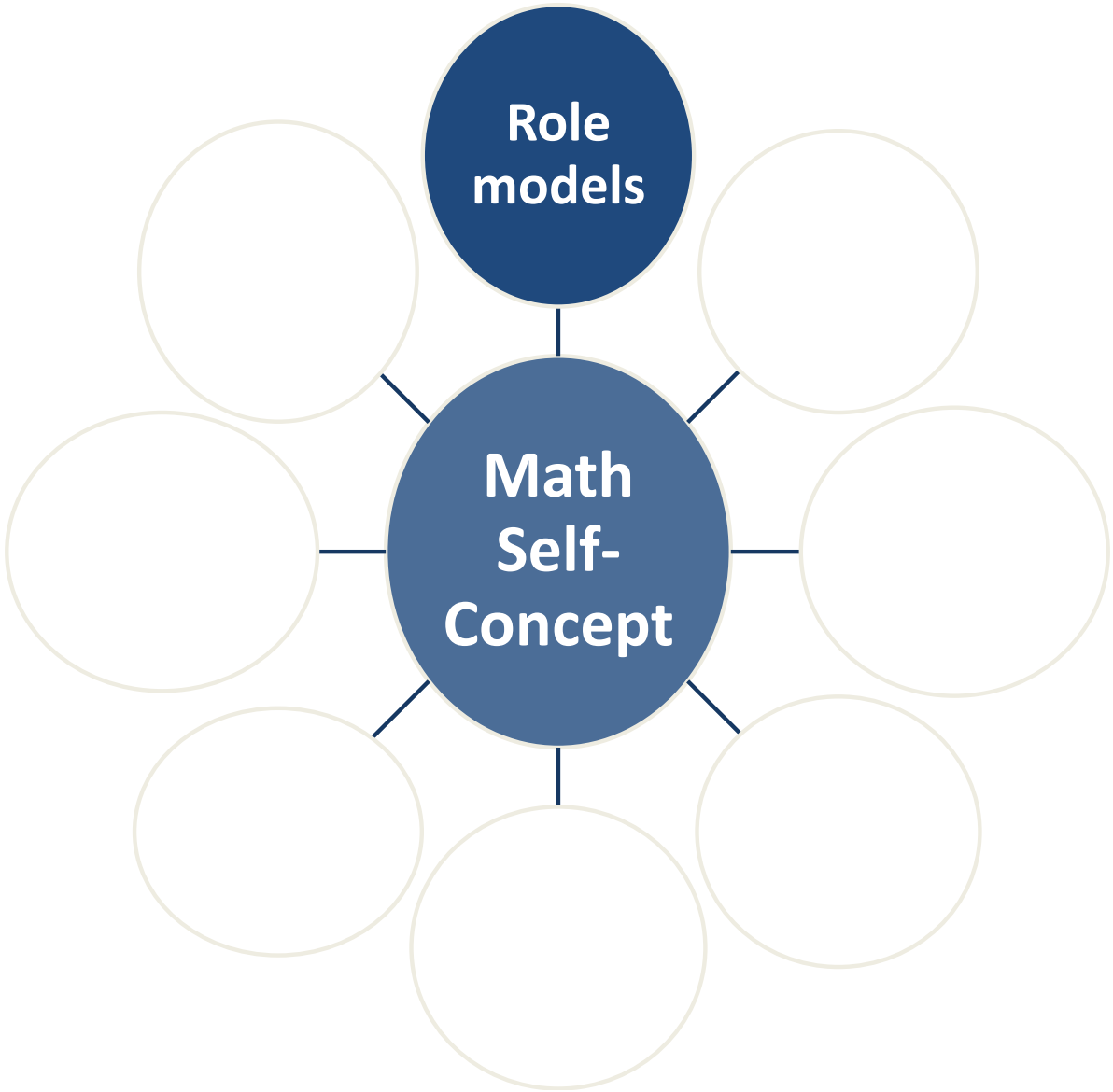
Math Academic Self- Concept

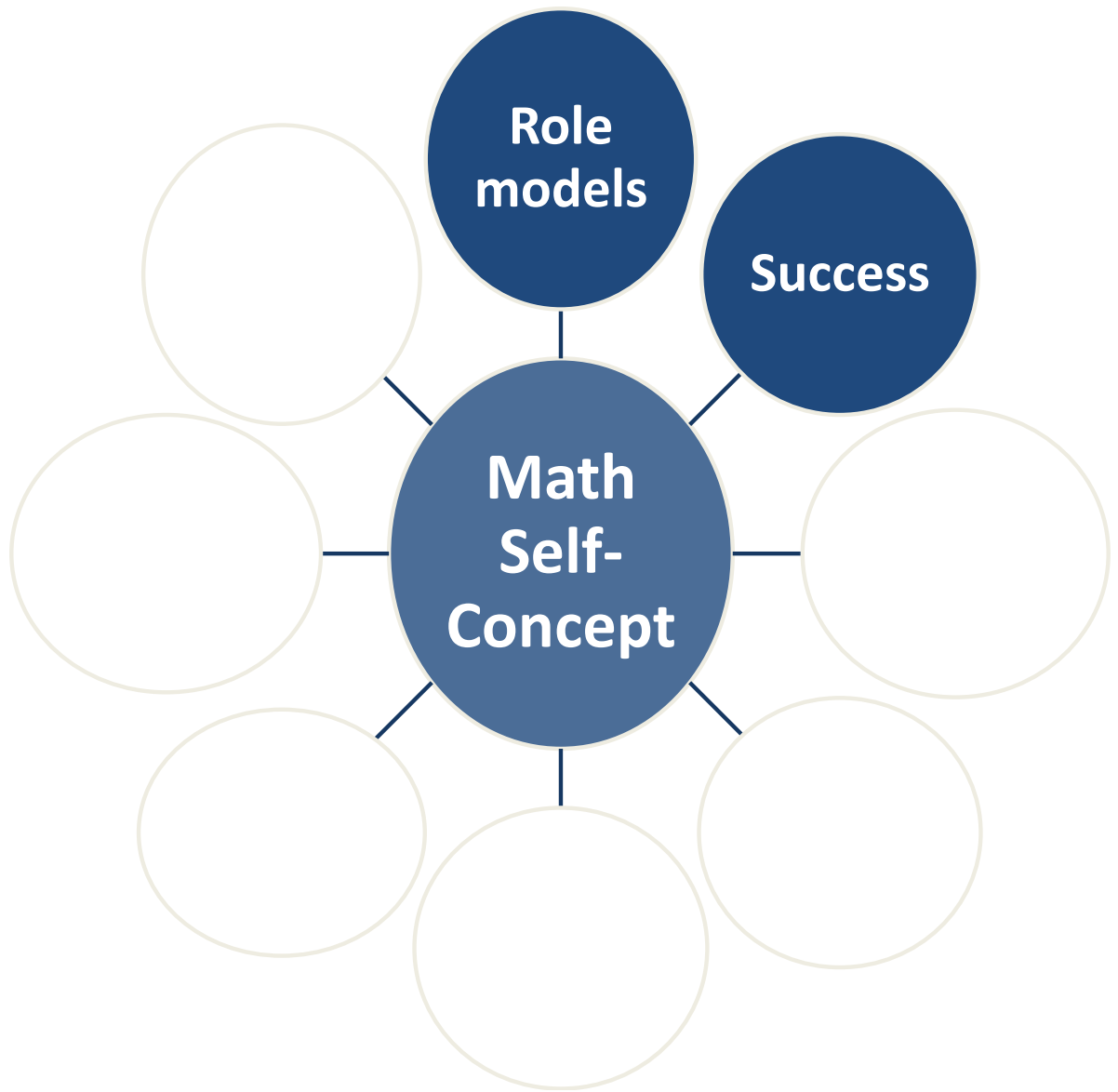
*the perception of oneself as a math
participant based on experience,
environmental feedback, and
recognition*

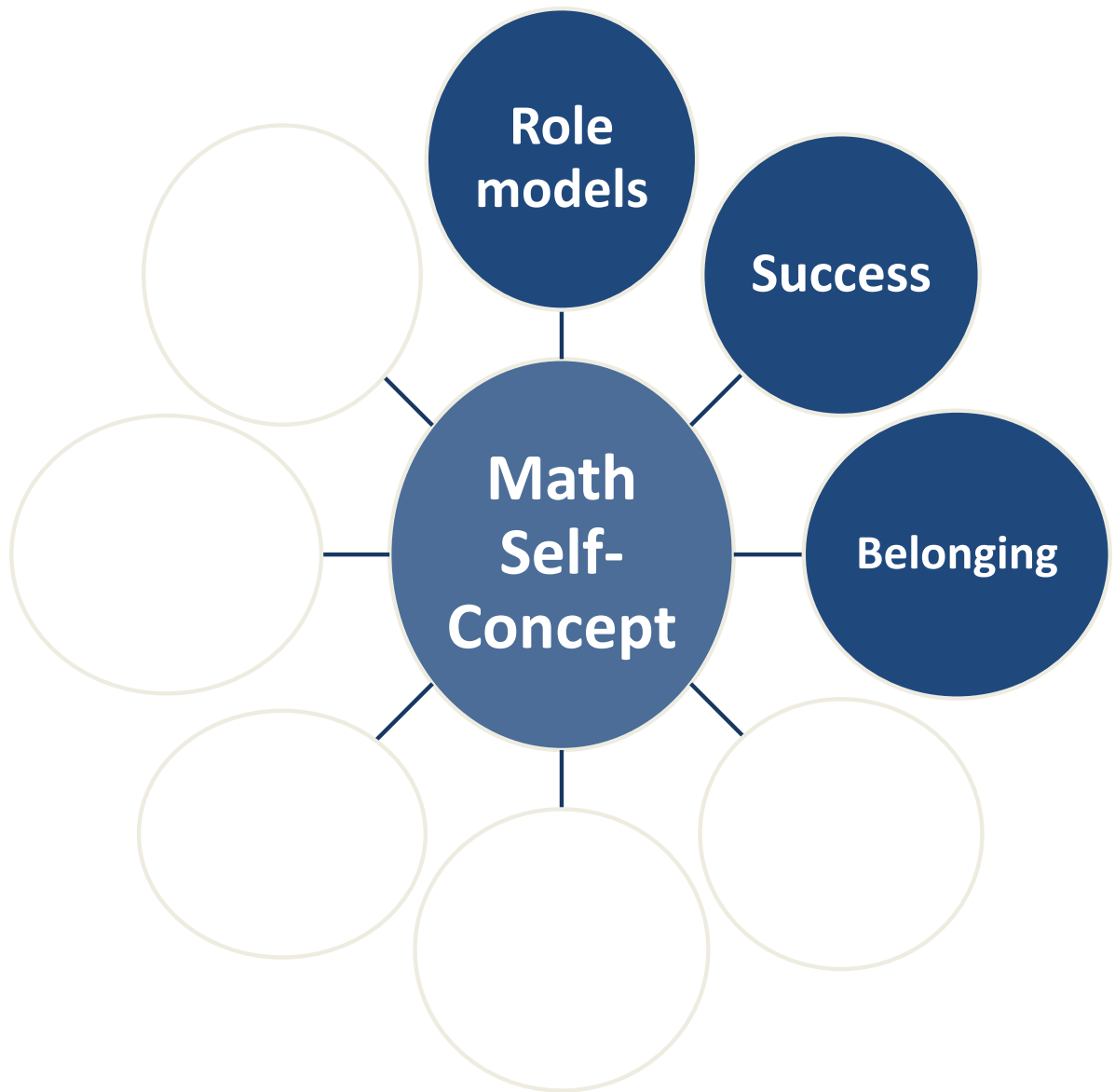
What is missing?

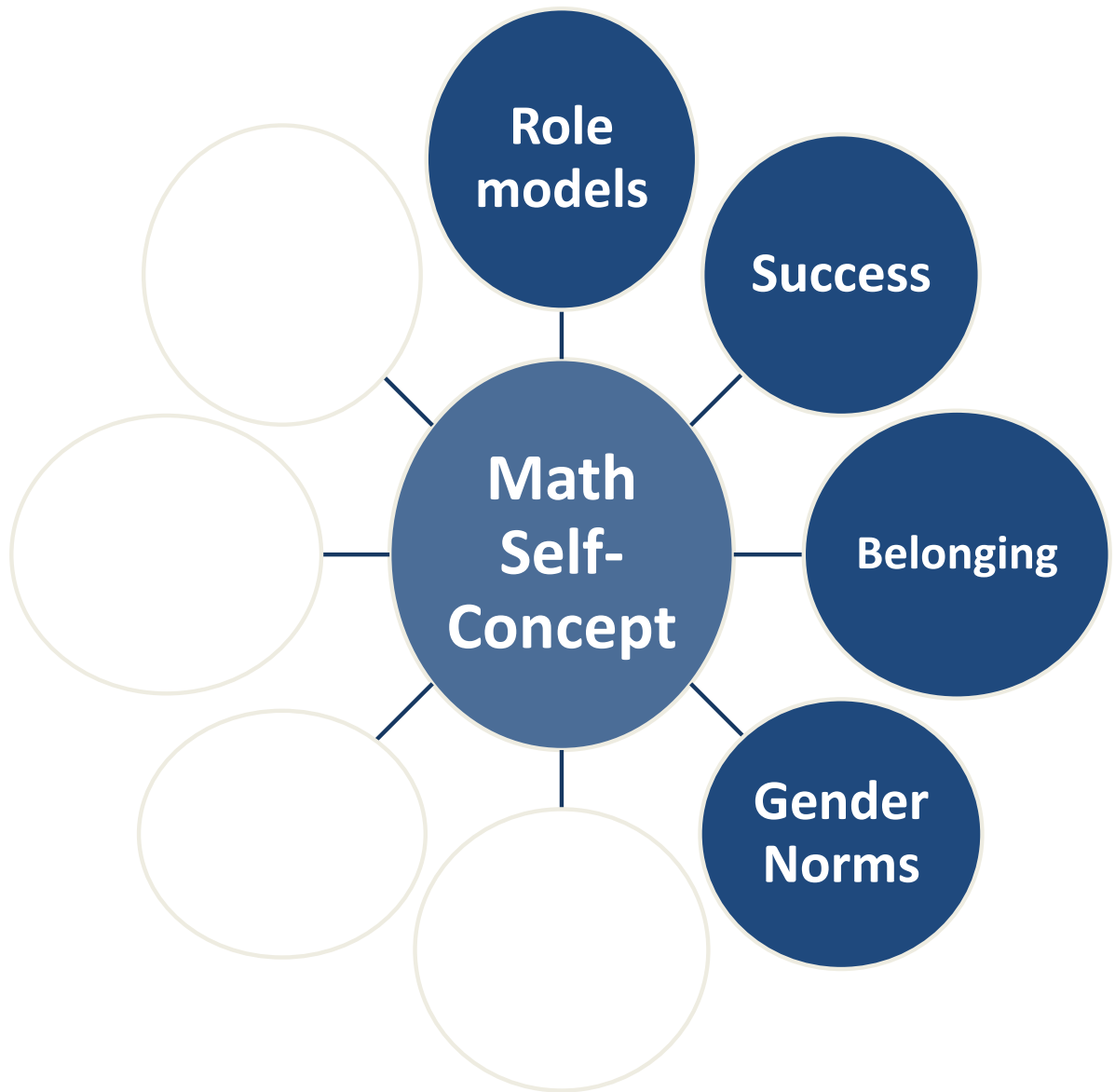


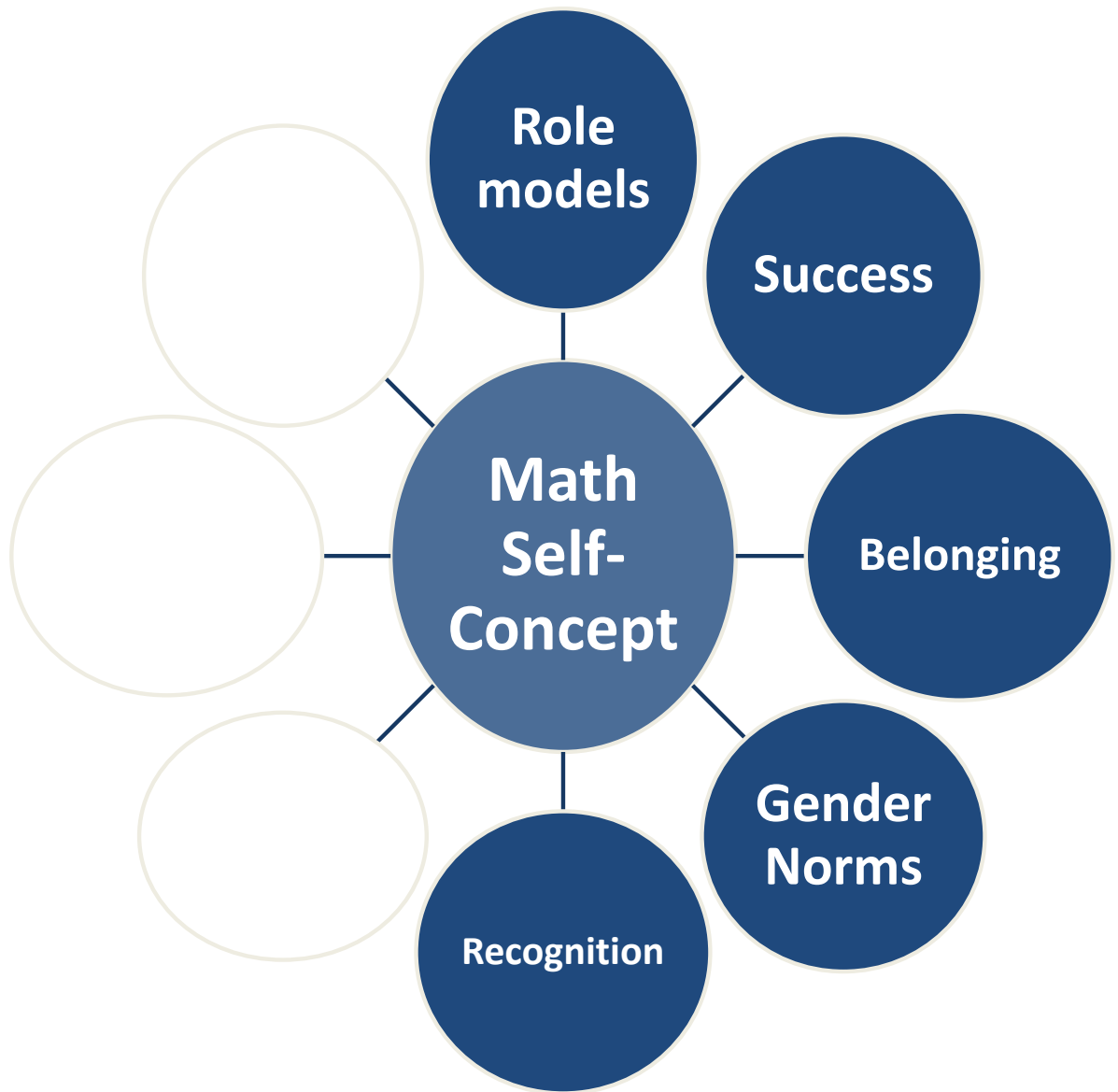


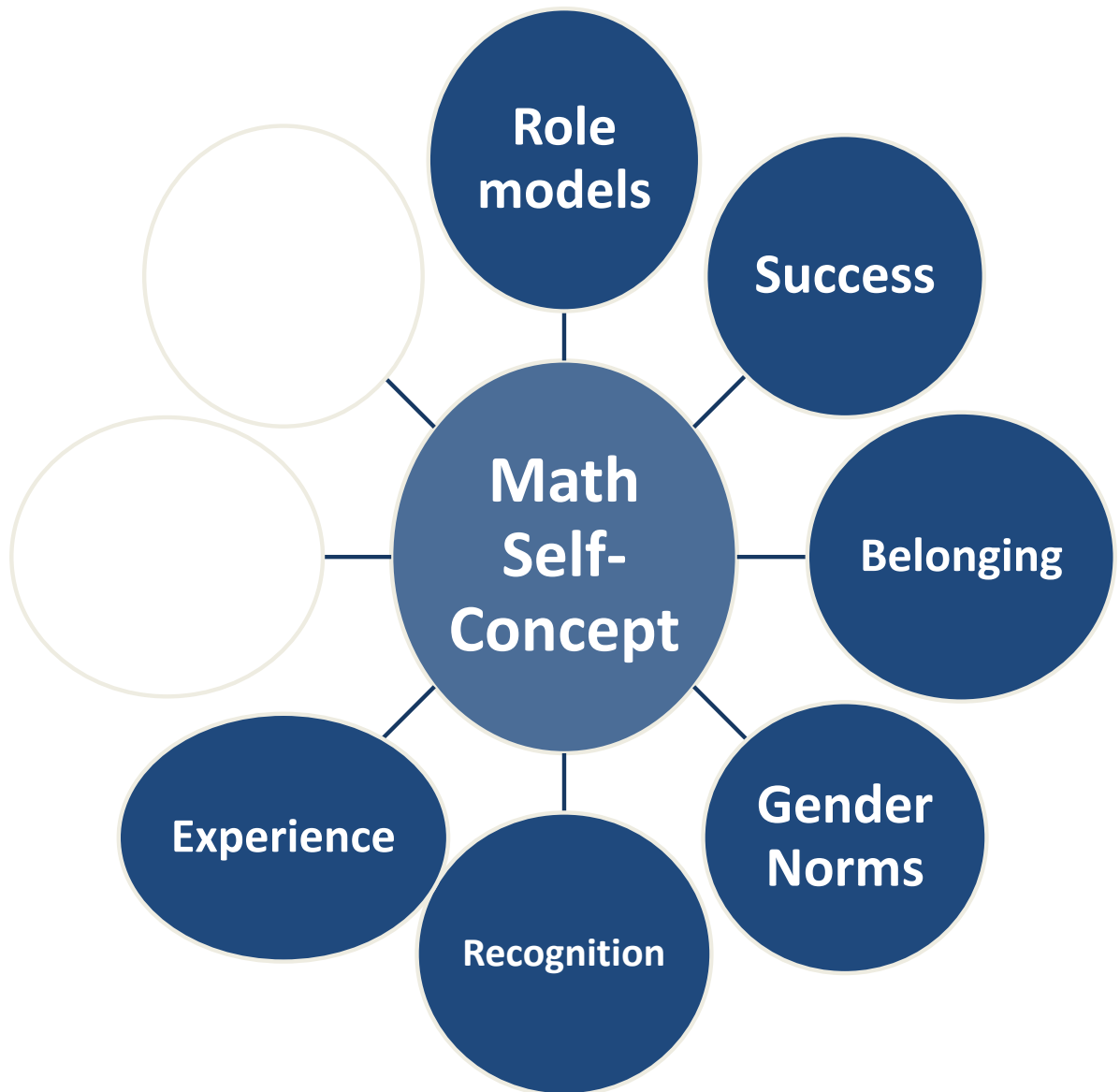


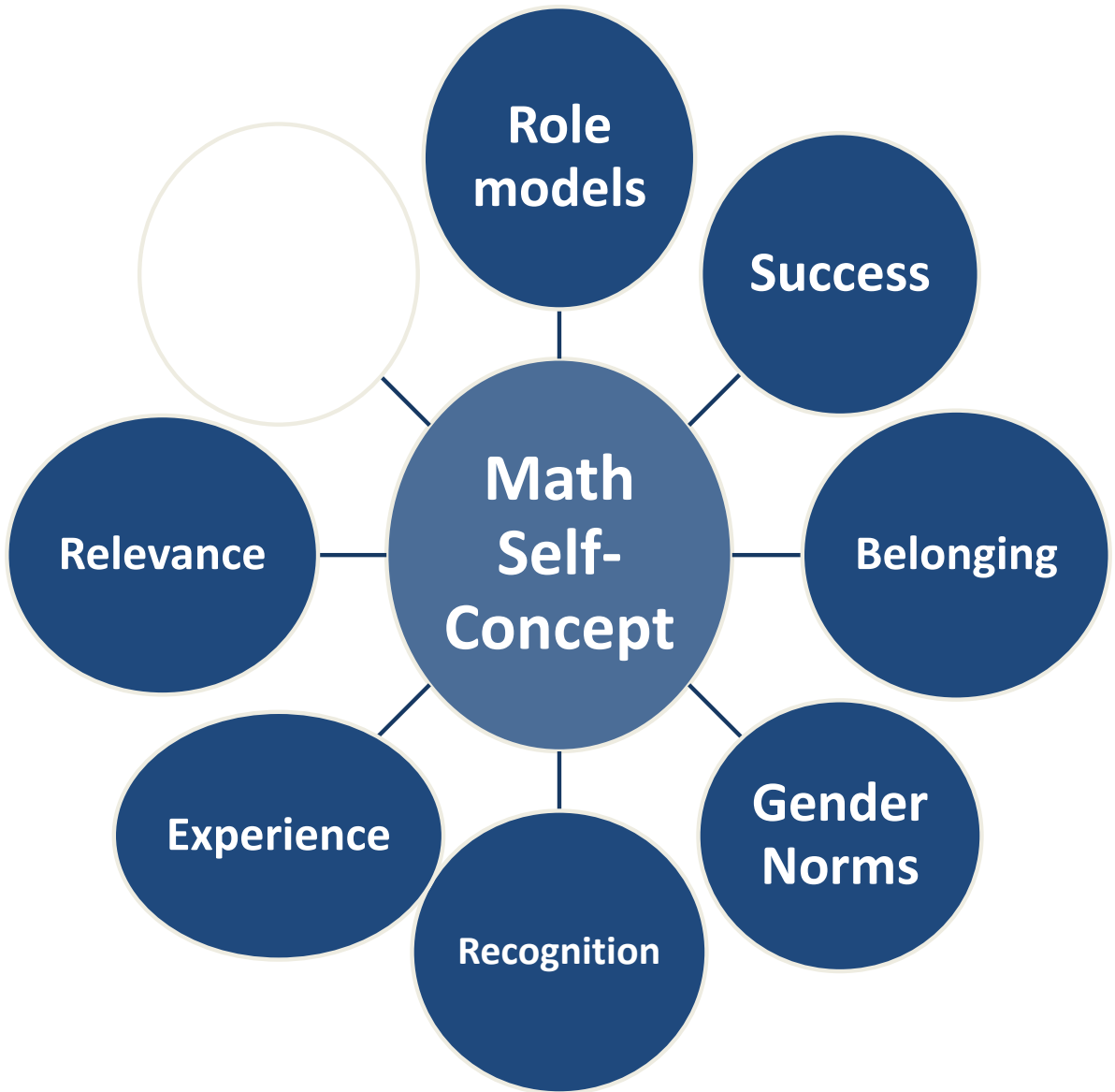


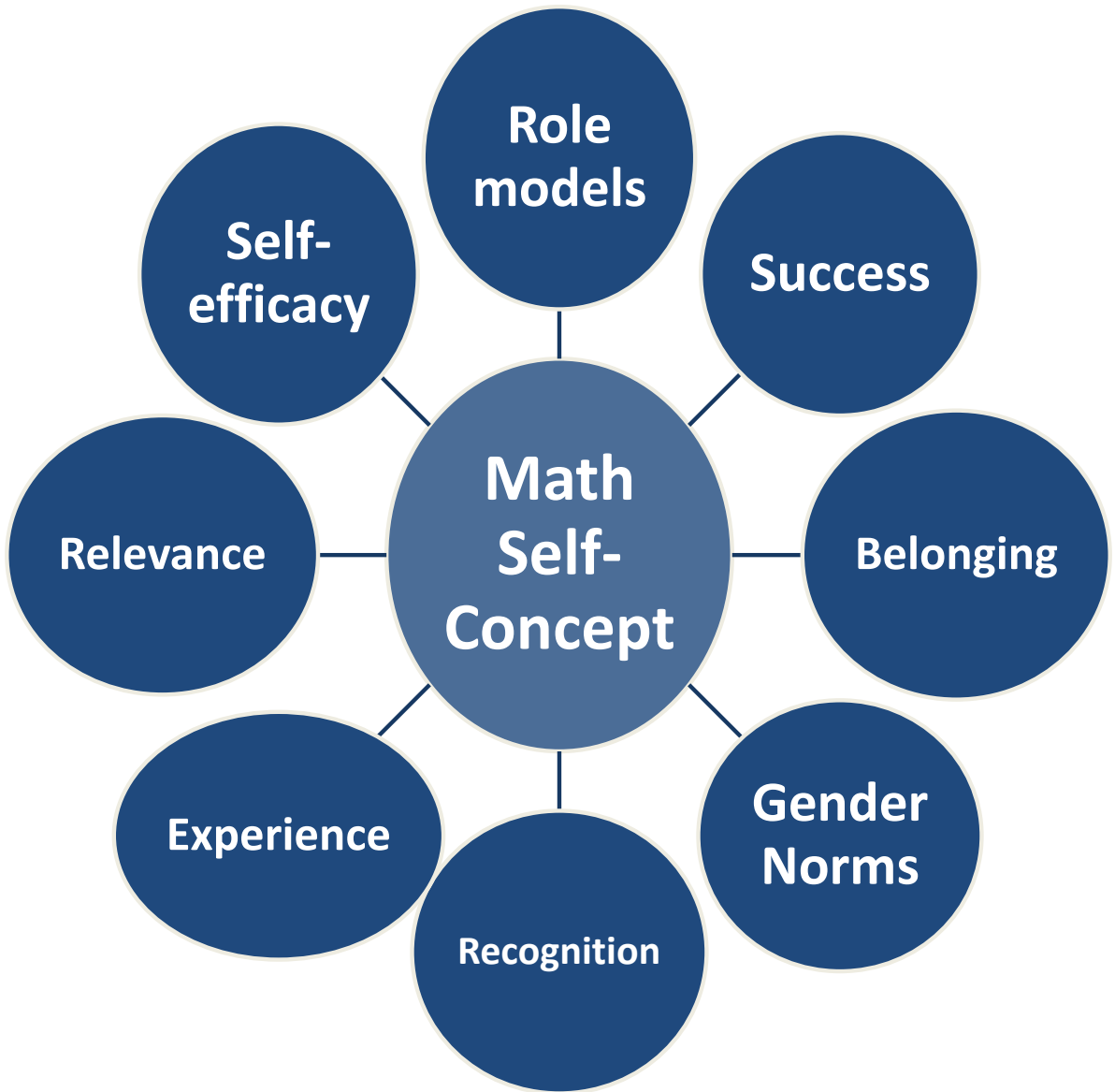




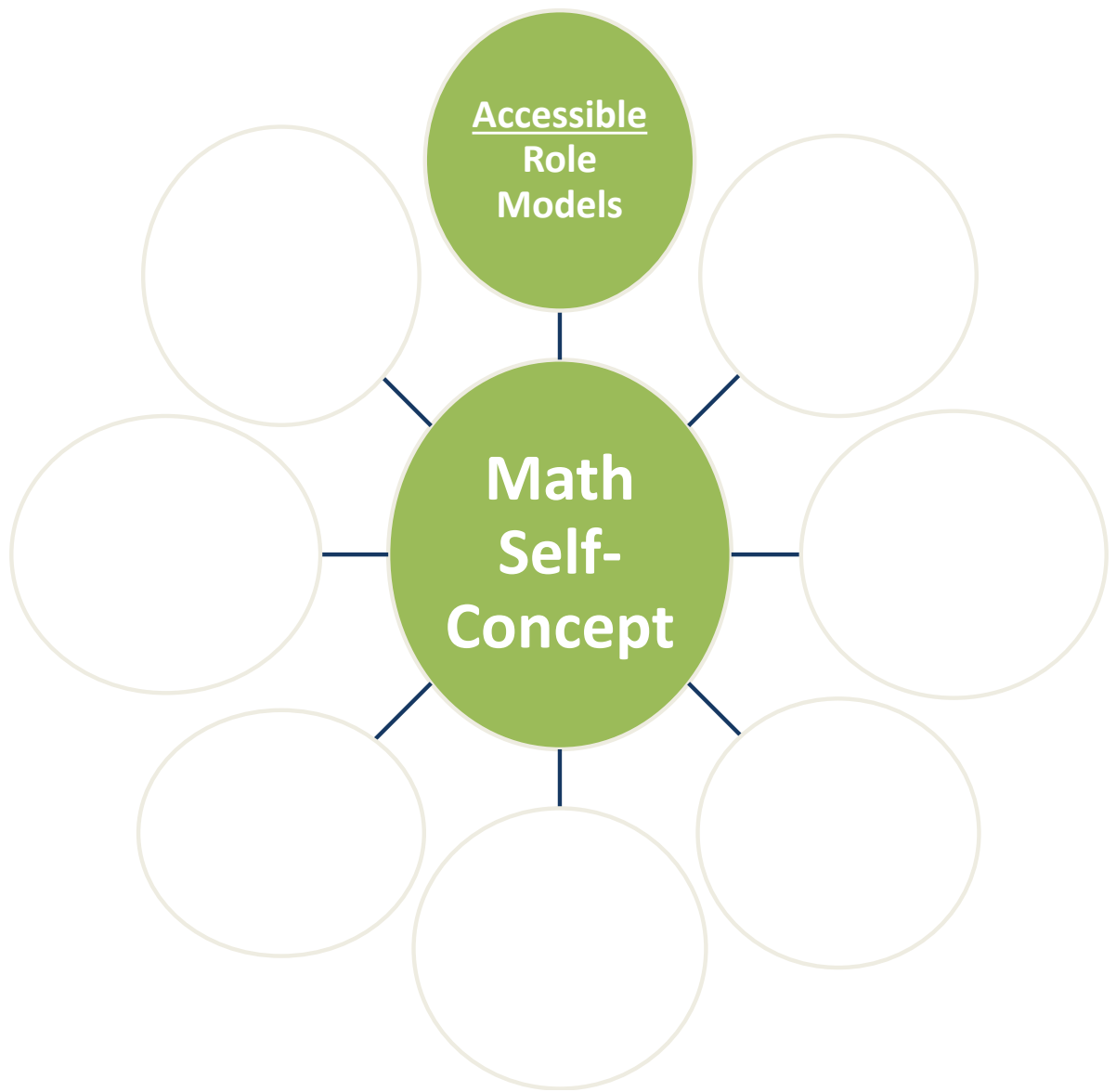


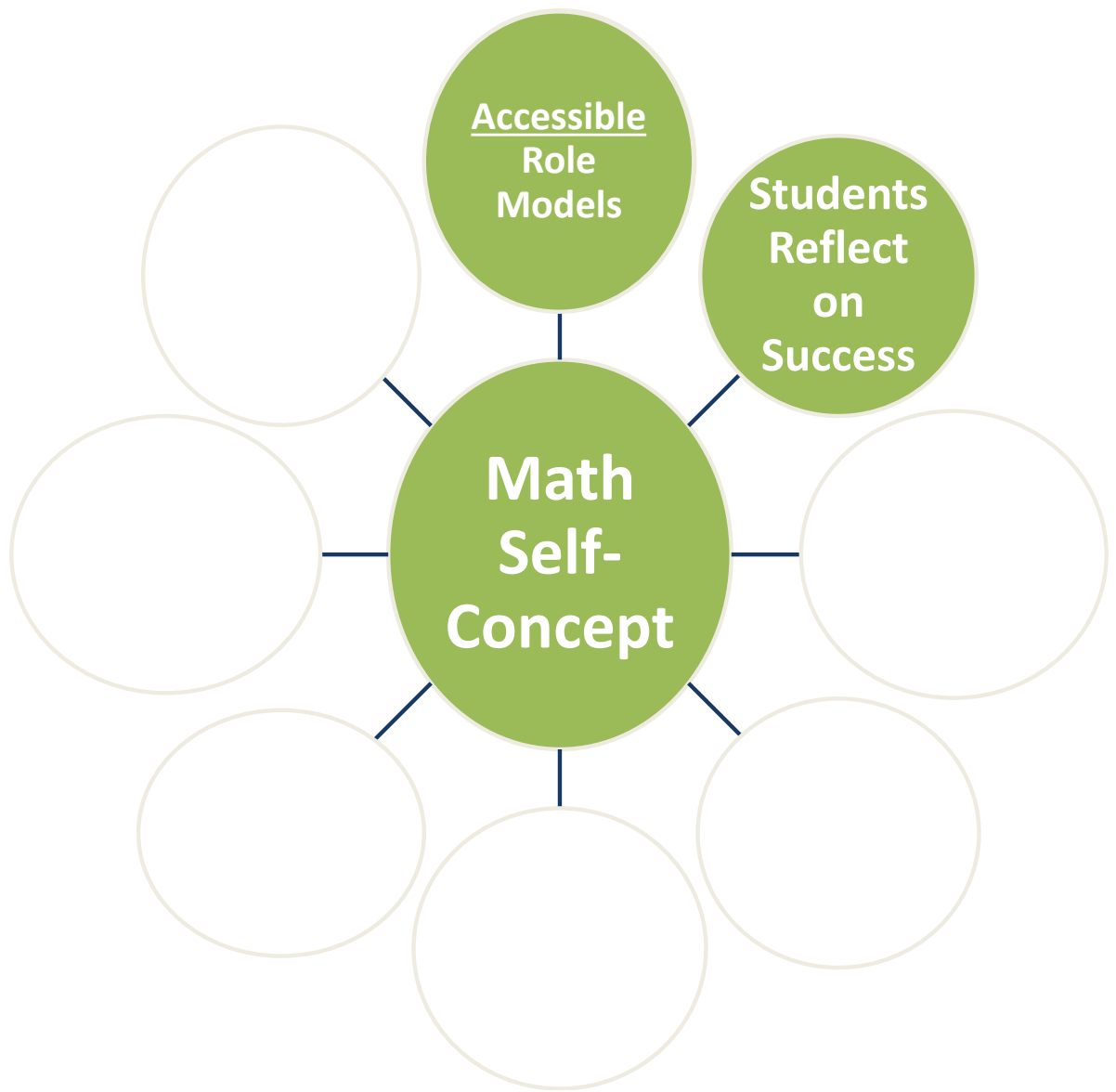


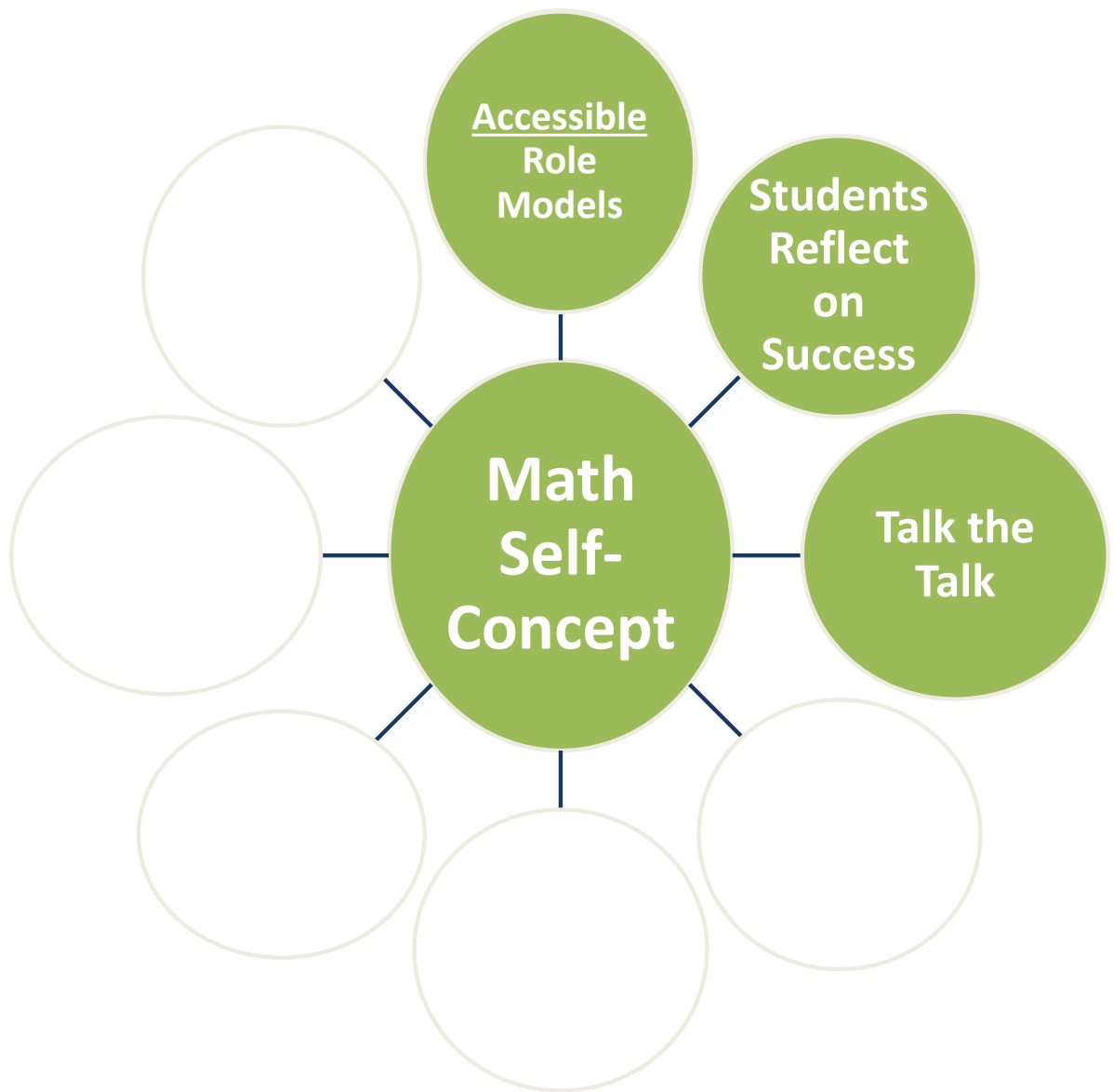


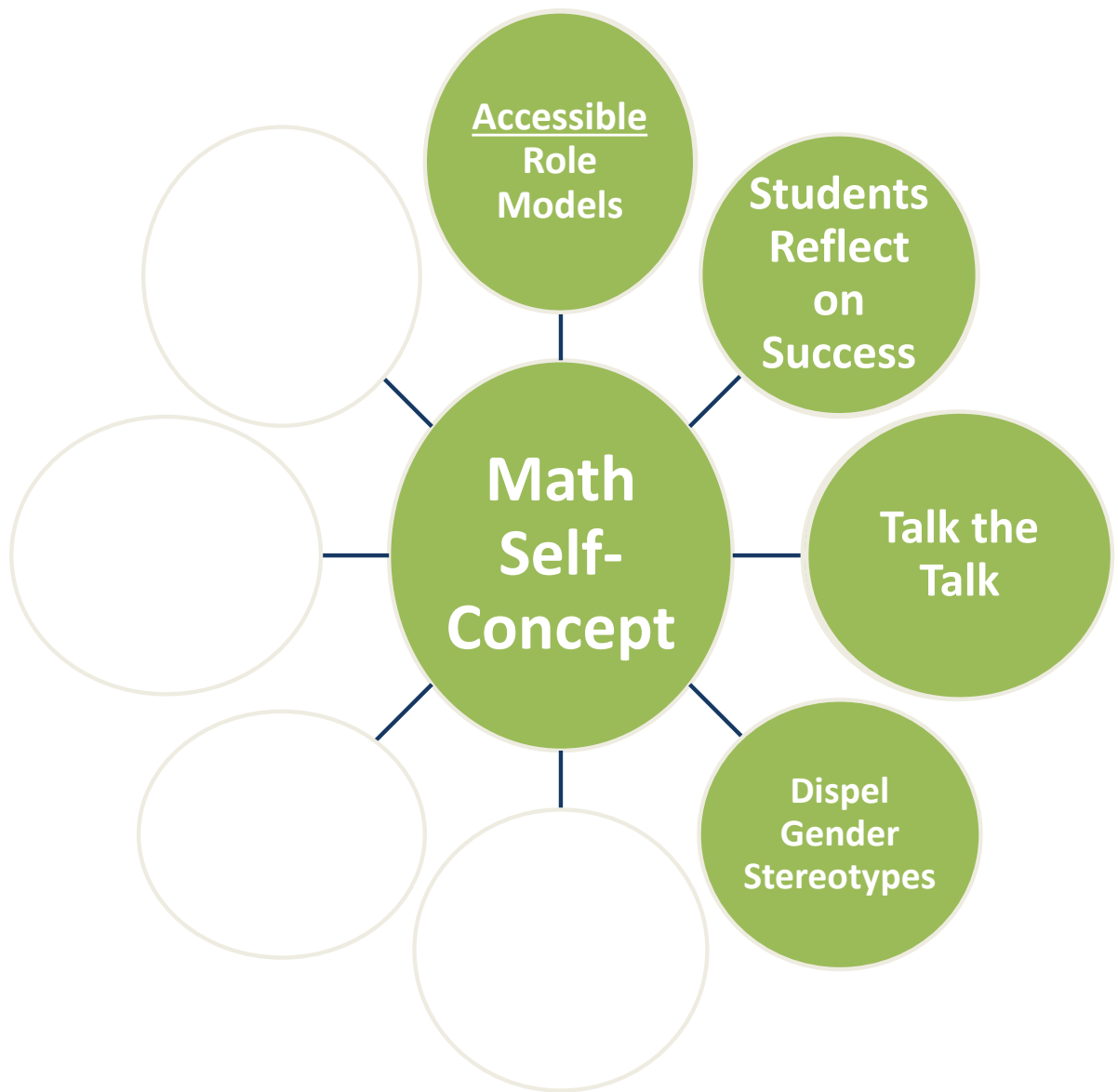


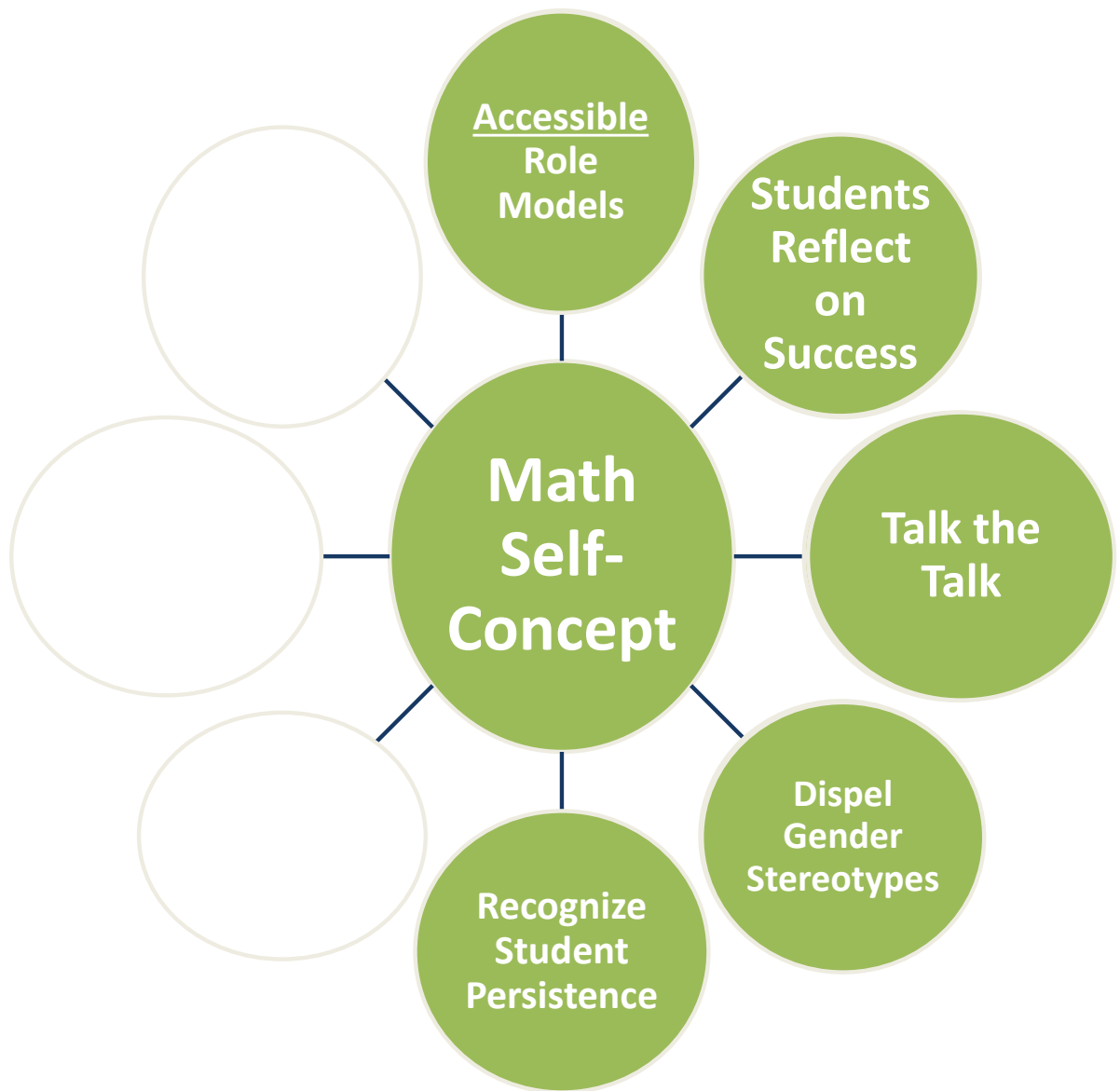
What can we do?

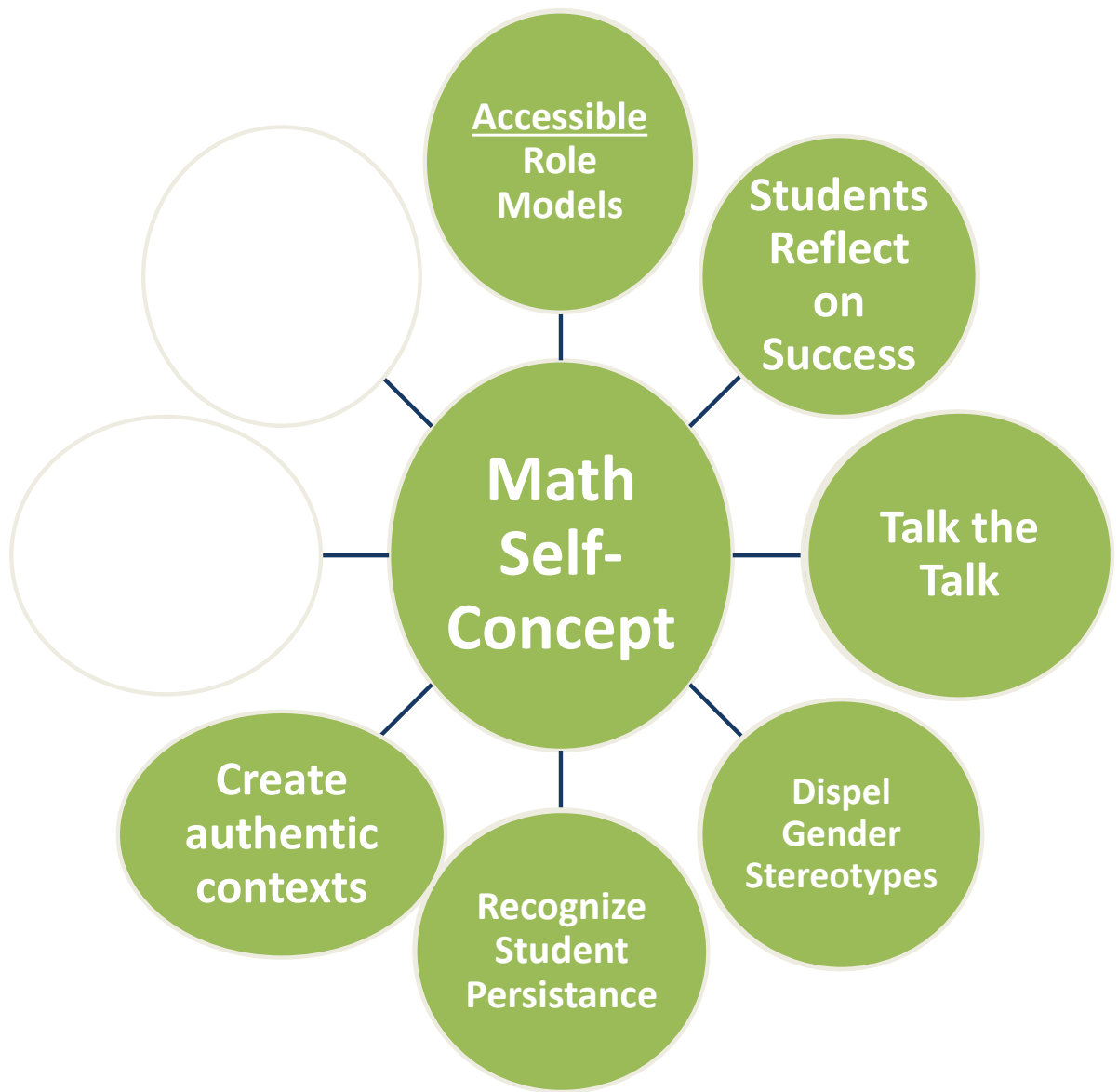


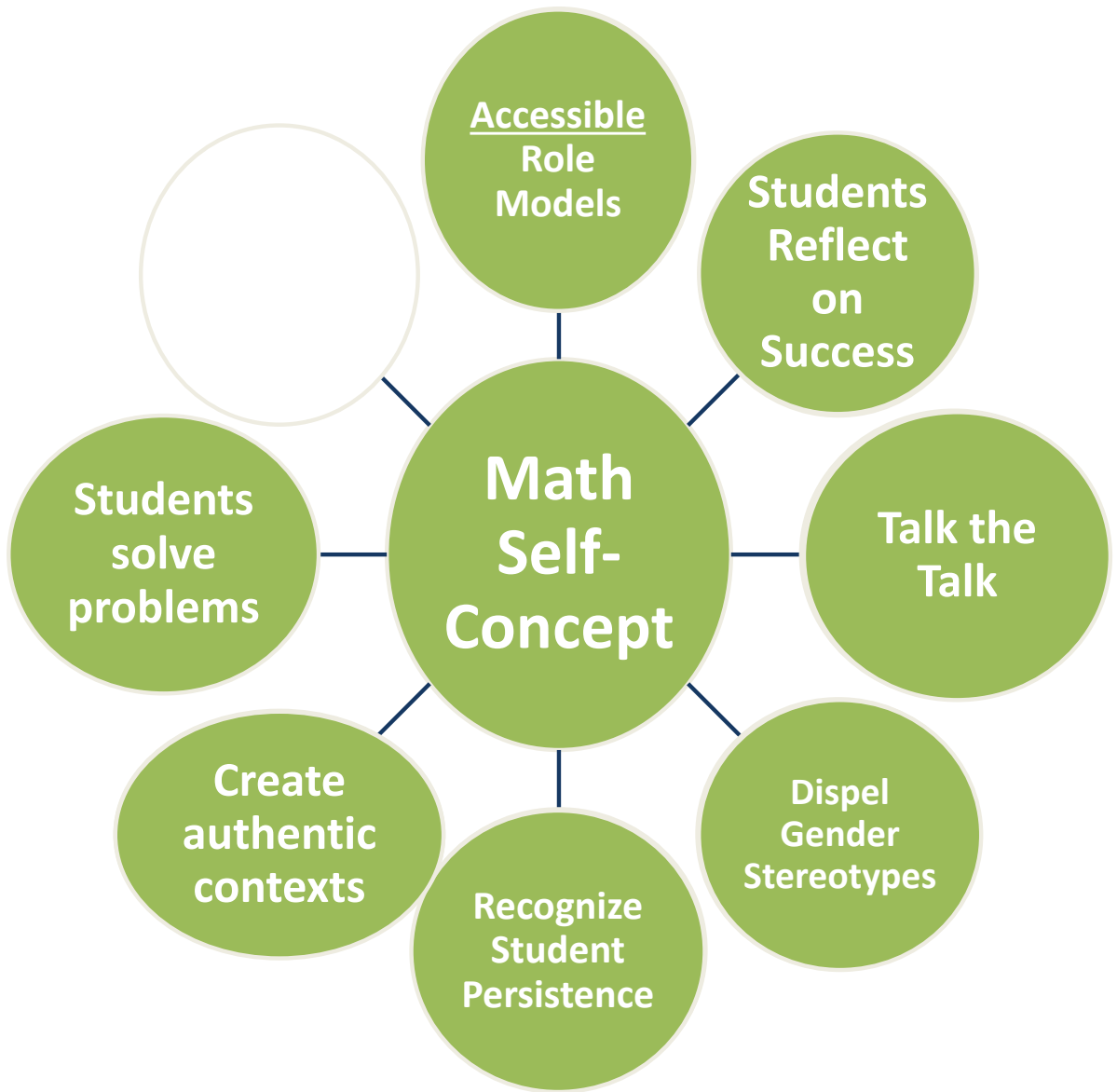


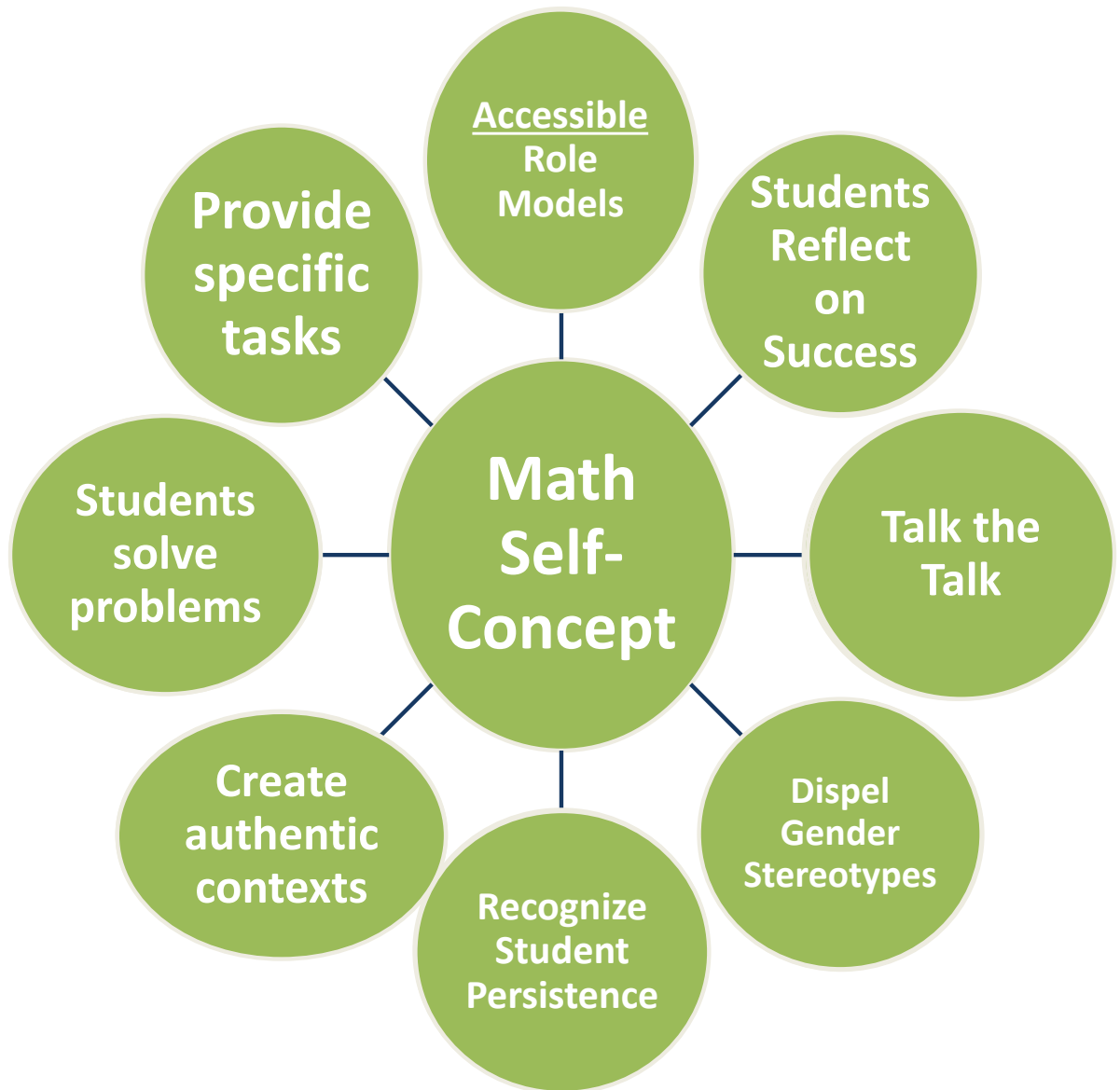




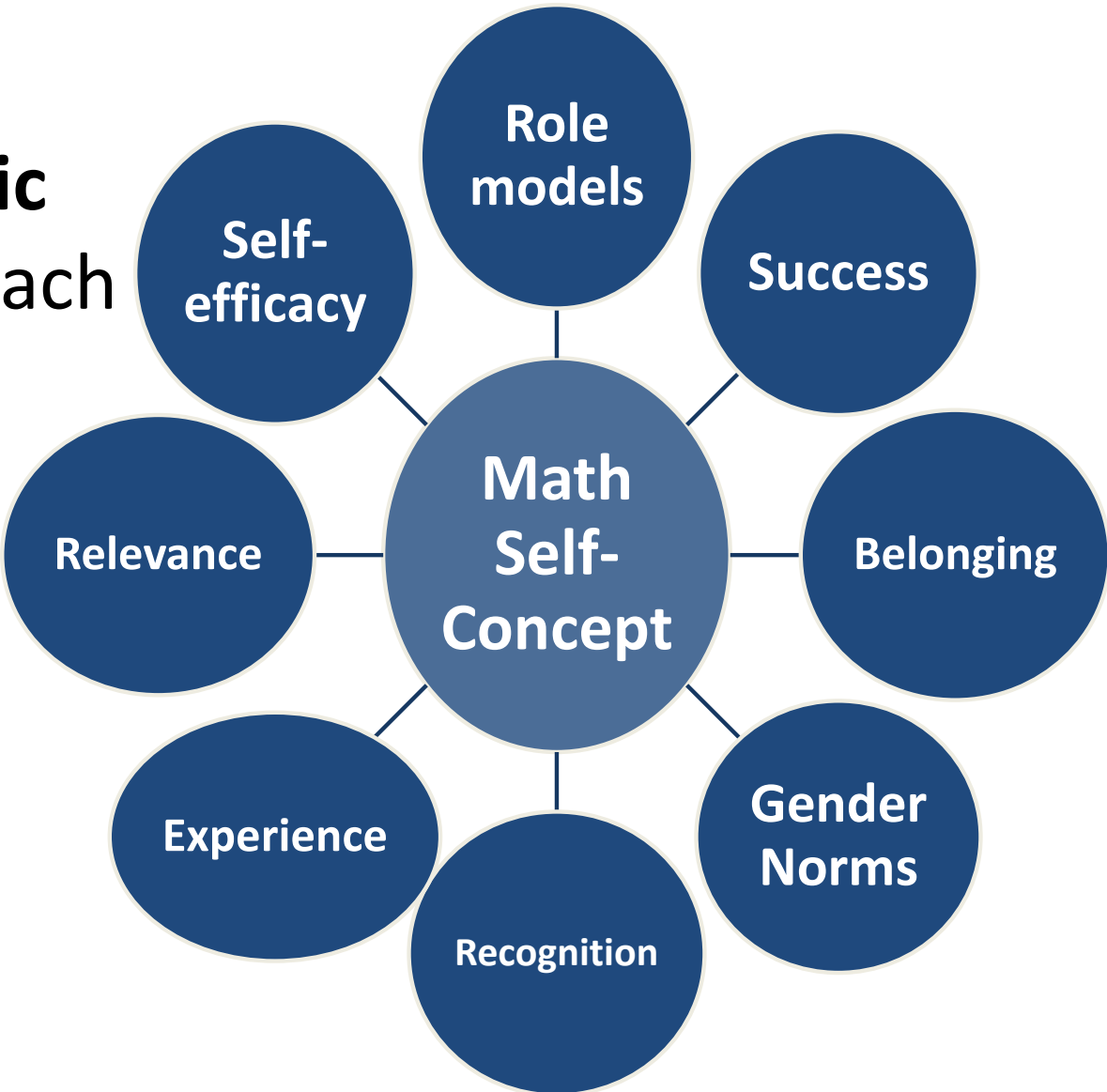








Use a **holistic** approach



Math Academic Self-Concept

PREDICTS

Persistence in Mathematics

Questions???

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Jacquelyn.Kelly@mcesa.maricopa.gov