Challenges:
- Undecided: Tech. Communication, Intro to Design, Math (Calculus, Pre-Calculus, Algebra II), and Chemistry
- ECE: Tech. Communication, Digital Logic, Chemistry I, Math (Calculus, Pre-Calculus)
- Chemical Engr: Tech. Communication, Chemistry I, Intro. to Chemical Engr., Math (Calculus, Pre-Calculus)

Strategies:
- Technical Communication: added career development as a theme for writing assignments
- Chemistry I: move one chapter to Chemistry II; added seminar on study skills and math skills for chemistry

Results:

- 2nd Year Retention Rates = 60.0% to CEAS; 74.3% to WMU
- 3rd Year Retention Rates = 40.6% to CEAS; 61.1% to WMU

Implementation:
- Placed 256 students into learning communities in 2005-06, 294 students in 2006-07, and 328 students in 2007-08
- Learning Communities based on majors (CCE, ECE, Chemical/Paper, Undecided) or math placement (calculus, pre-calculus, algebra)
- Learning Communities: place ~20 students in the same 3-to-5 courses together to promote connection and study group
- Created parent program in 2007-08 to engage the helicopter parents
- Faculty Learning Community meeting once a month to discuss reading, coordinate co-curricular activities, share and discuss

Institutional Policy:
- In-suite summer programs for instructors — mid- to grade reporting in 2006
- Student release form — software that allows students to grant access to registration and grade records to parents in 2007
- Increased collaboration between academic and student life — VP of Student Life on Advisory Board in 2007
- Created pilot engineering residence program in 2006-07 with 41 students and expanding to 110 students in 2007-08
- Created resources on student success in Podcasting format — Visit at www.wmich.edu/oit/podcast
- College created task force to examine teaching and learning in Statics, Mechanics of Material, and Dynamics

Impact:
- 84% of positive responses to FYEE components (Agree or Strongly Agree)

Future Work:
- Improve collaboration between Academics and Student Affairs
- Build relations with departments to create customized learning communities
- Raise awareness among faculty about the Millennial students and faculty role in student success
- Address critical engineering science classes to improve 3rd year retention
- Incorporate Community College Transfer students

References:
- Rossman, Amanda, Brown, Paul, Vasilnek, Kendall. "Building Connections-% of Positive Responses to FYEE Components (Agree or Strongly Agree)
- Institutional Policy
- In-suite summer programs for instructors — mid- to grade reporting in 2006
- Student release form — software that allows students to grant access to registration and grade records to parents in 2007
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Assessment of impact on co-curricular activities on student development based on Holton’s taxonomy (cognitive affective)

- Algebra II or lower: No Math Data
- Calculus II and higher: 7%
- Calculus I: 22.2%
- Pre-Calculus: 23.7%
- Algebra II: 4.2%
- Calculus I (Science/Engineering): Fall 06; Calculus I (General): Spring 06, Fall 06; Pre-Calculus: Fall 06; Algebra II: Fall 06; Chemistry I: Fall 06, Spring 06, Fall 06; Physics I - Spring 07; Technical Communication: Fall 06; Engineering Graphics - Fall 05, Fall 06