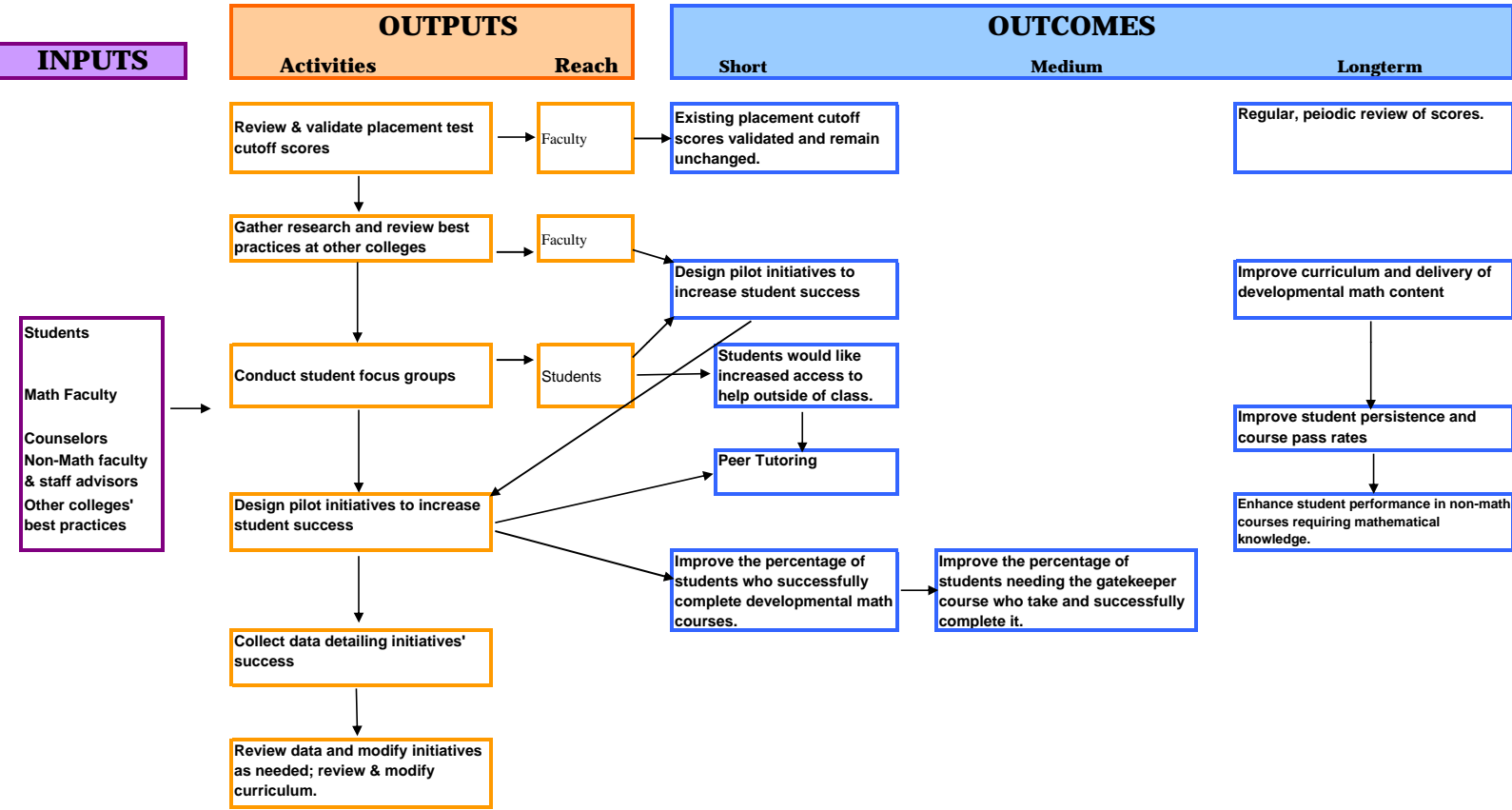




**Logic Models – April 2009**  
**Developmental Mathematics Initiative**

**Situation:** Eighty-eight percent of entering students place into developmental math and a significant number of these students do not successfully complete developmental math coursework and move into college level math courses.

**Priority:** Increase student success in developmental math courses and progression to gatekeeper courses



**Assumptions:** Students who are unsuccessful in developmental math courses tend to not persist in their studies at the college. Even when students do persist, the need to repeat developmental math courses costs them time and money. Improved success rates in developmental math courses may help with retention and completion rates.

**External Factors:** The project may be affected by the impact of the new Michigan high school curriculum. This could reduce the number of students placing into developmental mathematics, or could change the nature of students' content needs.

Achieving the Dream  
Academic Year 2008-2009  
Mathematics

Accomplishments	Current Activities	Next Steps	Lessons Learned Issues/Concerns
<p>Data sets were obtained.</p> <ul style="list-style-type: none"> <li>- Grades of students who took Math 080 in Fall 2006 compared with their grades in Math 110 in a subsequent semester.</li> <li>- Grades of students who placed into Math 110 on COMPASS in Fall 2006 – Fall 2007. (Summer 2008)</li> </ul> <p>Two focus groups were conducted with students. (Fall 2008)</p> <p>Request was submitted to Clearinghouse to track more of missing students. (Fall 2008)</p> <p>Report from ACT analyzing COMPASS placement scores received. (Fall 2008)</p> <p>Subcommittee met for an update, to discuss data obtained and current initiatives, and to solicit the input of non-Math Division members. (Fall 2008)</p> <p>Data sets were obtained.</p> <p>Subcommittee met for updates,</p>	<p>Data sets are being examined.</p> <ul style="list-style-type: none"> <li>- Grades of students who took Math 080 in Fall 2006 compared with their grades in Math 110 in a subsequent semester.</li> <li>- Grades of students who placed in Math 110 on COMPASS in Fall 2006-Fall 2007.</li> <li>- Students coming from Math 080 did not do as well as those placed directly into Math 110.</li> </ul> <p>Focus group results are being examined.</p> <ul style="list-style-type: none"> <li>- Students who successfully completed 074 or 080 and are enrolled for subsequent semester.</li> <li>- Students who did not successfully complete 074 or 080 but are enrolled for subsequent semester.</li> </ul> <p>ACT report is being reviewed.</p> <p>Planning for expanding peer tutoring:</p>	<p>Students taking 080 will be surveyed to determine their intentions for the next semester. Hopefully this information, combined with additional Clearinghouse data, will provide direction for interventions and/or information for improving student planning.</p> <p>Explore possibility of designated sections for returning students and a modular design of developmental topics.</p> <p>The Math Assessment Committee will investigate the “shelf-life” of a placement test and the use of the diagnostic features of the COMPASS.</p> <p>Winter 2009: A section of Math 080 with a supplemental instruction component built in will be piloted. Students will register for an additional 2 hrs of class time, at no charge. Instructor will use 2 office hrs to conduct a problem solving workshop where course content will be applied to challenging problems.</p>	<p>Students coming from Math 080 did not do as well as those placed directly in Math 110.</p> <p>A large number of students disappear between 080 and 110, 20% of whom did not return for any classes the next semester.</p> <p>Students do not necessarily take their math classes sequentially or in subsequent semesters, raising issues of program control and “shelf-life” of mathematical knowledge.</p> <p>Focus groups raise issues of lack of access to instructors (adjuncts) and needing more time for course content.</p> <p>There are logistical issues around advising for designated sections and registration/financial aid for modular formats.</p> <p>ACT admits that the COMPASS is less than ideal for developmental decisions.</p>

<p>to discuss data obtained and current initiatives, and to solicit the input of non-Math Division members. (Winter 2009)</p> <p>Peer Tutoring offered for up to 24 hours per week in Learning Lab – reduced as peer tutors left.</p> <p>One section of Math 080 offered with additional class time for workshop activities applying course content to challenging problems. (Winter 2009)</p> <p>Materials prepared for Math 011 – Prealgebra Placement Review (Winter 2009)</p>	<ul style="list-style-type: none"> <li>- potential for Spring semester;</li> <li>- course specific times and locations in fall</li> </ul> <p>Preparation for implementation of required online homework in Math 080 in Fall 2009.</p> <p>Preparation for a common final exam among all sections of Math 080 in Fall 2009.</p>	<p>Evaluate the effectiveness of peer tutoring and plan expansion for fall.</p> <p>Evaluate the effectiveness of the pilot Math 080 section with additional workshop time.</p> <p>Plan the evaluation of the effectiveness of online homework on student success in Math 080.</p>	<p>Each investigation of data leads to additional questions. To move forward, it might be necessary to experiment with some initiatives without having all of the answers desired. Alternative or supplemental instruments might be used to improve placement or placement test preparation materials might be better publicized.</p> <p>Given the timelines for scheduling classes for future semesters, there is a significant lag time between identifying a potential change or intervention involving a course and implementing that change or intervention.</p>
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Achieving the Dream

Academic Year 2009-2010

Mathematics - July 1, 2009

Accomplishments	Current Activities	Next Steps	Lessons Learned Issues/Concerns
<p>Materials prepared for Math 011 – Prealgebra Placement Review</p> <p>Math 011 – Prealgebra Placement Review scheduled during summer semester</p> <p>Planning for pilot Math 080 project: involving mandatory (for some students) supplemental learning sessions begun. Instructors met weekly during the spring semester.</p> <p>In June Dr. Julie Phelps from Valencia Community College met with members of the Math Division to share on Valencia's math work and other national AtD projects. She also met with the pilot program instructors to share her experience with supplemental learning and assist the group.</p>	<p>Training planned for Fall 2009 Math 080 instructors in using "MyMathLab" for online homework.</p> <p>Planning for pilot Math 080 project involving supplemental learning.</p> <ul style="list-style-type: none"> <li>- Student mentor-tutors are being recruited</li> <li>- Materials for fall weekly supplemental sessions are being developed</li> <li>- Training for student mentor-tutors is being planned</li> <li>- Evaluation plan is being developed</li> </ul>	<p>Identify space for Math 080 supplemental sessions.</p> <p>Hire and train student mentor-tutors.</p> <p>Schedule supplemental session time as part of phase 2 pilot Math 080 sections in the Winter 2010 schedule.</p>	<p>Concern: identifying student mentor-tutors who will relate well with students over the summer when contacting potential mentor-tutors may be difficult.</p> <p>Concern: Insufficient publicity by Math regarding Math 011 may impact its potential effectiveness.</p>

Achieving the Dream

Academic Year 2009-2010

Mathematics - October, 2009

Accomplishments	Current Activities	Next Steps	Lessons Learned Issues/Concerns
<p>Six (6) student leaders were identified and trained for the Math 080 MPASS (Math Practice And Supplemental Sessions) project. Ongoing training continues.</p> <p>Materials for fall weekly supplemental sessions were developed for the MPASS leaders.</p> <p>Three (3) additional instructors have been recruited to the project for Winter 2010.</p> <p>Data needs &amp; evaluation methods established.</p>	<p>Monitoring MPASS activities.</p> <p>Ongoing training with MPASS leaders.</p> <p>Data collection.</p> <p>Planning for increased number of MPASS sections in Winter 2010.</p> <p>Planning training for Winter 2010 MPASS student leaders.</p>	<p>Identify instructor to attend SI training at The University of Missouri-Kansas City.</p> <p>Provide orientation for instructors new to MPASS for Winter 2010.</p> <p>Identify space for Winter 2010 MPASS sessions.</p> <p>Schedule supplemental session time as part of class Math 080 sections in the Fall 2010 schedule.</p> <p>Analyze data after Fall 2009 grades are submitted.</p> <p>For tracking, establish a cohort for students enrolled in the Fall 2009 MPASS sections.</p>	<p>Dedicated space for MPASS sessions is important.</p> <p>Locating space is a challenge.</p> <p>How to deal with an MPASS student leader leaving?</p>

Achieving the Dream

Academic Year 2009-2010

Mathematics - May, 2010

Accomplishments	Current Activities	Next Steps	Lessons Learned Issues/Concerns
<p>J. LaRose attended SI training at The University of Missouri-Kansas City.</p> <p>Fall data reviewed and an approx. 6% success increase observed for students with placement scores at (or just below) cut score.</p> <p>Data collection needs &amp; process reviewed and streamlined.</p> <p>MPASS student leaders observed and given feedback.</p>	<p>Collecting data for Winter.</p> <p>Recruiting MPASS student leaders for Fall 2010</p> <p>Planning training for Fall 2010 MPASS student leaders.</p> <p>Planning for Math 011 in Summer 2010.</p>	<p>Identify new space for Fall 2010 MPASS sessions.</p> <p>Analyze data from Winter 2010.</p> <p>Train new MPASS student leaders.</p> <p>How to enforce “spacing” of required session attendance prior to an exam, so students are not trying to cram hours in at the end?</p> <p>For tracking, establish cohorts for students enrolled in the Fall 2009 MPASS sections and Winter 2010 sections.</p>	<p>Dedicated space for MPASS sessions is important.</p> <p>Locating space is a challenge.</p> <p>How to enforce “spacing” of required session attendance prior to an exam, so students are not trying to cram hours in at the end?</p> <p>How to use Datatel system to make students aware of MPASS sections for online registration?</p> <p>As program grows, may need to create a database to make entry more efficient and sorts/searches possible.</p>