MINNESOTA STATE COLLEGES AND UNIVERSITIES
BOARD OF TRUSTEES

Agenda Item Summary Sheet

Committee: Academic and Student Affairs   **Date of Meeting:** May 17, 2011

Agenda Item: Board Committee Goals: Developmental Education

☐ Proposed Policy Change   ☐ Approvals Required by Policy   ☒ Other Approvals   ☐ Monitoring

☐ Information

Cite policy requirement, or explain why item is on the Board agenda:
The Academic and Student Affairs Committee of the Board requested that a study be made of promising practices in developmental education and that a report and recommendations be presented to the Committee.

Scheduled Presenter(s):
Scott Olson, Interim Vice Chancellor for Academic and Student Affairs
Mike López, Associate Vice Chancellor for Student Affairs

Outline of Key Points/Policy Issues:
The report reviews five promising practices in developmental education and provides information from the literature about how these practices have been implemented at colleges and universities across the country. The report then provides examples of how the promising practices are being implemented within Minnesota State Colleges and Universities. Among the primary findings and recommendations are that there is no single method of delivering developmental education that will be effective at all institutions for all students in all circumstances. Therefore, institutions should be allowed to choose from the "menu" of promising practices options and implement those that will be most effective with the students, faculty and staff at their specific campuses. The committee also recommends that the Board be provided an annual report on developmental education that is separate from the "Getting Prepared" report and focuses on the implementation of promising practices across the system and the educational outcomes of students who take developmental education courses.

Note: In this summary and the full report, the terms "remedial" and "developmental" are used synonymously.

BOARD ACTION ITEM

Board Committee Goals: Developmental Education
Report of the Ad Hoc Advisory Committee on Developmental Education

BACKGROUND

The Academic and Student Affairs Committee of the Board of Trustees established as one of its goals for this year to "Study the pros and cons of moving responsibility for remedial education from the state universities to the state colleges." During a study session in December, the Committee reviewed a considerable amount of research in developmental education, and concluded that there were sound reasons for maintaining a limited amount of remedial education offerings at the state universities. The Committee then turned its attention to promising practices for providing developmental education efficiently and effectively. The Committee requested that a study of these promising practices be conducted and that a report and recommendations be provided to the Committee

RECOMMENDED COMMITTEE ACTION

The Academic and Student Affairs Committee recommends the Board of Trustees adopt the following motion:

RECOMMENDED MOTION

The Board of Trustees accepts the report of the Ad Hoc Advisory Committee on Developmental Education.

Board Committee Goals: Developmental Education
Report of the Ad Hoc Advisory Committee on Developmental Education

I. Background

The Academic and Student Affairs Committee of the Board of Trustees established as one its goals for fiscal year 2011 to "Study the pros and cons of moving responsibility for remedial education from the state universities to the state colleges." In order to better understand issues related to remedial education, the committee held a study session in November of 2010. The committee was provided a variety of background readings related to remedial and developmental education research. A presentation on students taking developmental education in Minnesota State Colleges and Universities was also provided.

Developmental instruction in Minnesota State Colleges and Universities is a significant aspect of the total instructional program. In recent years, about 48% of the Minnesota high school graduates who enrolled in a Minnesota State College or University within two years after graduation were required to take at least one developmental course, as shown in Table 1. Thirty-two percent of those who enrolled in a state college took two or more developmental courses. The majority of these courses were in developmental mathematics. Ninety percent of the developmental credits required to be taken by students at state universities were in mathematics courses. The number of students taking developmental courses is significant. In fiscal year 2010 the system enrolled 50,688 students in developmental courses, representing a full-year equivalent enrollment of 10,121 students. The system's direct expenditures for developmental education in fiscal year 2009 were $29.5 million, representing 4.7% of the system's total direct expenditures. In addition, students spend millions of dollars in tuition each year on developmental education.

Perhaps not surprisingly, students who come from family backgrounds with limited higher education experience are more likely to enroll in developmental courses than other students. Fifty-six percent of students classified as underrepresented who enrolled as first-time full time students in Fall of 2008 took at least one developmental course, compared to about 40% of students who were not classified as underrepresented. Forty-four percent of White students took developmental courses compared to 77% of African American students, 71% of Asian students, and 63% of Hispanic students. However, the data also indicate that students of color who take developmental courses have higher persistence and completion rates at both state colleges and state universities than students of color who do not take developmental courses.

The data provided to the committee indicated that only about 5% of the total system FYE enrollment in developmental education was being provided at the state universities, and that

almost of all of it was in mathematics. Ninety percent of the developmental courses taken at the state universities were in mathematics, three percent in writing, and seven percent in reading and other subject areas. The readings reviewed by the committee provided substantial and compelling arguments for the appropriateness of maintaining some developmental education offerings at the state universities.

The committee turned its attention to studying developmental education models and methods of delivery. The extensive literature in this area and the variety of readings provided to the committee clearly indicated that, while there were a number of "promising practices" in developmental education, there was no "silver bullet," no one method or model that could be pointed to as being the solution to the developmental education conundrum. Accordingly, the committee directed that a study of best practices in developmental education be conducted and that findings and recommendations be provided to the committee. The Interim Vice Chancellor for Academic and Student Affairs charged an ad hoc advisory committee with this task, led by the Associate Vice Chancellor for Student Affairs.

II. Promising Practices in Developmental Education

The Ad Hoc Advisory Committee was comprised of representatives from the faculty bargaining units as well as student representatives and administrators from the state colleges and universities. A list of committee members is provided at the end of this report. The committee reviewed the same materials that had been provided to the Academic and Student Affairs Committee for the study session. Based on this extensive review of the developmental education literature, along with work done in preparation for a grant proposal by a team of state college Presidents led by Larry Litecky, five "promising practices" were identified as being worthy of additional research and exploration by the Ad Hoc Advisory Committee. These practices are as follows:

A. Learning communities

Learning Communities involve a common cohort of students taking classes that are linked or clustered during an academic term, often around an interdisciplinary theme. A variety of approaches are used to build these learning communities, with all intended to restructure the students' time, credit, and learning experiences to build engagement among students, between students and their teachers, and among faculty members and disciplines.

Learning communities can be structured as programs in which a small cohort of students enrolls in larger classes that faculty do not coordinate. In this instance, intellectual connections and community–building often take place in an additional integrative seminar. Learning communities may also involve two or more classes linked thematically or by content which a cohort of students takes together. In this instance, the faculty does plan the program collaboratively. Finally, learning communities may involve coursework that faculty members team teach. The course work is embedded in an integrated program of study. Across the varying models of learning communities (which may also involve a residential component) there is a consistent finding of greater retention and academic success for students involved in learning communities compared to students who are not (Taylor et.al., 2003).

Learning communities may be characterized as a robust intervention because participation in a learning community is associated with improved retention and better academic performance across a variety of settings and with a great diversity of students (Bloom and Sommo, 2005; Shapiro and Levine, 1999).

B. First Year Experience/Student Success Courses

First–Year Experience programs also help students in making the transition to college, and especially in helping new students develop an engagement with the college. "Getting students started right on the path through the institution to graduation begins with anticipating and meeting their transition and adjustment needs when they enter. Freshmen need a prevention plan. Intrusive, proactive strategies must be used to reach freshmen before the students have an opportunity to experience feelings of failure, disappointment, and confusion" (Levitz, Noel, and Richter, 1999).

The effectiveness of these extended structured seminar orientation programs has been amply demonstrated. In a longitudinal study examining the effects of a first–year seminar program on graduation rates, Schnell and Doetkott (2003) found that first–year students who participated in the seminar graduated at a higher rate than a matched group of students who did not. They also found that among those participants who were admitted to postsecondary institutions with low ACT Assessment scores and HS GPAs, graduation rates were also better than those of matched nonparticipants. Research conducted at the University of South Carolina (Gardner, 1986; Upcraft, Gardner, and Barefoot, 2005) has shown many positive effects of first–year experience programs, including a finding that high–risk students may benefit more from participation in these programs than other students.

Overall the research suggests that a student's entering characteristics play an important role in persistence to graduation, but potential for success can be increased with the addition of a first–year experience program. (Lotkowski, Robbins and Noeth, 1999). However, research has also indicated that in–depth orientation programs, even if they are not strictly a first–year experience seminar, can be effective in increasing the academic success and retention of students (Purnell, et.al., 2004).

C. Intrusive advising

Intrusive Advising differs from the more traditional prescriptive and developmental models of advising because advisors are not only helpful and encouraging of students, but they proactively make the initial contact with students, rather than waiting in their offices for students to schedule an appointment. Most students know they have an advisor but may be unaware of how and when they are able to contact the advisor or what the advisor can help them accomplish. Heisserer and Parette (2002) observe that "the only variable that has a direct effect on student persistence is the quality of a relationship with a significant member of the college community. Thus the advisor is often the person best suited to form a significant relationship with the student."

Although intrusive advising has been demonstrated to be effective with students across the board, underrepresented students, in particular, may benefit greatly from the intrusive approach because they may not have the background experience to know how to respond when

unexpected situations arise (Backhus, 1989; Earl, 1988). Contacted by the intrusive advisor, the student has the opportunity to discuss emerging problem situations and be referred to the appropriate resources to address the problems (López, et. al., 1988). Thus intrusive advising goes beyond dealing with academic issues that impact student retention, but addresses other social and cultural issues as well.

D. Supplemental instruction/Tutoring

Supplemental Instruction (SI) is a very different form of academic intervention, in that it targets high–risk courses (those that historically have a high percentage of D, F and W grades) instead of high–risk students. The focus of the intervention is to help students to learn the course content while at the same time acquiring study skills and strategies pertaining to the course discipline (Ramirez, 1997). Supplemental Instruction sessions are structured to maximize student involvement with the course material. Learning and study strategies, such as note–taking, graphic organization, questioning techniques, vocabulary acquisition, and test prediction and preparation are integrated into the course content. Students learn to verbalize what they do understand and clarify what they do not understand. The SI leader is a model student who provides an example of how successful students think about and process the course content. The leader facilitates study sessions, but does not re–lecture or introduce new material (Lotkowski, Robbins and Noeth, 2004).

SI may be described as a particularly robust intervention, because it has been found that SI participants consistently do better in the target courses than their non–SI peers regardless of the type of institution, discipline of the SI course, prior preparation levels of the students, and across ethnic groups (Hensen & Shelley, 2003; Ogden, Thompson, & Russell, 2003; Ramirez, 1997).

E. Re-Design of Developmental Education

The usual delivery strategy for developmental courses offers a gradation of "basic remedial," "basic developmental," and "intermediate developmental" and does not afford an opportunity for students to quickly get up to performance level in one stage so that they can move to the next stage sooner. Students are required to take an entire course even though they may only be deficient in a portion of the topics. Restated, even if someone is marginally below the standard for freshman-level College Algebra, they are still placed into a 16-week course in Intermediate Developmental Algebra that requires them to sit through the full course to satisfy one or two limited or missing competencies. The developmental course structure can present a significant obstacle to students' ability to realize their educational goals. Many students who begin a developmental course withdraw due to work, family or health issues. Students who withdraw and return the following semester must begin the same course from the beginning, even though they may have demonstrated mastery of some portion of the material prior to their withdrawal. Weaker students may be required to complete up to three full semesters of coursework prior to advancing into regular college-level courses. Many students are delayed in applying for admission to specific academic and professional programs. Others give up and drop out completely. Typical drop-failure-withdrawal rates in these courses of 40% to 50% further compound the problem. In response to these issues, redesign of developmental education has been identified as a promising practice. Redesign may take any of several forms.

Modularization involves arranging developmental courses into shorter modules as opposed to semester-long offerings. According to this method, students requiring minimal developmental education can complete their modules quickly and advance to college-level courses. Moreover, modularization allows courses to be individually tailored to address students' respective weaknesses. One college that implemented this approach, Jackson State Community College, has produced excellent results.   The College has seen a 21 percent improvement in student learning, a 45 percent increase in student pass rates, and a 12 percent increase in student retention. Further, the program created a cost-per-student savings of more than 20 percent (Zachry and Schneider, 2010). A number of different online programs exist that modularize developmental work as well, which can allow students to work independently and provide a less expensive option to students than the cost of tuition.

Acceleration involves the compression of a course into a briefer period of time, or the combination of the content of two related or sequential courses into one course. Mountain Empire college, for example, took two math courses with high enrollments and compacted them into much shorter classes to allow students to complete more developmental coursework in a shorter timeframe. While Math 2 is traditionally taught over a 10 week period in the summer and offered as a three credit course, the fast-track Math 2 class is taught in one week and students receive one hour of credit. Similarly, Math 3 is traditionally taught over 10 weeks for five credits. The fast-track Math 3 class, however, is only two weeks in length and students receive two hours of credit upon completion. Success rates for these fast-track courses have been exemplary. Compared to the 44 to 68 percent completion rate of traditional developmental math courses in the past, the fast-track courses have seen success rates between 89 and 92 percent at the College. Further, students in the fast-track Math 2 course have a final exam average of 93 percent, compared to the 75 percent average of students in the traditional course (Zachry and Schneider, 2008).

Summer bridge programs, designed to provide graduating high school seniors with the academic and college-readiness skills needed to be successful in postsecondary education, have emerged as a promising intervention. Typically running four-to-six weeks during the summer months, summer bridge programs offer an integrated approach with intensive coursework that may be accompanied by tutoring, additional labs, stipends, and student support services designed to facilitate students' transition to college and help them prepare for credit-bearing courses in their first semester of college. Although the evidence for the effectiveness of these programs is not as strong as for other interventions, they do show promise. In Texas, for example, early research findings suggest that summer bridge programs did not have an impact on college enrollment rates or persistence. However, the research points to a shift in the average course load taken by students who completed the programs, with students taking fewer developmental education credits and more college-level credits. In addition, students enrolled in summer bridge programs were more likely to meet state standards in reading, writing, and math. Although the effects were not large, the results are statistically significant (Wathington, Pretlow, and Mitchell, 2011).

Other redesign models involve providing assessment test preparation for students, which may serve as a "refresher" for math concepts and techniques, resulting in fewer students being required to take developmental courses. The use of math or writing labs, often in an "emporium"

is another promising model. Finally, in a contextualized developmental education model, developmental education content is linked to a specific content course, often in a short-term program designed to provide employable skills to students with relatively low reading, writing, and math skills (Zachary and Schneider, 2010).

III. Promising Practices Exemplars within MnSCU

The Ad Hoc Advisory Committee on Developmental Education began meeting in January of 2011. Following their review of the developmental education literature that had previously been presented to the Academic and Student Affairs Committee of the Board, the committee turned to reviewing and sharing information among themselves about promising practices as they were being implemented at their own and other campuses across the system. It soon became apparent that within Minnesota State Colleges and Universities there is a large, and largely untapped, source of experience and expertise in developmental education. The committee proceeded to seek out additional examples of promising practices across the system.

Committee members contacted colleagues across the system for information about promising practices being implemented at their colleges and universities. In addition, individuals who had made presentations during the Promising Practices in Student Success Faculty Forum were contacted for information about their presentations. The following are a few examples of how the promising practices are being implemented at colleges and universities within the system:

A. Learning communities

The learning community initiative at **Century College** involved the intentional pairing of two courses to create a community of learners (both faculty and students) who work and learn together across disciplinary lines. Faculty teaching within one of the learning communities collaborated on defining complementary instructional strategies and assignments, interweaving and connecting learning across the courses. Students collaborated with the faculty and one another throughout both courses, exploring connections across discipline lines, sharing a common instructional experience, and building a community within the larger College.

During the 2009-2010 academic year, a total of 34 learning communities were offered (23 in fall 2009, and 11 in spring 2010). While 6 of these communities consisted of pairings of college-level courses, the majority (19) combined a developmental-level course with a college-level course. The remaining 9 learning communities consisted of pairings of two developmental-level courses. Students enrolled in these learning communities through both self-selection and on the advice of faculty counselors and advisors.

Academic performance outcomes for learning communities are encouraging. The percentage of underrepresented students earning a "C" or above in the paired courses was 60%. The average term cumulative GPA achieved by underrepresented students in the paired courses was 2.36. The average number of credits attempted per underrepresented student was 11.6 credits per term. The average number of completed credits per underrepresented student was 7.2 credits per term. Cumulative term completion rates (completed credits/attempted credits) for

underrepresented students in the paired courses was 62%. The withdrawal rate of underrepresented students in the paired courses was 25%. The percentage of underrepresented students in the paired courses retained to the following semester was 76% for fall participants retained to spring, and 42% for spring participants registered for the following fall. These results indicate that participation in learning communities, while beneficial to most students, may be especially helpful for students from underrepresented backgrounds.

Inver Hills Community College began implementation of its learning communities retention initiative in 2006, with a goal of recruiting 100 students to participate in a learning communities program. This program has been extraordinarily successful and has now expanded to twenty learning communities offered during the 2009-10 academic year, enrolling over 200 students. Students participating in these learning communities were academically successful, with 73% earning a Fall term GPA of 2.0 or above, and with an 84% Fall to Spring retention rate.

B. First Year Experience/Student Success Courses

Building upon its successful pilot phase in FY08, **Inver Hills Community College** incorporated *On Course,* a customized first-year experience course, into learning communities. *On Course* is a one-credit, eight-week course that focuses on developing attitudes and skills that lead to success in college and in life. The *On Course* component is led by a faculty counselor with advanced *On Course* training, and the classes are taught by both faculty and master's-degreed staff who attend annual training and periodic workshops. *On Course* instructors provide out-of-class activities that meet underrepresented students' identified needs, such as Financial and Budget Planning workshops during Student Success Day. As part of the *On Course* curriculum, students use multiple academic support services.

Students taking *On Course* demonstrate high levels of persistence and retention. Seventy percent of underrepresented students in the Fall, 2009 *On Course* earned a term GPA of 2.0 or higher, and 82% of the fall 2008 cohort were retained to spring of 2009.

At **St. Cloud State University** students admitted to the university into the Division of General Studies Program are required to take COLL 110, Reading and Study Strategies, and complete it with a minimum grade of C in their first year. The Learning and Study Strategies Inventory (LASSI) is used as a pre- and post-test. The LASSI is an assessment of students' awareness about and use of learning and study strategies related to skill, will and self-regulation components of strategic learning. The focus is on behaviors, attitudes and beliefs that relate to successful learning and that can be altered through educational interventions. Research has repeatedly demonstrated that these factors contribute significantly to success in college and that they can be learned or enhanced through educational interventions such as learning and study skills courses. The LASSI provides standardized scores and national norms for ten different scales relating to the learning strategies and behaviors. A score at the 50th percentile or above is predictive of student success. The average score for students who took the pre-test during fall of 2009 was below the 50th percentile on all ten scales and below the 40th percentile on six scales.. The average post-test scores for these students following the course were above the 50th

percentile on eight of the 10 scales, and above the 40th percentile on the other two scales. Clearly the course has improved these students' chances of success in their university studies.

C. Intrusive advising

St. Cloud Technical and Community College has used intrusive advising techniques such as calling students by phone, contacting them through e-mail and approaching them on campus. These techniques have been used to contact students who had received academic progress reports, exhibited a drop in attendance, failed to meet certain Accuplacer test score requirements or were identified by instructors as struggling in their classes. Occasionally, students are also contacted when they failed to register for classes and did not speak with an advisor. Intrusive advising techniques are also used to encourage students to fill out scholarship applications and financial aid applications. Appointments were made to help those students who required assistance to complete these applications. Student outcomes support the effectiveness of these techniques, as students who received intrusive advising services had a fall to fall retention rate of 56%.

Century College has also implemented the intentional pairing of new entering students with a faculty advisor throughout their first term of enrollment at the college. Central to this advising relationship is the establishment of academic goals and concreter program plans which form the basis for future advising. Faculty use tools such as the GPS LifePlan to assist students to develop and document goals and monitor progress toward goal completion. Results from the Fall, 2010 cohort were an average GPA of 2.38 for students in the intrusive advising cohort, with 64% of grades being C or higher, and a fall to spring retention rate of 66%. The college will use this early experience to improve the advising progress in subsequent years.

D. Supplemental instruction/Tutoring

In order to improve the chances of success for students in the new Transfer ASAP program, and to provide additional services to students enrolled in 5 gateway courses, **North Hennepin Community College** developed a new Supplemental Instruction Study Group/Tutoring program. The program followed most of the guidelines of the University of Missouri- Kansas City model, although it was not officially sanctioned by the UMKC Supplemental Instruction organization. The program coordinator recruited and trained peer tutors to be study group facilitators and scheduled study groups and tutoring appointments. The college identified five gateway courses in which students are most at risk of getting a D, F, or W (Intro to Sociology, Intro to Psychology, College Algebra, First Year Comp, and Intro to Biology) and enhanced services to students by embedding tutorial assistance in and out of class. The results of the program were very promising, as 449 students participated in 411 hours of SI study groups and tutoring in the five college-level subject areas. There was an improved course completion rate in each of the five subjects. There was also a decreased rate of D, F and W grades in all of the subject areas except Sociology.

Winona State University has provided Supplemental Instruction to students since 2005. It should be noted that these courses are not developmental in nature; however, the success of the students in these courses provides a strong indication that the method would also lead to success

in developmental courses. During the 2009-10 academic year for example, the university provided SI in thirteen sections of eight different courses. Students attending the SI sessions had an average course grade that was .72 higher than the average grade of non-attendees, and the rate of D, W, and F grades was lower for SI attendees than for non-attendees. Looking more closely at the Anatomy and Physiology course offered during Spring of 2010, the average grade for SI attendees was 2.7, compared to 1.7 for non-attendees. Moreover, the D, W and F rate for attendees was 39% lower for attendees. In addition, there was a strong correlation between the number of SI sessions attended by students and their final grades. Students who attended 18 or more sessions had an average GPA of 3.42, those who attended 10 to 13 sessions had an average GPA of 3.0, and those who attended only 2 to 5 sessions had an average GPA of 2.30.

E. Re-Design of Developmental Education

Fond du Lac Tribal and Community College has redesigned two of its developmental English classes and its developmental mathematics classes. Three years ago, the English department determined that the Refresher English class that was offered at the time did not adequately meet the needs of the wide range of student abilities that placed into this course. The department made the decision to restructure the class, eliminating the semester-long, 3 credit Refresher English course and creating two 8-week courses titled College Prep English I and College Prep English II. Each class is worth two credits. The Accuplacer placement scores were also adjusted for more specific placement into one of the two courses.

Students who place into College Prep I work on sentence to paragraph-level skills, while students placing into College Prep II focus on paragraph to essay-level skills. Students needing to start at College Prep I can complete the course in the first eight weeks and then move into College Prep II for the second eight weeks. Early results indicate that more students have completed the two-course sequence (College Prep I and College Prep II) and with a higher GPA than with the previous single "catch-all" course. Those students who place into College Prep I are especially more likely to complete.

In a redesign going in the opposite direction from the English redesign model, in Fall of 2010 the FDLTCC math department combined two classes, Beginning Algebra and Higher Algebra, into a single one-semester. Each class went from meeting three days a week to meeting five days a week. Results are encouraging, as 26 of 31 students completed Beginning Algebra with an 84% pass rate and seven of those students went on to the Higher Algebra component with an 88% pass rate. With this accelerated course sequence approach, students are able to reduce the need for an additional semester of developmental math coursework.

Similar redesign efforts are being undertaken by **North Hennepin Community College** and by **Minnesota State Community and Technical College**. North Hennepin is modularizing its reading and learning skills curriculum into 2-credit modules to allow students to stop in and out of college as their life circumstances require without losing credit for what they've already completed. Some students may accelerate their progress through the 8-credit developmental reading curriculum, completing the entire curriculum in one semester. Minnesota State is currently piloting the modularized, computer-assisted delivery of basic mathematics. Students meet with faculty in a classroom setting one hour per week and are required to come to a faculty-

staffed math lab another three hours per week. Students complete the math modules at their own pace and have faculty available to answer questions or provide other assistance. Students who complete all six modules, the equivalent of the Math 0052 course, may begin the modules for the Introduction to Algebra course. Students who are not able to complete all of the modules receive an incomplete and must continue to work on the modules and attend the math lab in the subsequent semester. An evaluation of this pilot phase will be completed during the next academic year.

Minneapolis Community and Technical College has launched a redesign of developmental mathematics using ALEKS (Assessment and Learning in Knowledge Spaces), a web-based mathematics assessment and learning system. Two ALEKS courses cover content similar to what is now covered in three traditional math courses, but using a very different course format. Before beginning either course, the student takes an ALEKS assessment in that course. The ALEKS assessment results in the creation of an individual study plan for the student in the course. The content of each student's study plan also determines the number of credits the student registers for in the ALEKS courses. For example, if a student assesses as having previously mastered relatively little of the course content, the student may be required to register for the course at 5 credits. But if the student's assessment indicates that s/he has already mastered at least 60% of the course content, the student may be required to register for only 2 credits. It should be noted that ALEKS is not online instruction, but is self-directed instruction. In the classroom, each student learns math concepts using ALEKS as a learning tool along with the guidance of the instructor. This redesign effort was implemented during the 2010-11 academic year, and an evaluation of the initiative will be conducted during the next academic year.

IV. Conclusions and Recommendations

The Ad Hoc Advisory Committee, after reviewing the variety and extent of implementation of developmental education promising practices at the colleges and universities across the system, has come to the conclusion that the system is on the right track in addressing issues of developmental education. Clearly, the colleges and universities recognize the importance of bringing students' academic skills up to college level as quickly and efficiently as possible. They are addressing these issues by implementing one or more of the promising practices as appropriate to the needs of their students and the availability of resources at the individual institution. The colleges and universities know what works. What is needed is a refinement of approaches and the tailoring of individual promising practices to specific institutions.

The caveat noted in the opening section of this report bears repeating: There is no "silver bullet," no single approach that will be effective for all students at all institutions in all circumstances. Learning communities, for example, may be highly effective in a college or university that has a relatively large student population. However, a college with a smaller student enrollment may find it difficult to attract a "critical mass" of students to enroll in learning communities, and the initiative may fail. Similarly, intrusive advising may be effective in some settings, but because it is highly labor intensive it may be difficult to implement effectively in an institution that does not have a sufficiently large number of faculty or staff to serve as the

advisors in this paradigm. Therefore, the committee is not recommending the adoption or promotion of any single one of the promising practices as being the preferred developmental education methodology within the system. Instead, the committee recommends that the "menu" of promising practices be presented as options for colleges and universities to select from, and to implement one or more of the promising practices that will be most effective with the students, faculty and staff at their specific campuses.

Committee members expressed concern that, following initial distribution and discussion of this report, developmental education would once again be placed on the "back burner" of system concerns. Therefore, the committee recommends that a report on developmental education outcomes of students be part of Presidential evaluations and/or be part of Presidential work plans. "Maintenance of effort" related to developmental education should be part of each institution's budget and staffing plans. The committee also recommends that the Board be provided an annual report and update on developmental education that is separate from the "Getting Prepared" report for the legislature and focuses more on the implementation of the promising practices across the system and outcomes of students who take developmental education courses.

The members of the committee also recognize that scaling up, both within an institution as well as across the system will require that additional resources be dedicated to developmental education. Promising practices are effective, but not necessarily inexpensive. We recognize that in the current budgetary environment additional resources will not be available to the system. However, current funds may be reallocated or redirected more effectively in developmental education initiatives. For example, colleges and universities may choose to rethink their current uses of their Access, Opportunity and Success formula-based allocations. These funds are specifically for programs to recruit and retain underrepresented students. As noted in the opening paragraphs of this report, underrepresented students are overrepresented among students who take developmental education. It might therefore be appropriate for some institutions to dedicate a portion of their AOS funding to implement promising practices.

A. Scaling up Promising Practices Within an Institution and Across the System

A survey of system colleges that had been conducted in preparation for the Promising Practices in Student Success Faculty Forum that was held in February indicated that every state college in the system had implemented one or more of the promising practices. (It should be noted that because of the wording of the survey instructions, there is some doubt as to whether supplemental instruction and intrusive advising were understood as being as described in section II of this report.) However, it is clear from discussions with administrators at the colleges that many of these implementations are in a pilot stage. In addition, members of the committee are aware of numerous instances where a college has implemented a pilot developmental education redesign, only to have the project fail and be abandoned after one or two semesters. Therefore, the results of the survey may present a somewhat optimistic picture of the extent to which the promising practices are actually being provided across the system.

In order for any promising practice to be successfully implemented in a college or university, several factors must be present. Chief among these factors are support and commitment from both faculty and administration. Examples of how these factors play into the scaling up of promising practices within an institution are provided by Inver Hills Community College and by Century College. At Inver Hills, the implementation of learning communities was initiated by a team of counselors, with the support of the administration and the participation of a few faculty members, who sought and received a grant to underwrite the initial development costs. The learning communities project was then "mainstreamed" by choosing it as one of the college's AQIP Action Projects, to be grown and developed over a period of years. In this way, the initial participants were able to champion the initiative among their colleagues and secure additional support and participation by faculty and other staff. The results have been impressive, as the college went from four learning communities in the first year to the twenty that are currently offered at the college.

Similarly, at Century College, the support and encouragement of the President for the expansion of several promising practices for student success as part of the college's overall planning process has been instrumental in scaling up. Engaging faculty and staff has been central to the success of this process. An example of this scaling up is provided by the learning communities offered by the college. In Fall of 2005, the college offered five learning communities enrolling a total of 96 students. By Fall of 2010, the college was providing 22 learning communities enrolling 527 students.

Scaling up of promising practices across the system is somewhat more difficult. The Office of the Chancellor has made a number of efforts to encourage the implementation of the promising practices by colleges and universities, most notably through the Access, Opportunity and Success allocations for programs to recruit and retain underrepresented students. Plans submitted by the colleges and universities for use of this funding must now include an effort to implement one or more of the promising practices. In addition, the annual Student Affairs/Diversity and Multiculturalism Conference sponsored by the Office of the Chancellor provides a venue where colleges and universities can showcase their programs and share their experiences in implementing promising practices. The Fall and Spring meetings of Chief Academic and Student Affairs Officers and Deans provide another opportunity for this type of information sharing and cross-system fertilization of ideas. However, these venues, because they rely on the voluntary submission of a program proposal and then the choice of attendees to go to one concurrent session versus another, are not ideal and do not reach all of the potential audience. In addition, because the agendas at these meetings and conferences have several concurrent sessions during any one time, it is sometimes difficult for participants to attend all of the sessions they would like to in order to obtain information about the promising practices. The committee recommends that the Office of the Chancellor implement and maintain a website of presentations and other resources relating to promising practices so that these may be available to any interested faculty, staff or students on a 24/7 basis.

A more intentional information sharing and scaling up effort is being undertaken by Inver Hills Community College and Century College, as part of the dissemination efforts required by the grant funding provided to the Access and Opportunity Center of Excellence. The colleges will be sponsoring a two-day Learning Communities Institute, inviting teams of faculty and staff

from several colleges across the system. The teams will learn about how to implement a learning communities program from the ground up, both from staff at Inver Hills and Century, as well as from staff members from Kingsborough Community College, which is often cited as the model for implementation of learning communities in the student retention literature. The hope is that this institute will lead to the successful scaling up and implementation of learning communities at more colleges across the system, and that the institute will serve as a model for other institutes focusing on the other promising practices: intrusive advising, supplemental instruction, student success courses, and especially redesigning developmental education.

B. Assessment and Mandatory Placement

The system's policy on assessment for course placement and mandatory placement into developmental courses was a major topic of conversation among the committee members. It was noted that the literature relating to assessment and placement had conflicting conclusions and recommendations relating to strict cut-off scores and mandatory placement into developmental courses. Several members noted that students were often successful in other courses requiring some writing even when they had not yet completed the developmental writing sequence. There was also discussion about the possibility of establishing the cut-off for placement into developmental courses as a range of scores on the Accuplacer, rather than a single score, and using additional indicators to place students into college-level or developmental courses. However, it was decided that these topics would take much more time to address appropriately than was available to the committee and that the topics were beyond the committee's charge. The committee therefore recommends that the Assessment for Course Placement Committee should be charged with considering alternatives to a strict policy of mandatory placement and should also consider the use of a score range for placement, using additional indicators to support a decision to place a student in college-level or developmental courses.

C. Professional Development for Faculty and Staff

Successful implementation of promising practices will require that faculty and staff members involved in these efforts have the training and expertise required by the specific methodologies being implemented. Participating in a learning community as a faculty member requires collaboration skills and the ability to develop curriculum that may not come easily to a faculty member with no previous experience in this area. The specific interactions involved in intrusive advising are often different from the typical engagement between advisors and students. These are skills that must be learned. Professional development must therefore be a central aspect of individual college and system-wide implementation of promising practices in developmental education. In addition, appropriate recognition and support for faculty who choose to work in the implementation or delivery of promising practices in developmental education should be a part of the institutional plan. The committee believes it is important to raise the issue and highlight it so that it is not lost as colleges and the system move forward.

D. Providing Options to Students Based on Need

Successful implementation of promising practices also again relies on the earlier point that there is no "one size fits all" approach to developmental education. Instead, it is important

to provide a variety of options/interventions to ensure that students' developmental education needs are met, whether that means brushing up on a subject or beginning at a much earlier stage. Students have expressed interest in some of the options to redesign developmental education, particularly the module option, which would allow them to focus on any deficiencies they may have in a topic and become ready for college-level work at a faster pace and at a lesser expense than traditional developmental courses. In addition, providing students with options to work during the summer to become college ready by fall may help students progress faster into college-level work. To accomplish this, it is important that colleges and universities provide ways for students to get prepared outside of their campus area, which may include online options or evaluation of developmental course equivalencies so that students can take courses in another location and transfer them to the college or university with ease.

E. Counseling and Other Support Services

The promising practices in developmental education address the cognitive and academic aspects of educational preparation and progress. However, they do not necessarily address many of the other aspects of students' lives that may impact their educational progress. Students who are required to take developmental courses may often feel marginalized or stigmatized. Counseling and other support services must be recognized as integral and necessary to the success of these students. Providing the educational interventions without the counseling and other services may be likened to providing students with only half a chance to succeed. It should be noted that many of the promising practices examples featured in the second section of this report intentionally included the provision of support services as part of their programs.

V. Recommendation to the Board

The committee has made several recommendations in the preceding section. However, the primary recommendation that the committee would like to make is that the Board should go on record as affirming the need for developmental education in our colleges and universities, while at the same time engaging in partnerships and collaborations with the K-12 system to improve college readiness and preparation of all students so that they may graduate from high school and enter our colleges and universities fully prepared to successfully undertake college-level study. The Board should provide encouragement and support to Presidents to implement promising practices as appropriate on their campuses and should provide recognition to those that are doing exemplary work in this area. It is often said that anyone can teach the student with a 2400 SAT score or 36 ACT score. But it takes some special individuals to successfully teach those who come to our doors underprepared for college.

REFERENCES

Backhus, D. (1989). Centralized intrusive advising and undergraduate retention, NACADA Journal, 9, 39-45.

Bloom, D. and Sommo, C. (2005) *Building learning communities: Early results from the opening doors demonstration at Kingsborough Community College.* New York: MDRC.

Gardner, J.N. (1986, Summer). The freshman year experience. *College and University, 61*(4); 261-274.

Earl, W. (1988). Intrusive advising of freshmen in academic difficulty, NACADA Journal, 8, 27-33.

Heisserer, D. L., & Parette, P. (2002). Advising at-risk students in college and university settings. *College Student Journal, 36,* 69–83.

Hensen, K. A., & Shelley, M. C., III. (2003). The impact of Supplemental Instruction: Results from a large, public midwestern university. *Journal of College Student Development, 44*(2), 250-259.

Levitz, R.S., Noel, L., & Richter, B.J. (1999). Strategic moves for retention success. In G.H. Gaither (Ed.), *Promising Practices in Recruitment, Remediation, and Retention* (pp. 31-49). San Francisco: Jossey-Bass.

López, M., Clayton, E. R., Yanez, M., and Thompson, D. A. (1988). Intrusive advising with special student populations. *NASPA Journal, 25*, 195-201.

Lotkowski, V.A., Robbins, S.B., and Noeth, R.J. (2004). *The role of academic and non-academic factors in improving college retention.* ACT Policy Report. Iowa City: ACT.

Ogden, P., Thompson, D., & Russell, A. (2003). Supplemental Instruction: Short and long-term impact. *Journal of Developmental Education, 26*(3), 2-10.

Ramirez, G. (1997). Supplemental instruction: The long term effect. *Journal of Developmental Education*, *21*(1), 2-10.

Purnell, R.C., Bank, S., Scrivener, S., and Seupersad, R. (2004) *Support success: Services that may help low-income students succeed in community college.* New York: MDRC.

Shapiro, N.S. and Levine, J.H. (1999). Creating learning communities: A practical guide to winning support, organizing for change, and implementing programs. San Francisco: Jossey-Bass.

Schnell, C.A., & Doetkott, C.D. (2002-2003). First year seminars produce long-term impact. *Journal of College Student Retention*

Taylor, K., Moore, W.S., MacGregor, J., and Lindblad, J. (2003). *Learning community research and assessment: What we know now*. National Learning Communities Project Monograph Series. Olympia, WA.: Washington Center for Improving the Quality of Undergraduate Education.

Upcraft, M.L., Gardner, J.N., and Barefoot, B.O. (2005). *Challenging and supporting the first-year student: A handbook for improving the first year of college*. San Francisco: Jossey-Bass.

Wathington, H., Pretlow, J. and Mitchell, C. (2011). *The Impact of Developmental Summer Bridge Programs on Students' Success*. Paper presented at the Society for Research on Educational Effectives Spring Conference, Washington, D.C.

Zachry, E.M., and Schneider, E. (2008). *Promising Instructional Reforms in Developmental Education: A Case Study of Three Achieving the Dream Colleges*. New York: MDRC.

Zachry, E.M., and Schneider, E. (2010). *Building Foundations for Student Readiness: A Review of Rigorous Research and Promising Trends in Developmental Education.* New York: National Center for Postsecondary Research.

Members of the Ad Hoc Developmental Education Advisory Committee

Name	Institution	Group
Ron Anderson	Century College	Administrator
David Corgan	Anoka Ramsey Community College	MSCSA
Mary Diedrich	North Hennepin Community College	Administrator
Anita Hanson	Fond du Lac Tribal and Community College	Administrator
Jonathan Harper	Minnesota State University, Mankato	IFO
Stephanie Houdek	St. Cloud State University	IFO
Nancy Jannik	Winona State University	Administrator
Damon Kapke	Lake Superior College	MSCF
Adam Klepetar	St. Cloud State University	MSUAASF
Linda Lade	Office of the Chancellor	Administrator
Kevin Lindstrom	Anoka Technical College	MSCF
Mike López	Office of the Chancellor	Administrator
Michelle Malott	Minnesota State University Moorhead	Administrator
Jessica Medearis	Associate Director	MSCSA
Shannah Mulvihill	Director of University & System Relations	MSUSA
Barbara Oertel	Winona State University	MSUAASF
Trish Schrom	Minnesota State Community and Technical College	Administrator

Table 1

2008 Minnesota Public High School Graduates Who Enrolled in Minnesota State Colleges and Universities Within Two Years and Who Took Developmental Education

	Percent of 2008 Graduates Enrolled in These Institutions	Percent of graduates Enrolled in These Institutions Who Took:		Percent of Developmental Credits Taken by Subject Area:		
		One or More (Any) Developmental Courses	Two or More Developmental Courses	Math	Writing	Reading and Other Subject Areas
Minnesota State Colleges & Universities[1]	45%	48%	26%	50%	23%	27%
Two-Year Colleges	35%	54%	32%	47%	24%	29%
State Universities	13%	22%	4%	90%	3%	7%

[1]Students who attended both a two-year college and a four-year state university are counted only once in total percentage who enrolled in the Minnesota State Colleges and Universities system.

Source: Minnesota State Colleges and Universities, Research and Planning