The FLIT Report: Recommendations for the Basic Skills Master Plan

Submitted by the Basic Skills Master Plan Task Force
Faculty Led Inquiry Team (FLIT)   **August, 2016**

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Acknowledgements

*T*able of *C*ontents
Organizational Culture

Supplemental Support Programs

Developmental Education Programs

Introduction

The creation of the Basic Skills Master Plan Task Force or FLIT (Faculty Led Inquiry Team) came about through the Basic Skills Initiative Steering Committee (BSISC) and the Student Access and Success Committee (SASC) in 2014. The mission of FLIT was to 1) facilitate discussions with College of Marin (CoM) students, faculty, and staff about the obstacles preventing student success and the best ways to support students; 2) research best practices and how other community colleges are helping students to succeed when encountering similar obstacles; and 3) create recommendations based on the internal and external research to expedite the development of the Basic Skills Master Plan that then would inform the College's Strategic Plan, Educational Master Plan, and Student Equity Plan.

Original Charge

In the call for the Basic Skills Master Plan Task Force, the task force was to create a plan that would identify, incorporate, synthesize, and operationalize best practices in pre-college curriculum and student support services in the following areas:

- Assessment
- Summer Bridge
- High School (meet with high school faculty in English and math)
- Developmental Math
- Developmental English
- Noncredit and Credit ESL
- Delivery of student support services via the Accelerated Pathways Center
- Dedicated Tutors
- Instructional Specialists
- English Writing Center and English Skills Lab
- Math Lab

FLIT did not directly create recommendations for some of the areas on the list above, such as: High School, Noncredit and Credit ESL, APC, and the English Writing Center and the English Skills Lab, because other constituents were engaged in discussions affecting those areas.

With the support of the BSISC starting in March through May of 2015, FLIT conducted research in the form of 38 focus groups, 17 of which were with students and 19 comprised of staff, faculty, and administrators. Each focus group was facilitated by two FLIT and/or BSISC members, with the exception of one. During all the focus groups, participants were asked the same eight questions (see appendix for the questions). While there could be discussion among the group participants in response to the questions, the two facilitators did not follow-up on ideas or responses. They only asked the questions and listened while the court reporters transcribed the sessions. This was done to prevent any influence on the data. FLIT then read and coded the 38 transcriptions and inputted the data into the Atlas TI program to discern connections and further understanding of the data.

Using the information from the focus groups, in Fall 2015, FLIT then developed and facilitated eight interdisciplinary discussion groups to present possible interventions and brainstorm additional measures to improve student success. FLIT facilitators encouraged discussion and elaboration on ideas and responses. In addition, FLIT met with the individual departments of English, English Skills, instructional specialists, and math to further understand the particular issues involving basic skills students in those areas. While there is always more to research and discuss, FLIT members invested roughly 1200 hours in the process of creating 14 recommendations to inform the Basic Skills Master Plan. The recommendations are organized into three major categories: Organizational Culture, Supplemental Support Programs, and Developmental Education Programs.

Organizational Culture
1. Inspire and Remind Faculty, Staff, and Administrators of the Intention and Importance of their Work
2. Encourage Faculty, Staff, and Administrative Excellence
3. Improve the College's Learning/Social Environment
4. Broaden Accessibility and Services
5. Cultivate an Inclusive Campus

Supplemental Support Programs
6. Institutionalize and Expand the Summer Bridge Program
7. Build and Institutionalize Humanities 101
8. Support and Expand Learning Communities
9. Create the Educational Support Program
10. Expand and Specialize Counseling
11. Develop and Offer Performance-based Scholarships for Qualified Students Beyond the BOG Fee Waiver

Developmental Education Programs
12. Implement Multiple Measures for Placement
13. Innovate the Math Sequence and Offerings
14. Innovate the English Sequence and Offerings

Each recommendation is considered with regard to: the Problem, Solution, Rationale, Suggested Work Plan, Key Internal Findings (information gathered from the FLIT focus groups, FLIT flex interdisciplinary and department discussions, and CoM data), and Supportive Evidence.

The goal is that through these recommendations, the success rates of our students will increase.

As of April 1, 2016, the Chancellor's Office awarded College of Marin the Basic Skills and Student Outcomes Transformation Program Grant of 1.3 million dollars based largely on the work and recommendations of FLIT to implement, among others, Humanities 101, the expansion and development of our supplemental instruction program, Summer Bridge, and learning communities.

Organizational Culture

1. Inspire and Remind Faculty, Staff, and Administrators of the Intention and Importance of their Work

2. Encourage Faculty, Staff, and Administrative Excellence

3. Improve the College's Learning/Social Environment

4. Broaden Accessibility and Services

5. Cultivate an Inclusive Campus

1. Inspire and Remind Faculty, Staff, and Administrators of the Intention and Importance of their Work

"I think students have to feel your passion for what you are teaching."
Faculty

"Teachers have influence on the atmosphere, and it's not going to be a good learning environment if they are obviously down on their job and don't want to be there."
Student

Problem

Staying excited about the work we do is not always easy considering the difficulty of meeting the demands of an educational profession. There is much to do and not always adequate resources with which to accomplish what we hope to. However, facilitating the process wherein individuals become educated and reach their goals is a meaningful and important pursuit. It is the significance of the work that we need to be reminded of when limited budgets, stacks of papers, frustrated students, and endless paperwork overshadow the reasons why we chose this job in the first place — to make a difference. When we forget this, it affects not only ourselves but also those around us, including the students.

Solution

Because of the complexity and significance of the work in education, it is recommended that the community of faculty, staff, and administrators strive to remind, encourage, and inspire one another regarding the merit of our efforts to affect positive change in the lives of CoM students.

Rationale

By supporting one another at CoM, it will ensure everyone on campus understands that they are contributing to something important. In our jobs, we are performing just one part in this process of providing an exemplary and affordable education for under served communities, so it is often difficult to see the larger picture and how our part contributes to the whole. However, with the collective effort to remind one another that our part is connected to this greater goal, it will help to ignite the perseverance and passion for our work we need when confronted with challenges.

Suggested Work Plan

- Organize campus events that remind CoM employees of our successes and impact
- Create opportunities for self-reflection
- Make an effort to reach out and support colleagues as well as students

Key Internal Findings

Faculty and staff's dispositions/attitudes towards students is the third most common theme in discussions of Student Faculty Interaction in our data set. (10.3% of all quotations referencing Student Faculty Interaction discussed faculty and staff's Dispositions and 13.7% of all student quotations related to Student Faculty Interaction discussed this issue). Further, our data show that faculty and staff's dispositions/attitudes are related to students' sense of community and feelings of belonging on campus, as well as their feelings of connectedness to faculty and the institution as a whole. (16.7% of quotations referencing Student Engagement and faculty and staff's Dispositions discuss student's sense of Identity/Community. 33.3% of quotations referencing Student Faculty Interaction and faculty and staff's Dispositions discuss Connect(ions)).

Overall, the data suggest that a small thing — having a kind and welcoming demeanor (demonstrating that we care) — can go a long way in making students feel more comfortable, connected, and enthused about their time at CoM. The recommendation listed above is designed to make for a more positive, welcoming school environment for students, faculty, and staff alike.

Supportive Evidence

Investing in staff for student retention (Farrell n.d.)

This essay discusses research conducted on student retention which, among other outcomes, produces the assertion that both the academic and social systems of a college affect retention. Four principles for effective student retention are: commitment to serving students, commitment to educating all students, and commitment to integrating all students into the social and academic life of the college. All individuals — students, faculty, staff, and administration — have roles to play in implementing these principles. The fourth principle pertains to institutional characteristics — mission, culture, structure, and organization. College culture — shared beliefs, values, and assumptions — is "reflected in what is done, how it is done, and who is involved in doing it." Ultimately it is reflected in the attitudes and behaviors of its employees.

Promising practices for community college developmental education (Schwartz/Jenkins 2007)

The article discusses the importance and impact of a unifying mission on faculty and staff engagement as well as student success. A statement that specifies concrete principles, values, goals, and objectives should be inclusive of, in particular, developmental educators as equal partners in the overall educational mission of the college at large.

2. *Encourage Faculty, Staff, and Administrative Excellence*

"What about services for faculty?"

Faculty

"An unsuccessful teacher doesn't care; an unsuccessful teacher doesn't reach out to students who are on the edge; an unsuccessful teacher doesn't develop his or herself professionally."

Faculty

Problem

Our research does indicate that we, as a community, could be doing more to ensure our students' academic success. This does not mean just faculty, but includes staff and administration as well. Of course, in order to support our students, we too need support, training, and a better sense of community. The lack of these commodities manifests itself in several different ways across both of our campuses.

One issue is that when new faculty, staff, or administrators are hired, there is no official training/support/mentorship for them. Thus, newcomers are unaware of institutional policies, the composition of our student body, bureaucratic idiosyncrasies, the nature of our various committees, and campus culture. This lack of orientation causes confusion for the employee, which in turn can throw up barriers for students. This also applies to our part-time instructors who very often teach at many different campuses.

In addition, "Academic Freedom" notwithstanding, the faculty could use some guidance on instructional pedagogy. While a variety of instructional approaches should be cultivated, the underlying rationale should be based in effective practices, and ideally these approaches would be conducive to student learning, engagement, and success. We can see from our "Scorecard" that we can do more to get our students successfully through our programs.

Furthermore, during our focus groups with students, it became apparent that they equate attaining tenure with a lowering of standards. Because of this perception, it seemed important to look into our tenure process and compare it with others at similar institutions, and several issues which impede our ability to create a more rigorous and inviting academic environment arose, but one was paramount. Our tenure process has no faculty input! Deans approve the professional objectives during the probationary period and ultimately make the decision on whether or not to grant tenure. The process needs to be reevaluated to make it more faculty-centric and remove any unnecessary administrative layers to ensure we are creating departmental communities whose composition will best support our objectives and student success.

Another area where employees could use better support is in the availability of campus services. Many of our employees commute quite a distance, and it would be helpful if their various needs did not require extended driving time and battling traffic.

Also, we are charged with program review and often need to measure the efficacy of pilot programs, and the necessary data support is not always readily available, which causes delays and frustration for the faculty.

Finally, our faculty more often than not find themselves in a departmental/discipline silo that prevents the cross-pollination of ideas, the dissemination of information, and the opportunity to build community.

Solution

So that faculty, staff, and administrators can best support our basic skills students, it is recommended that programs be put into place that support CoM employees.

Rationale

Developing a mandatory new hire training and professional development program, a sort of First Year Experience (FYE) for new employees that demystifies college policies and services, identifies and explains student population, and addresses academic principles would ameliorate many of the problems (student barriers) that arise due to a lack of knowledge. If everyone coming on board is given the same first year experience and orientation, we can create a uniformity of expectations, which will serve our students well. Designating mentors for new employees would also help ensure that everyone is working towards a common goal — student success, and would give new employees the chance to connect more deeply with their colleagues. We should also create a repository of committee guidelines and identify committee members who can function as mentors for new members. This will help faculty choose an area where they want to be involved and allow them to hit the ground running.

Though every discipline has its own standards as far as delivery and content is concerned, and faculty continue to educate themselves in their discipline's content, we as a campus should engage in a larger conversation that addresses our student population's needs and emphasizes creating positive student interactions through pedagogical shifts. This kind of conversation and communal goal setting would help introduce faculty to new pedagogical approaches, thereby engendering student success and access.

A committee should be formed to reevaluate our current tenure process and standards so that we can be sure it serves our academic objectives, addresses our departmental concerns, and is in the best interest of those we serve — our students. A thorough vetting of the process by experts in the field and on the front lines, in conjunction with United Professors of Marin (UPM) and relevant administrators, is the best way to make our tenure process serve us instead of the other way around. Ultimately, it is faculty who should help decide these matters as they are the ones who work within it and alongside those who enter the ranks.

Because we are all better instructors, administrators, and staff when our other needs are met, all employees should have access to the gym, be provided with childcare for preschool-aged children at the CoM Child Development Study Center, and be granted access to Marin County schools for school-aged children. These services would also help us attract and retain faculty.

Another way that faculty could be better supported is through a dedicated faculty data person. This would encourage more informed and active participation in program review and facilitate the creation of innovative solutions through accessible data.

In order to bring faculty together more often and informally, the College should institute a "College Hour." Scheduling a weekly 1.5 hour block wherein classes are not offered opens up various opportunities for faculty to share interests, discuss student trends, and learn more about what other disciplines are up to. This would not be a time for office hours or committee meetings but rather a coordinated occasion geared towards greater interaction and the ability to experience what our campus and our talented members have to offer.

Another venue where faculty might share information and frustration is in a newly revamped Deedy Hall. Faculty would be more likely to congregate there if it had a more faculty-centric environment. The room should have a message/project board, a coffee station, a color printer, and a new look in order to entice faculty out of their own buildings and encourage them to meet their counterparts across campus.

Suggested Work Plan

- Develop new hire training and professional development programs
  - o Require intensive training for new hires: faculty, staff, and administration
    - Emphasize creating positive student interactions
    - Inform hires of student population: their needs and barriers
    - Discuss best practices for teaching and working with students in community colleges
    - Implement committee mentors and create committee guidelines
- Create a faculty committee to reevaluate the tenure process
  - o Liaise with UPM
  - o Develop faculty development policies; budgeting practices; strategies for employee hiring, performance review, and incentives.
  - o Create peer review process for tenure
  - o Establish equitable and clear policies
- Support CoM employees
  - o Gym access
  - o Child care for preschool-aged children
  - o Access to Marin County schools for children of CoM employees
- Dedicate a data person for faculty
  - o Program review support
  - o Clarity on the efficacy of pilots and initiatives
- Institutionalize a college hour
  - o Hire a college hour coordinator to organize weekly activities and events
  - o Schedule 1.5 hour weekly block without classes
- Renovate faculty lounge to create a more inviting gathering place
  - o Project board/coffee maker/printer

Key Internal Findings

No significant data for this theme.

*S*upportive *E*vidence

*E*ducation reform: *Teaching the teachers* (*The Economist* 2016)

> In a study updated last year, John Hattie of the University of Melbourne crunched the results of more than 65,000 research papers on the effects of hundreds of interventions on the learning of 250 pupils. He found that aspects of schools that parents care about a lot, such as class sizes, uniforms and streaming by ability, make little or no difference to whether children learn (see chart). What matters is "teacher expertise." All of the 20 most powerful ways to improve school-time learning identified by the study depended on what a teacher did in the classroom.

Get with the program: Accelerating community college students' entry into and completion of programs of study (Jenkins/Cho 2012)

> Research on organizational effectiveness and improvement in higher education and other sectors highlights the importance of the following management practices, among others, for supporting and sustaining organizational innovation: strong, outcomes-oriented leadership, broad-based engagement and supporting professional development, and evidence-based improvement.

Promising practices for community college developmental education (Schwartz/Jenkins 2007)

> In general, colleges should communicate their expectations to developmental education faculty and other staff and define specific ways of supporting students' academic efforts. Providing faculty with a handbook on developmental instruction in general and suggestions for how to teach specific subjects may help ensure that faculty understand the unique aspects of teaching developmental courses. Training for developmental education faculty also shows promise for increasing program effectiveness. Training can take the following forms: peer mentoring, instructional consultation, and reflective practice.

3. *Improve CoM Learning/Social Environment*

"There is no sense of belonging or feeling safe on campus."

Staff

"Special programs. Just a place called, like, a resource center, so you know, you can go after class, that promotes school work and focus."

Student

Problem

One of the most common themes that emerged from our focus groups was the interest and need for a positive and supportive learning environment for students. Students reported feeling lost when they first came to campus. Also, they commented frequently on the lack of adequate food choices on or close to campus. In addition, CoM does not have pleasant and appealing spaces for students to gather and student groups to meet. Studies show that when students are involved in campus activities, they are more likely to perform better and persist.

While the Office of Student Activities does support clubs and student government, more could be done to organize events to engage students in campus life. CoM often has the feel of a "commuter campus" where students come to class and leave. This does not promote a supportive educational environment, and students miss the opportunity to become involved in campus life. Faculty and staff engagement is also critical to student success. A common space for events that could include faculty and staff would increase the likelihood that faculty and students could engage outside of the classroom.

Solution

To best serve the vulnerable basic skills student population as well as all CoM students, the recommendation is that resources and effort go into improving the learning and social environment of the College in the following ways:

- Hire a coordinator to facilitate improvements
- Allocate funds to create a CoMmunity building with space for:
    - o Student Learning Services, to include space for clubs, tutoring, computer labs, the writing center etc.
    - o Home for learning communities, such as Puente, Umoja, and FYE
    - o Center for students to congregate
- Set up food and coffee kiosks to encourage students, faculty, and staff to gather
- Examine and create signage on campus that sets an inviting tone for learning and community, such as a welcome arch at the entrance from Parking Lot 6.
- Organize academic and social events for students to inspire community and academic discussion

Rationale

If we improve our learning and social environment, we will provide the opportunity for students to become more engaged in their education and interact on an intellectual and social level with each other. Gathering spaces around campus, which include food and coffee kiosks, will assist in creating a sense of belonging and help to make CoM an appealing meeting place to congregate before and after class. More welcoming signage is essential to creating a positive experience, which is so often missing when students are lost on their first visit to CoM. Academic and social events that involve faculty and staff would provide important support and inspiration for students. The more students can engage with each other and faculty in a meaningful way, the more they will understand the value of their education and will be motivated to persist at CoM.

Suggested Work Plan

- Form a committee comprised of students, faculty, and staff to determine space needs
- Designate a person to research potential vendors for food service
- Designate a person to work with Student Activities to coordinate a calendar of events to include academic departments (lectures, demonstrations, performances), student services, and clubs.
- Designate a central place on campus where regular activities will take place

Key Internal Findings

Our focus groups show that CoM's students are dissatisfied with the quality and availability of various amenities on campus. (3.7% of quotations related to Student Engagement discuss student Technology/Amenities, the sixth most common theme in our conversations with students). Specifically, students feel that CoM's online registration tools are not user-friendly, food options are limited and too expensive, and various parts of campus are unsafe. (18.5% of quotations related to Student Engagement and student Technology/Amenities discuss problems with CoM's online registration system, 15% discuss limited food options, and 15% discuss students' sense of safety on campus).

Similarly, faculty are concerned by the lack of opportunities available to students to build community and promote a sense of belonging on campus (4.1% of quotations referencing Student Engagement discuss Identity/Community). In particular, faculty argue that CoM does not provide students sufficient spaces on campus to meet, socialize, hold club meetings, and other community building activities. (61.2% of quotations referencing Student Engagement and Identity/Community discuss community space). Moreover, faculty suggest that creating these social spaces would help to promote a culture of inclusion and an overall feeling that the institution recognizes and values the diversity of its student body. (22.6% of quotations referencing Student Engagement and Identity/Community discuss institutional affirmation).

The policy recommendations outlined above seek to address students' and faculty's concerns and promote a more inclusive, welcoming campus environment.

*S*upportive *E*vidence

*L*iterature Review Brief: What we know about student support (Schiorring/Purnell 2012)

The more relationships students have with others, the more difficult it is for them to walk away from school. Connections can form among a group of Math, Engineering, Science Achievement (MESA) program participants who "hang-out" after class or through culturally-focused programs like Puente that help participants build their social capital by linking them to different personal and professional networks (Rodriguez, 2007). Existing literature also suggests that co-curricular activities seem to be associated with persistence, social maturation, development of self-confidence and autonomy, and increased appreciation for others' differences and similarities (Kuh et al, 2006; Tenhouse, 2003).

4. *Broaden Accessibility and Services*

"We need to create sort of a safety net and we can help them not disappear."
Faculty

*"There's not enough classes at night ... Some people cannot make it
in the day ... For us, we cannot come to the lab during the hours offered,
but they are only open for a few hours. If we don't come there,
we miss it. And we have to miss work for that and then we
cannot pay for classes."*
Student

Problem

First-time students become easily frustrated when they cannot figure out how to access services and get the support they need to register and secure financial aid. Often this frustration can lead to giving up on CoM all together and quitting before they start. Some of the issues around the application process using CCCApply are not in our control and, while the Dean of Enrollment Services has conveyed our concerns to the Chancellor's Office, we must still seek to support our students through the process. Often times, services required by students are not available at times that students are. Examples of this include the lunch hour closure in Enrollment Services, practically non-existent bookstore hours at IVC and the paucity of night services on both campuses.

Most CoM students are working either full-time or part-time because they do not have sufficient financial aid to support themselves without doing so. They frequently have family and other responsibilities that create a challenging work/school/life balance for them. While Enrollment Services has instituted loan workshops and other improvements to increase accessibility to financial aid support, more could be done. Scholarships are also available but the need is greater than the funds. Financial concerns and the resulting anxiety have an immense impact on student success.

Some CoM students are homeless, seek legal support with citizenship status and other issues, or need support in other areas such as completing taxes or managing their finances. With the loss of the Single Stop program, CoM has not had sufficient services available to meet the needs of these students due to lack of personnel and resources. Access to life management services on campus gives students the opportunity to remain on campus to have these needs addressed and adds to a sense of belonging on campus. Students need this type of support so that they can focus on their courses and not spend extra time and energy managing their lives.

Solution

Based on both internal and external research, it is recommended that the College establish and support programs that assist students in dealing with life challenges, so they may focus on their academic goals.

Rationale

Students often need in-person support to initially navigate a system new to them. It can be daunting and overwhelming. A pleasant, well-staffed "Welcome Center" would assist students in their getting started and help them to understand the process and the student portal so that they can utilize online services independently in the future. Also, we could provide this support in the form of workshops to be efficient and create more opportunity for students to receive assistance and gain self-sufficiency.

Determining why students leave CoM would be extremely beneficial information to facilitate our improvement of services. It would provide useful data to help pinpoint real issues that students experience at CoM. This would prevent haphazard and unsystematic attempts to rectify issues that may not be real problems. It also would help us avoid incorrect assumptions and provide direction on how to improve services.

Demystifying the financial aid and scholarship process and making it more student-friendly will relieve a great deal of student stress. Providing academic scholarships to students who are achieving good grades and following their academic plans will be a tremendous incentive for students.

The support provided by increasing and enhancing life management services will have an enormous impact on students as well as staff in student services. Students will benefit because they will have essential services available on campus and will get assistance in areas which greatly impact their lives and impede them from pursuing their educational goals. Student services staff will benefit because they will have a place to refer students in need. They will have more time to assist students with questions related to their areas (financial aid, admissions, outreach, job placement, counseling).

Suggested Work Plan

- Develop a "Welcome Center"
- Implement the following student-friendly admissions procedures:
  - o More accommodating hours for students, such as no lunch closure, evening hours, and Saturday hours.
  - o Use iPads or Chromebooks at high school workshops to register students
  - o Develop process to research and follow up on students and why they leave CoM
- Reconsider financial aid disbursement
  - o Evaluate best practices for the disbursement process and timeline for financial aid payments
  - o Consider "Aid Like a Paycheck" program from Manpower Demonstration Research Corporation — Building knowledge to improve social policy (MDRC)
- Enhance and expand life management services on campus and connect more with local community resources that provide Single Stop services pertaining to:
  - o Food
  - o Housing
  - o Law
  - o Taxes
  - o Finances

Key Internal Findings

Student responsibilities and demands outside the school environment are the third most common explanation of disparities in student engagement in our data set. (10.6% of all quotations referencing Student Engagement discuss the sway of life Outside of school). Specifically, we find that outside influences are associated with difficulty reaching academic goals, attendance, familiarity with college culture, the development of a college mindset, and feelings of connectedness to faculty and institution as a whole. (7.5% of quotations referencing Outside influences discuss Academic Goal Setting/Planning and 5.6% Class Attendance. 18.7% of quotations referencing Student Engagement and Outside influences discuss College Culture and 15% discuss having a college Mindset. 30.8% of quotations referencing Student Faculty Interaction and Outside influences discuss Connect(ions)).

The data also show that outside influences are commonly associated with economic adversity. (20.5% of quotations referencing Student Engagement and Outside influences discuss Money). As noted elsewhere in this report, faculty, students, and staff suggest that CoM could potentially play a meaningful role in helping students better manage life outside school by providing opportunities for greater financial support. (Please see our discussion Performance-Based Scholarships for more information).

Beyond offering students opportunities for greater financial support, the data suggest that students would also benefit from more diverse, non-traditional course times, and wider access to student support services outside of peak hours. (37% of quotations related to Student Engagement and Scheduling/Policy discuss the need for more diverse scheduling).

Supportive Evidence

Investing in staff for student retention (Farrell n.d.)

> This essay discusses research conducted on student retention which, among other outcomes, produces the assertion that both the academic and social systems of a college affect retention. Four principles have been developed for effective student retention: commitment to serving students, commitment to educating all students, and commitment to integrating all students into the social and academic life of the college. All individuals — students, faculty, staff, and administration — have roles to play in implementing these principles. The fourth principle pertains to institutional characteristics — mission, culture, structure, and organization. College culture — shared beliefs, values, and assumptions — is "reflected in what is done, how it is done, and who is involved in doing it." Ultimately it is reflected in the attitudes and behaviors of its employees.

Promising practices for community college developmental education (Schwartz/ Jenkins 2007)

> Institutional Financial Support and Student Financial Assistance: Studies suggest that having adequate funds for the provision and rigorous evaluation of developmental education can promote better student outcomes. Making

financial aid available to students while they are taking developmental education — without reducing subsequent aid for credit-bearing courses — and providing the aid early so that students can concentrate on their studies and get a foothold on higher education are two mechanisms that have been recommended as an effective use of aid dollars. A number of studies also suggest providing funds for child care, transportation, and other personal needs to facilitate regular college attendance.

5. *Cultivate an Inclusive Campus*

"College of Marin's mission or goal is to bring students of any background in, and...bring them to the college ready level."

Faculty

A successful teacher is "someone that doesn't talk down to you. Like they don't necessarily have to speak to you like they're your equal, but someone like just recognizes that you're a person beyond just being a student, like a whole, complete person."

Student

Problem

Through focus groups and department meetings, one important issue that surfaced was an insensitivity or a lack of awareness on the part of CoM faculty, staff, and the administration about the challenges that students face especially around issues of diversity. For example, with regard to income, the administration has put forth procedures that are detrimental to low-income, working students, such as limiting the open hours of labs as well as the Enrollment Services office. Acts like these prevent low-income, working students the opportunities to get help due to work or class conflicts. However, at CoM, the third most disproportionately impacted groups is low-income students. We should be doing everything we can to support these students, knowing that they are achieving at significantly lower rates in part because of their unique challenges.

Another issue that surfaced was a discomfort in talking about diversity and race. For example, comments during discussions about student success were made such as "I don't mean to be racist, but, according to data, Hispanic and African-American students enter college less prepared." While it is not racist to note these differences and devise ways to support the students who are coming into CoM less prepared, it does become a problem when this data is used as an excuse for low success rates and to explain why both Hispanic and African-American students are the first and second most disproportionately impacted groups at CoM. This does little to solve the problem, and it ignores the deeper, long-standing, and pervasive sociological as well as psychological circumstances that can impede student success, stemming from factors such as race, ethnicity, income, gender, and sexual orientation. Moreover, students must be seen as individuals and not just part of these impacted groups; yet, to ignore that there can be serious challenges as a member of these groups is also detrimental. We cannot pretend to be blind to race and the unique challenges minority groups experience as it can negatively impact their education and success.

The problem is, of course, complicated. However, an open dialogue, professional development, and a conscious direction of resources and effort must be employed to truly address the lower success rates among particular groups. We must educate ourselves about the significant barriers to success and then devise innovative ways to minimize them and, consequently, the achievement gaps.

Solution

The recommendation is that we strive to create a more inclusive campus with regard to factors such as race, ethnicity, gender, sexual orientation, gender identity, class, socio-economic status, learning challenges, and age to eliminate barriers that impede success.

Rationale

Achievement gaps based on factors such as income, race, and gender are not isolated to CoM, but that does not mean we cannot be leaders in employing meaningful strategies to address this disturbing reality that perpetuates inequities in the access and distribution of resources and opportunities, impacting quality of life. Community colleges are uniquely positioned to affect real change in the distribution of resources and opportunities because they admit everyone at a relatively inexpensive cost, thereby opening up pathways for upward mobility. In essence, community colleges have tremendous power to significantly improve the lives of students, subsequent generations, and the culture and breadth of our society. But if community colleges settle to mirror the injustice and inequities of society through lazily utilizing traditionally ineffective approaches, they are not only failing to do their job but are also missing an incredible opportunity to facilitate the emergence of an era of true democracy and equality sustained by an educated citizenry.

Factors that must be explored and considered are the underlying barriers associated with diversity, such as anxiety brought on by stereotype threat or a sense of not belonging in college. Anxiety, originating for any reason, including stereotype threat, has been linked to low school achievement. Stereotype threat plays a major role in decreased performance by students and in explaining racial and gender achievement gaps. Stereotype threat is a phenomenon in which a person's performance is affected when he/she is reminded of a stereotype associated with his/her identity through certain triggers. The anxiety to disprove a negative stereotype associated with one's identity significantly decreases achievement. In addition, a sense of disconnection can affect first generation, low-income, and minority students. Often times, these students feel as though they don't belong in college, so if there are not interventions to counteract that mindset, then normal setbacks and failures reinforce self-doubts and the notion that they are not capable of succeeding in college. Because the learning environment can trigger or reduce the impact of these psychological barriers, it is apparent that educators must be cognizant and strategic about shaping the classroom environment.

Another factor that can help students of color succeed in the classroom is having instructors of the same race and/or similar background to act as role models and to counteract issues of stereotype threat. Therefore, CoM must work to overcome its lack of diversity among its staff and faculty.

Consequently, it is imperative that the College research, assess, develop, and implement innovative strategies that will minimize barriers to student success, such as triggers of stereotype threat, anxiety, and a sense of belonging so as to create an inclusive and comfortable learning environment in which students feel they belong and are capable of excelling.

Suggested Work Plan

- Provide professional development for faculty, staff, and administrators to facilitate the development of strategies that will create an inclusive campus and comfortable learning environment
- Implement and build on the strategies within the CoM Equal Employment Opportunity Plan 2016 to facilitate the hiring of faculty, staff, and administrators that reflect an inclusive campus. Some ideas are to:
  o Widen the advertisement of positions
  o Examine and write position descriptions/postings and application questions free of biased language
- Implement and build on the strategies within the CoM Equity Plan 2015–2016
- Evaluate assessment tests and testing environments for triggers of stereotype threat and test anxiety
- Assess the college and classroom environments for triggers of stereotype threat
- Continue to support Safe Space and other initiatives that reinforce campus inclusiveness
- Continue to support learning communities that support students of impacted groups
- Develop and implement interventions that encourage a growth mindset and a sense of belonging, such as peer panels from diverse backgrounds including first generation students
- Develop and implement interventions that help students cope with issues of performance anxiety

Key Internal Findings

Our focus group data show that faculty, students, and staff are all deeply concerned by stereotyping inside and outside the classroom. (2.7% of all quotations referencing Student Engagement discuss Stereotypes/Assumptions, tied for our seventh most common Student Engagement subcode). In fact, study participants suggest that there is a relationship between the different programs/pathways and majors students pursue and the various stereotypes (most commonly related to their background, academic skills, and familiarity with college culture) they confront on campus. (14.2% of quotations referencing Student Engagement and Stereotypes/Assumptions discuss how they relate to Academic Goal Setting/Planning, 15% discuss Basic Skills, and 31% College Culture). Not surprisingly, we find that the prevalence of such stereotypes has a powerful affect on students' feelings of connectedness to faculty, peers, and the institution as a whole. (19% of quotations related to Student Engagement and Stereotypes/Assumptions discuss Connect(ions)).

The data also suggest that having a better understanding of the diversity of students CoM serves could play a vital role in combating stereotypes. (12.1% of faculty quotations referencing Student Faculty Interaction discuss the importance of being familiar with and Knowing Your Audience). Specifically, we find that "knowing your audience" is related to faculty flexibility and a willingness to employ different pedagogical strategies, as well as students' feelings of connectedness to faculty and the institution as a whole. (53% of quotations referencing Student Faculty Interaction and Knowing Your Audience discuss Flexible Teaching and 20.4% discuss Connect(ions)).

The policy recommendations discussed above seek to address the prevalence of and negative impact of stereotypes on campus and, in the process, dismantle barriers in the way of equal opportunity to academic success.

College of Marin Employee Race 2015

For 2015 of 119 Full-time Faculty	For 2015 of 191 Part-time Faculty
Other/Unknown: 8%	Other/Unknown: 6%
Hispanic: 10%	Hispanic: 3%
Asian: 5%	Asian: 7%
African American: 5%	African American: 3%
White: 71%	White: 80%

College of Marin Student Equity Plan for 2015-2016:

> Using the Chancellor's Office methodology, inequities were determined where categories of students within a group achieved at a rate of 80% or less of the highest category in that group for the 2006–2009 student cohorts. Most student groups are less likely than Asian Americans to transfer, as are economically disadvantaged students. However, among the groups, greatest disproportionate impact was found for the following:
>
> • Hispanic/Latino/a students (26.1%), compared to highest achieving group (55.8%); this represents the largest proportional transfer gap, at 46.9%, compared with the goal of higher than 80% of the highest subpopulation.
>
> • Black/African American students (36.2%), again compared to the highest achieving group (55.8%), represent the next largest transfer gap, at 64.8% compared with the goal of higher than 80%.
>
> • Low-Income students (33.8%), compared to 48.4% for students not receiving financial aid, denote the third largest transfer gap. This represents 69.9% proportionality, compared with the goal of higher than 80%. (67)

Supportive Evidence

Stanford Researcher: First-generation college students benefit from discussing class differences (Parker 2014)

> A Stanford scholar (MarYam Hamedani) found that talking about social class helped first-generation college students reduce the social-class achievement gap by as much as 63 percent. "The research showed that when incoming first-generation students saw and heard stories from junior and senior students with different social-class backgrounds tell stories about their struggles and successes in college, they gained a framework to understand how their backgrounds shaped their own experiences and how to see this as an asset."

Whistling Vivaldi and other clues to how stereotypes affect us (Steele 2010)

> Steele summarizes research findings that show how the concerns students face as a result of these stereotype threats affect a wide range of educational outcomes. He explains how the threat of a stereotype and the extra efforts required of students who try to dispel it interfere with academic performance. The additional stress and anxiety, which can operate without awareness, can lead to under performance in the classroom or on standardized tests relative to ability. Stereotype threat can also undermine feelings of belonging, competence, and aspiration. Importantly, Steele explains how contextual cues, such as being in an environment where there are few students or faculty of color, or where the curriculum marginalizes the experiences of students of color are enough to trigger a stereotype threat that undermines performance.

Who gets to graduate? (Tough 2014)

> Tough discusses the effect that belonging and mindset interventions can have on students through the discussion of many different studies. Often times, first-generation, low-income, and minority students feel as though they don't belong in college. If there are no interventions put in place to counteract that mindset, then normal setbacks and failures reinforce self-doubts and the notion that they are not capable of succeeding in college.

Supplemental Support Programs

6. *Institutionalize and Expand the Summer Bridge Program*

7. *Build and Institutionalize Humanities 101*

8. *Support and Expand Learning Communities*

9. *Create the Educational Support Program*

10. *Expand and Specialize Counseling*

11. *Develop and Offer Performance-based Scholarships for Qualified Students Beyond the Bog Fee Waiver*

6. *Institutionalize and Expand the Summer Bridge Program*

"They need math skills...language skills, and writing skills."

Faculty

"You have to have the mindset that high school is over and it's time to grow up."

Student

Problem

Many students come to CoM less than fully prepared to be successful academically. For any student, but particularly for under served students, the amount of remediation necessary in English and math is directly correlated to the likelihood of degree/certificate/transfer attainment. Summer after high school graduation provides an opportunity to jump start remediation. Also, students need an intensive orientation to college that will assist them in developing educational goals and introduce them to college support services. A short workshop or online orientation is not sufficient to provide this introduction.

Solution

Based on the success of CoM's current Summer Bridge program and current research, FLIT recommends the program be expanded to include more students and models.

Rationale

Summer Bridge is one of the College's strategies to reduce the preparedness gap. This program, successfully implemented at CoM and elsewhere, targets incoming low income and first-generation, first-time college students (with higher representation among Latino and African American students) and decreases time to college level readiness and an improved transition experience. The structure is participation in a one-unit, CSU-transferable counseling course with concurrent, intensive, three-week preparation in math and English. For the intensive tutoring schedule, the English is undifferentiated, but the math range of students is split into equally distributed groups.

Additional Summer Bridge goals include preparing more students for full-time matriculation through completion of priority enrollment steps, increasing students' confidence in college ability and study habits, connecting students to campus resources, and facilitating a positive learning community.

Summer Bridge was piloted in 2014 at CoM with 24 students. A standout achievement was that 61% of the students ended up placing into a higher math or English level after the intensive tutoring. Specifically, 30% placed higher in math and 42% placed higher in English (through a placement test and English instructor's recommendations). In 2015, 68 enrolled and 50 completed the course (74%). 57% of these students improved at least one level in either English or math.

The Summer Bridge program has successfully improved students' English and math assessment scores, thereby, reducing the number of semesters students must spend in remediation. So far, over 80% of Summer Bridge graduates enrolled full-time in college, and we are currently tracking persistence.

CoM is committed to continuing to offer the Summer Bridge program to high school graduating seniors. Thus, FLIT recommends expanding the current program to serve 75 students per summer (225 students over the next three years) and offer a pilot Summer Bridge model that would serve 25 students who could not commit to the three-week program.

Suggested Work Plan

- Create course outlines and curriculum
- Hire English and math faculty to develop and teach curriculum
- Increase the number of students participating in summer bridge
    o Develop and implement outreach strategy
    o Continue to seek additional funding sources for ChromeBooks and other incentives for students
- Develop and implement an alternative Summer Bridge offering for students who are unable to attend the three-week program
- Designate funds to support Summer Bridge including course materials, tutors, and student ambassadors

Key Internal Findings

(Referenced in Humanities 101 Recommendation 7.)

Faculty, students, and staff agree that familiarity with college culture is critical to student engagement and long-term success. In fact, it is the leading explanation of student engagement found in our data set. (26.8% of all quotations related to Student Engagement discuss College Culture). Our research also shows that familiarity with college culture is associated with numerous "taken for granted" norms — from knowing the difference between high school and college to balancing life outside school. Moreover, the data highlight ways that faculty and staff can help students gain greater familiarity with college culture inside and outside the classroom.

Our focus group data suggest that familiarity with college culture is in part related to organizational issues like student ability to set clear academic goals, attend class regularly and on time, and balance the demands of life outside of school. (7.8% of quotations referencing College Culture discuss Academic Goal Setting/Planning and 8.5% discuss Class Attendance. 7.4% of quotations referencing Student Engagement and College Culture discuss balancing life Outside school). We also find that familiarity with college culture is associated with the ability to self-reflect and successfully interact with and negotiate the school environment; examples include understanding one's strengths and weaknesses, how college differs from high school, faculty expectations, the importance of building relationships with faculty, and knowing what resources are available on campus. (8.5% of quotations referencing Student Engagement and College culture discuss Basic Skills, and 4.5% discuss knowing the difference between

High School and College.15% of quotations referencing Student Faculty Interaction and College Culture discuss faculty Expectations and 13.3% discuss building Connect(ions) to faculty. 5% of quotations related to College Culture discuss student familiarity with Student Support Services).

Faculty, students, and staff proposed several in-class solutions to address this gap in student cultural understanding. Specifically, they discussed mentoring (faculty and peers), the need for greater transparency in the classroom, and the benefit of faculty being flexible and familiar with varied pedagogical strategies. (15% of quotations referencing Student Faculty Interaction and College Culture discuss Mentor(ing)/ Counseling, 8.3% discuss Transparency, and 11.7% discuss instructor Flexible Teaching). The most prominent solutions offered, however, were orientation and student support courses. Specifically, 41% of faculty, student, and staff discussions of orientation and student support courses emphasized their role in helping students gain greater familiarity and comfortability with college culture. 32.2% of these discussions also referenced the need to familiarize students with the various support services available to them on campus.

Lastly, our data show that familiarity with college culture is associated with having the requisite attitude and mindset to successfully navigate the school system. (18.5% of quotations related to Student Engagement and College Culture discuss having a college Mindset).

The proposed expansion of CoM's Summer Bridge program builds from these findings to help students gain greater familiarity with college culture and in turn, long-term success.

Supportive Evidence

Academic confidence and Summer Bridge learning communities: Path analytic linkages to student persistence (Allen/Bir 2012)

> This study demonstrates clearly that in spite of budgetary constraints, learning community models work; students in Summer Bridge Learning Communities generally show more positive outcomes (i.e., first year GPA and persistence to year two) than non-Summer Bridge Learning Community (SBLC) students.

A Matter of degrees: Practices to pathways — High-impact practices for community college student success (CCCSE 2014)

> The article discusses the Survey of Entering Student Engagement (SENSE), which discovered that developmental students who reported participating in a multi-day or multi-week brush-up program and found it helpful were 2.21 times more likely to successfully complete a developmental English course than were students who did not report using that type of the college's test preparation options or who reported using it by not finding it helpful.

Summer Bridge program gives high school students a boost early in college, but benefits fade after two years (NCPR n.d.)

This Community College Research Center (CCRC) reports that a two-year random assignment study of "developmental summer bridge" programs in Texas found that students who attend the programs are more likely to pass college-level math and writing in their first year and a half of college than those who do not attend. The report also suggested that extending the Summer Bridge program beyond five weeks may be needed to layer additional interventions to sustain benefits for students. On average, students in the program group passed their first college-level math and writing courses at higher rates than students in the control group during the initial year and a half following the program.

7. *Build and Institutionalize Humanities 101*

"If there was just a way to introduce students to college – everything from financial aid to just the day to day things they have to remember when they are in college….you know College 101."

Faculty

"As a high school student, I don't think I was really prepared well for college."

Student

Problem

The students who come through our doors are eager to obtain a college education, but too often they find themselves unequipped to reach their goals successfully or to achieve them in a timely manner. Our research uncovered that a variety of contributing factors engender this lack of success. First, our students don't know how college works; everything from registering for classes, seeking help, and requesting financial aid, to understanding a syllabus and the proper behavior in class is foreign to them. Even more importantly, they are asked to assimilate into a culture of academic discourse without understanding its rituals, pageantry, or purpose. Additionally, a majority of our students do not possess the requisite reading, writing, critical thinking, and study skills necessary to successfully complete their classes. These academic deficiencies are further compounded by their unfamiliarity with the rigor, thought, and analysis required in college courses, and the varied approaches required by different disciplines/departments.

Another issue facing our students, through no fault of their own, is our very narrow assessment of their skills. We rely solely on Accuplacer (an Assessment test) to place them in the English sequence, and we find more and more that the placement is not always commensurate with the students' abilities. Finally, our students do not understand the important role community plays in their success, and research shows that under-prepared students do not reach out to form study cohorts on their own.

In view of the many barriers our students must overcome, it is easy to see why they are not finding the success they so obviously want. Luckily, these issues are not insurmountable if we acknowledge and address them properly.

Solution

FLIT recommends that Humanities 101, a transfer-level IGETC course, be designed to orient students to the world of academic discourse, help them gain scholastic dexterity, and enable them to navigate college.

Rationale

An additional feature of this multilevel course will be a counseling component. By embedding a counselor in each section of Humanities 101, we will ensure that our students are aware of important dates on the academic calendar, transfer requirements/ major prep, the resources available on campus, and programs that might benefit them.

Lectures will be designed so students can explore a given theme (e.g music, sports, food) through various academic lenses so that the purpose of general education requirements and the various disciplines are demystified. Each guest lecturer will also help the students understand skills specific to a given field of study, for both the professional and the learner. In addition, embedded in the assignments and lectures are the academic skills they need, such as note taking, annotation, expository writing, and critical reading. In essence, students will be given the opportunity to practice being successful college students across disciplines while accruing transferable units corresponding to UC IGETC Area 3B and CSU GE-Breadth Area C2.

The Effective Practices group has been norming the English sequence and aligning instructors so that faculty understand the skills students require at every level. Because this work is underway, it will make it possible for students successfully completing Humanities 101 to be placed into the English sequence using multiple measures. In addition to the placement test, the instructor teaching the class will provide personal observations as to diligence, participation, and mindset. We believe this will ensure that the students are placed appropriately.

Humanities 101 will include a variety of disciplines and will be taken by many CoM students. The hope is that the course will facilitate greater community among faculty working together on each section and nurture community among students through the learning experience of the course.

Suggested Work Plan

- Identify interested instructors and begin informal, informational meetings
  - o Department Chair meetings
  - o Department meetings
  - o Office hours
- Determine stipend amounts for guest lecturers
- Research existing similar courses/orientation models
  - o Identify funding source for site visits/conferences
  - o Include English, counseling, and content instructors
- Develop Themes/assignments
- Plan course pilot
  - o Schedule English, counseling, and content instructors, and tutors
  - o Plan regular meetings
  - o Outreach to students
  - o Workshop lesson plans and lectures
- Offer two pilot sections in Fall 2017
- Assess and retool
- Implement college-wide

Key Internal Findings

(Referenced in Summer Bridge Recommendation 6.)

Faculty, students, and staff agree that familiarity with college culture is critical to student engagement and long-term success. In fact, it is the leading explanation of student engagement found in our data set. (26.8% of all quotations related to Student Engagement discuss College Culture). Our research also shows that familiarity with college culture is associated with numerous "taken for granted" norms — from knowing the difference between high school and college to balancing life outside school. Moreover, the data highlight ways that faculty and staff can help students gain greater familiarity with college culture inside and outside the classroom.

Our focus group data suggest that familiarity with college culture is in part related to organizational issues like student ability to set clear academic goals, attend class regularly and on time, and balance the demands of life outside of school. (7.8% of quotations referencing College Culture discuss Academic Goal Setting/Planning and 8.5% discuss Class Attendance. 7.4% of quotations referencing Student Engagement and College Culture discuss balancing life Outside school). We also find that familiarity with college culture is associated with the ability to self-reflect and successfully interact with and negotiate the school environment; examples include an understanding of one's strengths and weaknesses, how college differs from high school, faculty expectations, the importance of building relationships to faculty, and knowing what resources are available on campus. (8.5% of quotations referencing Student Engagement and College culture discuss Basic Skills, and 4.5% discuss knowing the difference between High School and College. 15% of quotations referencing Student Faculty Interaction and College Culture discuss faculty Expectations and 13.3% discuss building Connect(ions) to faculty. 5% of quotations related to College Culture discuss student familiarity with Student Support Services).

Faculty, students, and staff proposed several in-class solutions to address this gap in student cultural understanding. Specifically, they discussed mentoring (faculty and peers), the need for greater transparency in the classroom, and the benefit of faculty being flexible and familiar with varied pedagogical strategies. (15% of quotations referencing Student Faculty Interaction and College Culture discuss Mentor(ing)/Counseling, 8.3% discuss Transparency, and 11.7% discuss instructor Flexible Teaching). The most prominent solutions offered, however, were orientation and student support courses. Specifically, 41% of faculty, student, and staff discussions of orientation and student support courses emphasized their role in helping students gain greater familiarity and comfortability with college culture. 32.2% of these discussions also referenced the need to familiarize students with the various support services available to them on campus.

Lastly, our data show that familiarity with college culture is associated with having the requisite attitude and mindset to successfully navigate the school system. (18.5% of quotations related to Student Engagement and College Culture discuss having a college Mindset).

The proposed Humanities 101 program builds from these findings to help students gain greater familiarity with college culture and in turn, long-term success.

Supportive Evidence

Mandatory & increasingly robust college success courses for sustained impact: What does the research data say? (Jameson-Meledy 2015)

> The evidence suggests that both student orientation and first-year college success courses are associated with increased student engagement and improved outcomes (Hanover Research, 2014).

Mandatory orientation, assessment, and counseling (Booth/Arca/Starer/RP Group/Bracco/WestEd 2012)

> An extensive literature review conducted by the RP Group found that one characteristic of highly effective developmental education programs is that they make orientation mandatory for students. Compared to students who do not participate in new-student orientation, those who do participate are more likely to persist in community college. Another review of the literature notes that, compared to students who do not take them, students who participate in orientation or who take student success courses are likely to earn more credits, maintain higher GPAs, persist, and graduate from both community college and a four-year institution.

A Matter of degrees: Practices to pathways — High-impact practices for community college student success (CCCSE 2014)

> Survey of Entering Student Engagement (SENSE) developmental students who reported participating in any orientation were 1.88 times more likely to successfully complete a developmental math course, and were 2.14 times more likely to successfully complete a developmental English course than were students who did not report participating in any orientation.

Redesigning a first year seminar for sustained impact (Karp/Ritze n.d.)

> First-year seminars focus on general orientation, goal setting, study skills, and more. Participation in the course is associated with positive and sustained student outcomes including higher GPAs, higher credit accrual, and higher retention rates.

What works in remediation: Lessons from 30 years of research (Boylan/Saxon n.d.)

> Research (Gardner, 1998) has shown that under-prepared students participating in ongoing orientation courses were much more likely to be retained in the community college than students who did not participate in these courses.

8. *Support and Expand Learning Communities*

"Students need to show up for each other, not just themselves."

Faculty

"School is all about community... The stronger the community, the stronger the school."

Student

Problem

Many community college students who lack basic skills feel lost and disconnected from the college experience. They do not exhibit effective behavior to succeed in their courses and lack the understanding and confidence to utilize resources available to them. They also do not have clear educational goals and/or an academic plan. This causes them to struggle and often drop out.

In the SSTF Final Report of 1/17/2012, the California Community College Student Success Task Force noted "Community colleges have tested numerous models of supporting under-prepared students, both inside and outside the classroom, through college success courses, first-year experience programs, learning communities, and campus-wide initiatives. These efforts promote critical thinking skills and behaviors, or 'habits of mind' essential to college success. Experience within the California Community College (CCC) system and nationally demonstrates the effectiveness of such deliberate interventions in supporting student persistence and success" (p. 29). Recommendation 2.4 of the same report suggests that students who lack basic skills should participate in a learning community such as a first-year experience.

Supported by BSISC funds, CoM piloted a First-Year Experience program in Fall 2014. The Counseling, College Skills, and English Departments piloted two sections of "First-Year Experience" (FYE) learning communities, pairing basic skills English courses with counseling courses. The English and counseling instructors coordinated assignments and created a supportive environment to encourage retention. CoM's FYE program is designed to provide support to students during their first few semesters at CoM by easing the transition into college and building a sense of community. In the FYE program, instructors work together visibly in each other's classes to demonstrate collaborative behavior and encourage students to work together as well. The program also informs students of resources and supports that help them succeed.

The 2014–2015 program survey results indicated that, overall, students had a very positive experience in the FYE learning community. Therefore, CoM offered two FYE learning communities in the 2015-16 academic year. In addition, CoM piloted an Umoja learning community, which was funded partially with Equity funds. The Puente learning community, which has been well established over the last several years, has continued to be fully enrolled. Both the English Skills and counseling faculty determined that more time with the counseling component would be valuable for students. All four learning communities are offering a three-unit counseling course linked with the

English sections instead of the one-unit course previously offered. In the spring 2016, CoM offered one section/second semester of FYE and the Umoja learning communities. Each linked a general education course with the English and counseling course.

Solution

Due to the positive feedback and overall enthusiasm for the current program, FLIT recommends expanding and further supporting learning communities for students.

Rationale

Currently, approximately 100 students are served in the four learning communities for first-year programs. FLIT recommends expanding to offer a second-year learning community for each of the cohorts. In addition to maintaining and developing the four current learning communities, FLIT recommends developing transfer and STEM learning communities to serve another 50 students (25 each cohort) beginning in fall 2017. Over three years, 400 students could be served.

Recently, CoM held a "learning community summit." Interested faculty and deans attended and discussed the progress of the current learning communities and the potential for future growth. The attendees were enthusiastic and represented the overall commitment to collaborate in supporting and developing the learning communities at CoM.

Suggested Work Plan

- Provide institutional space for students participating in learning communities to gather and host events
- Compensate faculty involved in learning communities for collaboration and meeting time
- Develop plan to expand the learning communities to offer second-year courses and include priority enrollment for FYE students
- Develop and maintain learning communities for:
  - o Transfer (new)
  - o STEM (new)
  - o FYE
  - o Umoja
  - o Puente
- Dedicate funds for items such as:
  - o FYE retreat in August
  - o University tours (can partner with other programs possibly)
  - o Workshops with food
  - o End of the year "graduation" from FYE and other learning communities
  - o School materials for students

Key Internal Findings

(Referenced in Recommendations 13.A. & 14.D.)

Structured learning communities appear to be a powerful resource in promoting successful student outcomes, meaningful interactions between students and faculty, and greater interdisciplinary collaboration and discussion.

Specifically, faculty, students, and staff alike suggest that structured learning communities play a critical role in helping students gain a greater understanding of college culture and in the process, readily identify their goals and develop a clear academic plan. (19% of quotations referencing Student Learning Communities and Student Engagement discuss College Culture and 11.5% discuss Academic Goal Setting/Planning). In fact, many study participants likened structured learning communities to an extended orientation program. (11.5% of quotations referencing Student Learning Communities discuss Orientation).

The data also suggest that structured learning communities help students identify and build relationships to institutional allies/mentors (faculty and/or peers) and gain a sense of belonging and connectedness to the College overall. (27% of quotations referencing Structured Learning Communities and Student Faculty Interaction discuss Mentor(ing)/Counseling. 16.7% of quotations referencing Structured Learning Communities and Student Engagement discuss Identity/Community).

Lastly, we find that structured learning communities promote interdisciplinary discussion and collaboration. (6.7% of quotations referencing Student Learning Communities discuss Intra-Institutional Collaboration).

Supportive Evidence

Developmental education: What policies and practices work for students? (Brock/Jaggars/Wathington/Jenkins 2011)

> Presenters provided data from Achieving the Dream colleges, showing evidence that suggests that, compared to business as usual, learning communities are better at helping students progress through a particular developmental education course sequence (during the program semester). Evidence also showed that students assigned to learning communities passed more courses and earned more credits in the program semester. Application of integrative teaching practices motivates students to engage more actively with the material and with each other.

Get with the program: Accelerating community college students' entry into and completion of programs of study (Jenkins/Cho 2012)

> The analysis shows that students must enter a program of study as soon as possible. Students who do not enter a program within a year of enrollment are far less likely to ever enter a program and, therefore, less likely to earn a credential. Many new students enroll in community colleges without clear goals

for college and careers (Gardenhire-Crooks, Collado, & Ray, 2006). Research suggests that individuals presented with many options often do not make good decisions, and there is evidence that community colleges could be more successful in helping students persist and complete a program of study if they offered a set of tightly structured program options whose requirements and expected outcomes are clearly defined (Scott-Clayton, 2011).

Guided pathways demystified: Exploring ten commonly asked questions about implementing pathways (Johnstone 2015)

The National Center for Inquiry and Improvement's own experience working with the pathways projects efforts and the work underway among early adopters suggests the guided pathways approach represents an institution's best chance to move past innovating on the margins for a small number of students to achieving gains in outcomes at scale.

Literature Review Brief: What we know about student support (Schiorring/Purnell 2012)

Research indicates that engagement can be fostered both inside and outside of the classroom by faculty, peers, mentors, and support service professionals alike. Similarly, learning communities created through programs such as Puente and Umoja seek to inject into the classroom and college community environment a cultural context that makes college more welcoming and relevant to Latino and African American students. This type of support may include changes in pedagogy and curriculum that seek to increase the relevance of the educational experience and invite active participation in the classroom and beyond.

Promising practices for community college developmental education (Schwartz/Jenkins 2007)

Ongoing research is demonstrating that pairing courses, or even grouping three or more courses to be taken at the same time to create an "educational package," results in more meaningful and productive experience for students. Students feel a greater attachment to their college through participation in a learning community, and thus, may be more likely to persist.

Providing structured pathways to guide students toward completion (Dadgar/Venezia/Nodine/Bracco 2013)

Experiments in behavioral economics and psychology show that when individuals are not presented with clear options, they are more likely to become confused and not reach their goals (Scott-Clayton, 2012). To help students reach their completion goals, some community colleges are creating structured pathways that allow students to explore their educational and career options while also making progress toward a credential. Providing options for more structured pathways to degrees may particularly benefit first-generation and low-income college students, as these students typically face substantial challenges in developing educational and career goals and in selecting appropriate classes and programs to make progress toward those goals (Scott-Clayton, 2012).

To provide students with more structured pathways directed toward completion, some colleges are offering proactive (usually called "intrusive") and ongoing education and career advising, supports, and planning across each stage of students' college experiences (Karp, 2011).

The UC transfer admission pathways (Bruno/Freitas 2015)

Among the five key recommendations was a commitment to "strengthen and streamline transfer pathways" with the following stated goals: Develop transfer-oriented curriculum pathways that clearly map courses students need to be eligible for transfer into their desired majors, and make it easier for students to prepare for and apply to multiple UC campuses by making pre-major pathways more consistent across the system.

What we know about guided pathways (Bailey/Jaggars/Jenkins 2015)

The guided pathways approach presents courses in the context of highly structured, educationally coherent program maps. A growing number of community colleges and four-year universities are adopting a guided pathways approach, which presents courses in the context of highly structured, educationally coherent program maps that align with students' goals for careers and further education. Incoming students are given support to explore careers, choose a program of study, and develop an academic plan based on program maps created by faculty and advisors. This approach simplifies student decision-making and allows colleges to provide predictable schedules and frequent feedback so students can complete programs more efficiently.

What works in remediation: Lessons from 30 years of research (Boylan/Saxon n.d.)

The article discusses a study by Tinto (1997), which found that under-prepared students participating in remedial courses organized around the principles of learning communities had better attitudes toward learning and had higher course completion rates than students in traditional remedial courses.

9. *Create the Educational Support Program*

"They need some kind of pathway to practice…
homework, working with them in class or labs."

Faculty

"We made it through because we had people supporting us.
We had groups of people."

Faculty

Problem

Student Support Issues

In all of our focus groups with faculty departments, it was stated over and over again that students are not prepared for the rigor of college-level classes. Because students do not always take basic skills English classes prior to content classes, content courses often must introduce reading, writing, and research skills such as summary writing, which is unrelated to their area of content. This takes time away from the material of the course, yet students need to acquire the skills necessary to succeed in the class and beyond. In addition, many basic skills students benefit from having new concepts repeated and thoroughly explained to them, but depending on the course, this can be a difficult task for some instructors. Moreover, students often forget new concepts when they are on their own and doing homework. Finally, in classes without prerequistes like the new Humanities 101, a multilevel academic orientation class with no prerequisite, it is difficult for instructors to meet the needs of all the students without more support.

Lastly, the rates of persistence and success for our basic skills students in math are critically low, yet the Math Department has only one IS. One reason for this is that it has been difficult for the department to hire and keep qualified instructional specialists because the pay is so low, yet students and the instructors clearly need more support.

Existing IS Program Issues

Within the current English/English Skills IS program, there are often unclear or mismatched expectations between faculty and the instructional specialists when working together. Scheduling of the instructional specialists has also been inconsistent and delayed, which has impeded successful supplemental instruction. Finally, the pay for English/English Skills instructional specialists is not commensurate with the experience and education they possess and that is required to successfully provide supplemental instruction, nor is it adequate to keep trained and invested staff at the College, which has also been an issue, particularly, within the Math Department.

Solution

The recommendation is to research and develop a more extensive support program staffed with Educational Support Professionals (ESPs) and possibly peer mentors/tutors, providing broader services to a greater number of departments. The ESP position should be categorized based on mandatory educational requirements with commensurate pay. The intention behind this recommendation is that the College builds on the success of the existing English/English Skills IS programs, while also addressing the identified issues, to create a new independent program.

Rationale

Through FLIT's internal and external research, we discovered that not only do our basic skills students (80% of CoM students) need considerably more support across the disciplines than they are getting, but also that supplemental instruction is one of the most significant ways to provide that additional help to students and instructors. However, there also arose issues concerning CoM's existing instructional specialists supporting English/English Skills and the lack of an instructional support program for math. Thus, it became clear that to provide support across the campus and to resolve the current English/English Skills IS program issues, that it would make sense to create a more robust and extensive program, building on what is working within the existing program, but also developing solutions arising from the complications of a smaller program limited to just a few departments.

In response to student support issues, the development of the Educational Support Program should include:

- Educational Support Professionals in multiple departments for just-in-time remediation or to give students and instructors help with skill building and specialty projects
- The use of Educational Support Professionals in labs across the campus, such as The Math Lab, English, English Skills, and the Online Writing Center (OWC) to help students with homework and questions outside of the classroom
- The creation and facilitation by Educational Support Professionals of workshops focused on skill building
- The embedding of Educational Support Professionals and/or peer tutors in basic skills math as well as English/English Skills classes to better support the students
- The embedding of Educational Support Professionals and/or peer tutors in Humanities 101 to support students of varying levels

In response to existing IS issues, the development of the Educational Support Program should include:

- Professional development for Educational Support Professionals to learn the best practices for supporting students and working with instructors.
- Professional development for faculty who avail themselves of services with Educational Support Professionals to understand the best practices for working appropriately and effectively with tutors and how to best use their services in the classroom.

By expanding and developing the supplemental instructional program with other departments and professional development, our goal is that the rates of persistence and success in math, English, and content courses will increase and with them the skills and potential of our students.

Suggested Work Plan

- Research a variety of tutoring and supplemental instruction models
- Hire Educational Support Professionals to support, among others, the following programs:
  - o Math (two new) trained in developmental and transfer-level math
  - o Sciences and engineering
  - o Career Technical Education
  - o Behavioral Sciences
  - o Humanities 101
  - o English as a Second Language (ESL)
  - o English (two new) trained in developmental and transfer-level English
- Offer faculty release time for professional development
- Provide stipends for the professional development of Educational Support Professionals
- Dedicate spaces on campus for workshops and one-on-one tutoring

Key Internal Findings

No significant data for this theme.

While there was not much data in our focus groups related to the IS program, it was part of FLIT's charge. Thus, the recommendations come from the discussions between FLIT and math, English, English Skills, and the instructional specialists in concert with research on best practices.

Supportive Evidence

Increased pass rates for developmental courses resulting from organizational changes (Lonergan/Snyder/Rinker 2014)

Modified supplemental instruction in the Davenport model uses not only student tutors but professional tutors, including some part-time adjuncts. Any developmental math class with a student enrollment of ten students or greater has an assigned SI, if one is available. The highest pass rates are associated with the math sections with an embedded SI. The pass rate for math sections using supplemental instructors was 80.6 percent compared to 69.9 percent for those sections without supplemental instruction in academic year 2012–2013. The pass rate for developmental English increased from 53 percent in academic year 2011–2012 to 83 percent in academic year 2012–2013, representing a 56 percent increase. The increases in pass rates were sustainable in both semesters of the 2012–2013 academic year.

Supplemental instruction (Ramirez 1997)

> SI emphasis was on content review and distinguished itself from other intervention modes in two ways: emphasis on high-risk courses, and basing the foundation of its program on a cognitive development theory. SI is one of the few intervention models which, practiced properly, recognizes the critical need for developing the learning and thinking skills basic to content mastery.

Supplemental instruction at a community college: The Four pillars (Zaritsky/Toce 2006)

> Supplemental Instruction (SI) is a recognized and highly respected academic support program available worldwide in institutions of higher learning (Martin and Arendale, 1990; Martin, Arendale, and Associates, 1992; Ogden and others, 2003). Outcomes have demonstrated that SI can contribute to significant change in students' performance by raising grades and reducing failure in high-risk courses. The data also show that students who participate in SI are less likely to drop the targeted course and therefore more likely to persist.

Supplemental instruction in developmental mathematics. (Phelps/Evans 2006)

> Supplemental Instruction is one of many programs that have shown tremendous promise as a mechanism for establishing a climate of achievement for at-risk learners. In discussing the value of SI, Arendale (2003) reported the following: After a rigorous review process in 1981, the SI Program was designated by the U.S. Department of Education as an Exemplary Education Program. SI was the first of only two programs validated by USDOE as improving student academic achievement and graduation rates. Studies suggest SI improves the grades of minority, non-traditional, low-risk, and high-risk students (Congos & Schoeps, 1993; Wolfe, 1998). In addition, SI offers a curricular venue that mitigates factors known to impede learning: adjustment, isolation, difficulty, and incongruity. SI also uses academic group work to build bonds between students (Wolfe, 1998) and to create a climate of achievement.

Supplemental instruction for developmental mathematics: Two-year summary (Dias/Cunningham/Porte 2016)

> The data from the four semesters since the program's inception demonstrate the positive impact of the SI strategy in fostering academic performance. SI literature supports the impact of academic success on subsequent retention, particularly for the STEM disciplines and underrepresented minorities. Overall, the course pass rate for SI students compared to their non-SI counterparts increased from 52% to 59% for all students taking the final exam and from 44% to 50% for all students enrolled.

10. *Expand and Specialize Counseling*

"A good student has met with a counselor, been assessed, and has an educational plan."

Faculty

"An unsuccessful student is unsupported."

Student

Problem

Community college counselors are essential in providing and supporting services for student success. Not only do counselors work individually with students to create initial and comprehensive educational plans, they teach career and success classes, conduct orientations and success workshops, and collaborate with staff and faculty from all departments. In addition to supporting academic success, the counseling department supports students with life management and mental health issues.

The most common themes in the focus groups from students include academic goal setting and planning, (having a clear educational plan and clear goals), accessibility to student support services and orientation, and student success courses, yet because of the growing demands on the counseling department, it is getting more and more difficult for counselors to meet these needs in a timely manner. Moreover, a number of the FLIT recommendations involve counselors, who are vital to these new initiatives but will also need to be accessible to students for individual appointments. This will only place even more demands on the already stretched and overextended counseling department.

Also, the full-time mental health counselor is typically fully booked with student appointments causing students to have to wait two to three weeks to get an appointment. This is unacceptable, considering students could be suffering and in crisis.

Many of the topics related to community college educational planning require detailed and updated knowledge and information. Since students have such a wide variety of options and goals, it can be difficult for general counselors to stay current in a changing educational environment. Also, some majors and educational goals require a deeper knowledge of curriculum and the work force. However, specialized counselors would allow students to get the current and specific information they need.

Solution

Because of the many programs that require counselors and the research that shows the positive impact their involvement has on students, FLIT recommends the following:
- Hire more counselors
- Hire more mental health counselors
- Assign specialized counselors, such as a counselor dedicated to STEM students, etc.

Rationale

While Student Success and Support Program (SSSP) funding has allowed the counseling department to return to full staffing to replace recent retirements, the increase in teaching and other activities has impacted direct counseling availability especially during peak times. As new initiatives are implemented, this impact will increase. More counselor availability either in the form of overload, adjuncts, or new full-time hires is essential.

One full-time mental health counselor has proven insufficient to meet the needs of the CoM student population. In addition, since this counselor is fully booked with student appointments, the mental health counselor is limited in the amount of outreach to faculty, the ability to conduct student workshops, and the extent of direct and essential involvement in the CoM Cares program. An additional full-time mental health counselor is needed with consideration that more mental health services either in the form of overload, adjunct counselors, interns, or additional full-time hires may be needed as the program expands and is fully utilized.

Because of their unique perspective from working with all types of students from different areas and with different goals, specialized counselors can be an incredible resource for academic departments and student services areas. Also, since counselors need to increase accessibility to students for educational planning and goal setting, contact through the academic department or other areas such as financial aid will allow students to meet and access counselors more easily. A number of academic departments have already requested these services, and some of the FLIT recommendations include specialized learning communities with counseling courses. While counselors need to be available to students in their offices, it increases effectiveness when specialized counseling can be embedded in other services and programs. This reiterates the issue of the need for more counseling hours so that, as specialized counselors necessarily spend time out in the college community, there is still availability for students to meet counselors in their offices

Suggested Work Plan

- Identify funding sources for hiring counselors
- Establish an ad hoc committee of counselors to prioritize special assignments and estimate counselor time required for assignments
- With the counseling department chair, designate counselors to handle special assignments
- With the counseling department chair, determine which counselors should have specialized areas and how to designate time for training and development

Key Internal Findings

Faculty, students, and staff agree that counseling is vital to students' ability to successfully navigate the school system and achieve their long-term academic goals. (4.2% of quotations referencing Student Faculty Interaction discuss the importance Mentor(ing)/Counseling, our eighth most common Student Faculty Interaction subcode).

For example, we find that counseling is related to students having a clear educational plan and greater familiarity with college culture. (21% of quotations referencing Student Engagement and Mentor(ing)/Counseling discuss Academic Goal Setting/Planning and 37.5% discuss College Culture).

Though there are very few mentions of the need for more college staff in our data (only .60% of all Student Engagement related quotes discuss this issue), half of all mentions discuss hiring more counseling staff in particular. Further, the data suggest that CoM hire more mental health counselors and division specialists to better meet students' diverse needs.

These findings inform the above listed recommendation to hire more counselors and expand and specialize CoM's extant counseling program.

Supportive Evidence

Promising practices for community college developmental education (Schwartz/Jenkins 2007)

> Counseling for developmental education students that is proactive, integrated into the overall structure of a developmental education program, based on the college's goals and on the principles of student development theory, and provided early on, has shown promise in several studies.

The role of counseling faculty and delivery of counseling services in the California community colleges (ASCCC 2012)

> Colleges must look for ways to integrate instruction and student services to better serve all cohorts of students at the college and recognize the important role played by counseling faculty in achieving student success.

What works in remediation: Lessons from 30 years of research (Boylan/Saxon n.d.)

> Early research found that successful remedial education programs had a strong counseling component (Roueche & Mink, 1976; Roueche & Snow, 1977), which is integrated into the overall structure of the remedial program (Kiemig 1983). This relationship between an emphasis on personal counseling for students and successful remediation was supported in later research by Keimig (1983), Kulik, Kulik, and Schwalb (1983), Boylan, Bonham, Claxton, and Bliss (1992), the Higher Education Extension Service (1992), and Casazza and Silverman, (1996).

11. *Develop and Offer Performance-Based Scholarships for Qualified Students Beyond the BOG Fee Waiver*

"We used to have full-time kids. Kids who went here went full-time and didn't have to work, and we don't have that anymore…We mostly have part-time kids who have to work."

Faculty

"Like if you have to work every night to pay rent, you're not going to have much time to do homework."

Student

Problem

Although many low-income students qualify for the BOG Fee Waiver and financial aid for tuition and books, it is often not enough to cover all school expenses. In addition, most financially impacted students must work considerable hours in conjunction with going to school to support themselves and/or their families. This puts an incredible strain on students, but more, it greatly hinders their success in classes, the time it takes for them to complete their education, and, ultimately, their ability to graduate. When considering the impact of this scenario on basic skills students, who have even more classes to complete, the effect can be crippling, extending their time at CoM to about six years if they succeed at all.

Solution

The recommendation is that several performance-based scholarships be developed for qualified students over and above the BOG Fee Waiver and financial aid allocations.

Rationale

Performance-based scholarships are available to students not based on their previous grades, but rather on their current performance. The funding from the scholarship to the students is disbursed in set increments and its continuation is contingent on the students meeting established criteria, such as maintaining a certain G.P.A. or a grade within a particular class, meeting with a college counselor on a regular basis, attending regular study groups, etc. The concept behind the performance-based scholarship is that it provides additional financial assistance to students while also incentivizing their class performance or participation in activities that will support their educational success. Some ways in which the college could use performance-based scholarships would be to target areas that are particularly challenging for students, such as basic skills math and English courses, or to target challenging course sequences, such as transfer or STEM pathways, or to target disproportionately-impacted students. The

supplemental financial support would hopefully allow students to reduce their outside work hours, thereby encouraging focus on their studies and engaging in practices that will aid in their success.

Suggested Work Plan

- Research various models of performance based-scholarships and practices
- Create policies to identify qualified students and programs
- Establish requisite guidelines for students, such as maintaining a certain GPA
- Identify funding sources
- Assess distribution process
- Develop assessment tools and measures to track success of students
- Connect and link with a counseling component
- Structure around particular groups and/or focus

Key Internal Findings

Money/finances is the fifth most common explanation of disparities in student engagement in our data set. (6.9% of quotations referencing Student Engagement discuss Money). We also find that money/finance-related issues are most often associated with challenges/adversities students face outside school. (31.8% referencing Student Engagement and Money discuss the challenges of life Outside school).

Further, our data show that money/finances are also related to students' familiarity with college culture and having the right attitudes/disposition to be successful in college. (21.7% of quotations referencing Student Engagement and Money discuss College Culture and 17.4% discuss having a college Mindset).

Faculty, students, and staff suggest that CoM could potentially play a meaningful role in helping students better manage life outside school by providing opportunities for greater financial support. (8.7% of quotations referencing Student Engagement and Money discuss Student Support Services). These findings serve as the basis of the performance-based scholarship program discussed above.

Supportive Evidence

Are state non-need, merit-based scholarship programs impacting college enrollment? (Farrell/Kienzl 2009)

This study examines whether non-need, merit-based scholarship programs are effective in encouraging students to enroll in postsecondary education and, more specifically, attend an in-state college. The results suggest that these programs have a significant impact on college enrollment after controlling for state-level factors (such as tuition cost), but the effect depends on when the program was implemented, who is eligible to receive aid, and how much aid students are awarded.

Paying for performance: The Education impacts of a community college scholarship program for low-income adults (Barrow/Richburg-Hayes/Rouse/Brock 2014)

This report provides some evidence that performance-based scholarship combined with counseling on education outcomes for low-income students who are also parents increased student enrollment persistence and may have increased student effort and academic performance.

Developmental Education Programs

12. *Implement Multiple Measures for Placement*

13. *Innovate the Math Sequence and Offerings*

14. *Innovate the English Sequence and Offerings*

12. *Implement Multiple Measures for Placement*

"How do they put students in my class?"

Faculty

"I think they need to try to fix the tests...to see where you placed in for math or English. I think that test was too hard...when you actually go to the class, everything on the test never came up in the class."

Student

Problem

At the moment, CoM relies solely on a standardized test to place students into the English and math sequence. A standardized test, such as Accuplacer and the upcoming Common Assessment, clearly has its limitations no matter how carefully designed and validated. Not only does it provide a narrow assessment of a student's academic capabilities, but research also shows that doing well on standardized tests really only predicts the ability to do well on standardized tests and is not indicative of a student's ability to perform well in the classroom due to intangibles such as resilience, perseverance, and diligence. Furthermore, anxiety, lack of test preparation, and time constraints can cause students to under perform.

Because of this inadequate vetting, we find more and more students are placed into classes whose demands are not commensurate with their capabilities. This misplacement can have a variety of detrimental effects on our students, including frustration, boredom, and weakened self-esteem, which more often than not mean students will simply walk away from their educational goals.

Solution

To ensure appropriate placement, the recommendation is to research and implement multiple measures.

Rationale

Across the state, and encouraged by the California Assessment Initiative, community colleges are employing multiple measures to place their students into the math and English sequences on their campuses. While they still take the standardized test, other factors also help determine their placement to provide a more holistic perspective of a student's capabilities and preparation. It behooves us to do the same as studies show that this method is providing more effective placement for students and allowing them to reach and complete transfer-level courses at a higher rate.

The Multiple Measures Assessment Project, under the auspices of the RP Group and the California Assessment Initiative, has a "turnkey" version of these measures, but it is

not a definitive list, and colleges can decide on their multiple measures individually. Thus, we recommend that working groups be formed for the English sequence and math program to formulate acceptable multiple measures for our placement process.

Evidence from several studies suggests that one of the best indicators of student success in any given course is high school GPA, regardless of the rigor of the course load or the standing of the high school. Studies also show that a student's grade in the junior year math/English class is indicative of his/her ability to succeed. The working group should look into both of these possibilities.

Furthermore, Humanities 101 should be vetted as a multiple measure for the English sequence. We should also work towards establishing senior year English and math courses to be developed by our faculty and taught in the local high schools, which would guarantee placement at a mutually-agreed upon level in the sequences.

Of course, re-entry and foreign/international/ESL students may not have access to their high school information, and so multiple measures for this student population must also be determined.

Suggested Work Plan

- The Effective Practices group should continue norming exit skills and aligning instructors across the English sequence
- The Academic Senate should issue a resolution that our campus will rely on multiple measures (Standards or policies regarding student preparation and success fall under the purview of the Academic Senate)
- Provide professional development around multiple measures
- Working groups for the English sequence and math program should include a testing technician to determine multiple measures for all constituencies
- Create policies for the Common Assessment in math and English
- Identify a representative from outreach/counseling to liaise with high schools to ensure transcript availability and discuss the possibility of creating a "transfer ready" 12th grade course
- Pilot classes in math and English using high school grades OR SAT Scores, OR Assessment for entry into transfer-level courses, OR other research-based effective multiple measures
- Implement multiple measures based on findings from pilot classes and assess

Key Internal Findings

Our focus group data show that one of CoM faculty's primary concerns is student preparedness and the need to accurately assess students' skills for placement. (12.6% of faculty quotes referencing Student Engagement and Basic Skills also made mention of Assessment/Placement). Interestingly, however, the data suggest that faculty hold a much more complex view of preparedness than our current assessment/placement tools are designed to capture.

Specifically, faculty commonly relate student preparedness to factors beyond "basic skills" or whether students possess the basic language, reading, writing, and mathematics skills to participate in college classes, drawing connections to students' familiarity with college culture and whether they have the right attitude/disposition to be successful in a college environment. (32% of faculty quotes referencing Student Engagement and Basic Skills discuss student familiarity with College Culture and 24% discuss having a college Mindset).

The policy recommendations outlined above seek to account for this more complex reality. Broadening the testing process through implementing multiple measures would be a way to address and assess the traits of this more complex reality.

Supportive Evidence

Improving the accuracy of remedial placement (Scott-Clayton/Stacey 2015)

In this report, Community College Research Center (CCRC) found that high school transcript information was surprisingly powerful. Simulations showed that using high school achievement (GPA and the number of completed units in math and English) as the only measure of college readiness would result in fewer misplacements (both into college-level courses and into remediation) and higher success rates in college-level courses. Including information from placement test scores in addition to high school information added little benefit. In one example, Long Beach City College's pilot program incorporating high school grades into the placement process saw immediate impacts. After the launch of the program, the percentage of students who placed into and passed college English in their first year more than tripled, and for college math, the increases in enrollment and successful completion were almost as large.

Multiple measures improve student placement (Fraser-Middleton 2016)

This article relates Janet Fulks' presentation (2016) of Bakersfield College's multiple measures data with representatives from African-American Success Through Excellence and Persistence (ASTEP). She shared that Multiple Measures with demonstrated predictive relationships with student performance in community college courses were: A student's overall high school grade point average, the most recent class taken in the discipline, the grade in that most recent discipline-specific course, other courses completed in the discipline, and scores on the most recent standardized test in the discipline. These measures turned out to be excellent predictors of college success for the students who were involved in the Multiple Measures Assessment Project (MMAP). Over 50 colleges are piloting the MMAP. Results are showing that students placed using the MMAP models are performing even better than expected, saving over 4,000 semesters of unnecessary work.

13. *Innovate the Math Sequence and Offerings*

"What they need is support."

Faculty

A successful teacher "puts in a lot of possible alternatives in order for a student not to fail in class. A teacher who is able to be open to change and opportunities."

Student

Problem

The percentage of students who succeed through the basic skills math sequence and on through transfer-level courses is dismally low at CoM. Among the 2015 Student Success Scorecards, CoM was ranked one of the five worst in the state with only 29% of students who started in a below-transfer math course, tracked over a six-year period, subsequently completing a college-level math course. Then, on the following 2016 Student Success Scorecard, the percentage dropped even lower to a 26.6% completion rate. Over 70% of under-prepared students are not successfully completing their developmental math requirement.

In FLIT's discussions with the Math Department, its members voiced challenges, such as a lack of supplemental instructional support, limited student study time, limited student engagement, and a lack of standardization and adherence to course and department standards by faculty. Thus, FLIT's recommendations are meant to address some of these issues, if not all of them, and to incorporate effective practices with regards to basic skills students, such as acceleration, counseling, non-stem pathways, and faculty professional development, all in the hopes of increasing faculty efficacy and student success.

Solution

Through research and several discussions with the Math Department, it is recommended that funds and resources be allocated to facilitate the department's implementation of the following action steps **(Recommendations A-G):**

A. Design and pilot basic skills math learning communities, pairing math courses with counseling and tutoring components for Fall 2017

B. Pilot modular curriculum for basic skills courses

C. Construct and offer viable non-STEM math courses and sequences

D. Connect the math peer tutoring programs in the Math Department and in The Learning Center to enhance collaboration and coordination of services

E. Develop and utilize ways to provide effective and helpful feedback on homework, such as instructor feedback and computer/online math programs

F. Create a norming committe comprised of both full-time and part-time math faculty to norm the exit skills for each math course and align courses' exit skills with the new Common Assessment

G. Implement a faculty orientation and professional development focused on working with basic skills students and departmental standards

Solutions A. - G.

13.A. *Design and Pilot Basic Skills Math Learning Communities, Pairing Math Courses with Counseling and Tutoring Components for Fall 2017*

• Math 85 & 95 combined curriculum with lab component & embedded tutoring, paired with counseling course

• Math 101 with lab component & embedded tutoring, paired with counseling course

• Math 103 with lab component & embedded tutoring, paired with counseling course

(Considering the significant impact of the basic skills math success rates on the students, it is advised that if none of the pilot classes under Recommendation A. above are implemented by Fall 2017, a separate Basic Skills Math Department be created for a five-year term to include: Math 85, 95, and 101, staffed with qualified math faculty trained in teaching developmental math. After five years, reunification of the Basic Skills Math Department and the Math Department should be reassessed with regard to efficacy and best practices.)

• Math 101 and 103 combined curriculum with lab component & embedded tutoring, paired with counseling course

• Complete an end-of-term report detailing efforts made and results from the implementation of course standards and adherence to methods defined. Collect and present data on success and persistence rates in the report.

Rationale

The concept of designing and piloting math learning communities with 1) linked counseling courses; 2) embedded tutors; and 3) a lab component is designed to create a sense of community and a support system for students to study in since group studying has been attributed to greater success and understanding of concepts. This program is also designed to allow for more guided study and homework time with tutors to reinforce concepts in small groups and one-on-one. It is based on other successful models, such as the Math Performance Success Program at DeAnza College started by Barbara Illowsky. In this program, more study time and linked counselors to math classes have made a significant impact on the success of students. "The completion, pass rate, and grades received by MPS students for the past three years have surpassed (by 20 to 50% depending on the class) rates achieved by similar students in traditional sections. The MPS sections are identical in content (and are considered identical to) the traditional courses. However, a special effort is made to provide extra counseling, tutoring, and instructor assistance as part of the class. The MPS program has won a prestigious Hewlett Foundation Award for its innovative and successful instructional approach" (https://www.deanza.edu/mps/rates.html). The counseling component provides students with study strategies, knowledge of resources such as tutoring, and help dealing with concerns like math anxiety. Considering aspects of this model

have proven successful elsewhere, we hope that integrating those elements into our own courses will increase student success. In addition, it is recommended that some course pilots focused on acceleration (Math 85 & 95 combined and Math 101 & 103 combined) also be tried as several other programs have seen success with it, such as the Community College of Denver, where students enrolled in the College's FastStart program were more likely to complete math than students enrolled in their traditional sequence (Jaggars, Edgecombe, Stacey, 2014).

Suggested Work Plan

- Select instructors interested in participating, coordinating, and teaching in the math learning communities
- Develop curriculum for combining sequenced courses and the integration of the lab and tutoring components
- Submit courses to the Curriculum Committee for approval
- Work with the Director of Basic Skills Programs, the Educational Support Program coordinators, the Learning Communities Coordinator, and the Counseling Chair to develop, integrate, and organize supplemental instruction and learning communities logistical support

Key Internal Findings

(Referenced in Recommendations 8. & 14.D.)

Structured learning communities are a powerful resource in promoting successful student outcomes, meaningful interactions between students and faculty, and greater interdisciplinary collaboration and discussion.

Specifically, faculty, students, and staff alike suggest that structured learning communities play a critical role in helping students gain a greater understanding of college culture and, in the process, readily identify their goals and develop a clear academic plan. (19% of quotations referencing Student Learning Communities and Student Engagement discuss College Culture and 11.5% discuss Academic Goal Setting/ Planning). In fact, many study participants likened structured learning communities to an extended orientation program. (11.5% of quotations referencing Student Learning Communities discuss Orientation).

The data also suggest that structured learning communities help students identify and build relationships to institutional allies/mentors (faculty and/or peers) and gain a sense of belonging and connectedness to the college overall. (27% of quotations referencing Structured Learning Communities and Student Faculty Interaction discuss Mentor(ing)/ Counseling. 16.7% of quotations referencing Structured Learning Communities and Student Engagement discuss Identity/Community).

Lastly, we find that structured learning communities promote interdisciplinary discussion and collaboration. (6.7% of quotations referencing Student Learning Communities discuss Intra-Institutional Collaboration).

Taken together, these findings demonstrate the various benefits of structured learning communities for all members of our community and their potential to promote student progress and success across multiple disciplines.

Supportive Evidence

Expectations meet reality: The Under-prepared student and community colleges (CCCSE 2016)

> The article exemplifies how accelerated math and English programs redesigned the developmental sequence to reduce students' time to completion. Institutions often provide these redesigned classes in concert with innovative pedagogies and/or additional supports. Research suggests that students in accelerated programs are more likely to enroll in gatekeeper courses and as likely to pass.

Get with the program: Accelerating community college students' entry into and completion of programs of study (Jenkins/Cho 2012)

> The article discusses research-based principles of effective practices to strengthen and accelerate students' basic skills program completion that include: compressing sequenced courses and mainstreaming higher-level remedial students into college-level courses with instructional support (Edgecombe, 2011), and teaching basic skills with contextualized instruction in content area subject matter (Perin, 2011). Other research-based principles of effective practices that accelerate rates of program entry and completion include: requiring students who need remediation to take a prescribed set of courses that include a college success course, declaring a program of study within the first year, and requiring them to keep an up-to-date program completion plan, improving instruction and integrating supports into coursework to help students pass gatekeeper courses in each program area, and ensuring that the courses required to complete each program are offered regularly and on a schedule convenient to students.

A *Matter of degrees: Practices to pathways — High-impact practices for community college student success* (CCCSE 2014)

> Developmental students (SENSE) who reported participating in accelerated or fast-track developmental education were 1.81 times more likely to successfully complete a developmental English course than were students who did not report participating in accelerated or fast-track course.

Promising practices for community college developmental education (Schwartz/Jenkins 2007)

> The article examines an out-of-class support, which consists of highly structured course-related group tutoring. This form of collaborative learning and supplemental instruction consists of group interaction using the specific learning strategies provided by the instructional specialist. Continuous feedback is offered so that students can make necessary changes to increase their mastery of the content. The instructional specialist typically sits in the classroom with the students and coordinates instruction methods and content with those of the course instructor.

The article also discusses the merits of a centralized program that coordinates all courses and services for developmental students. A centralized program usually has some autonomy within the college and may be better funded than a decentralized program. There is evidence from at least one study that stand-alone departments have a negative impact on students' outcomes for reading remediation, but not for math. If a college's English and math departments place less value on their developmental courses, fail to hire instructors who are trained and committed to teach adults with poor basic skills, and limit instruction and supports to the content of their discipline rather than to broader success in college, then such a decentralized approach may not be very effective either.

What we know about accelerated developmental education (Jaggars/Edgecombe/ Stacey 2014)

CCRC has studied four acceleration strategies at different colleges and college systems across the country. All of them eliminate an exit point in the developmental sequence but differ in the extent to which they redesign student supports, pedagogy, and curriculum to help students succeed at college-level work. Overall, the research suggests that accelerated developmental education is associated with increased enrollment in and completion of gatekeeper math and English. Developmental curricula should be designed to incorporate college-level activities and content, giving students the opportunity to practice challenging assignments and develop their skills in a relatively safe and supportive environment.

13.B. *Pilot Modular Curriculum for Basic Skills Courses*

Rationale

One possible way to innovate the basic skills math sequence would be the piloting of modular curriculum to help with student engagement and persistence. The idea is that courses such as Math 85, 95, 101, and 103 contain modularized curriculum, so that once a student completes and passes a modular section, he/she does not have to repeat that material. If a student must stop going to the class, whatever sections he/she has completed will not have to be duplicated. Thus, when the student returns, he/she can continue where he/she left. Also, should a student need more time and instruction on a particular modular section, he/she could continue working on that section until it is passed.

Suggested Work Plan

- Select instructors interested in researching, developing, and teaching modular curriculum for basic skills courses
- Pilot modularized basic skills courses

Key Internal Findings

No significant data for this theme.

Supportive Evidence

Accelerated developmental mathematics pathways: Modular math for Pre- & Intro Algebra, Integrated Intermediate & College Algebra, Math Boot Camp for success (Achieving the Dream, 2013)

> Modular Math is a mastery based curriculum that is self-paced with instructor support. At Texarkana College, Modular Math is delivered through active and collaborative learning in homogeneous student groups (grouped by common content needs) during regular scheduled face-to-face class periods and through technology-based content delivery of mini-lessons on each topic area. It is designed to improve successful completion rates in the two entry level developmental math courses (Pre & Introductory Algebra), speed time to completion, and reduce the number of times students retake these courses which impacts available financial aid resources.

> In 2012–13, Texarkana College successfully piloted Modular Math for Pre & Introductory Algebra. Students in the modular courses successfully completed the first course of each pairing at a rate of 85–90% and approximately 75% of those students successfully completed the second course in each pairing within the same semester. This compares to successful completion rates between 40–55% for completion of only one course for students in the regular similar mathematics courses.

I*ncreasing success in developmental math: SMART math at Jackson State Community College* (Twigg n.d.)

Jackson State Community College's (JSCC) redesign of their developmental math program has been an outstanding success, both in student learning and cost reduction. The data presented shows clearly that student learning has increased under the redesign. JSCC has decided that it is more important to prepare students to succeed in the future than to remediate the past. JSCC's innovative model shows a clear way to successfully promote students moving forward with added value to their overall education.

13.C. Construct and offer Viable Non-STEM Math Courses and Sequences

Rationale

Although Statway is being implemented at CoM in Fall 2016 and will provide a non-STEM pathway for some, it does not meet the needs of all non-STEM majors like education, nursing, and business. Thus, we recommend that the Math Department develop non-STEM sequences and offerings emphasizing the needs of particular majors, such as a Math for Educators course, focusing on not just the content that future teachers are required to know, but also effective strategies for teaching math.

Suggested Work Plan

- Hold meetings between the Math Department and non-STEM disciplines to discuss needs and math requirements as well as possible courses
- Research discipline-specific components for new courses, such as effective teaching strategies for math to incorporate into a Math for Educators course
- Develop course content and articulate through the Curriculum Committee
- Pilot developed courses

Key Internal Findings

No significant data for this theme.

While this recommendation did not have significant data for this theme, it was discussed in the meetings between Math and FLIT. The Math Department expressed concerns about the limitations of Statway and the inability of the program to meet the requirements of particular majors. Thus, we recommend that the Math department develop courses specifically for those particular majors to ensure departmental standards and to best support students in achieving their goals.

Supportive Evidence

Developmental education redesign: Decreasing attrition and time to completion at Oregon's Community Colleges (CCWD 2014)

> This report examined Oregon Department of Community Colleges and Workforce Development's (CCWD) developmental education program and showed that the current structure of developmental education is not working. It presents a path forward for the reinvention of developmental education in Oregon.
>
> With regards to the developmental math program, long developmental math sequences are a barrier to success for countless students. Eliminating these sequences and accelerating student enrollment in college-level gateway courses can be achieved through a variety of strategies. One strategy that is likely to have a large positive impact is for each campus to establish a separate, more accelerated pathway through developmental math for students in non-STEM

degree fields. Since, non-STEM students must have access to mathematics experiences appropriate to their chosen career paths, alternate mathematics pathways will reduce the number of exit points and decrease time to graduation. Among other recommendations, the report concludes with a recommendation of creating alternate non-STEM math pathways that would offer courses that prepare students to succeed in a college-level liberal arts mathematics course.

Support innovations to improve under prepared non-STEM student success in mathematics (ASCCC 2012)

Whereas, the more levels of remedial math courses a community college student must go through, the less likely it is for that student to ever complete a college-level math course, or the requirements for a certificate or community college degree, the Academic Senate for California Community Colleges supports innovations that improve success of under-prepared non-STEM students in mathematics and increase their likelihood of successful completion of transfer-level math including the establishment and rigorous evaluation of alternative math pathways.

13.D. *Connect the Math Peer Tutoring Programs in the Math Department and in The Learning Center to Enhance Collaboration and Coordination of Services.*

Rationale

Offering peer tutoring for math students is grounded in research that shows peer tutors can be significantly effective in facilitating student success. Peer tutors act as models and can be particularly helpful for first generation students who often perceive academic struggle as a sign of inability rather than the normal rigor of college. Thus, peer tutors, who are continuing, successful students, can reassure newer, unsure, and self-doubting students that failure and struggle are just aspects of college that can be overcome with hard work, support, and diligence.

Connecting the Peer Tutoring programs in the Math Department and The Learning Center would allow for greater continuity and consistency with regards to policies, techniques, concepts, and standards, thus, ensuring the most effective tutoring for our students.

Suggested Work Plan

- Facilitate meetings between the Math Department and The Learning Center regarding their peer tutoring programs
- Decide on selection criteria, training, and policies for peer tutors collectively through discussions between both the Math Department and The Learning Center

Key Internal Findings

Faculty, students, and staff argue that peer relationships – particularly peer tutors — are invaluable to the learning process. Our data show that peer tutors play an important role in introducing students to college culture, fostering a sense of belonging on campus, and modeling appropriate behavior and "a college mindset." (21% of quotations referencing Peer Tutors/Mentors and Student Engagement discuss College Culture, 12.2% discuss Identity/Community, and 7% discuss having a college Mindset).

The data also suggest that there is a relationship between peer tutoring and faculty innovation and adaptability in the classroom. (10.8% of quotations referencing Peer Tutors/Mentors and Student Faculty Interaction discuss Flexible Teaching). We also find that Peer Tutors/Mentors are frequently associated with student knowledge and familiarity with other student support services on campus. (12% of quotations referencing Peer Tutors/Mentors discuss Student Support Services).

Our recommendations build from these findings in an attempt to further encourage the positive impact peer tutoring would appear to have on both students and faculty.

Supportive Evidence

Stanford Researcher: First-generation college students benefit from discussing class differences (Parker 2014)

> The article discusses the importance of peer relationships and mentoring for new students in creating a sense of belonging and helping students to persevere through failure and obstacles.

Who gets to graduate (Tough 2014)

> The article discusses research that shows the significant impact even brief interactions with peer mentors and tutors can have on the success rates of new students, helping them to overcome difficulties and access resources.

13.E. *Develop and Utilize Ways to Provide Effective and Helpful Feedback on Homework, such as Instructor Feedback and Computer/Online Math Programs*

Rationale

Developing and utilizing meaningful feedback for math homework is essential considering how important instructor feedback is for student success especially with basic skills students. From the discussions between FLIT and the Math Department, it was revealed that math instructors seldom, if ever, grade or check students' math homework. Students are supposed to complete the work and then check their answers in an answer book in the Math Lab, staffed with tutors. Their mastery of concepts is then assessed through tests. While this practice is prevalent and pervasive, it is, unfortunately, not an effective approach for basic skills students who already struggle with math and need clear, consistent feedback to understand concepts. If students are seriously confused by the material, they often don't struggle through the problems to arrive at an answer or ask for help, but instead just get the answers in the book with the hope it will become clear to them. This is often a flawed plan and can reinforce self-doubt. Thus, the Math Department should reevaluate its standards around the assessment of homework. With computer/online homework programs for math, students must provide an answer before they are given the correct answer and steps. This, at least, requires students to more deeply engage in the material.

However, an even more effective approach would be human feedback from an instructor. Assessed homework with evaluative comments validates the necessity of the work and can provide students with meaningful feedback that clarifies the material for them.

Suggested Work Plan

- Facilitate department meetings with full-time and part-time faculty to consider research on the importance and methods of feedback and to discuss ways to provide effective feedback that represents the high standards of the math department
- Pilot and implement feedback techniques for homework
- Continue conversations as a department on the methods and effects of implementing feedback

Key Internal Findings

Our data show that students have a strong interest in being better connected to faculty. (25% of student quotations related to Student Faculty Interaction discuss Connect(ions)). Interestingly, student understanding of what it means to be "connected" to their faculty is more nuanced than what faculty and staff commonly think. Most students relate being connected to faculty to having a clear understanding of what faculty's expectations are and how to better meet those expectations. (16.2% of quotations referencing Student Faculty Interaction and Connect(ions) discuss Transparency and

how it relates to faculty's Expectations). Simply put, students equate being connected to faculty to having a clear understanding of what they need to do, what they've done right, what they've done wrong, and how they can improve.

We also find that faculty, students, and staff alike commonly relate these more "connected" interactions to familiarity with college culture and the development of a college mindset. (9% of quotations referencing Student Faculty Interaction and Connect(ions) discuss College Culture and 18% discuss having a college Mindset). The data also suggest that connections between students and faculty are related to the maintenance of academic standards in the classroom. (9.6% of quotations referencing Student Faculty Interaction and Connect(ions) discuss academic Standards).

Additionally, the data highlight three factors critical to the development of connections between students and faculty. Most prominently, we find that faculty's dispositions/ attitudes toward students are a key component in building the kinds of relationships students desire and that are associated with student success. (14.8% of quotations referencing Student Faculty Interaction and Connect(ions) discuss faculty's Disposition(s) toward students). The data also show that knowing a little about students — their names, where they come from — and being regularly available to them in office hours and/or after class are related to their feelings of connectedness and subsequently, ability to better meet faculty's expectations. (7.4% of quotations referencing Student Faculty Interaction and Connect(ions) discuss the importance of Knowing Your Audience and 6.7% discuss faculty Availability both inside and outside the classroom).

In sum, the data suggest that students want to be more connected to faculty so that they can gain a greater understanding of what is being asked of them, where they stand, and what they need to do to improve. The policy recommendation listed above seeks to build from these insights and increase students' sense of connectedness to their faculty by promoting regular interaction and communication between the two groups.

Supportive Evidence

The Power of feedback (Hattie/Timperley 2007)

This article is a review of 7000 studies on the effects of feedback on student learning. It shows that a level of expertise in providing feedback to students is essential to their academic achievement.

Teachers make a difference. What is the research evidence? (Hattie 2003)

This study provides an extensive review of literature and a synthesis of over half a million studies, which led to the discovery of the top 3 major influences on student achievement. In order from most influential, they are: feedback (faculty to student), student's prior cognitive ability, and instructional quality.

13.F. *Create a Norming Committee Comprised of both Full-time and Part-time Math Faculty to Norm the Exit Skills for Each Math Course and Align Exit Skills with the New Common Assessment*

Rationale

Norming the exit skills of each math course, specifically those of basic skills, would help to curtail the disparity of quality among courses and assist in establishing cut scores for the assessment test that coincide with the required skills and reduce incidences of misplacement.

All the math instructors at the FLIT/Math meeting disclosed that there is a considerable inconsistency among the courses with regard to the quality of instruction and the material/concepts being covered. They shared that sometimes they could not rely on a passing grade in a course as representative of a student's competency and mastery of the required skills. A norming process, involving all part-time and full-time faculty and focused on delineating the required exit skills would be helpful in mitigating this challenge that is not only lowering the standards of the math department, but negatively affecting the success of students. These norming sessions could also serve as an opportunity for math faculty to share effective teaching techniques and texts.

Moreover, the norming sessions would serve as a prelude to aligning course exit skills with the new Common Assessment. Establishing cut scores for the assessment test that correspond with the necessary skills would minimize misplacement.

Suggested Work Plan

- Schedule several department meetings with full-time and part-time faculty to discuss and create standard exit skills for each course and implementation policies
- Create a professional development plan for current and future faculty to ensure quality and adherence to standard exit skills
- Develop a plan and timeline for implementation
- Research the new Common Assessment
- Create cut scores that correspond to the newly standardized exit skills for each course
- Develop and Implement Multiple Measures (see Multiple Measures Recommendation #12)

Key Internal Findings

(Referenced in English Recommendation 14.C.)

Throughout our focus groups faculty regularly stressed the importance of maintaining academic standards. (11.5% of quotations referencing Student Faculty Interaction discuss academic Standards). Further, they emphasized that academic standards go beyond providing students the "basic skills" to pass a class, but also involve making sure students possess the requisite cultural knowledge and mindset to move forward in their education and be successful at the next level. (16.7% of quotations related to Student Engagement and Standards discuss Basic Skills, 16.7% discuss College Culture, and 16.7% discuss having a college Mindset).

The data also show that faculty, students, and staff see a connection between what happens inside the classroom – particularly whether faculty are flexible in their teaching and employ varied pedagogical strategies — and students' ability to meet faculty's standards. (34% of quotations related to Student Faculty Interaction and Standards discuss faculty Flexible Teaching). Additionally, the data suggest that students' ability to meet faculty's standards is linked to their understanding of what's expected of them and their sense of connectedness to their teachers. (26% of quotations related to Student Faculty Interaction and Standards discuss Connect(ions) between students and faculty and 10% discuss Transparency).

Together these findings demonstrate that maintaining academic standards is a complicated affair. It involves having a clear understanding of the various factors that define student success at multiple levels of instruction and what pedagogical strategies are best suited for different groups of students. Our recommendation seeks to promote student progress while also maintaining standards of academic excellence by encouraging faculty to develop a shared understanding of the skills and competencies that are required of students at different levels of instruction.

Supportive Evidence

Assessment and alignment: *The Dynamic aspects of developmental education* (Grubb/Boner/Frankel/Parker/Patterson/Gabiner/Hope/....Wilson 2011)

> This paper reviews the issues in the process students experience matriculating out of developmental education sequences into college-level courses. The assessment process does a poor job of placing students, horizontal alignment typically does not take place, and vertical alignment also virtually never takes place. It outlines steps that might help correct the various alignment problems, such as: requiring a shift to focusing on developmental courses as a program of courses over time, centralizing responsibility of understanding and communicating the basic skills trajectory, initializing and providing resources for departments to align — both vertically and horizontally — their basic skills courses.

13.G. *Implement a Faculty Orientation and Professional Development Focused on Working with Basic Skills Students and Departmental Standards*

Rationale

A math faculty orientation for all new hires, part-time and full-time, would help to uphold the high standards of the math department and establish consistent standards across the sequence.

Lastly, because the Math Department is facing some significant challenges, participation in professional development focused on working with basic skills students and on effective practices that are helping students to persist would provide additional support to the Math Department. Conversations with other math departments that have struggled with and addressed similar issues would afford the Math Department a wealth of ideas that could be altered, expanded on, and/or adapted to fit the standards of the program at CoM.

Suggested Work Plan

• Develop a new hire orientation and implement
• Research professional development opportunities, such as conferences and other math programs that are of interest to the CoM Math Department
• Work with the CoM Professional Development Coordinator to schedule professional development opportunities on and off campus

Key Internal Findings

(Referenced in English Recommendation 14.E.)

Our data show that faculty, students, and staff feel it is important that instructors are flexible and familiar with varied pedagogical strategies. (22.7% of quotations related to Student Faculty Interaction discuss Flexible Teaching). Specifically, the data suggest that instructor flexibility and familiarity with different modes of instruction is associated with teaching basic skills and providing students with the requisite cultural knowledge to successfully negotiate the school environment. (8.6% of quotations related to Student Engagement and Flexible Teaching discuss Basic Skills and 12% discuss College Culture).

We also find that instructor flexibility is related to connectedness with students and the maintenance of academic standards. (23% of quotations related to Student Faculty Interaction and Flexible Teaching discuss faculty Connect(ions) with students and 13% discuss academic Standards).

These findings illustrate the benefit of being knowledgeable of different pedagogical strategies and more flexible in the classroom, serving as the basis of the recommendation noted above.

Supportive Evidence

Promising practices for community college developmental education — A Discussion resource for the Connecticut Community College System (Schwartz/Jenkins 2007)

There is agreement in much of the literature that faculty should be committed to the College's approach to developmental education and should be willing to participate in activities related to developmental education, whether they are specifically hired to teach developmental students or whether they are simply adding developmental classes to their teaching load. Developmental education instructors need to understand the unique challenges and special learning needs of their students, and they must respect their students' efforts to succeed in college. Promising developmental teaching practices differ substantially from those used in traditional public school settings. It is important that adjunct instructors be integrated into the college community as fully as possible. Training for developmental education faculty shows promise for increasing program effectiveness.

14. *Innovate the English Sequence and Offerings*

"We are only as strong as our weakest link when building a team."

Faculty

"A successful teacher…even though they are very smart, they teach the course so that all the students can understand what is being taught."

Student

Problem

On the 2016 Student Success Scorecard, only 40% (39.7%) of students who started in a below-transfer English course, tracked over a six-year period, subsequently completed a college-level English course.

Too many of our students get bogged down in the pre-college level sequence, either causing them to give up or to extend their stay beyond that which is acceptable. This phenomenon is a result of a variety of contributing factors and includes everything from classroom management strategies, textbook choices, clarity of assignments, individual pedagogical approaches, to student engagement, scaffolding readings, and modeling writing assignments. Of course, some innovation has occurred, including an accelerated English course, embedded supplemental instruction, and extensive curriculum revision, but more needs to be done in order to further engender student success.

Furthermore, because the English sequence straddles two departments, English and English Skills need to work more closely together to ensure student-centric scheduling, offerings, and support throughout the sequence. Greater collaboration between the two departments would also ensure that we are not throwing up any unnecessary barriers for our students as they move from one department to the next (for students, the English/English Skills sequence is seamless; the departmental divide is artificial). The Effective Practices Group, comprised of English, English Skills, and ESL faculty, is currently working towards ameliorating some of these issues by norming exit skills across the sequence, but more could be done.

Another issue is that ESL students also transition into the traditional English sequence, and because ENGL 98SL and ENGL 120SL necessarily stress the grammar component, students have not had the opportunity to fully build adequate development and analysis. This leaves these students at a distinct disadvantage when entering ENGL 150 because at that level, instructors expect their students to be well-versed in both.

Like any other discipline on campus, departments teaching the English sequence rely on adjunct faculty to staff the sections, and this can sometimes result in deviation from the standards departments have set because adjuncts are often less informed and included in departmental meetings. This can also interfere with our students' success. Finally, our placement system is imperfect, and taking a closer look at it will allow the departments to make decisions that should result in a more accurate placement of our students.

Solution

Through research and discussions with the English, English Skills, and ESL departments, it is recommended (Recommendations A-E) that funds and resources be allocated for the following:

A. Accelerate the English sequence, such as piloting co-requisite classes

B. Coordinate the values and goals among English, English Skills, and ESL

C. Align course exit skills and cut scores for the new common assessment through the joint efforts of English, English Skills, and ESL

D. Expand English and ESL offerings within learning communities

E. Implement a faculty orientation and professional development focused on working with basic skills students and departmental standards

Solutions A. - E.

14.A. Accelerate the English Sequence, such as Piloting Co-requisite Classes

Rationale

Faculty teaching across the English sequence should consider more pilot programs geared towards improving the chances of basic skills students completing the transfer requirements in a more timely fashion. One possibility is to pilot a co-requisite basic skills course paired with a transfer-level course, providing supplemental instruction and tutoring to support those students who test below-transfer level.

Suggested Work Plan

- Select instructors interested in participating, coordinating, and teaching co-requisite English and basic skills courses
- Develop curriculum
- Submit courses to the Curriculum Committee for approval
- Work with the Educational Support Program coordinators to integrate and organize supplemental instruction and logistical support

Key Internal Findings

No significant data for this theme.

Supportive Evidence

Expectations meet reality: The Under-prepared student and community colleges (CCCSE 2016)

> The article exemplifies how accelerated math and English programs redesigned the developmental sequence to reduce students' time to completion. Institutions often provide these redesigned classes in concert with innovative pedagogies and/or additional supports. Research suggests that students in accelerated programs are more likely to enroll in gatekeeper courses and as likely to pass.

Get with the program: Accelerating community college students' entry into and completion of programs of study (Jenkins/Cho 2012)

> The article discusses research-based principles of effective practice to strengthen and accelerate students' basic skills program completion that include: compressing sequenced courses and mainstreaming higher-level remedial students into college-level courses with instructional support (Edgecombe, 2011), and teaching basic skills with contextualized instruction in content area subject matter (Perin, 2011). Other research-based principles of effective practices that accelerate rates of program entry and completion

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include: requiring students who need remediation to take a prescribed set of courses that include a college success course, declaring a program of study within the first year, and requiring them to keep an up-to-date program completion plan, improving instruction and integrating supports into coursework to help students pass gatekeeper courses in each program area, and ensuring that the courses required to complete each program are offered regularly and on a schedule convenient to students.

A Matter of degrees: Practices to pathways — High-impact practices for community college student success (CCCSE 2014)

Developmental students (SENSE) who reported participating in accelerated or fast-track developmental education were 1.81 times more likely to successfully complete a developmental English course than were students who did not report participating in accelerated or fast-track developmental education.

The Results are in. Corequisite remediation works. (Vandal 2015)

Vandal discusses the success of corequisite classes at several institutions, saying that for English, students are twice as likely to succeed in a single English corequisite class than in a "traditional prerequisite English course."

What we know about accelerated developmental education (Jaggars/Edgecombe/Stacey 2014)

CCRC has studied four acceleration strategies at different colleges and college systems across the country. All of them eliminate an exit point in the developmental sequence but differ in the extent to which they redesign student supports, pedagogy, and curriculum to help students succeed at college-level work. Overall, the research suggests accelerated developmental education is associated with increased enrollment in and completion of gatekeeper math and English. Developmental curricula should be designed to incorporate college-level activities and content, giving students the opportunity to practice challenging assignments and develop their skills in a relatively safe and supportive environment.

14.B. *Coordinate the Values and Goals among English, English Skills, and ESL*

Rationale

English and English Skills should have joint meetings every semester to discuss issues as they arise, spot potential problem areas, and make the students' transition more seamless. There should also be a liaison from each department who meets more regularly and brings information back to his/her own department.

In order to secure greater success for our ESL students at the transfer level, the departments should look at the barriers encountered by this population and devise ways to make it possible for students to meet the standards and successfully complete the English sequence.

Suggested Work Plan

- Schedule joint meetings every semester
- Identify department liaisons
- Identify barriers and seek solutions for ESL and English Skills students
- Discuss the shared values and goals of the departments
- Reconcile philosophical differences among departments across the English sequence

Key Internal Findings

No significant data for this theme.

Supportive Evidence

Investing in staff for student retention (Farrell n.d.)

> This essay discusses research conducted on student retention, noting that faculty has one of the most significant effects on student retention. In addition, shared beliefs and core values are also essential for any organization or department, and is thus "reflected in what is done, how it is done, and who is involved in doing it." Ultimately, the shared values of a department or group is reflected in the attitudes and behaviors of those involved, creating a clear and consistent message to students.

14.C. *Align Course Exit Skills and Cut Scores for the New Common Assessment through the Joint Efforts of English, English Skills, and ESL*

Rationale

Faculty throughout the English sequence should work towards aligning exit skills for each level, which will ensure a more equitable transition for students. If all instructors are on the same page at every level, our students will have greater success as they move through the sequence.

Finally, the necessary faculty should use agreed upon exit skills to create cut scores and norm the forthcoming Common Assessment. Their work should ensure that students are placed in courses commensurate with their skills, and this placement should rely on the test itself and multiple measures to be determined by members of the discipline.

Suggested Work Plan

- ESL, English, & English Skills should continue norming exit skills across the sequence
- Align courses' exit skills with new Common Assessment
- Develop and implement multiple measures (see Multiple Measures Recommendation #12)

Key Internal Findings

(Referenced in Math Recommendation 13.F.)

Throughout our focus groups faculty regularly stressed the importance of maintaining academic standards. (11.5% of quotations referencing Student Faculty Interaction discuss academic Standards). Further, they emphasized that academic standards go beyond providing students the "basic skills" to pass a class, but also involve ensuring students possess the requisite cultural knowledge and mindset to move forward in their education and succeed at the next level. (16.7% of quotations related to Student Engagement and Standards discuss Basic Skills, 16.7% discuss College Culture, and 16.7% discuss having a college Mindset).

The data also show that faculty, students, and staff see a connection between what happens inside the classroom — particularly whether faculty are flexible in their teaching and employ varied pedagogical strategies — and students' ability to meet faculty's standards. (34% of quotations related to Student Faculty Interaction and Standards discuss faculty Flexible Teaching). Additionally, the data suggest that students' ability to meet faculty's standards is linked to their understanding of what's expected of them and their sense of connectedness to their teachers. (26% of quotations related to Student Faculty Interaction and Standards discuss Connect(ions) between students and faculty and 10% discuss Transparency).

Together these findings demonstrate that maintaining academic standards is a complicated affair. It involves having a clear understanding of the various factors that define student success at multiple levels of instruction and what pedagogical strategies are best suited for different groups of students. Our recommendation seeks to promote student progress while also maintaining standards of academic excellence by encouraging faculty to develop a shared understanding of the skills and competencies that are required of students at different levels of instruction.

Supportive Evidence

Assessment and alignment: The Dynamic aspects of developmental education (Grubb/ Boner/Frankel/Parker/Patterson/Gabiner/Hope/....Wilson 2011)

> This paper reviews the issues students experience in the process of matriculating out of developmental education sequences into college-level courses. The assessment process does a poor job of placing students; horizontal alignment typically does not take place, and vertical alignment also virtually never takes place. It outlines steps that might help correct the various alignment problems, such as: requiring a shift to focusing on developmental courses as a program of courses over time, centralizing responsibility of understanding and communicating the basic skills trajectory, initializing and providing resources for departments to align — both vertically and horizontally — their basic skills courses.

14.D. *Expand English and ESL Offerings within Learning Communities*

Rationale

Within the last few years English Skills has linked several classes, such as ENGL 92, ENGL 98, and ENGL 120AC with counseling and content courses, creating learning communities to better support basic skills students. Learning communities encourage community among students, as well as faculty, which helps students to persist when taking challenging classes.

In addition, linking English Skills classes with content courses like Introduction to Sociology and History of African Americans provides students with just-in-time remediation and resources to assist them with difficult assignments encountered in the content courses.

Suggested Work Plan

- Continue to offer learning communities with English Skills courses
- Expand learning communities to include transfer-level English classes
- Expand learning communities to include ESL classes
- Identify faculty interested in participating in learning communities
- Compensate and support faculty who are participating in learning communities

Key Internal Findings

(Referenced in Recommendations 8 & 13.A.)

Structured learning communities appear to be a powerful resource in promoting successful student outcomes, meaningful interactions between students and faculty, and greater interdisciplinary collaboration and discussion.

Specifically, faculty, students, and staff alike suggest that structured learning communities play a critical role in helping students gain a greater understanding of college culture and in the process, readily identify their goals, and develop a clear academic plan. (19% of quotations referencing Student Learning Communities and Student Engagement discuss College Culture and 11.5% discuss Academic Goal Setting/Planning). In fact, many study participants likened structured learning communities to an extended orientation program. (11.5% of quotations referencing Student Learning Communities discuss Orientation).

The data also suggest that structured learning communities help students identify and build relationships to institutional allies/mentors (faculty and/or peers) and gain a sense of belonging and connectedness to the College overall. (27% of quotations referencing Structured Learning Communities and Student Faculty Interaction discuss Mentor(ing)/Counseling. 16.7% of quotations referencing Structured Learning Communities and Student Engagement discuss Identity/Community).

Lastly, we find that structured learning communities promote interdisciplinary discussion and collaboration. (6.7% of quotations referencing Student Learning Communities discuss Intra-Institutional Collaboration).

Supportive Evidence

Developmental education: What policies and practices work for students? (Brock/Jaggars/Wathington/Jenkins 2011)

> Presenters provided data from Achieving the Dream colleges, showing evidence that suggests that, compared to business as usual, learning communities are better at helping students progress through a particular developmental education course sequence (during the program semester). Evidence also showed that students assigned to learning communities passed more courses and earned more credits in the program semester. Application of integrative teaching practices motivates students to engage more actively with the material and with each other.

Literature Review Brief: What we know about student support (Schiorring/Purnell 2012)

> Research indicates that engagement can be fostered both inside and outside of the classroom by faculty, peers, mentors, and support service professionals alike. Similarly, learning communities created through programs such as Puente and Umoja seek to inject into the classroom and college community environment a cultural context that makes college more welcoming and relevant to Latino and African-American students. This type of support may include changes in pedagogy and curriculum that seek to increase the relevance of the educational experience and invite active participation in the classroom and beyond.

Promising practices for community college developmental education (Schwartz/Jenkins 2007)

> Ongoing research is demonstrating that pairing courses, or even grouping three or more courses to be taken at the same time to create an "educational package," results in more meaningful and productive experience for students. Students feel a greater attachment to their college through participation in a learning community, and thus, may be more likely to persist.

What works in remediation: Lessons from 30 years of research (Boylan/Saxon n.d.)

> The article discusses a study by Tinto (1997), which found that under-prepared students participating in remedial courses organized around the principles of learning communities had better attitudes toward learning and had higher course completion rates than students in traditional remedial courses.

14.E. Implement a Faculty Orientation and Professional Development Focused on Working with Basic Skills Students and Departmental Standards

Rationale

English and English Skills should adopt and implement a new faculty orientation that is specific to the level of English being taught. If new faculty, whether full or part-time, clearly understand the exit skills required to pass the level and are fully aware of the standards set by the departments, it is more likely that they will better serve our students. This will also allow these departments to maintain high standards and feel confident about the pedagogical practices of those new to the institution.

In addition, both departments should engage in professional development regarding the specific needs of developmental students. This would ensure students get the support they need and a more seamless and consistent transition throughout the English sequence.

Suggested Work Plan

- Develop and implement new hire orientations for each level of the sequence
- Research professional development opportunities
- Work with the CoM Professional Development Coordinator to schedule professional development opportunities on and off campus

Key Internal Findings

(Referenced in Math Recommendation 13.G.)

Our data show that faculty, students, and staff feel it is important that instructors are flexible and familiar with varied pedagogical strategies. (22.7% of quotations related to Student Faculty Interaction discuss Flexible Teaching). Specifically, the data suggest that instructor flexibility and familiarity with different modes of instruction is associated with teaching basic skills and providing students with the requisite cultural knowledge to successfully negotiate the school environment. (8.6% of quotations related to Student Engagement and Flexible Teaching discuss Basic Skills and 12% discuss College Culture).

We also find that instructor flexibility is related to connectedness with students and the maintenance of academic standards. (23% of quotations related to Student Faculty Interaction and Flexible Teaching discuss faculty Connect(ions) with students and 13% discuss academic Standards).

These findings illustrate the benefit of being knowledgeable of different pedagogical strategies and more flexible in the classroom, serving as the basis of the recommendation noted above.

Supportive Evidence

Promising practices for community college developmental education. (A discussion resource for the Connecticut Community College System (Schwartz/Jenkins 2007)

There is agreement in much of the literature that faculty should be committed to the college's approach to developmental education and should be willing to participate in activities related to developmental education, whether they are specifically hired to teach developmental students, whether they are to participate in activities related to developmental education, whether they are specifically hired to teach developmental students or whether they are simply adding developmental classes to their teaching load. Developmental education instructors need to understand the unique challenges and special learning needs of their students, and they must respect their students' efforts to succeed in college. Promising developmental teaching practices differ substantially from those used in traditional public school settings. It is important that adjunct instructors be integrated into the college community as fully as possible. Training for developmental education faculty shows promise for increasing program effectiveness.

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Methodological Appendix

Overview

All Key Internal Findings and data referenced in this report derive from an original qualitative research project designed and implemented by FLIT during the Spring 2015 semester. Below we provide an overview of our data collection and coding procedures, as well as the analytical strategies used.

Data Collection

As noted earlier, part of FLIT's original charge was to facilitate discussions with CoM faculty, students, and staff about the obstacles preventing student success and the best ways to support students. In turn, the information gained from these discussions would be used to inform the development of the Basic Skills Master Plan that would then inform the College's Strategic Plan, Educational Master Plan, and Student Equity Plan.

Early on, we recognized that one of the central challenges to meeting our charge was developing a clear, unbiased view of student success. The reason this would prove challenging is because students, faculty, and staff often hold inconsistent and at times, conflicting notions of "success" and the barriers that impede and/or promote student progress. Consequently, any study that did not take these potentially meaningful differences in cultural understanding into consideration would run the risk of making recommendations that were severely biased harmful to some groups, and ultimately, unsuccessful.

To address these issues, we chose to conduct multiple Focus Groups with each of our three main subpopulations — faculty, students, and staff. Focus Groups were ideal because they provide insight into the diversity of people's individual experiences, as well as the shared experience of being a member of a given subpopulation — something that could easily be obscured using other data collection techniques like individual-level interviews.

Sampling

Upon deciding to conduct focus groups, we sought to select study participants from each of our subpopulations of interest.

Faculty and staff were selected for participation using pure cluster sampling. This technique identifies participants based on their membership in substantively meaningful organizational groups — in this case academic departments and organizational units on campus. When done correctly, pure cluster samples pull data from all predetermined organizational groups/clusters.

In total, we identified 19 distinct organizational clusters, each related to a specific academic department or organizational unit on campus. (Please see the attached list of Sampled Organizational Clusters). From there, FLIT sent e-mails to the department chairs and unit leaders of each cluster to explain the project and request that their respective department or unit please take part. By the end of the Spring 2015 semester all predetermined organizational clusters had participated in the project.

Students were selected using stratified cluster sampling. Similar to pure cluster sampling, this technique first divides the population into substantively meaningful organizational groups. Next, each cluster is sorted into distinct strata based on some underlying characteristic of the population of interest. Clusters are then selected at random from each strata for inclusion in the study. Successful stratified cluster samples pull data from all predetermined strata used to sort group clusters.

To identify our student sample we first grouped/clustered CoM's student population by enrollment in English courses. Next, we sorted all English courses (or clusters) by their prerequisites, in effect using this information to define our strata. From there, we sent e-mails to all English instructors in each strata to explain the project and request that they please grant us the opportunity to visit their class and talk with their students. We then selected our clusters from each strata based on response time — those who responded to our e-mails first became the representatives of each strata and were selected for inclusion in the study. (Please note that we chose enrollment in English courses to define our clusters because CoM's English department has the largest enrollment and most stratified prerequisite system of any department. As such, it provided us the best chance to capture the greatest diversity of student experiences and levels of preparedness found on campus).

In total, we identified 13 distinct strata within our English course clusters (Please see the attached list of Sampled Student Strata). By the end of the Spring 2015 semester, we had held at least one focus group within each strata and in some cases two, for a total of 17 meetings with students.

Unfortunately, our stratified cluster sampling procedure precluded us from talking with students enrolled in programs not subject to the same English requirements as most other programs on campus. As such, we purposively sampled students from these programs — Court Reporting and Automotive Career Technology — to ensure that all student voices were represented (Please see the attached list of Purposively Sampled Students).

Overall, we held 38 focus groups: 19 with faculty and staff, representing most departments and organizational units on campus; and 19 with students, capturing 13 distinct levels of preparedness.

Focus Groups

After identifying and selecting our subpopulations of interest, we began holding our focus groups. Below we discuss the questions, protocols, and procedures used during those meetings.

As noted above, faculty, students, and staff often hold markedly different views of student success and the various factors thought to impede and/or promote their progress through the educational system. Our focus groups were designed to emphasize these differences so that we could gain a more precise understanding of the cultural boundaries that define membership in each group — a method commonly referred to as Boundary Work. (Please see Lamont 1992 and 2000 for more detail). Researchers suggest that such "boundary work" is a critical step in developing institutional policies that are flexible, and address the varied needs and make sense to the most constituents (Carter 2006; Lamont 2000).

Similar to other "boundary work" studies, we developed a core set of questions to be asked in all of our focus groups. All questions were deliberately left vague in an attempt to get study participants to fully explain their unique understanding of our concepts of interest (student success, faculty success, barriers to success, and preparedness) and in the process, highlight potential boundaries between our subpopulations. (Please see the attached Interview Guide for a full list of questions posed).

Focus groups were scheduled on study participants' terms to encourage greater comfortability and candidness. Conversations with faculty and staff were scheduled in buildings and rooms they were accustomed to meeting in and at times they were most comfortable with. Conversations with students were scheduled during the English classes used to define their sample strata (noted above) — a time and place they were clearly comfortable with.

Each focus group was administered by two FLIT and/or BSISC members, with the exception of one, and were transcribed in real-time by a CoM Court Reporting student. Facilitators took five minutes at the beginning of each meeting to introduce the project and discuss our protocols. First, facilitators explained that they were only there to ask questions and could not actively engage in conversation with participants — doing so could potentially influence people's responses and result in bias. Second, facilitators emphasized that all responses would remain anonymous. (In our student meetings this is when facilitators typically asked supervising faculty to leave the room). And Lastly, facilitators introduced the Court Reporter transcribing the session and briefly explained how the transcribed data would be analyzed. This also presented a second opportunity to emphasize that the data would indeed remain anonymous.

On average, student focus groups lasted for 41 minutes and faculty and staff focus groups lasted for 84 minutes. In total, 124 hours were devoted to the data collection process for this project.

Data Coding & Analysis

After receiving the last of the transcribed focus group data, we entered the analysis phase of the project.

In this capacity, our first step was to identify themes in our data — a process called coding.

Coding

There are two standard coding techniques used to organize qualitative data — first and second-order coding. We employed both in our analyses.

First-order coding is fairly straightforward. Typically, researchers develop a list of themes/concepts that their data collection instruments were designed to measure. From there, they develop detailed explanations of each theme/concept and the criteria used to define when and where that idea might apply. These are first-order codes. The next step in the process is to review the transcribed data and assign the codes to quotations in the transcripts based on the previously established criteria. (Please note that first-order coding typically relies on deductive reasoning wherein theory informs code development and assignment. This is a core difference with second-order coding).

Our first-order codes are based on themes/concepts originally identified in the Community College Survey of Student Engagement (CCSSE) a national survey of community colleges organized by the University of Texas, Austin. We based our codes on themes identified in the CCSSE for two reasons. First, the CCSSE is the largest, most representative study of community college students, faculty, and staff undertaken in the United States to date (n=350 schools across all 50 states). Second, CoM participated in the CCSSE in the Spring of 2014 and as compensation for our participation, researchers at the University of Texas, Austin provided a brief analysis of general trends found on campus. Those trends were generally consistent with those documented at other community colleges sampled in the CCSSE project and thus, justified our use of the same coding themes in our research.

In total, we developed 23 first-order codes. 21 of those codes derive directly from the CCSSE and 2 are wholly original ('Good Quote' and 'Other/Follow-up'). 'Good Quote' was developed to highlight quotations that were particularly informative and/or clearly captured one of our other first-other codes in action. 'Other/Follow-up' was assigned to quotations where one of our other first-order codes had been assigned but did not fully-capture the complexity of the idea being communicated. (Please see the attached Codebook for a list of First-Order codes and their distribution in the data).

All focus group data was reviewed and first-order coded by at least two members of FLIT to ensure inter-coder reliability. In total, 6,738 first-order codes were assigned to 2,916 quotations.

Once first-order coding was complete, all focus group data and coding information was uploaded to Atlas.ti, a qualitative analysis software application, to help us in the development of our second-order codes and allow for more in-depth analysis.

Second-order coding is more complicated than first-order coding. Specifically, second-order coding requires that researchers re-examine their first-order codes in an attempt to identify more complex processes at work. It is important to note that those more complex processes are not informed by theory like first-order codes, but emerge from the data itself. That is, it is up to the researcher to successfully interpret what the data is saying and not impose a pre-existing construct on it — a process commonly referred to as Grounded Theory. Thus, unlike first-order coding, which is typically based on deductive reasoning, second-order coding is based on inductive reasoning.

The Atlas.ti software application (briefly noted above) was instrumental in the development of our second-order codes. Specifically, the application helped us to catalog, revisit, and examine co-occurrences of the aforementioned 'Other/Follow-up' first order code with other first-order codes — in effect, helping us to identify patterns in the quotations that we initially felt warranted further investigation.

The most prominent co-occurrences of our 'Other/Follow-up' first-order codes were Student Engagement (n=1544) and Student Faculty Interaction (n=878), findings that suggest these codes were insufficient and that finer, more nuanced second-order codes (in this case, subcodes of our first-order codes) need to be developed. Upon further investigation of these co-occurrences, 23 new themes emerged — 12 related to Student Engagement and 11 related to Student Faculty Interaction. These emergent themes served as the basis for our second-order coding scheme and were assigned to the relevant, previously identified quotations. (Please see the attached Codebook for a list of all Second-Order codes and their distribution in the data).

In total, 2,912 second-order codes were assigned to 1,862 quotations.

Analysis

Two analytical strategies were used to identify the trends and relationships between codes discussed in this report.

Simple descriptive analyses were used to document the prevalence and distribution of first and second-order codes throughout the data.

Co-occurrences and relationships between first and second-order codes were analyzed using Atlas.ti's proprietary "Co-Occurrence Algorithm." They were also validated using the software's proprietary "C-Coefficient Statistic," wherein the larger the coefficient the greater the probability that two codes apply to the same quotation. Please note that all co-occurrences discussed in this report had a C-Coefficient Statistic of at least .15, .05 over the minimum recommendation by Atlas.ti.

Sampled Organizational Clusters

1. Behavioral Sciences
2. Business
3. Career Education Faculty
4. College Skills
5. Counseling
6. Drama
7. English
8. ESL Noncredit
9. Health Sciences
10. IS & DTs
11. Kinesiology
12. Library Services
13. Life Sciences
14. Math
15. Medical Assisting
16. Modern Languages
17. Physical Sciences
18. Social Sciences
19. Student Services

Sampled Student Strata

1. ESL 80
2. ESL 83 (2 Sections)
3. ESL 86
4. English 92 (2 Sections)
5. English 98
6. English 98 FYE
7. English 98 SL
8. English 120 (2 Sections)
9. English 120 AC
10. English 120 FYE
11. English 150 (2 Sections)
12. English 150 Puente
13. English 151

Purposively Sampled Students

1. Automotive Career Education

2. Court Reporting Career Education

Interview Guide

1. Describe a successful student.
2. Describe an unsuccessful student.
3. What does "college ready" mean?
4. What does it mean to be "unprepared" for college?
5. Describe a successful teacher.
6. Describe an unsuccessful teacher.
7. What factors might undermine student success?
8. What factors might promote student success?

Codebook

First-Order Codes

1. AC - Academic Challenge
Challenging intellectual and creative work is central to student learning and collegiate quality. As such, the nature and amount of assigned academic work, the complexity of the cognitive tasks presented to students, and the standards faculty members use to evaluate student performance provide critical insight for assessing student engagement and institutional effectiveness.

2. ACL - Active/Collaborative Learning
Students learn more when they are actively involved in their education and have opportunities to think about and apply what they are learning in different settings. Through collaborating with others to solve problems or master challenging content, students develop valuable skills that prepare them to deal with the kinds of situations and problems they will encounter in the workplace, the community, and their personal lives.

3. ADE - Accelerated Learning/Fast Track Developmental Education
Accelerated courses or fast-track developmental education are learning experiences designed to help students move more quickly through developmental coursework in order to move on to the college-level work.

4. AGP - Academic Goal Setting/Planning
This type of advising creates a clear path to help students reach their educational goals. Defining this path is the work of academic goal setting and planning.

5. AI - Alert/Intervention
Academic alert and intervention is a systemic process whereby instructors alert someone at the college when students in their classes are struggling academically, and that person contacts the students in an effort to get them the assistance they need.

6. AP - Assessment/Placement
Assessment and placement includes placement test preparation experiences, academic skills assessment, and proper course placement.

7. CA - Class Attendance
Class attendance is instructors' stating a policy that requires students to attend every scheduled class session for the courses in which they are enrolled and that has consequences for not attending. (Institutional policy can require instructors to take this action).

8. CM - Multi-Structured Group Learning/Combinations
Multiple structured group learning experiences are combinations of any of the following programs: orientation, accelerated or fast-track developmental education, first-year experience, students success course, and learning community.

9. EL - Experiential Learning
Experiential (hands-on) learning — such as internships, co-op experience, apprenticeships, field experience, clinical assignments, and community-based projects — immerses students in content, and it encourages them to make connections and forge relationships.

10. ER - Early Registration
Registration before classes begin is being registered for all courses prior to the first day of class.

11. FYE - First Year Experience
A first-year experience or freshman seminar is a course or a combination of in-class and out-of-class activities offered to students during their first term or first year at college.

12. GQ - Good Quote (FLIT Original Code)
Good Quote

13. IIC - Intra-Institutional Collaboration
Intra-institutional collaboration refers to relationships between administration, staff, and faculty on campus.

14. LC - Learning Community
A learning community involves two or more linked courses that a group of students take together.

15. O - Orientation
Orientation is a single event or extended structured experience designed to familiarize students with one or more of the following: college resources, services, policies, and organizations; building a network of support; and developing an academic plan and individual goals.

16. OF - Other/Follow-up Questions (FLIT Original Code)
Data requires clarification. How should this be coded?

17. OS - Outreach - School/Institutional Collaboration
Outreach and school relations refers to relationships and opportunities for collaboration between CoM and other community organizations/institutions.

18. SE - Student Engagement
Students' behaviors contribute significantly to their learning and the likelihood that they will attain their educational goals. "Time on task" is a key variable, and there are a variety of settings and means through which students may apply themselves to the learning process.

19. SFI - Student Faculty Interaction

In general, the more interaction students have with their teachers, the more likely they are to learn effectively and persist toward achievement of their educational goals. Personal interaction with faculty members strengthens students' connections to the college and helps them focus on their academic progress. Working with an instructor on a project or serving with faculty members on a college committee lets students see first hand how experts identify and solve practical problems. Through such interactions, faculty members become role models, mentors, and guides for continuous, life long learning.

20. SI - Supplemental Instruction

Supplemental instruction typically involves a regularly scheduled, supplemental class for a portion of students enrolled in a larger course section. Supplemental instruction may be taught by the class instructor or a trained assistant, often a former student who was successful in the class.

21. SSC - Student Success Course

A student success course is a course specifically designed to teach skills and strategies to help students succeed in college (e.g. — time management, study skills, and test taking skills).

22. SSS - Student Support Services

Student support services are those programs focused on promoting student accessibility both inside and outside the classroom.

23. T - Tutoring

Tutoring is academic assistance that is provided outside of class, either in a one-on-one setting, in a group setting, or via technology.

First-Order Code Distribution

First Order Code	Faculty %	Staff %	Student %	Total %
1. AC - Academic Challenge	4.05	2.22	2.65	1.45
2. ACL - Active/Collaborative Learning	3.79	1.11	1.66	1.19
3. ADE - Accelerated Learning/Fast Track Developmental Education	0.39	1.11	0.00	0.12
4. AGP - Academic Goal Setting/Planning	9.02	10.00	11.28	4.33
5. AI - Alert/Intervention	2.48	0.00	0.33	0.62
6. AP - Assessment/Placement	3.92	1.11	1.16	1.13
7. CA - Class Attendance	5.75	1.11	4.98	2.23
8. CM - Multi-Structured Group Learning/ Combinations	0.39	1.11	0.00	0.12
9. EL - Experiental Learning	0.13	0.00	0.17	0.06
10. ER - Early Registration	0.00	1.11	0.17	0.06
11. FYE - First Year Experience	0.26	0.00	0.17	0.09
12. GQ - Good Quote	11.76	7.78	6.80	4.10
13. IIC - Intra-Institutional Collaboration	1.70	0.00	0.33	0.45
14. LC - Learning Community	0.13	0.00	0.00	0.03
15. O - Orientation	2.09	2.22	0.83	0.68
16. OF - Other/Follow-up Questions	81.83	44.44	67.50	31.85
17. OS - Outreach - School/Institutional Collaboration	2.09	1.11	0.33	0.56
18. SE - Student Engagement	70.20	63.33	67.16	29.65
19. SFI - Student Faculty Interaction	43.14	34.44	34.99	16.98
20. SI - Supplemental Instruction	2.09	0.00	0.50	0.56
21. SSC - Student Success Course	1.18	1.11	0.50	0.39
22. SSS - Student Support Services	6.01	14.44	5.31	2.70
23. T - Tutoring	1.70	0.00	1.49	0.65

Second-Order Codes

Student Engagement (SE) Subcodes

1. SE Abstract Support
A subcode of Student Effort that documents vague/abstract explanations for disparities in student effort, achievement, and other outcomes — i.e. "They need more resources".

2. SE Basic Skills
A subcode of student effort that relates student effort, achievement, and other outcomes to basic skills in computers, math, English, language, and other forms of "Human Capital."

3. SE College Culture
A subcode of Student Effort that relates student effort, achievement, and other outcomes to familiarity and understanding of college culture — i.e. knowing what a syllabus is, how to schedule classes, and other forms of "Cultural Capital."

4. SE HS vs. College
A subcode of Student Effort that relates student effort, achievement, and other outcomes to student knowledge of key structural and cultural differences between high school and college.

5. SE Identity/Community
A subcode of Student Effort that relates student effort, achievement and other outcomes to their sense of belonging, community, and overall identity on campus.

6. SE Mindset
A subcode of Student Effort that relates student effort, achievement, and other outcomes to persistence, maturity, accountability, and commitment to education as a whole — i.e. "Grit."

7. SE Money
A subcode of Student Effort that relates student effort, achievement, and other outcomes to student finances.

8. SE Outside
A subcode of Student Effort that relates student effort, achievement, and other outcomes to demands outside of the school environment — i.e. family, friends, work, child care, consistent transportation, etc.

9. SE Scheduling/Policy
A subcode of Student Effort that relates student effort, achievement, and other outcomes to institutional policies and scheduling.

10. SE Staffing
A subcode of Student Effort that relates student effort, achievement, and other outcomes to the availability of sufficient staff.

11. SE Stereotypes/Assumptions
A subcode of Student Effort that relates student effort, achievement, and other outcomes to the stereotypes and assumptions that faculty, administration, students, and the institution as a whole make about different groups and each other on campus.

12. SE Technology/Amenities
A subcode of Student Effort that relates student effort, achievement, and other outcomes to technology, food, parking, and the availability of other amenities.

Student Faculty Interaction (SE) Subcodes

1. SFI Availability
A subcode of Student Faculty Interaction that relates student faculty interaction to faculty's availability to students both inside and outside the classroom.

2. SFI Community
A subcode of Student Faculty Interaction that relates student faculty interaction to a sense of community on campus, particularly interdisciplinary communication and campus-related work outside the classroom.

3. SFI Connect
A subcode of Student Faculty Interaction that relates student faculty interaction to faculty's ability to connect with, motivate, and inspire students.

4. SFI Disposition
A subcode of Student Faculty Interaction that relates student faculty interaction to the overall disposition/attitude of faculty, administrators, and support staff on campus.

5. SFI Expectations
A subcode of Student Faculty Interaction that relates student faculty interaction to faculty's expectations of students both inside and outside the classroom.

6. SFI Flexible Teaching
A subcode of Student Faculty Interaction that relates student faculty interaction to faculty's ability to be flexible and make adjustments in the classroom as necessary — e.g. employing multi-modes of instruction, being up-to-date in the use of technology in the classroom, etc.

7. SFI Knowing Your Audience
A subcode of Student Faculty Interaction that relates student faculty interaction to faculty's knowledge and understanding of the diverse populations CoM serves and their varied needs inside and outside of the classroom.

8. SFI Mentor/Counseling
subcode of Student Faculty Interaction that relates student faculty interaction to the availability of mentors (faculty or peer) and counseling staff that help students better negotiate institutions.

9. SFI Standards
A subcode of Student Faculty Interaction that relates student faculty interaction to the maintenance of professional and academic standards of excellence.

10. SFI Support
A subcode of Student Faculty Interaction that relates student faculty interaction to faculty's ability to direct students to the appropriate campus resources.

11. SFI Transparency
A subcode of Student Faculty Interaction that relates student faculty interaction to clear, trusting, and open channels of communication in all campus relationships.

Second-Order Code Distribution

Second-Order Code

Student Engagement Subcodes	Faculty %	Staff %	Student %	Total %
1. SE Abstract Support	1.86	2.94	4.75	1.92
2. SE Basic Skills	11.69	8.82	2.79	5.22
3. SE College Culture	34.32	11.76	22.35	18.48
4. SE HS vs. College	2.23	0.00	0.84	1.03
5. SE Identity/Community	4.08	11.76	1.40	2.13
6. SE Mindset	19.67	11.76	24.02	13.46
7. SE Money	6.86	14.71	7.54	4.74
8. SE Outside	10.20	5.88	13.69	7.28
9. SE Scheduling/Policy	2.97	2.94	2.79	1.85
10. SE Staffing	0.93	0.00	0.28	0.41
11. SE Stereotypes/Assumptions	3.71	0.00	2.23	1.92
12. SE Technology/Amenities	2.23	0.00	4.19	1.85

Student Faculty Interaction Subcodes	Faculty %	Staff %	Student %	Total %
1. SFI Availability	1.30	0.00	3.63	1.37
2. SFI Community	0.93	0.00	0.00	0.34
3. SFI Connect	14.84	2.94	14.53	9.13
4. SFI Disposition	5.19	5.88	8.10	4.05
5. SFI Expectations	4.27	2.94	3.63	2.54
6. SFI Flexible Teaching	17.25	14.71	8.94	8.93
7. SFI Knowing Your Audience	7.42	14.71	1.12	3.37
8. SFI Mentor/Counseling	2.41	0.00	3.07	1.65
9. SFI Standards	7.05	0.00	3.35	3.43
10. SFI Support	2.97	0.00	0.56	1.24
11. SFI Transparency	3.71	14.71	7.82	3.64