

Removing Barriers to Completion through Academic Planning: A Literature Review

December 2013

Compiled by Isothermal Community College Quality Enhancement Development Team

QEP Development Team:

Alice McCluney, co-chair

Dr. Johnny Smith, co-chair

Adam Petit

Patricia Robinson

Ngina Smith

Jamey Spratt

Pat Wall

Debbie Wiltshire

I. Introduction

Community college completion is a national issue with some estimates of 70% or more college students leaving without completing a degree, diploma, or certificate (Goldrick-Rab, Bronton, & Gates, 2013). Completion rates at Isothermal Community College are currently 39.3% which is below the North Carolina Community College System standard goal of 45.6% based on 2013 performance measures for student success (NCCCS, 2013). Completion rates have increased, however, from 35% to 39.3% over the past three years. Although ICC's current rate is 11 percentage points above the baseline measurement set by the NCCCS, the rate remains 6 percentage points below the goal. Through a professional development activity conducted by the Office of Assessment, Planning, and Research designed to gain insights from faculty and staff regarding students' greatest learning need, three key themes were identified:

1. To remove barriers to success, our students need engagement and motivation to think critically and learn.
2. To be job or transfer ready, our students need educational planning focused on completion.
3. To succeed when entering college, our students need improved computer and technology skills (Unpublished raw data, 2013).

Using this information, the Southern Association of Colleges and Schools (SACS) Steering Committee determined that the focus of the Quality Enhancement Plan for ICC's 2016 Reaccreditation will focus on removing barriers to completion through academic planning. This paper seeks to provide a scholarly review of current literature to identify specific barriers that prevent completion, identify potential models to address the topic of the QEP, identify potential target groups to focus potential models, and to make recommendations for implementing enhancements to affect positive change in completion rates and student success.

II. Barriers to Completion

Many studies have been conducted to identify barriers to student success at community colleges. According to Rath, Rock, and Laferriere (2013), the primary categories of barriers are inadequate academic preparation, remedial education, student financial aid, lack of non-academic skills, and competing obligations.

A. Inadequate academic preparation

According to Venezia and Kirst (2005), 70% of high school graduates attend some form of post-secondary institution within two years of graduating from high school. Unfortunately, their study found that only about a quarter of students are in a college preparatory curriculum while in high school, leading to significant gaps in academic preparation for college courses. Parker (2012) also notes that secondary school leaders and college leaders rarely meet to discuss ways to align curriculums. Additionally, many community college students are adults coming to school for the first time in many years due to economic factors. Delaying enrollment from the time of high school graduation has been

shown to have a negative correlation for student persistence indicating that gaps in enrollment further magnify issues of academic preparation (McKinney & Novak, 2012).

B. Remedial Education

According to the Community College Survey of Student Engagement, 56% of respondents stated that their placement test results indicated they needed remedial education in at least one area. (CCCSE, 2012). CCCSE further found through their research that the longer it takes a student to progress through remedial education, the more likely he or she will drop out. Other studies have found that students in remedial education are less likely to complete or transfer by the end of their fifth year. Twenty-nine percent were found to complete or transfer if they were not referred to any developmental courses. Twenty-three percent would complete or transfer if they were only referred to one developmental subject, nineteen percent if they were referred to two subjects, and only fifteen percent would complete or transfer if they were referred to three developmental subjects (Clery, 2012). See Table 1.

Table 1:

Number of developmental courses referred to:	Percent of student that complete or transfer within 5 years:
0	29%
1	23%
2	19%
3 or more	15%

To further compound the issue of remedial education, placement exams do not accurately pinpoint a student's areas of needed improvements. This leads to students being placed into unnecessary courses that lengthen his or her time in remedial education (Parker, 2012).

C. Student Financial Aid

Financial difficulty is one of the most frequent reasons given by early leavers for why they withdraw from ICC (unpublished raw data, 2013; CCCSE, 2012). On a national level, about 42% of grant eligible students did not file a FAFSA (McKinney & Novak, 2012). McKinney & Novak also found that students who applied for financial aid were 79% more likely to persist compared to students who did not file a FAFSA. Because many community college students are also first generation college students and tend to have lower incomes, they often are unaware of what aid is available to them to help them pay for school (McKinney & Novak, 2012; Rath et al., 2013). Additionally, that lack of knowledge often leads to students not understanding the federal regulations that could negatively impact their financial aid in the future. Recently, new federal regulations have reduced the amount of time a student could receive Pell Grant money from 18 semesters to 12 semesters (Rath et al., 2013). This reduction in available aid compounded with students struggling to complete developmental education sequences creates further difficulty in completing a program of study.

D. Lack of non-academic skills

Community colleges typically have high numbers of first generation college students, low-income students, and academically disadvantaged students. All of these factors lead to many community college students lacking non-academic skills or “college knowledge” about how the institution works, what’s expected of them, and how to begin to navigate the process (Rath et al., 2013; Karp, 2011; Cho & Karp, 2013; McKinney & Novak, 2012; Venezia & Kirst, 2005; CCCSE, 2012). Often, students who attend community college decide late that they will enroll and have little information about how to navigate the experience. They are often unprepared for the expectations and how to go about studying for classes and how to manage their time (Gandara, Alvarado, Driscoll, & Orfield, 2012). Orientation programs and student success courses can help students begin to navigate the college experience and build college knowledge. Yet, CCCSE found that while 97% of colleges offer some form of orientation, only about 60% of students participate (CCCSE, 2013). Rath et al. (2013) found that only 38% of colleges had instituted mandatory orientation. Another critical component to building non-academic skills lies in the area of advising and academic planning. Many community college students don’t know how to sequence their classes to move through a program and need support of advisors to build those skills and keep them on course. Studies have found that students don’t take adequate advantage of these resources. CCCSE (2013) found that faculty members referred students to advising and planning services 85% of the time yet students were only using advising and planning services 54% of the time. Associate of Arts and Science students need even more support to clarify career goals and thus academic goals (Tinto, 2012).

E. Competing obligations

Community college students are not just students as is often the case in a traditional university setting. Community college students have many other obligations. Fifty-nine percent of them are attending college part time, 19% of full time students and 42% of part time students are working 30 or more hours a week while going to school, 29% of full time and 37% of part time students are caring for dependents, and 13% of full time and 40% of part time students are taking classes only on the weekends or evenings (CCCSE, 2012). Part time enrollment has a negative correlation for student persistence (McKinney & Novak, 2012). Rath et al. (2013) found that 6 out of 10 students who left college were paying for college themselves and were forced to leave due to financial obligations to support their family. Another challenge may be when students do not have the emotional support from their families which can compound the difficulties to stay engaged with the college through to completion. To combat these issues, students must be made aware of available supports to help them financially and emotionally as they struggle to complete their goals.

III. Identification of Potential Target Groups

The literature provides evidence that it is critical to address barriers that prevent students from completing their goals at the beginning of their college experience. Getting started on the right foot with strong supports to build “college knowledge”; engage with peers, mentors, and advisors; and develop clear academic and life plans will help our students be more successful. For these reasons we have

identified three potential target groups to focus our efforts in improving student success and completion.

1. First time enrollees in all program areas
2. Students placed into developmental courses
3. Associate of Arts and Science majors

All first time enrollees should be initially targeted for additional supports to build college knowledge from the beginning and start to develop strong connections and skills to navigate through the entire college environment. Students in developmental course work are of particular concern as they are often affected most by the academic preparation, remedial education, and financial barriers identified earlier. In most cases, these students are also facing barriers regarding non-academic skills and competing obligations. Students who complete their developmental courses early have overall higher achievement in college (CCSSE, 2012). Associate of Arts and Science students are at risk due to the nature of their programs. AA and AS seeking students are essentially the equivalent of an undecided major at the university. These students need additional career counseling and advising from the beginning to assure they have a clear long-term academic plan to achieve their ultimate career goal after transfer or to determine if they are truly in the right program of study (Tinto, 2012).

These target groups are by no means the only potential groups identified by the QEP team. Additional target groups identified were students on academic alert or financial aid probation, non-completing or early leaver students, and students identified by faculty through the early alert intervention forms. For the purposes of this study, the QEP Development team focused on models that addressed students at the beginning of their college experience in order to have the greatest impact on the largest number of students early in their college career. It is the team's belief that by addressing barriers at the beginning, the number of students in these other areas will be reduced.

IV. Summary of Potential Models

In CCCSE's 2013 second installment of "A Matter of Degrees", several high-impact practices designed to increase student engagement were highlighted. Those that would most impact students at the entry point of college are academic goal setting and planning including intrusive advising, orientation, fast-track developmental education, first year experience, and student success course enrollment (CCCSE, 2013).

- ACT's 2010 "What Works in Student Retention?" highlighted a four pronged approach including:
 1. Require first time students to attend orientation with online orientation programs available
 2. Require students to take a college success course
 3. Provide greater financial aid awareness
 4. Use proactive intrusive academic, personal, and career advising and counseling
- Valencia Community College implemented LifeMap in their efforts to increase success by "focusing on the front door of the college" (Shugart & Romano, 2006). Through LifeMap, Valencia established five primary goals:

1. Use a developmental advising model that promotes social and academic integration
2. Develop student planning and goal setting
3. Create normative expectation that students have life, career, and academic goals
4. Establish a digital system to establish and document these goals
5. Document the achievement of goals

Three years after implementing their LifeMap initiative, Valencia's graduation or transfer rate increased to 51% compared to 39% for the national average (Adam, 2012).

To achieve these goals they instituted several changes including:

1. Set application deadlines and enforced them
 2. Assessed, advised, and oriented students before class
 3. Students needing additional support attended the "Bridges to Success" program
 4. Flex start classes were created
 5. Student coaches were paid a stipend to repeat a course as a Supplemental Instructor to help students be successful in more difficult courses
- Century College in Minnesota created a similar program in 2006 named GPS LifePlan (Century College, GPS Plan, 2008). GPS LifePlan is a holistic program designed to help students plan for their futures and features five areas of development:
 1. Career
 2. Education
 3. Finance
 4. Leadership
 5. Personal

In each area, students are encouraged to take assessments, set goals, and create plans. The program contains three components:

1. The GPS Website
 2. eFolio (student owned virtual portfolio)
 3. campus workshops and events
- El Paso Community College followed the design principles of Achieving the Dream to implement several initiatives aimed at boosting student success. These initiatives centered around two goals:
 1. To help prospective students improve their readiness for college to reduce or eliminate developmental courses.
 2. To reduce the time required to complete developmental coursework

To achieve these goals, EPCC began collaborating with area high schools to improve student knowledge of the placement test and test them while in high school. Students were then given interventions to refresh skills while still in high school and then retested. Students still needing

developmental courses were allowed to enroll in a summer bridge program (Kerrigan & Slater, 2010). College ready student test scores rose from 30% to 35%. Students placing in the lowest level of developmental decreased from 31% to 22% (2010).

- The Completion by Design initiative developed in part by Terry O'Banion and sponsored by the Bill and Melinda Gates Foundation has been adopted by many states including North Carolina's SuccessNC initiative (Nodine, Venezia, & Bracco, 2011; www.successnc.org). The initiative includes four key elements:
 1. Raising completion rates for large numbers of students
 2. Containing costs
 3. Maintaining open access
 4. Ensuring quality

To achieve these objectives, Completion by Design advocate for the development of completion pathways for students that integrate institutional policies, practices, and programs that are designed to maximize student progress at each step of the process. Essentially, there are four major steps through a completion pathway for students:

1. Connection- interest to application
2. Entry- Enrollment to completion of gatekeeper courses
3. Progress- entry into course of study to 75% requirements completed
4. Completion- complete course of study

To aid colleges in the development of completion pathways, Completion by Design have established eight design principles:

1. Seamlessly connect all areas (academic, student supports) with K-12 schools, transfer partners, and employers
2. Provide coherent and clear sequences of courses
3. Define student competencies and learning outcomes to facilitate quality and accelerate learning
4. Improve student engagement through education planning, career planning, and interactive forms of alerts
5. Differentiate instruction to improve and deepen student learning
6. Make it a responsibility of the college to help students catch up academically using acceleration, modularization, and integration of developmental education alongside entry-level coursework
7. Integrate student services and instructional supports with college level programs of study
8. Leverage technology to broaden, improve, and reduce costs curricular options and student services

(Nodine et al., 2011)

- **Proactive Advising or Coaching Models:** Proactive advising, formally known as intrusive advising, builds structures for students that include intervention strategies for students who might not otherwise seek help (NACADA, 2013). The proactive advising and coaching models generally employ the use of professional, full-time advisors/coaches who are trained by department faculty for specific programs and who can fully interact with faculty advisors to enhance advising for students.
 1. **Completion Agenda:** A Call to Action advocates that completion must be imbedded into the fabric of the institution by focusing on rigor, relevance, and relationships. Student engagement can be improved through communication such as telephone calls, emails to students, and utilization of student groups to foster engagement through peer support (McPhail, 2011).
 2. Zane State College introduced proactive advising to boost retention for underprepared, at-risk students. Students who were connected and successfully completed the first year had a 90% chance of graduating within three years. The completion rate for developmental English courses rose from 44% to 67% and the rate for developmental math completion rose from 14% to 35% since implementing the advising model (CCCSE, 2013).
 3. The University of South Carolina implemented a proactive advising model centered around coaching students toward academic success and engagement on campus. In the two-pronged framework, coaches helped students develop academic plans focusing on self-assessment, reflection and goal setting and engagement plans focusing on assessment of current involvement on campus, mind-mapping techniques, and learning outcomes to help them identify opportunities and resources on get connected on campus. Assessment of the model indicated that 92% of students referred to the coaching center improved their GPA and demonstrated academic improvement. In addition, 40% fewer students were suspended than predicted (Robinson & Gahagan, 2010).

V. Recommendations for Action

By focusing on student entry and identifying various loss points that prevent students from successfully connecting with their college environment, Isothermal Community College has the opportunity to positively impact the greatest number of students as previously demonstrated through the potential models. Therefore, it is the QEP team's recommendation to focus on five improvement efforts similar to Valencia Community College. Research demonstrated that Valencia's approach was to encourage students to become engaged early with professional advisors/coaches, helping them develop both academic and life plans; ultimately, enabling them to maintain a steady course toward completing their identified goals. As a point of clarification, it is not the recommendation of the QEP Development Team to replace the current advising model, but simply to enhance it with additional, proven student support practices much earlier in their academic career

Therefore, the QEP development team recommends that Isothermal Community College consider the implementation of the following student success interventions. :

1. Implement mandatory orientation for all new students.
 - a. Online orientation must also be made available.
 - b. Orientation should focus on the core things students need to know in the first two-three weeks of school.
 - i. Technology access
 1. Moodle
 2. Patriot Port
 3. Email
 - ii. Financial aid knowledge to maintain financial aid eligibility
 - iii. Student Support Services
 1. Supplemental instruction
 2. Career and personal counseling
 3. Tutoring
 4. Childcare assistance
 - iv. Communicating effectively with instructors
2. Adopt a proactive coaching model for all first-time students using professional advisor/coaches in the advising center similar to USC's Academic Centers of Excellence (ACE) Office. Proactive coaching should focus on establishing goals and educational plans in a similar manner to Century College's GPS LifePlan. One of the first objectives of the coaching session should be to establish students' goals and assure that they are in the correct program of study to achieve those goals. Students should come out of their first semester coaching experience with the knowledge to navigate Patriot Port and a customized educational plan based on their developmental needs and their long-term goals. Registering for classes is not the primary goal of the proactive coaching session. With online registration being implemented in April 2014, registration may not even be a product of the coaching experience. Professional coaches should have student development backgrounds, and academic coaching should be their priority. They should be housed in a central location with other student services to reduce the likelihood of first-time students becoming lost in the process of navigating the campus early on. They should be trained to advise across program areas with the expertise of the faculty (King, 2002). The proactive coaching model may vary from department to department based on the specific needs of different departments. For instance, business sciences students may be referred out to a faculty advisor for more detailed advising for specific classes and course sequences after the professional coach has met with the students to discuss academic plans, developmental needs, and life goals.
 - a. Investigate various digital academic planning tools to use in developing interactive plans that students can manipulate and change to track their progress and take ownership of their program.
 - b. One program investigated by the QEP Development team is **Ellucian's Student Planner** application. This program has been purchased by the NCCCS Office for distribution to all 58 community colleges. This program will work in conjunction with Patriot Port and

- Datatel for students to be able to create plans, register for classes, and talk with their advisor in an electronic format.
- c. The Ellucian product also allows for administrators to view anticipated need for courses based on student plans. This can be a great benefit for planning purposes and scheduling course offerings to best benefit students.
3. It is the recommendation of the QEP Development team that professional coaches will connect students to their program advisor for future advising sessions specifically for business science and applied sciences programs. The team recommends that Arts and Science students remain in the Advising Center with access to both professional advisors and faculty advisors working in the Advising Center so that they can continue to benefit from additional proactive advising and coaching to monitor long-term goals. Proactive coaching with professional advisors/coaches in the Advising Center may need to be extended longer for students in developmental courses so that they stay connected with more intensive support and for students at risk for being on academic alert. This can be as done as a supplement to the faculty advisor.
 - a. Through pilot testing self-registration with a group of pre-health students, it became apparent that students in developmental courses need assistance with registration. It is hard for developmental students to navigate the intricacies of registering for the new developmental math and English modules. It would be highly beneficial for these at-risk students to stay connected with a professional advisor/coach for registration through their developmental course sequences.
 - b. ACT Engage offers an assessment to measure students' behaviors and psychosocial attributes and can identify students early on that may be at risk for dropping out or earning less than a 2.0 GPA. This assessment could possibly be administered either in the first coaching session or within the ACA course and could identify students that should stay connected with professional advisors/coaches in the Advising Center for a longer period of time in conjunction with faculty advisors.
 4. Require mandatory registration into ACA 115 or 122 within the first 15 credit hours. By requiring first time students to be coached and possibly registered with a professional advisor/coach, registration into ACA early could be aided. Research shows that students that take a student success course early are more successful than students that take it later or never take the course (Cho & Karp, 2013). Student success courses allow students a longer opportunity than orientation alone or a single proactive coaching session to build relationships with instructors and students and make connections to resources on campus to help them navigate college.
 - a. Explore the possibility of creating program specific sections of ACA for learning communities. Business Science and the Basic Law Enforcement Training program have piloted this successfully. ACA 122 for Associate of Arts and Science students will already provide the framework for a learning community for this group of students. Other program areas that may benefit from a cohort section of ACA 115 may be pre-health science students, early childhood students, and industrial technology students. It would still be beneficial for students to have the option of general ACA 115 sections if they are undecided about their program at the beginning.

- b. In order to fulfill this recommendation, there will need to be a better assortment of sections available. In the fall 2013 semester, there were only 13 sections of ACA 115 offered. Three sections were offered at 11 am on Tuesdays and Thursdays. Only one section was offered on Monday and Wednesday during the day at 11am. There were two evening sections. Most of the sections were isolated on Tuesdays and Thursdays greatly limiting the ability of students to take the course in the first semester. Careful exploration of scheduling practices should be considered in order for students to be able to schedule ACA in their schedule within the first 15 credit hours.

The previous recommendations will no doubt necessitate the need to identify potential funding sources to fully implement an effective coaching program. For this reason, the team has identified a fifth recommendation for the QEP Implementation team to consider:

5. Seek grant funding such as federal TRIO grants to promote and enhance intervention programs. TRIO grants are awarded to institutions of higher education, like Isothermal, to provide Student Support Services (SSS) opportunities for academic development, assist students with basic college requirements, and to motivate students toward the successful completion of their postsecondary education (Office of Postsecondary Education (OPE), Website, 2013). Furthermore, according to the Office of Postsecondary Education (Website, 2013):

“The goal of SSS is to increase the college retention and graduation rates of its participants. academic tutoring, which may include instruction in reading, writing, study skills, mathematics, science, and other subjects; advice and assistance in postsecondary course selection, assist student with information on both the full range of student financial aid programs, benefits and resources for locating public and private scholarships; and assistance in completing financial aid applications. Education or counseling services designed to improve the financial and economic literacy and assist students in applying for admission to graduate and professional programs; and assist students enrolled in two-year institutions and applying for admission to, and obtaining financial assistance for enrollment in four-year programs. The SSS projects **may also** provide individualized counseling for personal, career, and academic information, activities, and instruction designed to acquaint students with career options; exposure to cultural events and academic programs not usually available; mentoring programs, securing temporary housing during breaks for students who are homeless youths and students who are in foster care or are aging out of the foster care system.”

Perhaps, if grant funding were sought and gained to support such initiatives as student advising, supplemental education, mentoring programs, and other programs that impact student engagement, it may lessen the challenge that many colleges face with their already dwindling budgets. Colleges that have been able to attain such funding have increased their student connectivity and engagement; thus, improving their student progression and completion rates.

VI. Conclusion

This research study conducted by the QEP Development Team sought to identify and understand barriers to student success and academic planning on the campus of Isothermal Community College. Framed by the key dimensions of Valencia Community College's life mapping model, several key interventions emerged: implementation of mandatory traditional and online orientation programs, adoption of a proactive coaching model, utilization of identified faculty/professionals to work as advisors/coaches within the Advising Center location, requirement of mandatory registration into ACA 115 or 122 within the first 15 credit hours, inclusion of TRIO grant funding sources that may support identified intervention initiatives.

The QEP Development Team recommends a proactive coaching intervention model as a means of addressing the three needs which faculty and staff identified during professional development; remove barriers, be job or transfer ready, and success when entering college with the use of technology. Mandatory orientation removes barriers and promotes student success by college knowledge. Proactive coaching addresses job or transfer readiness by establishing student goals and making sure that students are in the correct major to fulfill these goals. Once long-term goals are established, program advisors in Business Sciences and Applied Sciences will be enlisted to ensure that the student succeeds in the shortest amount of time and is "job ready". Students deemed to be "High Risk" would also maintain a relationship with the professional coach to encourage student success and to assist in removing barriers to success thus promoting engagement and motivation. Mandatory ACA addresses all of the faculty and staff concerns. It removes barriers through promotion of college knowledge. It promotes student success by building relationships with other students and with instructors and it promotes job and transfer readiness through several of the lessons that concentrate on these areas. The emerging themes provided valuable insights and direction toward several interventions that may positively impact early intervention and student success practices at Isothermal.

References

About GPS LifePlan and Contact Us. (2008). Retrieved from
www.gpslifepla.org/century/utility/index.php

Act engage. (n.d.). Retrieved from http://www.act.org/engage/college_features.html

Adam, M. (2012). It's all about "student experience". *The Hispanic Outlook in Higher Education*, 22, 20-21.

Center for Community College Student Engagement. (2012). *A matter of degrees: Promising practices for community college student success (A first look)*. Austin, TX: The University of Texas at Austin, Community College Leadership Program. Retrieved from
www.ccsse.org/docs/Matter_of_Degrees.pdf

- Center for Community College Student Engagement. (2013). *A matter of degrees: Engaging practices, engaging students (High impact practices for community college student engagement)*. Austin, TX: The University of Texas at Austin, Community College Leadership Program. Retrieved from www.ccsse.org/docs/Matter_of_Degrees_2.pdf
- Cho, S. W., & Karp, M. M. (2013). Student success courses in community college: Early enrollment and educational outcomes. *Community College Review*, 41(1), 86-103.
doi:10.1177/0091552112472227
- Clery, S. (2012, January/February). Finding opportunities to nudge student groups over the finish line: Examining students' five-year progress. *Data Notes: Keeping Informed about Achieving the Dream Data*, 7(1)
- Completion by design*. (n.d.). Retrieved from www.successnc.org/initiatives/completion-design
- Ellucian. (Producer) (2013, August 22). Help your students complete on time with Colleague student planning. [Video webinar]. Retrieved from <https://ellucian.webex.com/ellucian/lsr.php?AT=pb&SP=EC&rID=55445132&rKey=6582af7bc5ef4dc>
- Gandara, P., Alvarado, E., Driscoll, A., & Orfield, G. The University of California, The Civil Rights Project. (2012). *Building pathways to transfer: Community colleges that break the chain of failure for students of color*
- Goldrick-Rab, S., Broton, K., & Gates, C. (2013). *Clearing the path to a brighter future: Addressing barriers to community college access and success*. Prepared for the Association of Community College Trustees and Single Stop USA
- Habley, W., Valiga, M., McClanahan, R., & Burkum, K. (2010). *What works in student retention: Fourth national survey*. ACT.
- Karp, M.M. Community College Research Center, Teachers college, Columbia University. (2011). *Toward a new understanding of non-academic student support: Four mechanisms encouraging positive student outcomes in the community college* (CCRC Working Paper No. 28). Retrieved from ccrc.tc.columbia.edu/publications/non-academic-student-support-mechanisms.html
- Kerrigan, M.R. & Slater, D. Community College Research Center, Teachers College, Columbia University. (2010). *Collaborating to create change: How El Paso Community College improved the readiness of its incoming students through Achieving the Dream* (Culture of Evidence Series No. 4)
- King, M.C. (2002). Community college advising. Retrieved from *NACADA Clearinghouse of Academic Advising Resources* Web site
<http://www.nacada.ksu.edu/tabid/3318/articleType/ArticleView/articleId/131/article.aspx>

- McKinney, L., & Novak, N. (2012). The relationship between FAFSA filing and persistence among first year community college students. *Community College Review*, 41(1), 63-85.
doi:10.17700955212469251
- McPhail, C. J. American Association of Community Colleges, (2011). *The completion agenda: A call to action*. Washington, DC: American Association of Community Colleges.
- Nodine, T., Venezia, A., and Bracco, K. (2011). *Changing course: A guide to increasing student completion in community colleges*. San Francisco, CA: WestEnd.
- Nutt, Charlie L. (2003). Academic advising and student retention and persistence. Retrieved from the NACADA Clearinghouse of Academic Advising Resources Web site <http://www.nacada.ksu.edu/tabid/3318/articleType/ArticleView/articleId/636/article.aspx>
- Proactive (intrusive) advising resource links*. (2013). Retrieved from [www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/proactive-\(intrusive\)-advising-resources-links](http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/proactive-(intrusive)-advising-resources-links)
- Office of Assessment, Planning, and Research (2013). Isothermal Community College. Personal Communication
- Office of Assessment, Planning, and Research (2013). Isothermal Community College Early Leaver Survey Results. Unpublished raw data
- Parker, S. (2012, October 08). *From roadblock to gateway: Improving developmental education for student success*. Retrieved from files.eric.ed.gov/fulltext/ED537486.pdf
- Rath, B., Rock, K., & Laferriere, A. (2013, April). *Pathways through college: Strategies for improving community college student success*. Retrieved from www.opp.org/docs/PathwaysCollegeStrategies_StudentSuccess.pdf
- Robinson, C., & Gahagan, J. (2010). Coaching student to academic success and engagement on campus. *About Campus*, (Sep-Oct), 26-29. doi: 10.1002/abc.20032
- Shugart, S. C., & Ramano, J. C. (2008). Focus on the front door of the college. *New Directions for Community Colleges*, 2008(144), 29-39. doi: 10.1002/cc.343
- Student support services program*. (2013, November 06). Retrieved from <http://www2.ed.gov/programs/triostudsupp/index.html>
- System, N. C. (2013, July). *2013 Performance Measures for Student Success*. Retrieved from North Carolina Community College System: <http://ncccommunitycolleges.edu/Publications/docs/Publications/2013%20Performance%20Measures%20Report.pdf>

- Tinto, V. (2012). Isaac Newton and college completion. *Inside Higher Ed*, Retrieved from www.insidehighered.com/views/2012/06/08/gaining-and-maintaining-momentum-key-student-completion-essay
- Venezia, A., & Kirst, M. A. (2005). Inequitable opportunities: How current educational systems and policies undermine the chances for student persistence and success in college. *Educational Policy*, 19: 283. doi:10.1177/0895904804274054