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A Framework for Advising Reform

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Abstract

Under the Integrated Planning and Advising for Student Success (iPASS) initiative, 45 two- and four-year colleges have undertaken reforms that aim to provide students with seamless, holistic advising experiences that lead to improved academic outcomes. Colleges participating in iPASS have adopted a data-oriented approach to select and integrate new technologies into their advising practices to facilitate better interactions between students, faculty, advisors, and other student services staff. Based on research on iPASS and other advising redesign efforts, the Community College Research Center (CCRC) developed an evidence-based framework for advising redesign called SSIPP, which emphasizes a *sustained, strategic, integrated, proactive,* and *personalized* approach to advising. This paper describes the key principles of the SSIPP framework and illustrates how these principles have been adopted in reforms. The information and recommendations shared here are derived primarily from qualitative research conducted when iPASS reforms were being developed. The focus is on examples of practice and lessons learned.

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1. Introduction

College advising and related student supports are intended to help students navigate their way to credential completion and beyond, yet resources for deploying these services, especially at community colleges, have typically been constrained. In addition, traditional advising systems do not seem to adequately address the needs of many of today's students, a fact brought into relief when considering that graduation rates continue to be low—only 39 percent of students who entered two-year public colleges in the fall of 2012 completed a degree or certificate within six years (Shapiro et al., 2018).

While advising reform is often embedded in institution-wide efforts to improve student success,[1] perhaps the most comprehensive approach for reforming advising services at broad-access colleges has been developed through the Integrated Planning and Advising for Student Success (iPASS) initiative, supported by the Bill & Melinda Gates Foundation. In 2012 and 2015, the foundation awarded grants to a combined total of 45 colleges to support the launch and use of advising technologies and to strengthen advising practice. Beginning in 2015, the initiative also engaged technical assistance partners, including Achieving the Dream[2] and Educause.[3]

iPASS was developed to transform how colleges and universities approach student advising. The goal of iPASS is to provide students with a more seamless, holistic advising experience that leads to improved student outcomes. Under iPASS, institutions select new technologies and learn how to use them, collect new data, help faculty and advisors integrate the data and technologies into their practice, and ultimately change the way they interact with students. To accomplish this, each college participating in the first round of the initiative received a grant totaling approximately $100,000 over two years, and each college participating in the second round received a grant of up to $225,000 over three years. Additionally, each college participating in the second round of the

[1] Many colleges undertake these efforts using the "guided pathways" institutional reform approach, which focuses on establishing clear program pathways for students and helping them develop and follow plans that take them through programs of study to graduation and careers.
[2] Achieving the Dream is a nongovernmental organization that provides coaching and other resources to over 220 colleges in 41 states (www.achieving thedream.org).
[3] EDUCAUSE is a nonprofit organization that supports implementation of information technologies at member institutions (www.educause.edu).

initiative received assistance in change management, in rethinking their advising and other student support strategies, and in selecting and deploying appropriate technologies.

The Community College Research Center (CCRC) has been examining the implementation and outcomes of a number of recent advising redesign efforts, including iPASS (see Klempin & Karp, 2018; Karp, Kalamkarian, Klempin, & Fletcher, 2016; Kalamkarian & Karp, 2015; Jaggars & Karp, 2016; Fletcher, Grant, Ramos, & Karp, 2016; Kalamkarian, Boynton, & Lopez, 2018). As a research partner in the iPASS initiative, CCRC conducted qualitative implementation studies at six iPASS institutions from the 2012 cohort of grantees (Karp et al., 2016). Following a second round of funding in 2015, CCRC undertook qualitative implementation studies at an additional 12 iPASS grantee institutions, as well as descriptive analyses of key performance (student outcome) indicators at all 26 of the 2015 cohort colleges. In partnership with MDRC, CCRC is also currently engaged in an experimental evaluation of an enhanced approach to iPASS at three of these institutions.

Based on some of this research as well as a review of the literature, CCRC developed an evidence-based framework for advising redesign (Karp et al., 2016). This paper presents the key tenets of this framework and shows how it may be of use to colleges considering a redesign of their advising practice. The paper begins by defining the key principles of an ideal advising experience for students based on theoretical and empirical literature. The remainder of the paper describes how these principles, incorporated in the framework, may be implemented. The information and recommendations shared here are derived primarily from qualitative research conducted during the years when iPASS reforms were being developed. The focus is on lessons learned and examples of practice in the participating colleges.

2. Envisioning an Ideal Advising Experience

Advising reforms are efforts to implement high-quality, effective practices that support students as they work toward completion of a credential. As part of the iPASS approach described above, the SSIPP framework was developed to articulate a set of principles that have the potential to create an ideal advising experience (Kalamkarian et al., 2018). SSIPP refers to a *sustained, strategic, integrated, proactive,* and *personalized* approach to advising. This conceptualization assumes that advising should not be a one-time or a purely transactional experience; rather, advisor engagement throughout the complete student experience at the institution is encouraged, along with interactions with other student support staff. While the iPASS model emphasizes the use of technology to increase the efficiency and effectiveness of advising practices, the SSIPP framework can be implemented, at least to some extent, without extensive use of new technologies.

The SSIPP framework is largely derived from a review of the literature on institutional services and interventions, including academic advising, that aim to help students navigate college and take into account academic and nonacademic aspects of the student experience. The literature examined comprised 128 reports, articles, and books, including both empirical studies and seminal theoretical contributions (Karp & Stacey, 2013; Karp, 2011).

Principles of the SSIPP Advising Framework
Sustained support is offered to students throughout their tenure at the college. **Strategic** deployment of advising resources is achieved by creating systems that differentiate support for students depending on their needs and interests. **Integration** of advising with other student supports as well as other aspects of the college experience is likely to serve students more effectively. **Proactive** advising is needed to make sure that all students are reached; students who most need support may not come and ask for it. **Personalized** advising is achieved when advising is offered by someone who knows a student well and is attuned to their needs and interests. (Karp & Stacey, 2013; Kalamkarian et al., 2018).

3. Facilitating Organizational Change

In practice, advising systems at open- and broad-access colleges[4] face resource limitations that make it challenging to achieve the principles outlined in the SSIPP framework. At these institutions, caseloads for advisors can exceed 700 advisees. Advisors may not have sufficient time in a semester to meet with all of the students in their caseload (Jaggars & Fletcher, 2014; Karp, 2013). Moreover, advising systems often function independently from other student service departments and offices, including career counseling. These conditions make it challenging to offer students the coherent support experience proposed under the SSIPP framework (Karp, 2013).

However, by using strategies developed by colleges associated with the iPASS initiative, some colleges have been able to move closer to the ideal. Importantly, this requires much more than adopting new technologies. Adriana Kezar's seminal work on organizational change offers a theoretical foundation for understanding the nature of the change necessary to achieve a substantially improved advising experience. Kezar (2013) defines *structures*, *processes*, and *attitudes* as three areas of focus that are required to enact substantive change. *Structures* include organizational policies, systems, and staff hierarchies. *Processes* are defined as the ways that an organization enacts plans and policies. *Attitudes* are the assumptions or perspectives of key individuals that are upheld by the organization.

CCRC research findings lend support to the importance of Kezar's three dimensions of change in the context of advising redesign. To achieve a system of advising that is consistent with most or all of the tenets of the SSIPP framework, institutions need to attend to (1) structures that facilitate implementation of each of the five SSIPP principles at scale, (2) processes for enacting the high-quality support envisioned by the framework, and (3) attitudes that view advising as primarily focused on guiding students toward the fulfillment of their education and career goals (Karp et al., 2016).

[4] *Broad-access colleges* are defined as two- or four-year institutions that accept a majority of applicants.

4. Implementing the Five Principles of the SSIPP Framework

While there are numerous ways that institutions may choose to enact the SSIPP framework, in what follows practices are highlighted undertaken by colleges exemplifying each of the five principles of SSIPP as a way for readers to gain insights into how it can be implemented. In doing so, references are made to Kezar's three dimensions of change; pitfalls are also considered that can occur while undertaking this important but challenging work.

4.1 Sustained Support: Regular Touch Points

Colleges typically offer a range of advising supports for incoming students, such as new student orientations, individual career planning and advising sessions, and freshman seminars (Karp, 2013). Yet evaluations of these one-time supports generally find that, while they may be useful in the short term, they do not lead to improved long-term student success (Karp & Stacey, 2013; O'Gara, Karp, & Hughes, 2009). Orienting students to college and providing them with information and guidance about potential academic pathways at the start of their student experience is simply not enough to ensure that students will stay on track to completion. Alternatively, a design for sustained advising aims to engage students in supportive activities throughout their tenure at the college.

One example of sustained support involves establishing a range of communication platforms (email, phone, in-person, or virtual meeting) and hiring an increased number of institutional staff (advisors, counselors, peer mentors, and other supplementary staff) to regularly communicate with enrolled students. Regular touch points such as these, if meaningful to the student, can help guide students at various junctures in their college pathway and, when needed, create the opportunity for more intensive intervention.

Structural dimension. Sustained engagement with students requires institutions to establish a clear plan and timeline for touch points that can include both cohort-wide and more targeted and even personalized messages. For example, as part of their advising redesign, North Central Community College[5] outlined a set of informational communications for different kinds of students. Informational messages to the full student population are sent out biweekly and provide details on institutional resources,

[5] Pseudonyms are used for the names of the colleges throughout this chapter.

including childcare and transportation options. A subset of students identified as more likely to struggle are sent additional messages providing guidance and encouragement. The college also offers extra communications early in the semester for students with self-reported challenges or those who appear to be experiencing distress based on academic performance or other data.

This kind of regular engagement with students requires both personnel resources and structural changes. Given their resource constraints, institutions are thinking creatively about how to bolster the capacity of the advising staff. Technology tools can enable advisors to carry out a wider range of communications in a limited amount of time. At both Western State and Southern University, advisors use communication technologies that allow them to create email messaging campaigns that include an embedded link that recipients can use to schedule advising appointments. These tools also make it easier for advisors to target communications to subsets of their advisees and to quickly follow up with those who do not act to schedule an appointment.

Well-crafted and efficient communication with students is facilitated by the creation of templates for phone or email messages. Advisors and other support staff at colleges involved with iPASS report that, while they want to be able to customize messages, some standardized language serves as a useful and potentially time-saving starting point. Moreover, templates can encourage a type of engagement that an advisor or support provider had not previously used or considered. And messaging can be customized. For example, at Southern University, advisors felt strongly that communications that carried their names needed to sound like them; consequently, as the institution implemented its communication plan for continuing students, advisors maintained the ability to customize these messages as they saw fit.

Process dimension. Even with structures that facilitate regular engagement with students, implementation of an outreach plan is dependent on advisors' and other support staff's time and capacity. Changes to advising practice may require advisors and other support staff to make changes in their norms and processes. For example, at institutions with technology tools that make it easier to reach out to students, advisors and support staff need to shift from using manual or traditional email platforms in day-to-day activities to the newer technology platform, a process that can require training and perseverance.

Attitudinal dimension. Enacting an advising model that involves sustained student engagement may require a shift in institutional culture and perceptions. Advisors, other support providers, and administrators interviewed at iPASS colleges expressed a range of views on the purpose of advising and student supports. A number of them felt that advising and student supports were intended almost exclusively to intervene if and when students exhibit academic or nonacademic risk. At these institutions, implementing a sustained advising experience for students required getting advisors, support providers, and administrators to reflect on ways that students' circumstances may change over time, making it necessary to maintain some engagement with students to monitor and respond to their needs.

Potential pitfalls. There is a fine line between sustained communication and inundating students with endless messages and requirements for too much face time. Colleges should use caution in reaching out to students to avoid getting tuned out entirely. Additionally, not all students need the same level of support. While it is recommended that colleges have a plan for communications and advising sessions, it may also be prudent to give advisors flexibility in how they implement the plan and encourage them to use their best judgment on how to support students, particularly as they get to know them over time.

4.2 Strategic Support: Advising Redesign in a Guided Pathways Context

Guided pathways is a good example of how colleges are taking a strategic approach to improving student support and advising as a key part of institution-wide reforms. About 250 community colleges across the country have undertaken the work of guided pathways as part of a national reform movement that is framed as enabling colleges to "fundamentally redesign their programs and support services in ways that create clearer, more educationally coherent pathways to credentials" (Jenkins, Lahr, Fink, & Ganga, 2018, p. 1). This multifaceted reform approach is growing in popularity as community colleges seek to help students reach their educational goals in a timely manner with little to no excess credits.

Though the work of guided pathways is complex and iterative, taking at least several years to fully implement, the principles are simple: (1) Provide students with coherently conceived programs of study; (2) help students choose a program and develop

an individualized academic plan; (3) keep students on the path; and (4) ensure that students are learning (Bailey, Jaggars, & Jenkins, 2015). Academic advising is a critical component of guided pathways implementation, with many colleges facilitating collaboration between academic and student services departments to refine programs and develop strong student supports. Key activities include creating maps that chart out well-conceived course sequences through programs of study, investing in technology and additional student support personnel to improve capacity, and restructuring systems and procedures to support students from the time they consider applying to college to the time they graduate or transfer (Jenkins, Lahr, & Fink, 2017).

Structural dimension. One of the early steps that colleges take in implementing guided pathways is developing meta-majors, which are broad categories of disciplines that serve as organizing "buckets" for programs at the college.[6] While many colleges and states require students to declare a major or program of study on their application, some colleges allow students to enter a meta-major before formally deciding on a program or major. In either case, colleges can leverage meta-majors as a way to help students develop an academic and professional identity through onboarding, program exploration opportunities, and campus events.

Many guided pathways colleges organize onboarding activities and/or first-year experience courses by meta-major, enabling students to learn about a limited number of related programs (versus the consideration of hundreds of programs) and offering students an early opportunity to develop a support network of peers, faculty, and advisors, all of whom are affiliated with a specific meta-major. Within this structure, advisors and faculty are collaborators in supporting students, ideally establishing systems that allow them to communicate regularly about student goals and progress within each student's broad area of interest. Advisors and faculty may meet regularly to ensure consistency in their interactions with students and/or stay in touch through the use of technology platforms. The use of meta-majors can increase the opportunities for students to receive coherent guidance and support from knowledgeable, trusted individuals and, in turn, develop confidence and agency in navigating their educational journey.

[6] For example, the meta-major of Business and Public Services Technology may include programs in accounting, culinary arts, and criminal justice.

Process dimension. In addition to onboarding and early support, advisors in a guided pathways context closely monitor students' progress and intervene when students need help. To facilitate this, many guided pathways colleges (as well as others) use technology to alert advisors when students are veering off their educational pathway, such as when they attempt to take courses outside of their plan. When an advisor is alerted that a student is deviating from her pathway, the advisor can reach out to that student and offer help. Some advisors use an advising syllabus that outlines advising learning outcomes or provides a set of guiding questions to foster critical thinking during advising sessions. This may help students overcome hurdles to progress along their chosen pathway or even change their education and career direction.

Attitudinal dimension. Strategic advising in a guided pathways context may require changes in norms and perspectives among advisors, faculty, and other college personnel about who is responsible for student support at what moments. While the roles of faculty and professional advisors[7] differ by college, a common understanding of how to best guide students along a pathway is needed. Structured collaboration between advisors and faculty enables both groups to build knowledge of each other's roles, develop a common language for student support, and establish norms around working as a team.

Potential pitfalls. Though considered a critical step in guided pathways development, advising redesign in this context is challenging. Some colleges may assume that only faculty or only advisors should be involved in advising redesign, a situation that can create confusion and, in some instances, foster resentment among groups at the college. Another common misstep is trying to rush a reform by applying a "quick fix" technology or hiring new employees without clarifying the strategic intention of those decisions. However, decisions that must later be amended can be costly, cause delays, and negatively impact buy-in across stakeholder groups.

[7] "Professional advisors," unlike "faculty advisors," are typically full-time, dedicated advisors who are not considered full-time faculty. Faculty advisors are full-time faculty members who also serve in a formal advising role. Many colleges use a "split" advising model where professional advisors work with students for a period of time before they are transitioned to a faculty advisor. There may also be variation across disciplines; programs may use only professional advisors, only faculty advisors, or a split model.

Undertaking Guided Pathways Advising Reform at Midwest Community College[8]

Before embarking on advising redesign as part of its guided pathways work, Midwest Community College (MCC) had four professional advisors for over 7,000 students. Students were not assigned to advisors, and appointments were available on a walk-in basis only. The wait times for students were long, and because there was no case assignment, students were often asked to repeat themselves and were sometimes receiving inconsistent information. Because of those challenges, many students registered and planned for courses on their own, only to find themselves in trouble later with excess, nontransferrable credits and needless student loan debt. Since beginning its guided pathways work, the college has hired 10 professional academic advisors and four financial aid advisors to support students. With the advisor-to-student ratio down considerably, MCC implemented structures and processes that enable advisors to be strategic in their roles and provide students (and even prospective students) with substantial support and information when needed.

Although MCC advisors were originally trained as generalists, they are now assigned to one of the six divisions (corresponding to MCC's meta-majors) at the college and operate as specialists. Additionally, MCC advisors have been trained as certified career counselors so they can provide early and ongoing career exploration and preparation opportunities. Because advising is structured by division, division faculty and advisors have developed strong working relationships, attending each other's meetings and contacting one another with student-related questions or concerns. In order to monitor students' progress, advisors meet with every student prior to registration every semester and are expected to interact with students several times over the course of a semester. If students want to change their educational plans, they are required to meet with an advisor to facilitate a smooth transition and ensure that excess credits are avoided or kept to a minimum.

In terms of onboarding, the college has implemented strategies to retain students from application to enrollment and provide them with tools and resources that help them to be successful early on. After a prospective student applies to the college, an advisor

[8] Midwest Community College was not an iPASS college.

reaches out to welcome him to MCC and confirm or help him explore a direction. The college has also changed from using a group orientation to an individual orientation, with students meeting with their academic advisor and financial aid advisor separately, one-on-one and face-to-face. While this structure keeps all advisors very busy in the early days of the semester, MCC faculty, staff, and administrators contend that students are far better equipped to "hit the ground running" than they have been in the past.

The first-year experience course at the college, while facilitated by a faculty member or advisor, is a collaborative effort between faculty and advisors. As part of the course, faculty and advisors from each division host an event where all faculty and advisors within that division set up exhibits, give presentations, and talk with students about the programs and career opportunities that are available. Students build their full educational plan (to graduation) with their advisor during the course.

The early and ongoing opportunities for faculty and advisors to work together to support students have been helpful to MCC. Prior to its guided pathways work, faculty and advisors operated more or less autonomously. Both groups recognized early on that increased collaboration would support their own work as well as offer more seamless and personalized support for students. They also saw improvements in earned credits during the first year and felt that students were responding positively to intensive and customized advising services.

4.3 Integrated Support: Collaborating Across the College

The SSIPP framework calls for advising that is integrated within and across both the academic and student support domains of the college. In many colleges, both faculty and professional advisors share advising responsibilities but may work in "silos," which limits communication and the potential for collaborative relationships. In these cases, close coordination of the work can make sure that the right support options are available to students at each point in their journey through college. In addition, coordination among student support providers of various types (e.g. advising, financial aid, career counseling) can result in better aligned services.

Structural dimension. Effectively achieving integration of support services depends to a considerable degree on the leadership structure of an institution. Colleges

that undertake advising reform typically have leaders that clearly and frequently articulate their vision and are adept at bringing together autonomous units within the institution to support student success in a cooperative and meaningful way. In addition, revisions to policies (for example, guidelines for working with students, the monitoring of student progress, and record-keeping procedures) are often required to recalibrate operations and better coordinate services.

As one might expect, colleges may rely heavily on technology for integrating student supports, as software systems are designed to enable stakeholders across the college to communicate with one another and with students effectively and efficiently. While adopting new technology is among the most difficult challenges for colleges undertaking advising redesign, it can be vitally important when there is a need to bring together information from disparate sources and share it with multiple stakeholders.

Process dimension. With the implementation of structural change to provide integrated student supports comes the need to put processes in place to operate within the new structure. Colleges need to consider the ways in which faculty, staff, and college leaders will interact with one another (meetings, emails, case notes) and topics for discussion (reviews of data, discussions of individual student progress) and how this affects responsibilities and work flow. Stakeholders also need training on how to use new technology and how to optimize its functionality to achieve good collaboration.

Attitudinal dimension. In colleges that have made considerable progress in the integration of advising and other student services, college leaders communicate effectively with stakeholders about the need for reform and provide a compelling vision for the future. At the same time, there are typically many opportunities for faculty and advisors to take ownership of specific changes that are required. With broad participation in structuring the reform, revised practices are more likely to fit well with other ongoing processes, and buy-in among stakeholders may be higher.

Potential pitfalls. Integrating advising, especially when employing new technology, takes considerable time; the work can lose momentum if leaders and key personnel scale back communications or fail to address resistance. When different groups at a college are accustomed to functioning independently of one another, it can be particularly difficult to set up and maintain systems for regular communication, with or without technology.

It is worth emphasizing that incorporating new technology to accommodate integration is often extremely challenging, and a number of colleges have experienced disappointments. Advising-related technologies are expensive, and colleges may not have the resources to purchase all of the functionalities of a system that could potentially make integration easier. Further, the information technology departments at community colleges are sometimes small, leaving colleges to rely on vendors for support. If a college cannot afford to pay for that support or does not receive the support it expects, successful adoption of the tool may never happen.

Integrating Student Supports at Great Lakes Community College

Great Lakes Community College (GLCC) is a small community college serving 2,500 students. Prior to participating in the iPASS initiative, GLCC's student support systems were uneven, with students accessing advising on an as-needed basis and receiving faculty advising services as a "handoff" from professional advisors well into the students' tenure at the college. In an effort to reach students more intentionally, the college implemented a case management system in which professional advisors interact with students who exhibit risk factors. It also restructured the faculty advising model so that students and faculty engage with one another from the time of first enrollment. These changes required that faculty and advisors work closely together to ensure that students are connected with the right supports at the right time to address their needs at each stage of their education.

In terms of technology, GLCC purchased tools from a vendor to assist with education planning, identifying students at risk through predictive analytics, and sending early alerts. Ideally, these tools would work seamlessly with the college's existing technology and enable professional advisors and faculty advisors to provide consistent support. Unfortunately, after more than two years of effort to solve problems, GLCC decided to cancel its contract with the vendor and reexamine its technology strategy. This was a costly and frustrating experience for the college and serves as a cautionary tale about working with external entities to introduce or combine complex technology systems.

Despite this, the efforts to integrate student supports by professional and faculty advisors were viewed as a success. In the process of working to incorporate technology tools, both groups came to understand more about each other's cultures and roles, and they developed clearer ideas on how to complement each other. They came to think of themselves as a "unified front" in supporting students early and often. The widespread buy-in was in large part attributable to the college administrative team who successfully transmitted the goals and vision of the project, and to the mid-level leaders who supported faculty and staff on the front lines with ongoing and consistent communication and helpful professional development opportunities. Today the college is working with its older technology products and talking with new vendors about potential options.

4.4 Proactive Support: Early Alerts

Access to advising and other student supports is often either dependent upon students taking the initiative to seek out services or reserved for students who have failed to meet certain benchmarks. A proactive approach to advising, on the other hand, seeks to shift the impetus for engagement from students to advisors and faculty members. Rather than waiting for students to seek help, an effort is made to reach out to students at key moments in their college tenure and particularly when they appear to be struggling.

Technology-based early alert systems can enable proactive advising. They are designed to provide an efficient means of flagging and supporting students who show signs that they may be struggling and to provide encouragement to students who are doing well by recognizing their successes. Alerts can be triggered in two ways. Some early alert systems can automatically mine institutional data pertaining to students' performance. More commonly, individual faculty members and other staff manually raise an alert by flagging a student in the early alert system. In either case, once an alert has been triggered, the system generates an automatic message to the student and the student's advisor or other student support staff. The advisor and others then follow up with the student to offer assistance while also documenting their actions as well as the student's response.

Structural dimension. Before launching an early alert tool, colleges need to make a series of decisions about what data should be used to trigger alerts, what

categories or types of alerts should be available (e.g., poor attendance, low grades, high grades, missing an assignment, behavioral concerns), how to frame the content and tone of the messages that are sent to students and advisors or other support staff after an alert has been triggered, and the degree to which these messages should be personalized. (Experience shows that even factors such as the wording of the subject line or how the sender of the email is identified may influence whether students read it.)

Further, colleges need to decide who will be raising manual alerts (only faculty members, or also advisors and other student services staff), and when alerts will be raised (at predetermined points each semester and/or anytime as needed). Colleges also need to establish technical protocols related to raising alerts, such as whether the system should consolidate multiple alerts raised by multiple individuals for the same student into a single message. Finally, colleges should clearly specify to faculty and staff whether raising alerts is an expectation or is voluntary.

Equally important are well-defined guidelines outlining the appropriate type and level of response for different alerts. For example, a single alert related to a late assignment probably represents a relatively low level of concern that could be addressed through a standardized email reminding the student about the assignment and the impact on her grade of not completing it, while multiple alerts indicating a student might be in danger of failing one or more classes might warrant a more high touch and personal response, such as a text message or phone call.

Other needed guidelines for responding to alerts include identifying which individuals are responsible for following up with which students and establishing criteria for closing alerts by deciding what constitutes successful follow-up. Additionally, the technology tool used to generate alerts should permit advisors to document the actions taken in response to alerts and to determine which college personnel will have access to that information.

Further, to understand whether early alerts are being used as intended, it is helpful to develop a system for tracking information such as numbers of alerts raised and successfully closed and student usage of support services after receiving an alert. This information can then be compared to course-level outcomes and student persistence data to examine the relationship between early alerts and student success.

Harbor University's experience with implementing early alerts offers a good example of the importance of taking the time to invest in the development of clear guidelines. The college realized early on that setting up an early alert tool would require reevaluation of the existing inconsistent system for assigning students to advisors in order to ensure that every student had a designated advisor to whom alerts could be sent. Additionally, the college had to rapidly develop a protocol for triaging alert responses after the number of alerts raised during the first semester the tool was launched—17,000 alerts for 4,000 students—far exceeded the initial expectation of 2,000 alerts (Klempin & Karp, 2018).

Process dimension. Guidelines and protocols create a system for using early alerts, but in order for the approach to be effective, faculty members, advisors, and student services staff must commit to using them as intended. This can be aided by communicating clear expectations and norms. For example, at Bluffview Community College, faculty are asked to raise alerts within the first few weeks of the semester, informed by short assignments that do not have a large impact on students' grades but still provide useful information about students' progress.

At the same time as faculty members are engaging in new processes such as scheduling when and how they assess student work, advisors and other student services staff should be monitoring alerts and responding to them, engaging in targeted outreach, and sharing case notes which faculty members can then review to see what came of the alerts they raised. Together these actions can establish systems that foster the development of a coordinated network of support for students.

Attitudinal dimension. To fully commit to engaging in the use of early alert systems, college faculty and staff must believe that their actions can have a positive impact on student success. Further, they must embrace responsibility for proactively identifying and supporting students who may be struggling. Without attention to underlying attitudes and concerns, it is easy for misperceptions about the purpose of early alerts to flourish. For example, at Oceanview Community College, faculty members were concerned that raising too many alerts would reflect poorly on their abilities as instructors. At Bluffview Community College, faculty members were initially reluctant to adopt early alerts because it felt like tattling on students. To address this, Bluffview gave

two faculty members release time to serve as early alert coordinators who facilitated dialogue between faculty and the early alert implementation team.

Potential pitfalls. While an early alert tool can provide a powerful means for promoting proactive support, neglecting to consider structural, process, and attitudinal dimensions runs the risk of overemphasizing technology as the solution without attending to the human side of the intervention. To avoid this problem, Oceanview Community College developed a training program to help faculty members recognize what kinds of issues are best addressed personally with students, and which should be elevated to an advisor or other student services staff member via an alert.

Finally, early alert messages are meaningless if students never read or respond to them, and they could even do harm if students are discouraged by them. Thus, it is crucial to understand students' perspective on early alerts. To avoid the risk of unintended consequences and to ensure that students perceive the messages as authentic and supportive, research should be conducted on students' opinions about using an early alert system and on their interpretations of messages.

4.5 Personalized Support: Case Management

Personalized support is fundamentally about tailoring student services to students' unique interests, motivations, and needs to ensure that they receive the resources that will help them succeed. Not all students will require the same type or level of support at the same time. Thus, personalized support requires developing an understanding of students as individuals.

One strategy for personalizing support is to use a case management model that leverages technology to enable a more individualized approach to student support. In a personalized case management model, advisors are assigned to work with the same students over time and given access to a comprehensive record not only of students' academic standing but also of any existing case notes or results of nonacademic assessments (e.g., results from surveys about career interests or from questionnaires about interests in student services).

As opposed to a system of drop-in advising where all advisors serve as generalists and primarily focus on immediate requests for assistance from students, a personalized case management model calls for getting to know students and following the same students'

progress over time. Using this approach, advisors have the opportunity to address not just short-term needs such as course registration for the following semester, but also longer term goals. Sessions may involve, for example, helping students understand the connections between their coursework and career interests, working with students to develop time management strategies, or discussing challenges with finding child care.

Structural dimension. Creating the structures to establish a personalized case management model first involves implementing guidelines for assigning students to advisors. Students may be assigned to advisors based on any number of factors. They may be assigned randomly (e.g., alphabetically by last name), by the broad program area or meta-major (e.g. liberal arts, health sciences) in which the student is enrolled, by the student's major (e.g., history), or by the student's involvement in particular activities or background (e.g., athletes, veterans). Encouraging advisors to specialize in a small number of programs of study or a single meta-major may allow them to develop expertise in areas that are most relevant to their students, making it more likely that students will intentionally seek out meetings with their assigned advisor. Additionally, assigning students to advisors should include consideration of caseload size. Inevitably, larger caseloads will make it harder for advisors to deliver personalized support.

There should also be consideration of expectations for the frequency of contact with students. Colleges should carefully weigh the pros and cons of various advising policies, such as placing holds that do not permit students to register before receiving advising or requiring an advising appointment as an assignment for a first-year experience course. Students may benefit from more contact with advisors; they also may be harmed if they are unable to register for courses in a timely way while waiting for an advising appointment. It is also important to embed regular advising touch points when case managers will reach out to students. For example, advisors may conduct targeted outreach to those students who have reached critical progression milestones, such as being a certain number of credits away from completion (Karp & Stacey, 2013).

To ensure that advisors have the capacity and skills they need to capitalize on a case management model, colleges may want to build advisor schedules that allow them to set aside blocks of time for scheduled appointments with students. As noted above, colleges may also want to use a technology tool that gives advisors easy access to

pertinent student information such as education plans, course grades, alerts raised by faculty members, and shared case notes.

Process dimension. Using a case management approach can often mean that advisors need additional preparation for advising sessions to make sure they are familiar with each advisee's interests and issues. They must be familiar with the technology required to review students' academic standing and to maintain good advising records. Ideally, advisors should prepare for sessions by reviewing multiple data sources as well as their own case notes to identify where students may be struggling and what types of guidance or resources might be most appropriate. After the session, advisors typically use technology to document the main issues discussed, make referrals to other student services, and follow up on whether students use the services.

Attitudinal dimension. Implementing a personalized case management model requires advisors to consider aspects of mentoring and counseling as a core part of their role, in addition to the provision of academic guidance. Colleges implementing the model should thus foster an institutional culture that prioritizes individualized student support as a key mechanism for promoting student success.

Potential pitfalls. Establishing a case management model through which all students receive personalized support is by no means an easy task. Budget constraints, large advising caseloads, and other challenges related to assigning students to advisors can all pose structural barriers to personalized case management. In particular, ensuring that advisors have the time they need to provide personalized support often presents a significant challenge. What is more, students may not understand the personalized case management approach or may find it uncomfortable or intrusive. Thus, it is important to communicate the purpose of this model to students and encourage them to engage in this more comprehensive and sustained advising process.

Implementing Personalized Case Management at Southwestern Community College[9]

The case management advising model at Southwestern Community College (SCC) was intentionally designed to complement the college's adoption of guided pathways reforms. Advisors are assigned to work with students within a meta-major or a specific program of study. SCC established 17 discrete "touch point" periods during which advisors reach out to students. Examples of these include directly following placement testing to discuss students' scores and options for course pathways, when students are making financial aid appeals, and when students wish to drop a course. Advising is also required and enforced with a registration hold after students have completed 15, 30, and 45 credit hours.

To monitor students' academic progress, the college adopted an education planning tool that advisors can use with students to create individual success plans, including all the courses needed to complete a credential in the chosen program of study. In addition, the college provides numerous professional development opportunities for advisors to ensure that they have the technical knowledge and skills they need, as well as a grounding in counseling techniques.

The director of advising at the college—who believes that "with relationships comes greater success"—describes its advising model as one that encourages advisors to be intentional in reaching out to and keeping track of students. Advisors appreciate the fact that their role on campus is highly valued and that they have been allowed to become experts in specific program areas. In addition, surveys have shown that students' satisfaction with advising has significantly increased since the college adopted the model.

[9] Southwestern Community College was not an iPASS college.

5. Final Thoughts

The SSIPP framework provides a foundation for reflecting on existing advising and student support systems in a college in order to consider reforms that improve student experiences and outcomes. The path to implementing change may vary from college to college, and there may be variation in the specific reforms made. However, it can be helpful to know what other institutions have accomplished and what challenges they have faced. In this paper, there are summary descriptions of ways that each of the SSIPP elements have been implemented in colleges studied by CCRC staff; these may inform others wishing to improve local practice. In addition, colleges may want to consider structure, processes, and attitudes when planning for change. Attending to these dimensions can improve the likelihood of high-quality implementation.

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