IPAS

Scenario

Jesse hopes to be the first person in his family to earn a college degree. His older brother had begun college five years earlier, but after three semesters he withdrew and went to work full time. The public high school the brothers both attended sends a relatively low percentage of its graduates to college, and very few of them typically earn degrees. Like many economically disadvantaged students, Jesse and his brother finished high school with some gaps in their academic preparedness.

The college Jesse attends has developed a system of integrated planning and advising services (IPAS), which introduces entering students to a set of resources and support tools designed to help them understand what it will take to complete a college degree. From the outset, Jesse is assigned a counselor who will remain his advisor throughout his college career. Jesse meets with his advisor before registering for classes to discuss general requirements, tips for how to build a manageable schedule, and plans for choosing and declaring a major.

As he works through the first few semesters, Jesse gets regular communication from his advisor, and he also has access to an online system that shows how his course completion is or is not on pace for him to graduate. He struggles in some courses, in which case he receives e-mail notifications about study centers and other resources to help him catch up. The instructors in Jesse's courses all have access to the same information, including the dashboard that shows, in broad terms, whether he is making adequate academic progress. When he changes his major from communication to sociology, his advisor helps him rework his degree plan, mapping out the new direction for him to take best advantage of the courses he has already completed. Along the way, the IPAS systems also monitor Jesse's financial aid, alerting him any time he needs to take action to ensure that he is meeting the requirements of his aid package, including his job in the campus bookstore.

By his senior year, Jesse is on track to graduate in eight semesters. He will have taken a few more classes than the minimum, but he really enjoyed those "extra" courses and they didn't delay his degree.

1 What is it?

In recent years, colleges and universities have been under growing pressure to increase the rates of student retention and completion. These calls for improvements in student success coincide with a growing prevalence of technology in higher education and a capacity for it to collect and process enormous amounts of data. At the intersection of these trends is the concept of integrated planning and advising services (IPAS), a term defined as "**an institutional capability to create shared ownership for educational progress by providing students, faculty, and staff with holistic information and services that contribute to the completion of a degree or other credential.**" Many factors are associated with student success. IPAS initiatives are designed to coordinate the efforts to monitor, understand, and act on these factors to promote higher rates of student achievement and success.

2 How does it work?

Considerable research indicates that students who succeed in higher education tend to make steady progress toward completion and understand both the requirements for a degree and the kinds of study habits and skills that contribute to academic success. **IPAS programs endeavor to bring structure and clarity to students as they pursue educational goals, helping them see how best to plan and sustain their efforts.** IPAS uses the tools of academic analytics—including notifications and interventions—as a central component and includes the activities of education planning, advising/counseling, and early alerts. Relying on accurate and timely data, IPAS coordinates the functions of various systems, including degree audit/progress tracking, course recommendations, and advising management. Some systems assist with the practice of "intrusive advising" by proactively reaching out to students the system identifies as at risk to alert them of the concern and direct them to available resources. IPAS solutions often use data dashboards and other tools to visually represent the information to students and to faculty and advisers. Some systems offer self-service tools for students to compare their status to that of peers or to other benchmarks.

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3 Who's doing it?

Various applications play a role in IPAS efforts, including degree audit and planning tools, early-alert systems, course recommendation engines, and analytics tools, as well as many of the enterprise systems that collect the data on which IPAS depends. Many of these applications come from commercial vendors, while others are homegrown. The integration of these systems is happening in different ways at various campuses. Arizona State University, for example, has developed an e-advising system that the university says has resulted in higher rates of freshman retention and a significant jump in the number of students on an appropriate path to degree completion. The Degree Compass system from Austin Peay University recommends courses based on various criteria and has led to higher grades earned in the courses it recommends. Purdue University reports that in courses that use its early-alert system, students earn better grades than students in courses that do not use the system.

4 Why is it significant?

Colleges and universities are increasingly driven by—and rated and funded on the basis of—student success and completion. **IPAS programs have the potential to increase rates of student success**, particularly among students who are academically underprepared or economically disadvantaged, using many of the applications, systems, and data that institutions already have in place. Due to the new pressures placed on higher education, the culture at many institutions is becoming more supportive of using data and technology for programs such as IPAS. Moreover, students tend to be enthusiastic about using technology in these ways and are specifically interested in analytics-based alerts about their academic performance. IPAS requires that data silos be torn down, leading to more accurate data across an institution, and the coordination of various services also eliminates inefficiencies. In some cases, for example, students have similar conversations with different advisers in multiple parts of the institution at different points of their academic careers. Centralized advising benefits the institution and the students by avoiding such situations.

5 What are the downsides?

Effectively implementing an IPAS initiative requires overcoming several challenges. **IPAS relies on accurate data and the effective integration of various technology systems.** Although dismantling data silos benefits the institution, accomplishing it can be difficult. Some tension may exist between individual, best-of-breed technologies and enterprise tools that can be more easily integrated with existing systems, and an IPAS effort will require reconciling those tradeoffs. Shared ownership and coordination are also vital to a successful IPAS effort, and the structural inertia at some institutions can be a significant barrier to that kind of change. Although a culture of using data to inform decisions is growing in higher education, an IPAS program might still raise concerns about the appropriate use of data. Also, there is a perception that such programs could overload already busy faculty.

6 Where is it going?

Notwithstanding the level of recent activity surrounding analytics and other data-based efforts focused on student success, the breadth of IPAS programs introduces a new level of pan-institutional coordination. As with any effort of such scope, the IPAS concept might evolve considerably over the next few years as institutions explore its potential and its value. That said, research indicates that **most institutions expect to continue or increase their investments in such systems in the coming years**, specifically in the areas of data infrastructure (data stores, data warehouses, analytics in enterprise systems) and transactional systems. Technology services and solutions for higher education—including established systems and new entrants, both commercial and open source—will increasingly incorporate IPAS tools in ways that facilitate their integration with other systems.

7 What are the implications for teaching and learning?

IPAS expands on the successes seen by analytics programs by extending their reach to other aspects of students success. Programs designed to monitor and improve student progress function best when they factor in many variables that affect student success, and **IPAS aims to bring together a wide range of data and resources to guide students through educational programs.** The potential is for both students and institutions to use the data and systems that are available to higher education to develop a stronger understanding of what is needed to stay in school and complete a degree or other certification.