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COMMENTARY

An open-systems approach to course redesign: Moving beyond the pulpit

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Regardless of our motivation to change how we teach Industrial and Organizational (I-O) psychology to undergraduates, 2020 leaves us no choice. Between an unprecedented shift to online delivery and the growing (and rightful) demand for racially inclusive pedagogy, teaching faculty face enormous pressure to adapt and to do so quickly. For I-O psychologists, such dramatic change underscores the interconnectedness between our course content and the external environment and presents an opportunity to demonstrate the relevance of I-O to stakeholders across the university system. After all, if curriculum is strategy, as Kushner (1999) suggests, then how we undertake course redesign may be an intervention in and of itself. Kath et al. (2021) identify and organize a continuum of valuable recommendations to improve our teaching based on a series of self-needs-assessment questions. However, if the changes we make are to stick, then an evidence-based approach must also incorporate data beyond the individual instructor. This requires an *open-systems approach* to course redesign.

What is an open-systems approach to course redesign?

Open-systems models are commonly used in change efforts because they allow a "total systems perspective" on organization change (Burke, 2014, p. 59), emphasizing the relationship between the external environment and the organization (Morgan, 2006). Likewise, an open-systems approach to course redesign is one that accounts for the multiple factors that influence the curriculum, including aspects of the external environment where our course is situated (Brawley et al., 2013). The external environment can be defined broadly to include inputs from social, political, environmental, economic, and/or technological events, or it can be narrow in scope, incorporating only the more proximal influences on an organization (Burke, 2014). In the case of course redesign, an assessment of the external environment may include data from stakeholders such as other teaching faculty, university alumni, benchmark institutions, and potential employers.

From our perspective, an open-systems approach to course redesign differs from a closed-system approach in two primary ways: (1) The needs assessment conducted is informed by the external environment and (2) the process of course redesign is student-centered. Though both open-systems and closed-systems approaches are evidence-based, the open-systems approach transcends the individual instructor and their I-O psychology class, thereby increasing the probability for long-term change. For example, Kath et al. (2021) offer eight mini self-needs-assessment questions to guide recommended changes. Each focuses on course goals and learning objectives across four topic areas within the I-O psychology course itself. An open-systems approach may also ask how course goals and objectives align with other related courses in the department and the university. It may also consider how the course advances the university's teaching mission and contributes to metrics for success. In other words, an open-systems

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approach acknowledges how the course is informed and reciprocally informs the larger university system.

Additionally, an open-systems approach is guided by student-centered learning as opposed to instructor-centered teaching. Student-centered learning occurs when changes to course content and delivery are advised, and sometimes led, by the students themselves (Wright, 2011). Although this may include asking students to identify learning goals or share how their prior work experiences illustrate course concepts, it is the instructor's "stance" toward course redesign that differs. In a closed-systems approach, the instructor assumes ownership of course content, delivery, and assessment methods. As a result, they hold sole responsibility for course innovations. The drawbacks of this approach are that changes made are based on the instructor's perception of what is working and what is not. Moreover, changes identified may be those that best align with the instructor's values, abilities, and resources. This can be particularly limiting when it comes to teaching about diversity and inclusion because often I-O psychology instructors do not receive formal training in this area (Bell et al., 2009). Thus, if we leave it to instructors to self-assess course needs, we risk omitting topic areas I-O psychology instructors are less aware of and perhaps know less about.

The aforementioned instructor-centered approach to course redesign resembles what Schein (1999) might describe as an "expert" consultative stance where the instructor owns the problem and solution. In contrast, a student-centered approach is one where the instructor jointly diagnoses changes to be made in partnership with students. This is more like Schein's (1999) "process consultant" model where the instructor shares the problem and invites students to generate solutions. The benefits of such an approach are threefold. First, changes made to the course may garner increased buy-in because students experience ownership of the solution. Second, a student-centered approach adds an active learning component where students learn first-hand how to collect and analyze data in order to diagnose and intervene in a system. Third, a student-centered approach challenges our assumptions as instructors about who should control course content and application. Taken together, an open-systems approach to course redesign moves us beyond an isolated needs assessment toward a more holistic picture of the course in context while positioning student learning at the center.

Conducting an open-systems approach to course redesign

We see little guidance in I-O psychology and management education about how to conduct an open-systems approach to course redesign. Although we believe an open-systems approach may inform a more robust needs assessment for course innovation, it can be time-consuming and resource depleting. In order to address these concerns, we offer three practical methods to inform how an I-O psychology instructor could conduct an open-systems approach to course redesign. The recommendations provided are organized using Kath et al.'s (2021) framing around small, medium, or large-scale change efforts. The magnitude of the approach engaged may depend on whether your I-O psychology course is a standalone elective, a mandatory credit for all students, or a foundational part of your undergraduate program.

Small change: Understand and respond to trends in the field

External environment

A differentiating feature of any open system is its connection to and dependence on conditions in the external environment for survival (Meadows, 2008). To that end, taking an open-systems approach should incorporate trends in our respective disciplines. For those of us teaching I-O psychology, the Society for Industrial and Organizational Psychology (SIOP) makes the deliberate inclusion of workplace trends into our curriculum exceptionally user-friendly. Published annually since 2014, SIOP's "Top 10 Workplace Trends" offers a summary of new directions and areas for emphasis to inform readings or in-class activities and assignments. Instructors could design entire

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class sessions on an emerging trend or weave trends into existing topics. For example, one of the top trends in 2020 was, quite presciently, virtual working spaces. By incorporating virtual work as a standalone topic or in conjunction with other content areas (i.e., virtual interviewing, virtual teams), I-O psychology instructors would demonstrate a feedback loop among the global pandemic, the modern workplace, and the content of student learning, as an open-systems approach might encourage.

Student-centered learning

A common practice in student-centered learning is to involve students in the cocreation of course activities so that the power dynamics between the instructor and students shift from "sage on the stage" to "guide on the side" (Wright, 2011). One way to do this is through sharing the responsibility for the selection of course content in the syllabus, both in terms of what is taught and learned (Kaplan & Renard, 2015). One suggestion for accomplishing this is to incorporate an activity early in the semester where students research and select one trend in the field they would like to see included. Students could be asked to write about the trend in a formal paper or online discussion, including why they selected it, why it matters to I-O psychologists, how it is related to or distinct from other topics in the class, and how it could be incorporated pedagogically (e.g., lecture material, readings, guest speakers). The instructor could then take the top three to five trends and present them for a vote on final inclusion in the syllabus (Wright, 2011).

Medium change: Assess and align competencies for job readiness

External environment

In conjunction with workplace trends, assessing the external environment may also include an examination of employer demands specific to workplace readiness. For example, in a survey of 400 employers commissioned by the Association of American Colleges & Universities (AAC&U), 88% identify project-based learning as *the* most valuable pedagogical method for facilitating career readiness among undergraduates (Hart Research Associates, 2015). Although I-O psychology instructors likely understand the importance of applied learning, the AAC&U data support an evidence-based rationale for design decisions about project-based work. Thus, keeping up to date on employer demands presents an important consideration for I-O psychology instructors who wish to establish the connection between their course and the real world. Additional resources to consult within the university include competency frameworks that are already developed for student preparedness across the core curriculum and the Career Service Center, where data about employer demands are likely plentiful. Including this data in an open-systems needs assessment may provide insight beyond the instructor's instinct about which competency areas to prioritize in order to align content with real-world relevance.

Student-centered learning

There are several ways to engage students in data collection about employer demands for job readiness. One method described by Chauhan (2019) could simply be to ask students to identify a desired occupation and explore the required competencies for preparation as described by the Occupational Information Network (O*NET). Another could be to ask students to conduct an informational interview with a potential employer about the knowledge, skills, and abilities (KSAs) they seek from recent graduates and report back on which KSAs are addressed in the course (or not). Students could also interview alumni about the KSAs that are required for quick adaptation to real-world demands. Regardless of the method, the goal is to involve students in the data collection process. Not only could the process teach valuable research skills, but student findings may also help inform design decisions specific to skill development relevant to their career goals (Wright, 2011).

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Large change: Collaborate and conduct a stakeholder analysis

External environment

A large-scale, open-systems approach incorporates the methods described above. The difference is that it also identifies and integrates data across inputs, throughputs, and outputs relevant to the I-O psychology course and the program where the course resides. This requires a more structured and systematic approach to data collection and analysis. For example, inputs that affect design decisions may include data about employer demands, workplace trends, the university's climate for learning, and access to internal and external resources for course innovation(s). Data could be collected on each input separately, but in a large-scale approach, the data are analyzed as a whole to determine how collective inputs affect the I-O psychology curriculum. This approach may be particularly useful for I-O psychology programs looking to (re)examine their curricula in the context of racial justice. Too often efforts to "diversify" the curriculum fail because they assume that a mere infusion of content into a course will suffice (Banks, 2008). If the program were to instead examine the inputs from various stakeholders in the external environment, then solutions could be developed beyond content infusion toward true curriculum transformation (Banks, 2008).

Student-centered learning

The desire to create large-scale change in the I-O psychology curriculum presents an opportunity to engage students in action learning. Raelin and Coghlan (2006) describe action learning as "a pedagogical process that involves learners working and reflecting together on real-time problems occurring in their own work setting" (p. 671). In the case of curriculum redesign, action learning may occur when the students themselves conduct the systematic analysis of the curriculum in partnership with the instructor to surface shared assumptions. This may be particularly useful in the context of curriculum transformation for racial justice because it is the students who are ultimately responsible for challenging/changing the climate for diversity, equity, and inclusion in their future organizations. Teaching them to employ an action research methodology to solve such complex challenges develops core I-O psychology competencies (SIOP, 2016) and underscores the value of reflective practice in experiential learning (Raelin & Coghlan, 2006). Moreover, action learning emphasizes the dynamic nature of organizations where no one solution will "fix" the problem. Rather, it is the process of collaborative inquiry using a total systems approach (Burke, 2014) that leads to deep learning—for the students *and* the instructor (Coghlan, 2019).

Conclusion

In a rapidly changing environment, the challenges that I-O psychology instructors face in course redesign extend beyond our classroom. Demands for relevant content and pedagogy are informed by the context in which we teach. Thus, conducting an open-systems approach to course redesign offers one way to account for such changes through the examination of data in the external environment in partnership with our key stakeholders: our students. When we shift from an "expert" stance to a more facilitative approach to course redesign, we empower our students to think critically about the nature of change. Simultaneously, we benefit from perspectives outside our own. After all, it wasn't the act of building the Field of Dreams that made Ray Kinsella's vision a success. It was the players who guided him along the way.

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