

2022

Annual IMPACT report 2022: A report by the IMPACT evaluation team

IMPACT Management Team

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IMPACT

Instruction Matters: Purdue Academic Course Transformation

2022 Annual Report

IMPACT Annual Report

Academic Year 2021-2022

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Introduction

Purdue University's Instruction Matters: Purdue Academic Course Transformation (IMPACT) program has continued to lead the way in large-scale faculty and course transformation for over a decade. The IMPACT program has become a well-known brand, working with all colleges at Purdue and nearly 500 faculty in the signature, semester-long program. IMPACT has gained national notoriety through recent publications and has received interest near and far from instructors and universities wanting to participate, collaborate, and mimic the effective program model. IMPACT has shifted from initially being a course transformation program to now considering itself a faculty development program. This was a result of data showing faculty take what they learn in IMPACT and apply it to all the courses they teach, not just the course designed or redesigned in IMPACT.

IMPACT uses a cohort-based model built around a strong faculty learning community (FLC). The IMPACT program is guided by a strong theoretical framework, which has been validated and used in several research projects for the past 40 years. Self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2017) is a motivational theory that posits the existence of three basic psychological needs, which when fulfilled, contribute to the creation of a student-centered, autonomy-supportive learning environment. The creation of this type of learning environment fosters student engagement and competence, and increases attainment of course-specific learning outcomes, degree completion, retention, and graduation rates. IMPACT is a partnership among the Center for Instructional Excellence (CIE), Purdue Online (PO), the Libraries and School of Information Studies, Institutional Data Analytics and Assessment (IDA+A), and the Evaluation and Learning Research Center (ELRC), with support from the President's and Provost's Offices.

This report highlights the accomplishments of the IMPACT program from Fall 2021-Summer 2022, having returned to face-to-face offerings of IMPACT Semester with the addition of a fully remote group, piloting the new IMPACT Week version, and creating a new program evaluation model.

IMPACT Mission and Goals

The mission of IMPACT is to **support instructors in enhancing their pedagogical practices to create autonomy-supportive and inclusive learning environments to foster student success.**

The IMPACT program outcomes are to support faculty's ability to:

- **Implement pedagogical practices that are student-centered, autonomy-supportive, and engaging.**
- **Create learning environments that are equitable and inclusive.**
- **Approach teaching and learning with a scholarly perspective and contribute to a community of practice.**

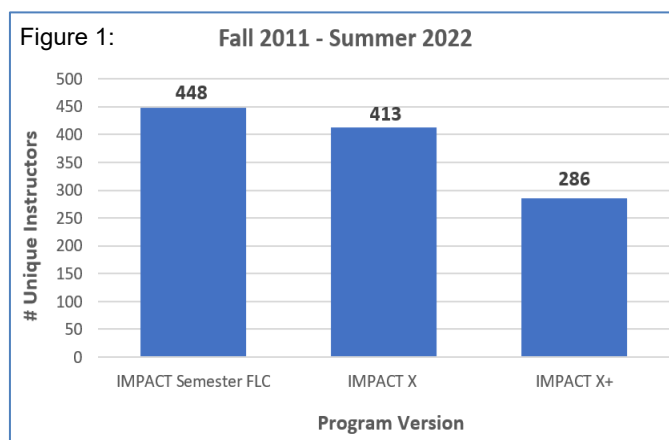
Past Summary Data

From the first cohort in fall 2011 through summer 2022, the semester-long IMPACT program has had 448 faculty participate, transforming 446 courses and influencing over 2,400 undergraduate and graduate face-to-face, hybrid, and online courses. Furthermore, after completing the IMPACT FLC programming, assessment of instructors has shown statistically significant increases in student engagement, overall teaching satisfaction, and research-based pedagogical practices.

In response to the COVID-19 pandemic and the need to move to online and hybrid instruction in 2020, the IMPACT team pivoted to develop and deliver IMPACT X and X+, two newly created, fully online programs which embodied the core outcomes of IMPACT in a condensed format. The quick response from the already-established IMPACT partnerships was vital to supporting and preparing instructors for the call to create highly flexible learning environments with a strong online backbone. IMPACT X was offered from April 2020-August 2020, with 413 instructors completing the program; IMPACT X+ was offered from June 2020- August 2021 with 286 instructors completing the program. A total of 654 unique instructors completed X and X+.

Figure 1 shows the number of instructor participants in IMPACT Semester, IMPACT X, and IMPACT X+ from Fall 2011-Summer 2022.

In the timeframe of fall 2011 to summer 2022, instructors from all IMPACT programming taught a grand total of **3,952 courses**. This shows the breadth of the program and its influence on Purdue's student body.



Moving Forward

At the ten-year anniversary of the program, the IMPACT team took the opportunity to reflect on IMPACT's growth over the years and re-evaluate the program's core values, key foundational elements, and ensure the future vision of the program stayed aligned across all facets. The team identified the core elements that define IMPACT programming, assessed the current community instructional needs, established a portfolio of IMPACT models to offer moving forward, and revisited the overall program evaluation plan. As originally written, the evaluation of IMPACT focused on the in-person, cohort-based FLC model; the revised model aligns all IMPACT programs with the theoretical framework and the overarching program goals. To this end, a new logic model was created which includes broad outcomes that apply to all programs as well as indicators that operationalize how success will be measured for these outcomes. The logic model and program assessment continue to be a collaborative effort between the ELRC, CIE, and IDA+A in which the ELRC focuses on collecting faculty data (e.g., focus groups and

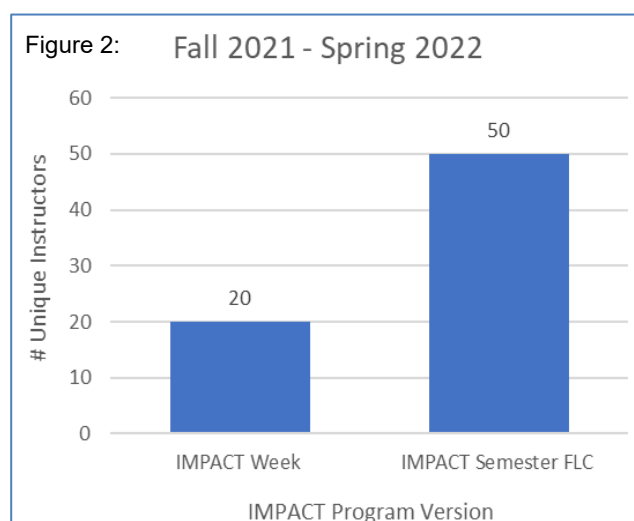
faculty surveys), CIE concentrates on collecting student perceptions data, and IDA+A contributes registrar data and organizes and manages all student data. This has helped the team identify areas of growth in assessment and establish the vision of areas into which IMPACT would like to expand, at Purdue and beyond.

The portfolio of IMPACT opportunities to be offered moving forward include:

- **IMPACT Week:** a fully remote, introductory program that offers the core ideas of the program in an accessible way.
- **IMPACT Semester:** the original, 13-week, signature program.
- **IMPACT Month:** An on-demand, hybrid option that can be tailored to specific initiatives.

Data from pre-2020 will remain frozen (Figure 1) and moving forward, the post-pandemic numbers will be reported for each program version, as shown in Figure 2.

In July 2022, a pilot of IMPACT Week was conducted with 20 instructors from 9 different colleges. Many of the participants were in their first or second year at Purdue and four were past IMPACT participants. The overall response was positive, and all 20 instructors completed the daily reflection exercises. Constructive feedback was collected to enhance future offerings.



In fall 2021, the IMPACT team was able to return to face-to-face offerings of IMPACT Semester, with the addition of a fully remote group. Early feedback on instructor experiences of participating remotely have been positive and underscore the ability of a remote option to expand access to and motivation for development opportunities. Table 1 displays example feedback from instructors.

Table 1: Faculty appreciated the ability to participate in IMPACT remotely while establishing a beneficial and supportive learning community of peers and mentors.

Example Quotes

“I’m so glad that they offered this option. And I hope that they continue to do that, because I think that it encompasses some people who otherwise would not attend or not be able to. For me, this is, if I had been in the on-campus version, it would have been the only reason why I would have been required to be on campus that day. I’m not sure I would have done that or stuck with it.”

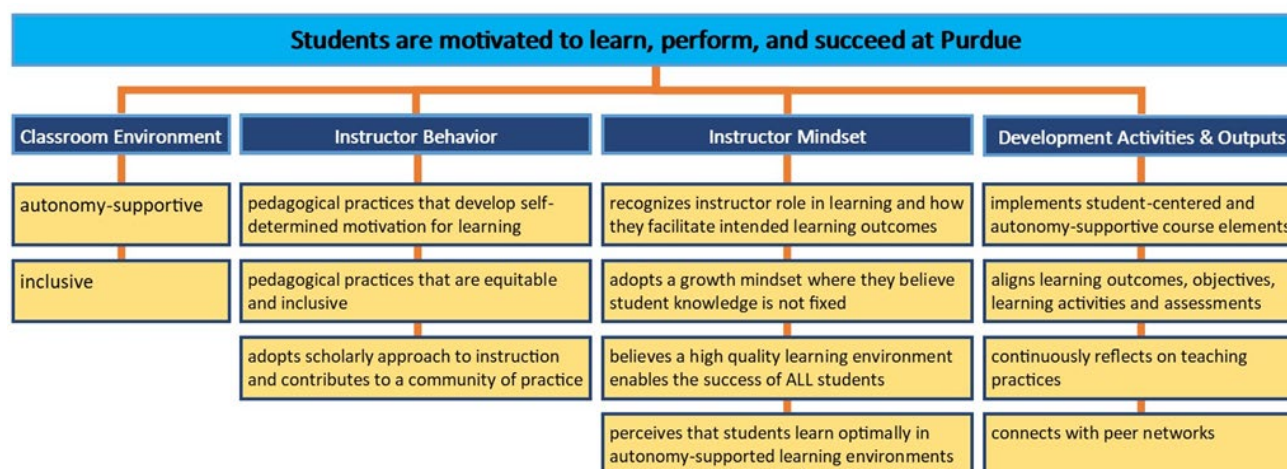
“With the remote group as a whole, I feel like we establish a strong sense of community. I feel like we have a connection going within this group that’s productive and healthy. So, I think that I didn’t, I don’t really get the sense that we were lacking in a sense of community because we weren’t in the in-person group.”

“We had [two support staff] as our moderators. And if one of them couldn’t be there, the other one was. And they were certainly always available via Zoom or something. Like you said, individually, if we missed, I felt like I could always just email them, and I did. Sometimes it’s like, “I know I asked you this question twice already, can you answer the third time?” And they were always just very, very helpful and available.”

A New Logic Model

IMPACT is based on the understanding that instructor knowledge, implicit beliefs about and motivation for teaching and learning shape course design, implementation, and impact student learning and success. Instructors who are supported through peer communities and evidence-based resources will develop motivation to transform their instruction through student-centered practices to achieve equity in student learning and student success.

Figure 3: Summarized outline of the new IMPACT evaluation logic model.



IMPACT Evaluation

Based on the program model described above, IMPACT has developed success indicators for monitoring and evaluation. The table below displays these indicators organized by program outcome and outcome level.

Table 2: IMPACT evaluation success indicators.

Level	Outcomes	Example Indicators of Success
Institution	Students have academic success at Purdue and are retained at the institution.	Course grade outcomes and institution retention rates improve over time or as compared to reference sample of students.
Classroom Environment (student experience)	Learning environment is inclusive and autonomy-supportive.	Student assessment of classroom learning climate (as measured by the Learning Climate Questionnaire) and self-assessed autonomy-support (as measured by the Basic Psychological Needs Survey) improve over time or as compared to a reference sample of students.
Instructor Practice	<p>Instructors implement pedagogical practices that develop students' self-determined motivation for learning, feelings of inclusion and belonging.</p> <p>Instructors practice a scholarly approach to their teaching—developing and sharing their knowledge of teaching and learning in community with others.</p>	<p>Instructors' self-assessed ability to implement student-centered pedagogical practices (as measured by self-efficacy for student-centered pedagogy scale) increases after participation in IMPACT.</p> <p>Instructors describe scholarly practices for teaching in post-participation interviews.</p>
Instructor Mindset	<p>Instructors believe that all students are capable of learning and that they have the ability to create learning environments that engage and motivate all students.</p> <p>Instructors perceive their environment as supportive of their teaching development and success.</p>	<p>Instructors self-assessed growth mindset and teaching self-efficacy improve after participation in IMPACT.</p> <p>Instructors' self-assessed autonomy support in teaching (as measured by the Basic Psychological Needs for Teaching Survey) increases after participation in IMPACT.</p> <p>Perceived barriers to teaching transformation (as measured by the Perceived Barriers Scale) decrease after participation in IMPACT.</p>
Course Design	Course emphasizes student-centered and autonomy-supportive elements.	CDP thematic analysis
	Course has aligned Learning Outcomes, Objectives, Learning Activities and Assessments	CDP analysis

Development Activities and Outputs

All development activities in the IMPACT program utilize the self-determination theory (SDT) framework. Throughout the curriculum faculty fellows navigate during their IMPACT experience, fellows are asked to reflect on how their practices in teaching and learning foster the basic needs of SDT (autonomy, competence, and relatedness). Overall, the method by which IMPACT courses implement student-centered and autonomy-supportive elements will depend on the specific course and the approach taken by the instructor. It is important for instructors to consider the needs and interests of their students and to design their courses in a way that promotes student engagement and autonomy.

Autonomy-supportive elements in IMPACT courses often include providing students with choice in how they complete assignments and assessments, providing opportunities for self-directed learning, and allowing students to work at their own pace. These elements can help students to feel more invested in their own learning and can lead to increased motivation and engagement. Faculty fellows are asked to reflect on all aspects of their course transformation with the lens of meeting students' basic psychological needs of autonomy, competence, and relatedness. In particular, fellows examine the following elements of their course:

- Student Characteristics
- Student Learning Outcomes and Objectives
- Student Assessments (formative and summative)
- Student Activities

As the main deliverable for IMPACT programming, fellows complete a Course Design Plan (CDP) that demonstrates the alignment between all elements of the course and a justification for how each element fosters the three basic psychological needs in SDT. Therefore, in the evaluation of IMPACT's effectiveness regarding the developmental activities and outputs, we utilize the CDP to answer the following crucial questions:

- To what extent do IMPACT courses include student-centered and autonomy-supportive elements?
- To what extent do IMPACT courses have aligned learning outcomes, objectives, activities, and assessments?

Looking forward, the IMPACT evaluation team would like to incorporate a deeper analysis of the Course Design Plan (CDP), the Brightspace course shell (including the syllabus), and the student perception survey in an effort to more clearly answer the above questions. All fellows in IMPACT Semester develop a CDP as a deliverable of the IMPACT program. However, because the developmental process is iterative, by the end of the FLC we observe variability in the extent to which fellows have been able to develop each element of their course design. By developing a rubric to rate the quality of alignment that exists in the CDP, and a rubric rating the implementation of the CDP through the syllabus and course design in Brightspace, we can triangulate those data with the student perception surveys. This analysis will allow us to identify

fellows who might benefit from ongoing, individualized support as they implement their redesigns. Additionally, we will be able to identify pedagogical practices that foster the development of learning environments where students report feelings of autonomy support, and a sense of belonging.

Instructor Mindset

Optimal learning and development occur in environments in which people feel that their basic psychological needs of competence, autonomy, and relatedness are satisfied. This means that instructors have opportunities to demonstrate competence and feel satisfied with their teaching performance, that they feel that they are able to make choices about how best to achieve their teaching goals, and that they feel connected to a community that shares their teaching goals and values. With these needs met, instructor motivation for development and learning should be robust, and perceived barriers to achieving their desired teaching goals should be minimal. Instructor mindsets are the (often) implicit beliefs about teaching and learning that can influence instructor motivational orientation for continually developing their teaching practices to achieve student learning and success. As they are situated in theories of social psychology, indicators (or measures) of instructor mindset are typically developed from instructor descriptions of their experiences and perceptions through surveys or interview techniques. Over its tenure, IMPACT has adapted or developed several indicators of instructor mindset that it uses to monitor instructor progress or response to IMPACT programs. The questions in the section below are examples of evaluation questions that can be answered with the current indicators.

To what extent are instructors' basic psychological needs satisfied in their teaching environment at Purdue? Does support through IMPACT affect change in instructors' perception of basic psychological needs satisfaction?

To answer these questions, IMPACT measures instructor perceptions of the satisfaction of their basic psychological needs in the Purdue teaching context before participation, after participation in IMPACT professional development, and after implementation of new teaching practices. The IMPACT program only recently began monitoring this indicator and will include an analysis of this indicator in the coming year.

To what extent are instructors' outcome expectancies strengthened and perceived barriers to innovation/transformation decreased after participating in IMPACT?

IMPACT uses a series of survey questions to monitor instructors' perceived barriers to innovating their teaching practice (before participation in IMPACT and after participation in IMPACT professional development programs) and the extent to which instructors encountered barriers in their teaching implementation (data collected after first implementation of new teaching practice). In the 2021-2022 academic year, we can report on changes observed as a result of the spring 2022 faculty learning community.

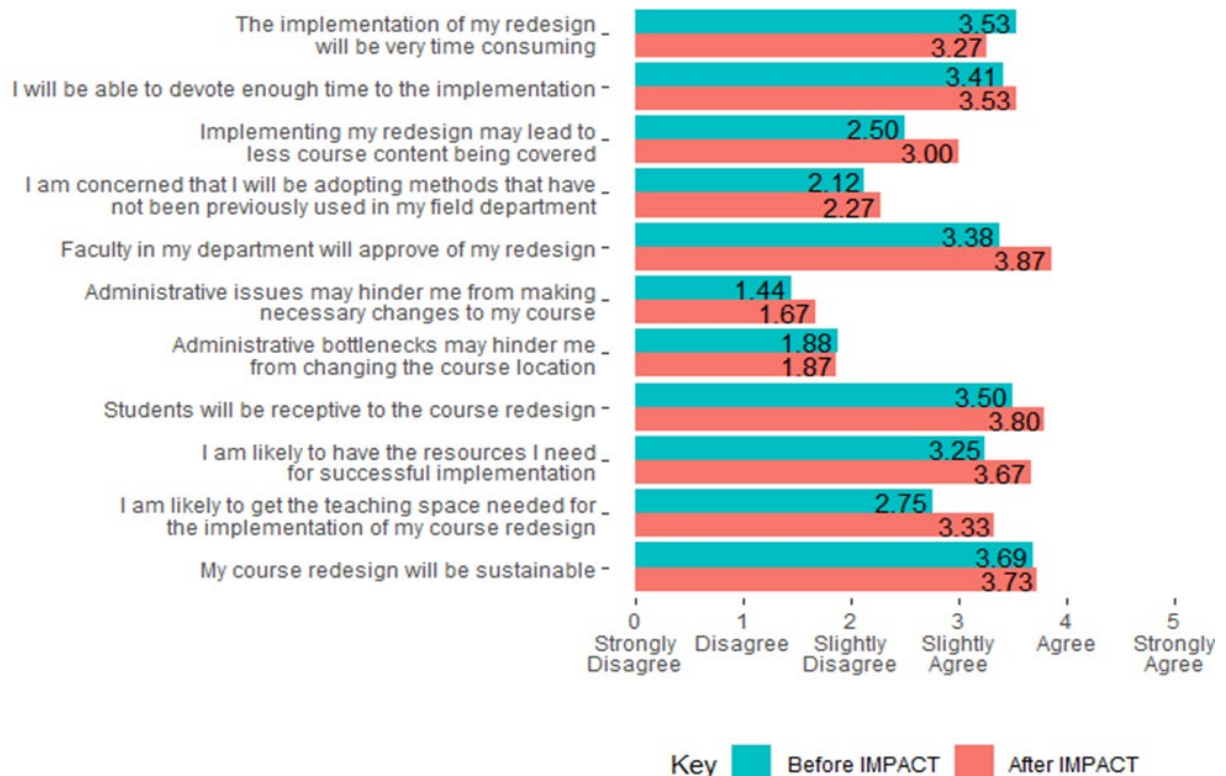
Key Finding: After participating in the IMPACT FLC, fellows were less concerned about external barriers (real or perceived) that may limit the successful implementation of their redesigned course.

Figure 4 displays respondent agreement with statements regarding potential threats or supports to the successful implementation of their course. Overall, after participating in the IMPACT Semester FLC, fellows perceived fewer external barriers and more external supports. While most items showed improvement (reduced agreement with barriers, increased agreement with supports), fellows' agreement that their course may need to cover less content increased significantly as did their agreement that students would be receptive to their changes.

Fellows effectively reframed their understanding of course content's role in their class from being *the goal of the course is to cover content* to *the goal of the course is to cover the content that is required for students to achieve learning outcomes*. The quote below exemplifies this finding.

"I was preparing the syllabus without thinking a lot about the learning outcomes and objectives. I was, you know, searching around to see...things that are offered in other departments... So yeah, this helps a lot...Instead of thinking about the content, I think what I want the students to learn and then move back and revise the content." - FLC participant

Figure 4: Instructors perceive fewer external barriers and more external supports after participating in IMPACT FLC.



Key Finding: *IMPACT has contributed to a marked cultural shift in views about the importance of teaching at Purdue.*

Additionally, the Evaluation and Learning Research Center has been interviewing faculty fellows from every cohort of IMPACT since 2011. Thematic analyses of the cumulative data over the course of a decade suggest a profound culture shift among instructors at Purdue that appears to have been influenced by IMPACT and other associated initiatives for teaching and learning. In early cohorts (through 2014), only approximately half of faculty indicated that IMPACT was a worthwhile time investment for early-career faculty. Table 3 below displays the thematic changes over time observed in IMPACT participants' views about teaching and learning at Purdue.

Table 3: Over the length of IMPACT's existence, instructors' views of teaching and learning have evolved markedly.

Approximately half of participants in early cohorts felt that investing in teaching development was not a valuable use of time at Purdue University.	
2011 Fall FLC	"I'm not sure they should [assistant professors taking IMPACT] ... I do not believe that it will fundamentally help them in the promotion process the way the institution is set up right now. I think that they should all be very much aware of the opportunity, in other words, an assistant professor should be able to go to CIE or an individual thing and to iTap and do these kinds of things but to spend as much time to going to meetings and doing the various activities that they want them to do and this kind of thing. I'm not sure that's the best thing to do..."
2011 Fall FLC	"...I want resources for my course. That'd be great, but, no, I don't want to not be able to finish a grant proposal because I'm spending time doing something else...I think there's a misunderstanding about how to interface with primary research appointment faculty...We have the same amount of time so eating up a bunch of time is not going to make you popular, and it's going to mean that people like me suggest to other people you don't want to do this."
2013 Spring FLC	"I just found this out yesterday through a conversation with my department head. I'm taking heat for how much time I'm putting into this course design stuff. And, you know, "You should be writing papers. You should be doing this other stuff," and saying, "Your teaching was fine as it was." And it was. I have great teaching reviews. For me to spend all this time to bring this level of rigor and everything to it, basically I was told, "You're better off without the \$10,000.00 and just keep doing what you're doing, because it's detracting from your research output.' And this is the same guy who signed off on it."
As IMPACT continued to operate, some participants identified the potential for a highly visible university investment in teaching and learning to drive culture change at the university.	
2011 Fall FLC	"Purdue's a research institution, you always get all kinds of rewards for doing research, rewards in visibility, you know publications, you have grants. The IMPACT program gives faculty a way to be recognized and meaningfully engaged about their teaching. And I think it's, it's not only tremendously important because of the outcomes it can bring, it's tremendously important just because it's visible and it comes from the provost's office..."

2014 Spring FLC	“I mean to change the culture, there has to be support from the very top levels. I don't know how to sort of educate administrators and say, "Look, one flipped classroom isn't identical to another flipped classroom." There's a whole spectrum, like you were saying. And don't expect – if you want the teaching model to change, don't expect everybody to sort of change in a uniform manner. Everybody's got to do things their own way...And so, if there was administrator support of teaching and teaching as a valuable – kind of sounds weird to say, but the university doesn't value teaching...I think there's very few departments that actually sort of place value and resources into teaching like IMPACT does, like the learning community does. And if we can transfer what we're doing here... sort of make that come from each department instead and say, "Hey, as we a hire new faculty, it's important for you to get tenure. You need to be a good teacher, not just a good researcher," or something like that. You know?”
The desired culture shift described above appears to have come to fruition. Recent IMPACT participants recognize that Purdue University now has different expectations of faculty than other research universities. No participants have expressed the sentiment (shared widely ten years ago) that valuing teaching could be detrimental to your career at Purdue.	
2021 Fall FLC	“I've been thinking a lot about how people, especially I think in STEM, are PhDs and then go to a university to teach and don't actually have any teaching experience. And even if we had been TAs, that doesn't really count as like anybody telling you how to teach people. And I was reflecting on how, as an undergraduate, it was obvious to me that the people teaching me didn't know how to teach, and how a program like this which teaches teachers how to teach would be really nice to actually, be more – I don't want to say compulsory, but it would be nice if more people did it, especially when they didn't have other teaching experience to go from because the – I mean, you get doctorate in computer science, and being able to teach computer science is not a part of that doctorate.”
2022 IMPACT Week Pilot	“You know, a lot of tenure track professors, you know, there's sort of this odd expectation where they don't want you to excel too much at teaching; the university that I come from, that was more or less the attitude. If you're teaching marks are too high, they think you're not focusing enough on your research. So, coming here, it was really delightful to learn that they placed such a premium on teaching in addition to doing your research. So, this was an opportunity for me to just get some training, I guess, that I've never really gotten before. So that was the reason I did this, and I'm really glad that I did.”

Instructor Behavior

IMPACT posits that instructor mindsets will shape their behavior around teaching and learning. IMPACT seeks to enable instructors to develop the knowledge and competencies needed to achieve their goals for their teaching practice. Instructor ability to put this knowledge into practice will shape their success. There are many ways to measure instructor behaviors around teaching and learning. Most direct is observation – however, this method is labor (and resource) intensive and cannot be employed as a monitoring process for all IMPACT participants. Thus currently, IMPACT is utilizing instructor-reported self-efficacy for classroom practices and student-reported experiences of classroom practices across all IMPACT participating instructors and their students.

To what extent (and through what mechanisms) do IMPACT fellows participate in a scholarly learning community that allows them to continually develop their teaching knowledge and practice?

IMPACT fellows report on their experiences during and after IMPACT through surveys and interviews. For AY 2021-2022, we have information on the experiences of IMPACT fellows in the spring 2022 faculty learning community. These IMPACT participants described a structured, scholarly community that provided resources centered around their needs and teaching contexts.

Key Finding: *IMPACT fellows gained confidence in their plans through the expert feedback of IMPACT faculty and staff mentors; this available expertise helped them move from concepts to tactical strategies.*

Mentors and support teams were the most valued aspect of IMPACT, which were readily available and responsive to the needs of IMPACT fellows. This support allowed fellows to fill in the gaps between ideas and actual classroom strategies. Fellows described mentors as “flexible, they were available, and they cared.” The quote below is an example of this sentiment.

*“I’m redesigning a course for a totally new audience...**the mentors were fantastic in doing that—sit down with your problem and really troubleshoot it and give you lots of ideas about how to take your goals for the course and take what you know about the course and make those two things meet and solve those problems**, which is what I had always struggled with.” - FLC participant*

Participants highly regarded their interactions with mentors during their time in IMPACT, feeling supported as individuals and educators, encouraging them to continue their relationships and instructional growth after completing the program. “I know that the mentors that we have in our particular group would be more than willing to continue to serve as a support moving forward, even outside of this whole IMPACT piece.”

Key Finding: *FLC participants appreciated the structured time and accountability provided by collaborative relationships with their peers and the IMPACT staff.*

Participants appreciated the opportunity that the FLC provided to devote time and thought to their teaching. Prior experience with or assumptions about R1 institutions had led them to believe that there may not be “an emphasis on pedagogy and teaching” at institutions like Purdue.

Key Finding: *IMPACT fellows felt that IMPACT was efficiently designed but had additional resources available for those who wanted to go deeper into any subject.*

Focus group participants felt that IMPACT instruction and materials provided ample resources to guide their pedagogical understanding of course redesign. Assigned readings were enough to scaffold discussion, but not overly time intensive. Additional information was available for those who were motivated to learn more. The quote below is an example of this finding.

*“I felt like the organizers had done a lot of work to make everything as efficient as possible. It felt like they had really sort of **pared down what we were doing to the essence of what we needed to do**, which I appreciated. It felt conscientious of my time...there were times when I wanted to follow up on something and **they always had additional materials where I could go and look up this source and read more in depth if I felt like it**, and so I thought that was great.” - FLC participant*

To what extent are IMPACT instructors implementing pedagogical practices that are equitable and inclusive? To what extent are IMPACT instructors implementing student-centered practices that support student basic psychological needs for learning and development?

In lieu of conducting observations of instructor behavior and practice regarding inclusion, we have opted to ask IMPACT fellows to self-report their perceived ability to implement these practices. Self-efficacy for behavior is strongly correlated to actual practice ([Bandura, A. \(1986a\)](#)) and is significantly less resource intensive to monitor.

Key Finding: *After participating in the spring 2022 FLC, IMPACT fellows had an enhanced sense of their own self-efficacy for student-centered and inclusive pedagogy.*

The survey results for the self-efficacy for student-centered pedagogy scale suggests that participants gained significant increases in three aspects of self-efficacy for student-centered pedagogy: 1) confidence in ability to adapt teaching to student needs and prior experience; 2) confidence in ability to create a learning environment that enhances student knowledge of the course material; and 3) the ability to create a learning environment that enhances student engagement with the course. Figure 5 displays the pre and post mean scores for each item in the scale.

Figure 5: Rise in Instructor Self-Efficacy for Student-Centered Pedagogy after IMPACT FLC.



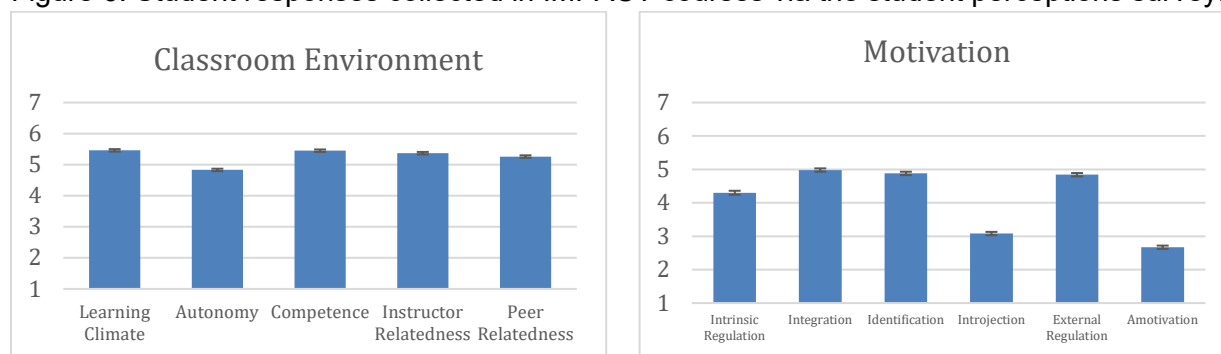
Classroom Environment

In IMPACT, we define a student-centered classroom as autonomy-supportive, where the environment satisfies students' basic psychological needs of autonomy, competence, and relatedness. As demonstrated in self-determination theory, when students' basic psychological needs are met, they show increased levels of autonomous motivation which leads to positive academic outcomes such as increased persistence, effort, and higher grades.

To what extent are IMPACT courses autonomy-supportive after transformation?

In the AY 2021-2022, data from students enrolled in courses taught by current and previous IMPACT fellows in Spring 2022 was collected. In total, 888 student responses were received. The majority of students in courses designed in IMPACT reported that the learning environment was autonomy-supportive and indicated basic needs satisfaction (autonomy, competence, and relatedness). In addition, most students reported high levels of self-determined forms of motivation (e.g. Identification) and, in general, lower levels of non-self-determined motivation (e.g. introjection) with the exception of external regulation. This is expected in a higher education context where courses are part of a required program of study.

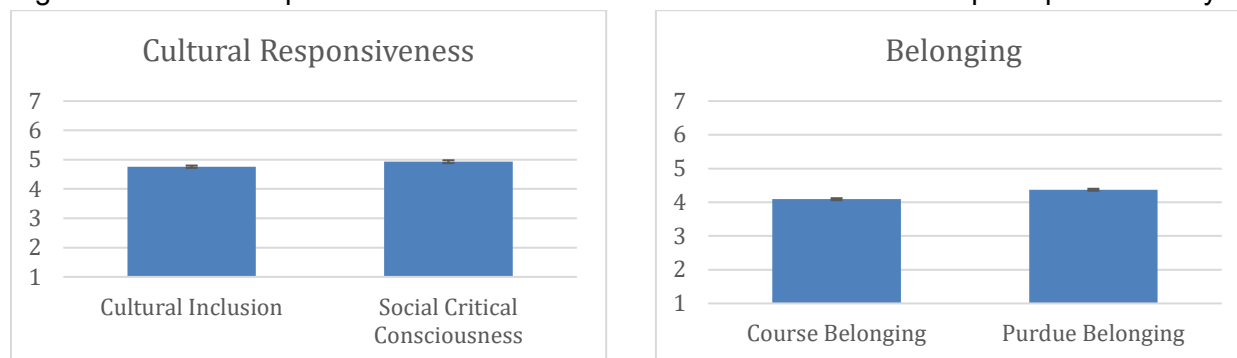
Figure 6: Student responses collected in IMPACT courses via the student perceptions survey.



To what extent are IMPACT courses inclusive once they are transformed?

Data from the IMPACT student perceptions survey indicated that the majority of students in courses transformed in IMPACT reported high levels of inclusion.

Figure 7: Student responses collected in IMPACT courses via the student perceptions survey.



Conclusion

Since the inception of IMPACT, there has been a noted culture change in teaching and learning due to support and investment from upper administration. Institutional commitments—including ongoing IMPACT expansion and the creation of new active-learning classrooms—contribute to a culture change at Purdue that emphasizes student-centered teaching and learning. IMPACT was written into the proposal that obtained funding for the new Gateway Complex building and played a large role in the creation of the Wilmeth Active Learning building.

The IMPACT program has become recognized and valued across campus, and each offering fills to capacity with minimal advertising and recruitment from the team thanks to peer referrals, departmental encouragement, and the prioritization from instructors of high-quality teaching. IMPACT has facilitated and fostered instructor excellence at scale by providing pedagogical strategies to foster the creation of an engaging environment that is motivational and fulfilling. Higher levels of motivation and engagement have been associated with higher levels of retention and persistence ([Devonport, T. J., & Lane, A. M. \(2006\)](#)).

Faculty have changed the way they think about their pedagogical practices and have increasingly used their experience in IMPACT in their tenure and promotion packages and award applications, including the highest teaching honor at Purdue, the Murphy Award. From 2012-2014, 41% of Murphy Award winners were IMPACT fellows and from 2014-2022, that number jumped to 58%, showing the shift of student-centered teaching being valued at the institutional level.

As shown by student performance and retention, it is evident that Purdue's investment in teaching and learning has been advantageous. Purdue has consistently seen a drop in DFW rates in large, introductory-level courses and an improvement in student GPAs. For IMPACT courses surveyed between spring 2014 and spring 2017, a correlation between students' rating of the student-centered learning environment and mean final grade was observed. During the 2017 academic year, DFW rates were also improved for 9 out of 12 large, foundational, high failure courses (IMPACT Management Team & IMPACT Assessment Team, 2017).

Beyond Purdue, the success of the IMPACT program has received national recognition (including features in [The Chronicle of Higher Education](#) and [Change Magazine](#)) and continues to receive inquiries to learn more about the program. IMPACT has supported other universities in the creation of similar programs and initiatives based on IMPACT, including University of Michigan, Indiana University, University of Maryland, and the [SEISMIC](#) collaboration. The partnership and work represented by IMPACT drives ongoing excellence at Purdue and keeps Purdue at the forefront of transformative education nationally and globally.