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Annual IMPACT report 2021: A report by the IMPACT evaluation team

IMPACT Management Team

IMPACT Evaluation Team

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The logo features the word "IMPACT" in a bold, sans-serif font. The "i" is lowercase and black, while the "M" is uppercase and black. The "P", "A", "C", and "T" are uppercase and gold. The logo is centered within a large, dashed orange circle. Below the logo, the text "Instruction Matters: Purdue Academic Course Transformation" is written in a smaller, black, sans-serif font.

iMPACT

Instruction Matters: Purdue Academic Course Transformation

2021 Annual Report

EXECUTIVE SUMMARY

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. From the first cohort in fall 2011 through summer 2021, the semester-long IMPACT program has had 397 faculty participate, transforming 407 courses and influencing over 1,934 undergraduate and graduate face-to-face, hybrid, and online courses. In that same time frame, 91.4% of undergraduate students registered for at least one course taught by an IMPACT Faculty Fellow. Furthermore, after completing the IMPACT Faculty Learning Community (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, the IMPACT team pivoted to develop and deliver IMPACT X+, a fully online program which embodied the core outcomes of IMPACT in a condensed format. The quick response was vital to supporting and preparing instructors for the call to create highly flexible learning environments with a strong online backbone. IMPACT X+ reached 186 unique instructors from fall 2020 through summer 2021. This report highlights accomplishments of IMPACT X+, assessment data regarding effectiveness, the revision process undertaken this year, and the bright innovative future that the IMPACT team is planning.

INTRODUCTION

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

IMPACT, a faculty development program, uses a cohort-based model built around a strong faculty learning community (FLC). It 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. Staff and faculty from these units work in teams with IMPACT Faculty Fellows to:

- **Define an appropriate transformation goal for their particular course that takes into account content, discipline, course size, faculty preferences, and abilities;**
- **Reflect on teaching and learning philosophy through time engaged in discussion with peers;**
- **Identify course-level learning outcomes; and**
- **Map those learning outcomes to course activities and assessments that enable all students to successfully meet the course goals.**

IMPACT OFFERINGS DURING THE 2020-2021 ACADEMIC YEAR

IMPACT X+

Due to the COVID-19 pandemic, faculty this past year were under a great amount of stress navigating the unusual times we were in, the continuously changing protocol recommendations, and the need to offer HyFlex instruction. Most instructors had limited availability, energy, and cognitive bandwidth to focus on redesigning a course, since all their instruction was being adapted, and it therefore would not have been a beneficial time for faculty to participate in our in-person, semester-long IMPACT FLC. Thus, we did not offer our regular programming during the 2020-2021 academic year. Alternatively, to support the campus need of offering HyFlex courses that could be conducted both in-person and remotely, we offered 7 cohorts of the facilitated IMPACT X+ program. IMPACT X+ is a 3-week program that distills the core course design elements of IMPACT into a set of modules which were then tailored to apply to five specific course types that were proving to be especially challenging to conduct in a hybrid format. Instructors work through the content asynchronously and then can receive direct feedback on their design, delivery, and implementation choices from the IMPACT team via written feedback, discussion boards, and daily, synchronous, drop-in sessions.

IMPACT X+ Reach

Cohort	# Instructors Enrolled
October 2020	4
November 2020	18
December 2020	38
January 2021	30
April 2021	24
May 2021	35
June 2021	44
A total reach of:	186 instructors*

*Seven instructors went through the program twice

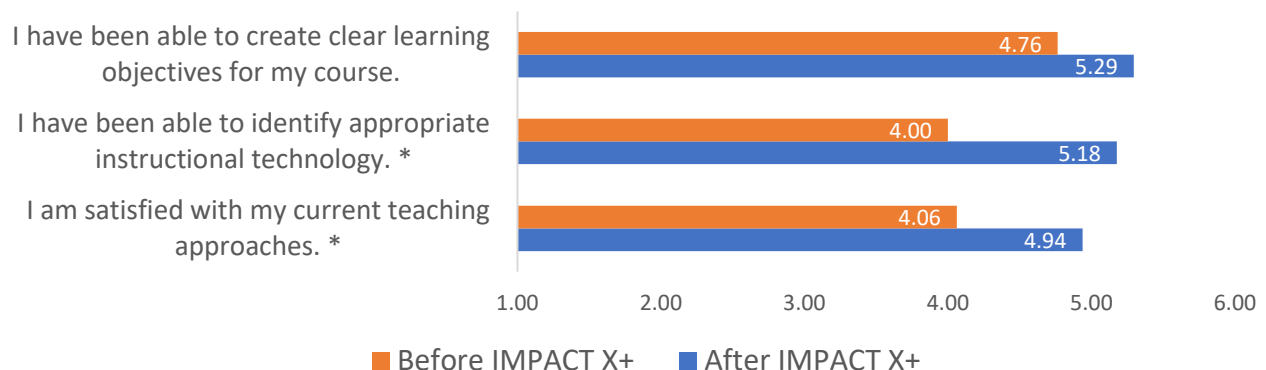
IMPACT X Access

In order to provide the content of IMPACT programs to the broader instructional community, beyond the facilitated program offerings, we created IMPACT X Access. This asynchronous, online, non-facilitated resource was open to anyone at Purdue looking for support in designing a flexible, student-centered course. There were 91 instructors who enrolled between August 2020 and August 2021, adding to the 362 instructors previously registered, for a total of **453 instructors reached**. This is in addition to past IMPACT X and X+ participants who were also added to the site upon completion of their program.

EVALUATION OF IMPACT X+ FACULTY DEVELOPMENT

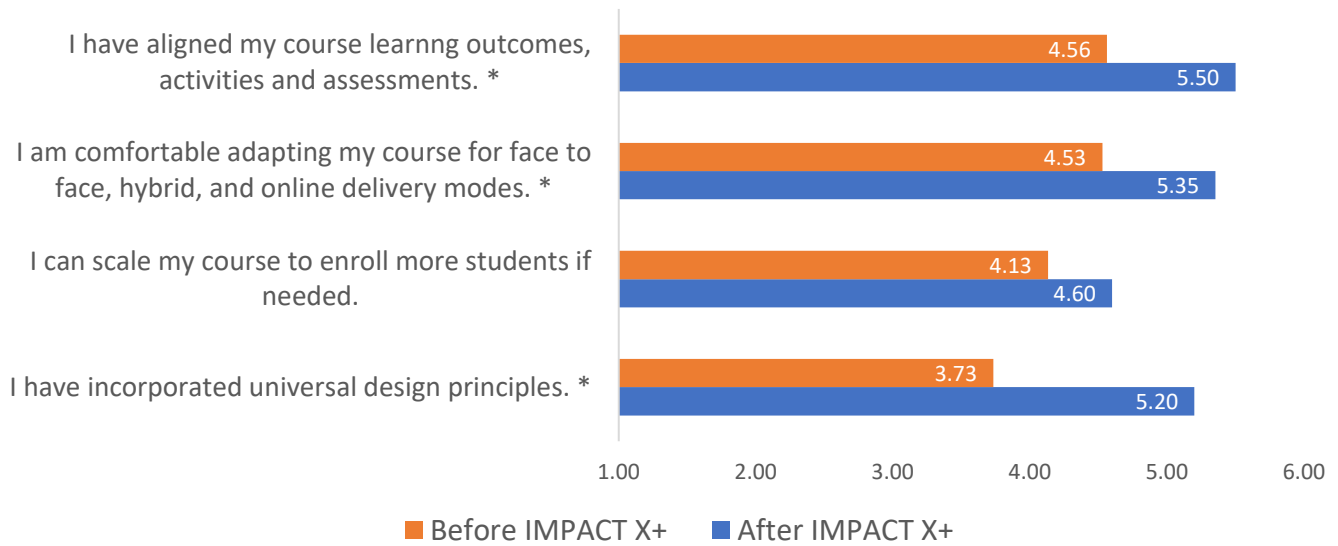
As with all IMPACT faculty development programs, the ELRC and IMPACT evaluation team developed surveys to monitor faculty experiences in the program and assess the extent to which the program achieved its intended outcomes. Pre- and post-participation surveys for IMPACT X+ were gathered from participants in X+ programs in fall 2020, spring 2021 and summer 2021. Faculty survey responses were analyzed for significant change from pre to post participation using Wilcoxon signed ranks test for each survey item. Results suggest that participation enhances faculty self-efficacy for student-centered pedagogy, faculty teaching satisfaction and faculty beliefs about the resiliency of their course design. The figures below display response means for each survey item organized by area of focus. Means were calculated using only data from participants who completed *both* the pre and post survey. For this analysis 23 IMPACT X+ participants completed both the pre and post survey. Finally, items with significant change from pre to post as indicated by Wilcoxon signed ranks tests are indicated with an asterisk.

To what extent did faculty (N=23) satisfaction with teaching change after participating in IMPACT X+?



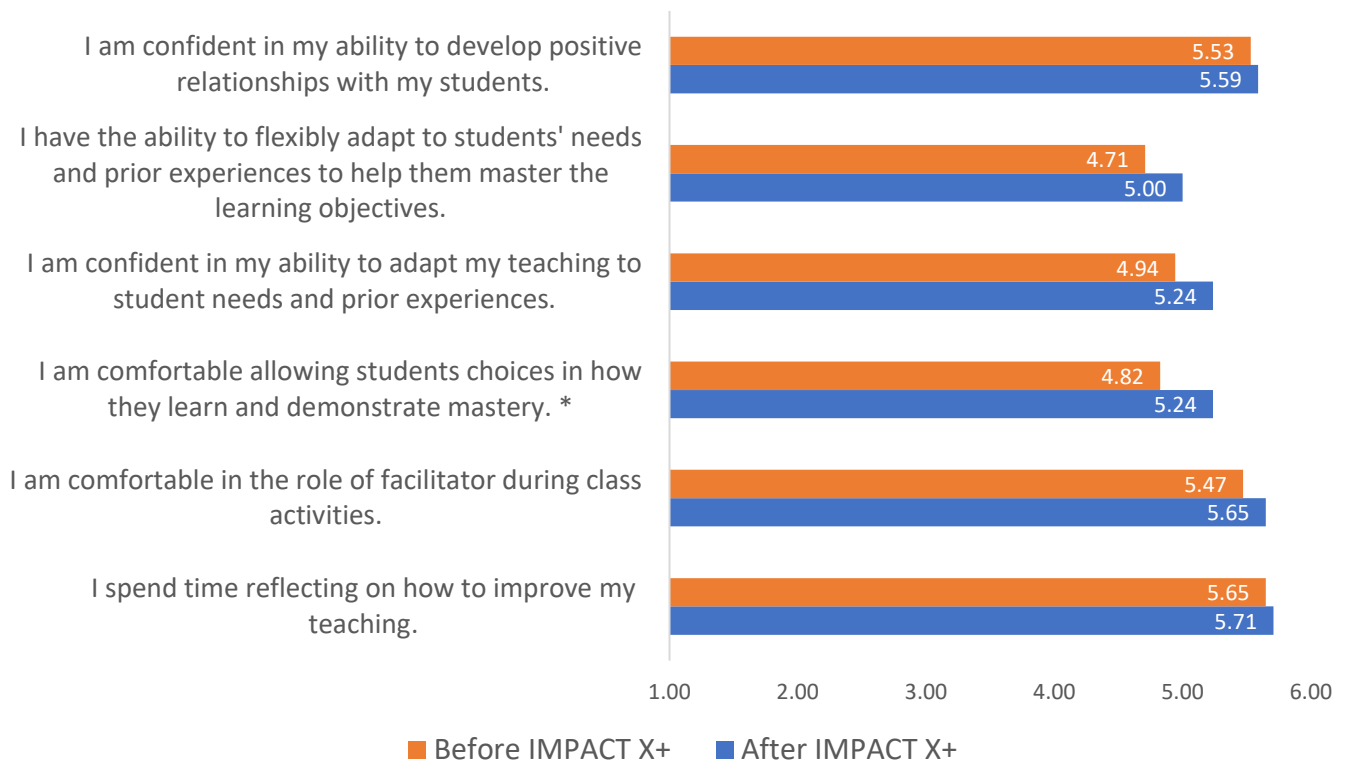
Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

To what extent did faculty (N=23) beliefs about the resiliency and design of their course change after participation in IMPACT X+?



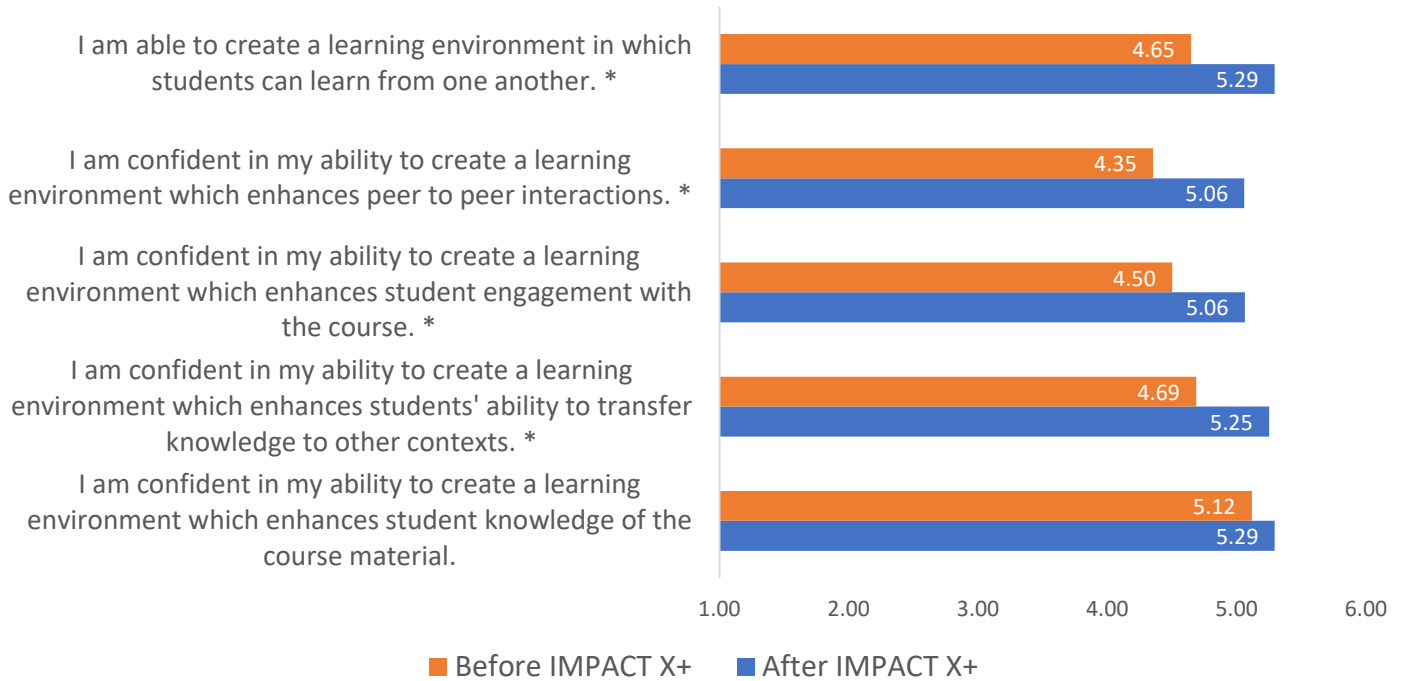
Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

To what extent did faculty (N=23) self-efficacy for student-centered pedagogical practices change after participating in IMPACT X+?



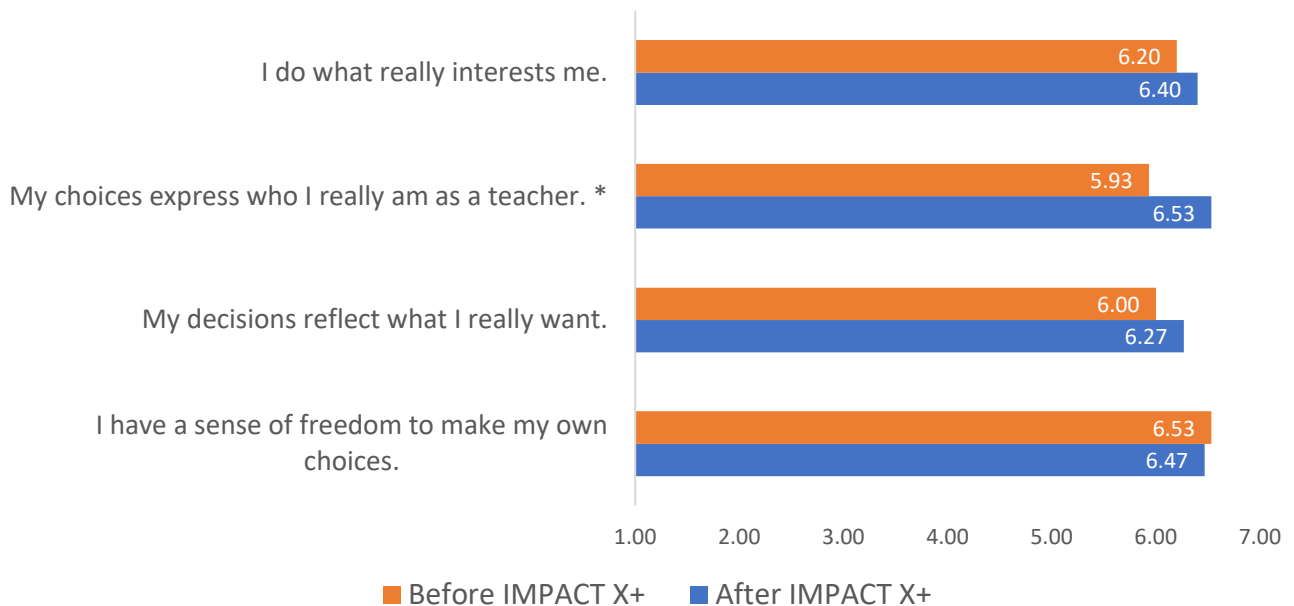
Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

To what extent did faculty (N=23) self-efficacy for student-centered pedagogical practices change after participating in IMPACT X+?



Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

To what extent did faculty (N=23) autonomy beliefs about teaching change after participating in IMPACT X+?



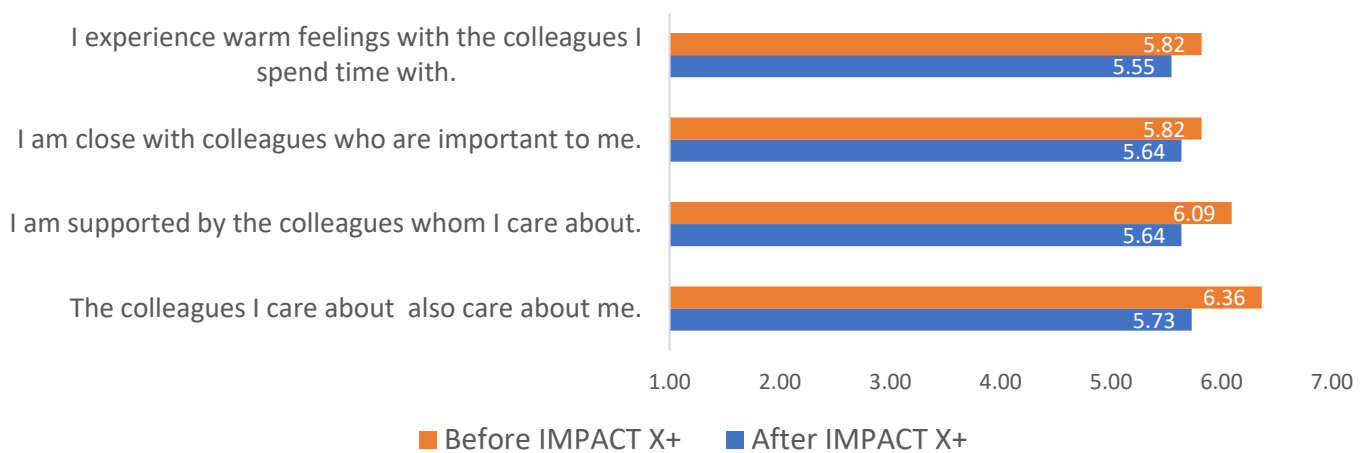
Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

To what extent did faculty (N=23) competency beliefs about teaching change after participating in IMPACT X+?



Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

To what extent did faculty (N=23) relatedness beliefs about teaching change after participating in IMPACT X+?



Note: * indicates significant change at the $p < 0.05$ level as indicated by Wilcoxon signed ranks test.

In addition to closed response items, the post-participation survey included opportunities for participants to share their perspectives on the IMPACT X+ experience and suggestions for future modifications and offerings. The faculty participants in X+ offered many potential suggestions for continually improving these faculty development resources. Faculty would appreciate additional opportunities to engage with their colleagues (both with other fellows and instructional staff) online to discuss teaching further and to help create motivation to engage with the X+ materials and to explore concerns in their practice. They would appreciate more individualized tasks and resources depending on their needs, including personalized instruction. Similarly, they suggested breaking apart complicated, labor-intensive deliverables (such as the CDP) into more manageable pieces that could be connected to one another for sustainable improvement.

According to the faculty who participated, IMPACT X+ was effective in enhancing the resiliency of the design of their course and their ability to create a classroom environment that supports student learning. Faculty in X+ appreciated the opportunity to connect with other instructors and share their knowledge and experiences, to thoughtfully consider their course design and the “whys of what [they] do in a classroom regardless of setting (face-to-face, online, et al.),” and the opportunity to become familiar with the new LMS system to meet their individual teaching needs.

IMPACT REVISION

Background and Rationale

Now in its 10th year of existence, the IMPACT program has become a well-known brand, working with all 13 colleges at Purdue and nearly 400 faculty in our 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 our success. 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/redesigned in IMPACT.

As IMPACT has grown, there have been a number of additional programs and projects developed to supplement the semester-long Faculty Learning Community, each created to meet a specific need. While the regular, semester-long programming was paused during the COVID-19 pandemic, the IMPACT team took advantage of this disruption, pausing to reflect on and evaluate the program’s core values, key foundational elements, and ensure the future vision of the program stays aligned across all facets.

Taking into consideration the current, expanded portfolio of IMPACT opportunities and changed climate the world is in, the team took measures to assess the community needs and aimed to clearly define and align the portfolio of IMPACT opportunities to offer moving forward, thus establishing the vision of what the future of IMPACT will look like, at Purdue and beyond.

Beginning in January 2021, the IMPACT team initiated this program-level revision by:

1. **Assessing** community needs, which would inform the **selection** of program offerings best to provide, internally and externally;
2. **Evaluating** the overarching IMPACT goals which would be at the core of all program offerings and evaluation;
3. **Updating** program materials and content to have an increased focus on diversity, equity, and inclusion, be reflective of the most current, evidence-based instructional recommendations, and be aligned across all program versions.

Data Collection

To gain a more complete understanding of how IMPACT can best serve the instructional community at Purdue, the IMPACT team conducted surveys to assess what needs were being met and identify remaining gaps that could be filled.

The team surveyed 1) deans, associate deans, and department heads (n=13), requesting feedback on their priorities and vision of how IMPACT could better serve them and their faculty, and 2) past Faculty Fellows (n=140), asking what they would change about the curriculum, what barriers they perceive to participating, and what length and modality of the program they would prefer. The IMPACT team also curated and examined the nature of external inquiries received from individual faculty and Teaching and Learning Centers requesting to participate or meet with the IMPACT team. Lastly, the IMPACT team reviewed the portfolio of existing programs and development opportunities currently available to the instructional community beyond IMPACT, including graduate teaching certificates and programming, consultations, and full course production, and considered the unique benefits each fulfilled.

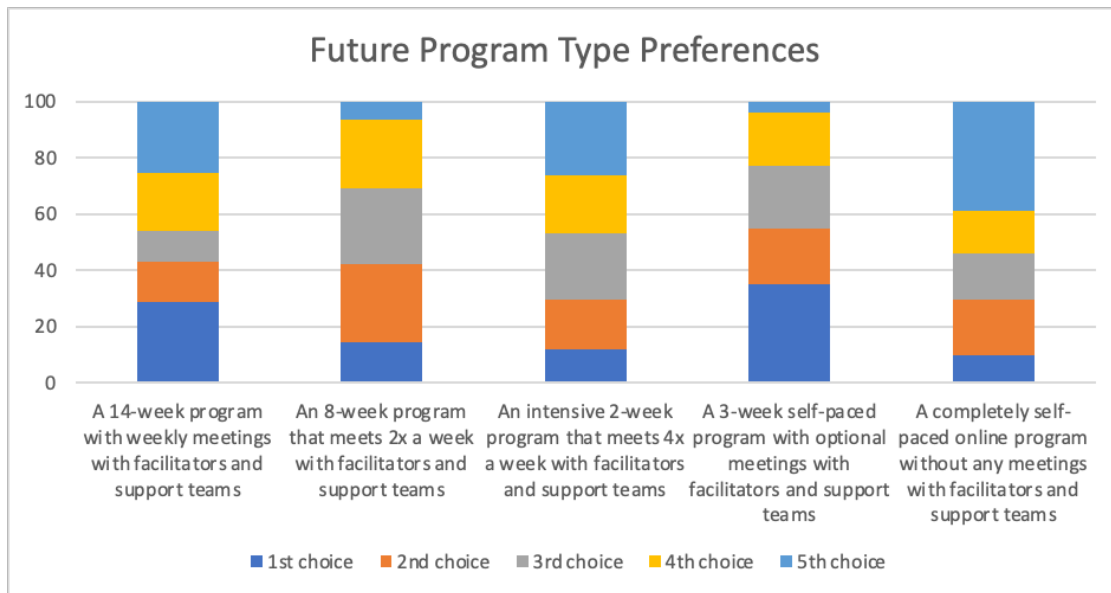
Results from Past Participant Survey

Program Type

The survey data suggest going forward, we should continue to offer two types of programs:

- a 14-week program with weekly meetings with facilitators and support teams, and
- a 3-week self-paced program with optional meetings with facilitators and support teams.

Interestingly, past participants preferred the type of program that they participated in: many participants in the full FLC (N = 53) ranked the 14-week program as their first choice while many non-FLC participants (N = 87) ranked the 3-week program as their first choice.

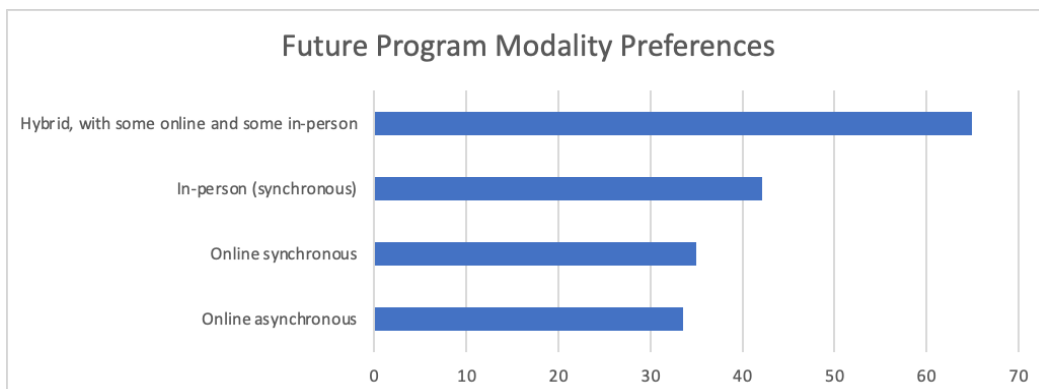


Program Timing

The survey data suggest that we should offer programs year-round. Participants were fairly equally interested in programs in all three summer months (June, July, August), J-term, and semester-long. FLC participants were most interested in semester-long programs while non-FLC participants were most interested in summer sessions.

Program Modality

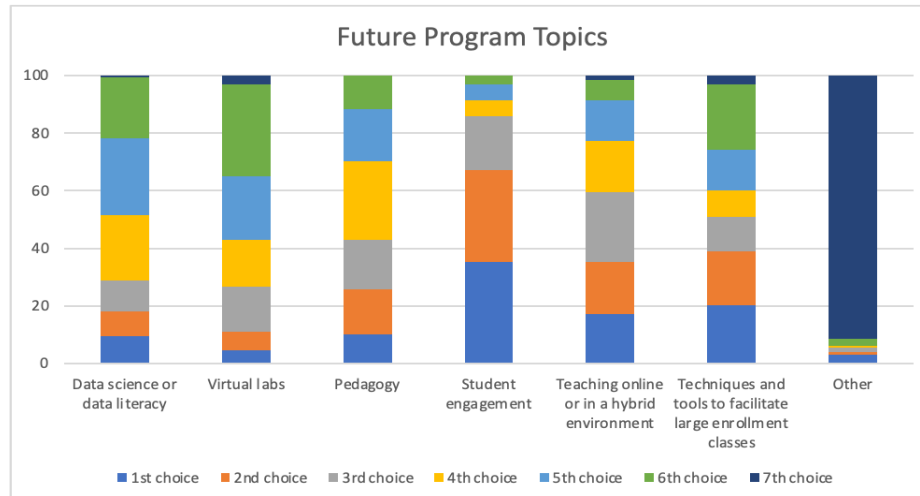
The survey data suggest that we should offer programs in multiple modalities. All participants were interested in Hybrid programs while FLC participants were much more interested in In-Person programs than non-FLC participants and non-FLC participants were much more interested in asynchronous online programs than FLC participants.



Future Program Topics

The survey data suggest including more topics around:

- student engagement (by far the most popular choice),
- teaching online or in a hybrid environment, and
- techniques and tools to facilitate large enrollment classes.



Program Preferences

Survey participants were asked to choose between two options in a number of questions. Some preferences were clear overall suggesting that in all programs we should emphasize:

- More facilitated program with interaction with support team **rather than** non-facilitated program where you complete program individually
- More discussion with IMPACT support team **rather than** more discussion with other faculty
- More time focused on application examples **rather than** more time focused on educational theory
- More content discussed in each session **rather than** more pre-work to complete prior to sessions

Other preferences were split by FLC/non-FLC participants suggesting different priorities depending on the program:

- FLC participants preferred a longer program that allows more time for reflection **while** non-FLC participants preferred a shorter but more intensive program that could be completed faster.
- FLC participants preferred more time with IMPACT support team members **while** non-FLC participants were split between that and more individual work on your own.

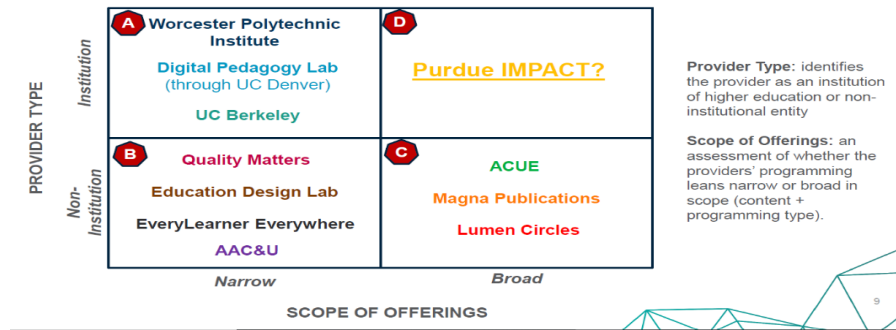
The last preference did not show a clear consensus suggesting making no changes to:

- More time focused on content specific to my discipline **versus** more time focused on interdisciplinary or broadly applicable content.

Market Research

With the goals of assessing faculty development needs and opportunities outside of Purdue and reviewing and benchmarking IMPACT against comparable programs nationwide, the IMPACT team partnered with Eduventures, a third-party company that offers “proprietary research, analysis, and advising services to support decision-making throughout the student lifecycle.” Phase I of this project was a market analysis to gauge existing faculty development precedents to inform the possibility of marketing IMPACT to other institutions. As part of this phase, Eduventures set out to find the extent to which U.S. colleges and universities already turn to third party faculty development programs, as opposed to building and delivering their own development program in house, and their reliance on programs from associations (e.g., Quality Matters, ACUE), companies (e.g., OPMs) and individual institutions.

Provider Assessment. Eduventures was unable to find a direct precedent for Purdue IMPACT.



Upon completion of this review, the project report stated, “Eduventures was unable to find a direct precedent for the IMPACT program in terms of comparable provider type and scope of offerings. There was no direct precedent found for Purdue’s vision, but there is evidence of significant demand for faculty development, the potential for revenue, and a chance to occupy a distinct market segment.” Eduventures found IMPACT’s top strengths that set the program apart to be that the program centers on a well-established, strong, theoretical framework (self-determination theory) and has proven outcomes, demonstrated by ten years of data to support its claims of improving student success.

After this encouraging Phase I, the IMPACT team has proceeded to Phase II with Eduventures. This next phase will involve 15 qualitative interviews with vice-provosts and teaching and learning influencers from a variety of other colleges and universities to address the following questions:

- i. How do faculty development experts/influencers, and leaders at institutions that might be potential IMPACT customers react to the idea of Purdue IMPACT entering the market?
- ii. If reception is positive, what go-to-market strategy should Purdue pursue?

IMPACT looks forward to entering the market, allowing the program to extend beyond Purdue to advance higher education worldwide.

PROGRAM UPDATES

Mission and Program Outcomes

After numerous discussions and examining the findings from the surveys conducted, the IMPACT Management Team identified the core elements that are essential to the IMPACT brand and therefore should be included in all offerings. The IMPACT team found that the overarching mission and outcomes did not change drastically, demonstrating that the program has remained true to its initial focus and has not veered too far in any one direction over the past ten years.

The previous program mission was **to work with faculty to produce a student-centered, autonomy-supportive learning environment.**

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

Our previous outcomes of the program were:

- **Refocus the campus culture on student centered pedagogy and student success;**
- **Increase student engagement, competence, and learning gains;**
- **Focus course transformation on effective research-based pedagogies;**
- **Reflect, assess, and share IMPACT results to benefit future courses, students, and institutional culture.**

The revised 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**

Our revised program-level outcomes will be evaluated across all versions of IMPACT programming and are what classify a program as being an IMPACT program. Each offering will identify mid-level strategies that indicate how that program uniquely will support faculty in achieving the over-arching outcomes above.

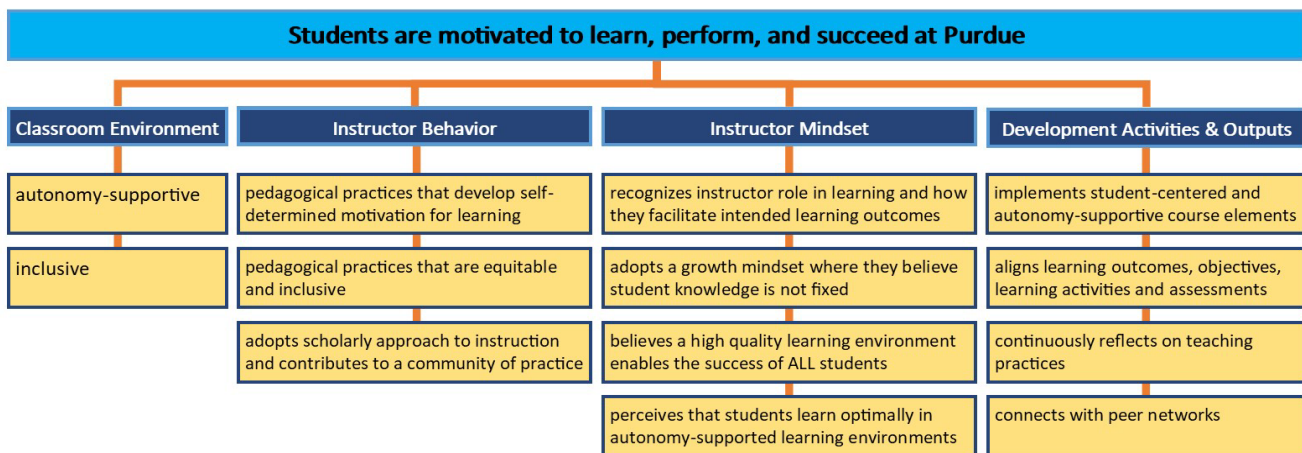
Future Program Offerings

Based on faculty responses, our assessment of non-IMPACT resources, and the instructional community’s needs, the team has decided to move forward with three versions of the IMPACT program:

- **1-Week:** Intensive, fully remote, covers core IMPACT elements, daily synchronous drop-in sessions, and written facilitator feedback
- **1-Month:** Mid-length, hybrid cohort model with mix of asynchronous online work and synchronous discussion sessions
- **1-Semester:** In-depth, in-person, extended time for deeper reflection, conducted in cross-disciplinary groups with direct access to support team members

IMPACT Program Logic Model

Upon identifying the core elements that define IMPACT programming and establishing the three program models moving forward, we took this opportunity to revisit the overall IMPACT evaluation plan. As originally written, the evaluation of IMPACT focused on the in-person, cohort-based FLC model so we wanted to update the evaluation plan which would align all IMPACT programs with the theoretical framework and our over-arching program goals. To this end, we created a new logic model 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.



Program Content Updates

We have made adaptations to the IMPACT program to emphasize the importance of creating inclusive classroom environments that support the success of all students. These updates align with the priorities and

goals outlined in Purdue's Transformative Education 2.0 Roadmap with the Maximizing Student Potential structure, as well as the recommendations and goals of the Equity Task Force. In collaboration with the Office of Diversity, Inclusion, and Belonging, we incorporate meaningful discussions around understanding and valuing student perspectives and experiences, which aligns with the underlying theoretical aim of supporting students' basic psychological needs.

Specifically, we have updated many of the sessions to be more explicit in addressing and discussing research on stereotypes, our unconscious biases, and the importance of proactively focusing on these in the classroom and in the faculty's course redesigns. We stress the importance of students feeling they can bring their whole selves to class, and that the ultimate goal is all students achieving the course learning outcomes. IMPACT faculty are presented with statistics and patterns seen across institutions and are asked to discuss, reflect, and question ways to make their syllabus and class policies more inclusive, diversify their content representation, and implement grading practices that support the learning of all students.

Historical Data Reports

Through our work with the SEISMIC collaboration, we learned about course equity reports that the University of Michigan are providing to some of their faculty, including faculty completing their Foundational Course Initiative program (similar to IMPACT). As part of the IMPACT redesign, we have decided to create historical data reports for each Fellow to help inform their redesign and identify any potential equity issues within their courses. We created a template for the historical data reports which includes enrollment data, student demographic data, grade data and guiding reflection questions for each course going back five years. The report includes a section on equity comparisons showing any potential grade differences by student gender, underrepresented minority (URM) status, international student status, and first-generation student status. Additionally, we included a measure called grade anomalies which shows how students' grades in a particular course compare to their grades in other courses. Grade anomalies are calculated by removing the student's course grade from their overall GPA and then subtracting that student's course grade from the newly calculated GPA. Looking at all students' grade anomalies together, one can see whether a course tends to give higher grades (called a grade boost) or lower grades (called a grade penalty) than most other courses. Having a grade boost or penalty is not good or bad in itself but is important to consider the context of the course to determine if the grade boost/penalty is appropriate for the course. Grade anomaly data can help identify equity issues which may not be apparent from simply looking at grades alone. We hope to pilot the historical course reports in Spring 2022.

SUMMARY

For over a decade, IMPACT has led the way in shifting perspectives and supporting instructors in successfully creating student-centered learning environments without removing the rigor for which Purdue is known. As a result, more students successfully navigate courses, including large, foundational courses, thus decreasing student time to degree and cost. This past year disrupted IMPACT just as it did the rest of the world, yet the established IMPACT partnerships enabled the team to quickly pivot and offer programming that uniquely supported instructors. Our team worked with 186 instructors in IMPACT X+ to problem-solve ways to best provide students flexibility while also achieving the course learning goals.

As IMPACT continues to expand, offering various versions of the program and supplemental projects, our future reporting will be amended to reflect our streamlined evaluation plan and will utilize a revised method of tracking faculty and courses influenced by the program.

The partnership and work represented by IMPACT drives ongoing excellence at Purdue and continues to keep Purdue at the forefront of transformative education nationally and globally. We look forward to broadening our reach while remaining true to our core mission of supporting instructors in enhancing their pedagogical practices to create autonomy-supportive and inclusive learning environments to foster student success.