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EVIDENCE SUMMARY

Effective Learner-Centered Teaching Practices in Higher Education and How to Improve Faculty Uptake

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By Kristen Bub for the Data and Evidence for Education Programs (DEEP)

Brief Description

Over the last several decades, greater social, economic, and geographic diversity of learners, combined with governments' needs to compete more effectively in the global market, improve university completion rates, and increase employer satisfaction of recent graduates, have made it necessary to re-evaluate the way higher education is delivered.[1] This has opened the door to considering the role of learner-centered pedagogy in meeting these demands. Despite broad recognition of the value of learner-centered instruction in higher education settings, specific pedagogical practices are not uniformly understood and formal efforts to train and support faculty in implementing these strategies remain relatively limited.[2] Even more scarce are formal evaluations of faculty training and development efforts, especially in contexts outside of the United States.[3]

This document contains the following sections:

Although research on this topic is nascent, this brief summarizes existing research-based evidence on effective learner-centered pedagogical practices, factors associated with the successful application of these approaches, barriers to their integration, and strategies for overcoming them. This brief focuses specifically on university settings that serve undergraduate students at the bachelor's degree level and is intended as a resource for USAID, its partners, higher education institutions, and higher education systems.

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[1] Da Silva, 2017; Hatim, 2020; Henard & Leprince-Ringuet, 2008; Lazrak & Yechouti, 2017; Pitan & Adedeji, 2012; Kehm & Stansaker, 2009
[2] Gilbert & Gibbs, 1999; USAID, 2020
[3] Feixas & Zellweger, 2009

SECTION 1:

What Are Learner-Centered Pedagogical Practices in Higher Education?

Pedagogical practices refer to the strategies and techniques used to support student learning and development in higher education.[5] **Learner-centered pedagogical practices,** also referred to as active-learning pedagogy or learner-based inquiry, are defined as any teaching methods that require students' active engagement in the learning process through activities or experiences designed to shape content and build knowledge and understanding.[6] In this approach, learning is influenced by learners' needs, interests, and skills.[7] The focus of learner-centered pedagogy in higher education, as in all contexts, is on developing students' knowledge and skills rather than the direct transmission of information or knowledge.[8] Students are required to actively participate in their learning to enhance critical thinking and problem-solving.[9] Through this process, students are thought to develop a greater sense of autonomy around their own learning and thus take greater responsibility for it.[10]

Key Components of Learner-Centered Pedagogy

Effective learner-centered pedagogy usually involves[11]:

- **Active participation:** Learners are actively involved in learning and interact with both peers and faculty.
- **Adaptation to learners' needs:** Learners' prior knowledge, skills, and experiences must be considered when planning, to make learning flexible and adaptive.
- **Autonomy:** Learners take responsibility for their own learning and develop their metacognitive (i.e., learning to learn) skills.
- **Relevant material:** Content is relevant to learners' lives, allowing them to develop key analytical, critical thinking, and creative skills.
- **Power sharing:** Learners, faculty, and peers engage in shared decision-making through dialogue.
- **Formative assessments:** Learning is viewed as an ongoing process that benefits from formative assessment (e.g., self- and peer-assessment).

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[4] USAID, 2021
[5] Siraj-Blatchford et al., 2002
[6] Kember, 1997; Leu et al., 2006; Wolf-Wendel et al., 2009
[7] Schweisfurth, 2013
[8] Bonwell & Elson, 1991; Ginsburg, 2006; Mayer, 2004
[9] Wagner, Baum & Newbill, 2014
[10] Lea, Stephenson & Troy, 2003
[11] Bremner, 2021

EFFECTIVE LEARNER-CENTERED PEDAGOGY IN HIGHER EDUCATION: BRIEF AT A GLANCE

The summary below is based on existing global evidence and promising practices but should be interpreted with the following caveats: (1) faculty development programs are just one step in increasing faculty uptake of learner-centered practices and other implementation barriers must also be considered; (2) Formal efforts to prepare and support faculty in implementing learner-centered strategies are limited; and (3) systematic evaluations of existing practices are scarce, especially outside of the United States. As a result, little is known about what specific features of faculty development programs lead to improvements in instructional quality or student learning in diverse contexts. Details on each of these areas can be found throughout the brief and suggestions for future research are provided.

Initial Recommendations to Overcome Barriers to Implementing Learner-Centered Practices

Research suggests that there are a number of common barriers to implementing learner-centered practices that may be considerable in some contexts.[12] These include physical, institutional, pedagogical/cultural, educational, student, and technological barriers. To address **physical barriers,** consider creating flexible learning spaces that facilitate social interactions. To address **institutional barriers,** consider providing faculty with incentives and departmental and institutional support to encourage innovation in practice. To address **pedagogical/cultural barriers,** consider offering contextually relevant evidence of effectiveness and examples of practice in diverse contexts. To address **educational barriers,** consider developing faculty training programs on implementing effective learner-centered practices and offer ongoing support to encourage continued growth in using these practices. To address **student barriers,** consider offering orientation sessions or modules demonstrating learner-centered approaches as (or before) students enter higher education institutions. To address **technological barriers,** consider developing campus-wide information technology networks, adopting a common learning platform, and training faculty on the use of this platform.

Initial Recommendations to Improve Faculty Preparation and Support

In addition to careful consideration of the barriers described above, higher education institutions may be able to increase faculty uptake of learner-centered pedagogy through professional development or training programs. Professional development programs should **provide explicit training and continuous support** for learner-centered practices, **clarify the benefits** of this approach for learners and educators, be **culturally appropriate,** and be guided by adult learning and active-learning principles. Effective programs teach faculty how to ensure that the learner-centered activities they select **align with course learning objectives,** and offer guidance on how to make the purpose of the activity clear to students. Professional development programs should also provide **strategies to assess** both the **efficacy of the activity** and **student learning outcomes.** Institutions might consider using a learning management system (LMS) for continuous assessment and improvement. Finally, institutions should consider offering guidance on how to **use teaching assistants effectively** to support learner-centered practices, especially in large classes.

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[12] Børte et al., 2023; Shah, 2020

FOUNDATIONS OF LEARNER-CENTERED PEDAGOGY

Theorists such as John Dewey, John Piaget, Jerome Bruner, and Lev Vygotsky laid the foundation for what is now commonly referred to as learner-centered pedagogy. Learner-centered pedagogical practices derive from a **constructivist perspective**, which emphasizes the importance of building knowledge from experience, merging new knowledge with previous knowledge, and modifying existing knowledge to accommodate new information.[13] Proponents of this perspective recognize the value of "learning by doing," or actively engaging students in the learning process.[14] In this case, the role of the instructor is to create the necessary conditions for active learning and knowledge construction.[15]

A second perspective, that has strongly influenced the understanding of learner-centered pedagogical practices, **social learning theory,** is more social in nature and reflects the notion that students learn by observing and interacting with others, particularly others who are more knowledgeable, including instructors and peers.[16]

There have been significant advances in understanding and evaluating the benefits of learner-centered pedagogy, but constructivism continues to serve as the foundation of this understanding.

Application of Learner-Centered Pedagogy in Higher Education

Learner-centered pedagogy can take many forms, ranging from relatively simple to quite complex. Common learner-centered approaches include reflection activities and facilitated discussions, cooperative learning, flipped classrooms, project- or problem-based learning, and experiential or service learning (see Annex A for brief descriptions of common learner-centered pedagogical approaches).[17]

Simpler learner-centered strategies, such as periodic reflection activities and facilitated discussions, are easier to implement for faculty and instructors who are used to lecturing because they can be readily integrated into lecture-based courses. More complex strategies like problem-based learning, which focuses on learners identifying solutions to real-world problems and faculty providing expert facilitation, and flipped classrooms, which divides learning into work outside of the classroom and hands-on activities inside the classroom, require advanced planning. They often take more class time and are used less frequently in traditional lecture-based courses.[18] Although many learner-centered practices are more readily implemented in smaller classes, nearly all of them can be adapted to larger classes.[19] These practices can also be applied in any discipline.

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[13] Dewey, 1916; Friere, 1972; Piaget, 1969; Vygotsky, 1978; Bransford et al., 1999
[14] de Baessa et al., 2002; Duffy & Cunningham, 1996
[15] Schuh, 2003
[16] Bandura & Walters, 1977; Vygotsky, 1962
[17] Bonwell & Eison, 1991; Carr, Palmer & Hagel, 2015; Prince, 2004
[18] Keyser, 2000
[19] Heurta, 2007; McKeachie 2002

SPOTLIGHT: FLIPPED CLASSROOM PROGRAMS IN THE MIDDLE EAST IMPROVED LEARNING-RELATED OUTCOMES

Several universities in the Middle East are using flipped classrooms to instruct undergraduate students. At King Saud University in Saudi Arabia, students in flipped classrooms exhibited greater participation in class activities, posed more questions, and engaged in more problem-solving with peers during their courses than students in traditional classrooms.[20] At Mohammed I University in Morocco, students who experienced flipped classrooms self-assessed as having built skills in divergent thinking, critical thinking, idea generation, and time management. At the end of the program, they also reported feeling that they could apply these skills in other classrooms and outside of academic settings.[21] Finally, at Chouaib Doukkali University in Morocco, students who participated in a flipped classroom self-reported improved study and communication skills. Students also felt the course improved their time management, critical thinking, and problem-solving abilities, and some reported greater self-confidence and self-esteem.[22]

Learner-centered pedagogical strategies do not need to replace more traditional teaching approaches such as direct instruction; instead, they should complement them (see Exhibit 1). Core content can be introduced inside or outside of the classroom through text or via online, live, or pre-recorded lectures; activities can also occur both inside and outside of the classroom.

Exhibit 1: Sample 50-minute lesson incorporating active learning

8-minute Lecture — 6-minute Activity — 12-minute Lecture — 6-minute Activity — 10-minute Lecture
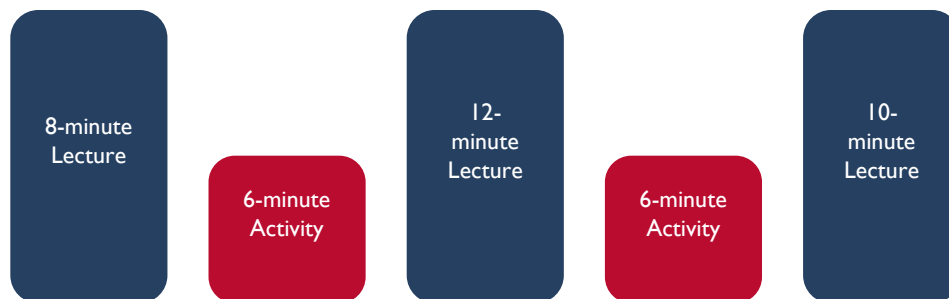
SPOTLIGHT: APPLIED PROJECT-BASED CURRICULUM IN VIETNAM

The Building University-Industry Learning and Development through Innovation and Technology (BUILD-IT) Alliance, sponsored by USAID and implemented by Arizona State University, is using an applied project-based technology and engineering curriculum to develop and strengthen partnerships between universities and industry. Its goal is to better align learning outcomes with industry needs. Drawing on tenets of learner-centered pedagogy, participating faculty conduct workshops using strategies that are grounded in engineering design and product development to enhance creative problem-solving. In addition to employing a learner-centered process in the classroom, BUILD-IT uses a peer review process to bring together university operations (e.g., governance, finance, human resources), with the aim of developing collaborative strategic goals.

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[20] Elmaadaway, 2018
[21] Dihi, 2018
[22] Laaboudi & Erguing, 2016

Findings on the Benefits of Learner-Centered Pedagogy in Higher Education

The value of learner-centered approaches can be explained from three perspectives:

1. **A cognitive perspective**, which assumes that students learn more in learner-centered contexts than in more traditional learning environments;

2. **An economic perspective**, which assumes learner-centered practices will better prepare students to be competitive in a global context; and

3. **An emancipatory perspective**, which assumes that because students have a greater voice in learning and do not see it as fixed, existing inequalities may be reduced.[23]

Regardless of the perspective, learner-centered pedagogy has increasingly been recognized as an important form of pedagogy in higher education. Although studies have demonstrated the utility of this instructional practice for a range of learning outcomes, the benefits for academic and social-emotional outcomes are better established than those for other learning outcomes.

KEY BENEFITS OF LEARNER-CENTERED PEDAGOGY IN HIGHER EDUCATION

Consider the evidence for learner-centered approaches in each of the following broad domains.

Academic Outcomes

- Learner-centered practices are associated with improved academic outcomes, greater learning engagement including attendance and motivation, and higher graduation rates.[24]
- Students and faculty report generally positive experiences with learner-centered practices.[25]

Social-Emotional or Soft Skills

- Students in learner-centered classrooms demonstrate significantly higher motivation than those in traditional classrooms.[26]
- Learner-centered approaches predict students' abilities to work as team members and present information, and their perseverance.[27]

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[23] Bremner et al., 2022; Schweisfurth, 2013

[24] Akello et al., 2016; Al-Aama, 2005; Bergmann, Overmyer & Willie, 2011; Freeman et al., 2014; Hallinger & Lu, 2012; Heurta, 2007; Kim et al., 2013; Koksal & Berberoglu, 2014; Layne et al., 2008; Msonde & Msonde, 2018; Ozkan & Topsakal, 2020; Theobald et al., 2020; Tyran, 2017; USAID, 2019; Yue & Hart, 2017;

[25] Akello & Timmerman, 2018; Batuer & Atweh, 2019; Di Biase, 2015

[26] Cheng & Ding, 2020; van de Kuilen et al., 2020

[27] Seilstad, 2014

Other Outcomes

- Students who experienced learner-centered practices achieved significantly better employment than other youth.[28]
- Learner-centered classrooms predicted better civic knowledge and a greater sense of civic engagement.[29]
- Learner-centered approaches are thought to better prepare individuals to be active citizens upon completion of their education.[30]
- Learner-centered pedagogical practices appear to be disproportionately effective for underrepresented youth, first-generation college students, and women, at least in science, technology, engineering, and math (STEM) fields.[31]

Faculty Perspectives

- Faculty report changes in the nature of student-teacher relationships, often shifting from formal to more familiar. [32]
- Learner-centered practices are associated with improved student-teacher relationship quality as well as more frequent interactions among students and faculty.[33]

Much of the research on the efficacy of learner-centered instruction comes from the STEM fields.[34] Although a majority of these studies show positive correlations with student outcomes and the adoption of learner-centered pedagogical approaches, others show negative effects of these approaches. Additional research in fields such as the humanities and social sciences is needed to confirm the correlation between student performance and learner-centered approaches.

SECTION 3:
Findings on Strategies for Overcoming Barriers to Learner-Centered Pedagogy in Higher Education

Although there is considerable evidence demonstrating the benefits of learner-centered pedagogical practices, research also suggests that the barriers to implementation may be considerable in some contexts. For example, higher education institutions may be forced to weigh the demand for equitable expansion of enrollment with the need to maintain a quality educational experience, while working within the budgetary constraints of a higher education system.[35] Faculty preparation and cultural values may also present implementation challenges for these practices. These may be especially difficult in low- and middle-income countries (LMICs), where students entering higher education institutions are often underprepared due to the quality of earlier educational experiences,[36] and where public funding and students' and families' ability to share the costs of education may be limited.[37] Each barrier must be carefully considered for the benefits of learner-centered pedagogy to be realized.

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[28] USAID, 2019
[29] Torney-Purta, 2022; Tyran, 2017
[30] Al-Aama, 2005; O'Sullivan, 2001; Torney-Purta, 1999
[31] Coker et al., 2017; Jin et al., 2019; Laws, Rosborough & Poodry, 1999; Schneider, 2001; Theobald et al., 2020;
[32] Allen et al., 2018; Bature & Atweh, 2019; Sun & Gao, 2019
[33] Akello et al. 2016; Altinyelken, 2010; Bergmann, Overmyer & Willie, 2011; Msonde & Msonde, 2019
[34] Bremner et al., 2022; Deng & Gopinathan, 2016; Mungoo & Moorad, 2015; Ozkan & Topsakal, 2020
[35] Schendel & McCowan, 2016; Shah, 2020; Telford & Masson, 2005; Yorke, 2000; Zepke & Leach, 2010
[36] Schendel & McCowan, 2016
[37] Sifuna, 2006

In addition to considering potential pedagogical barriers to implementing learner-centered practices, it is also important to recognize barriers that go beyond pedagogy. The table below identifies a set of common barriers to implementing learner-centered pedagogy and offers strategies for overcoming those barriers. In several cases, contexts that have attempted to address barriers are highlighted. Although the barriers are grouped into broad categories, it is important to recognize that many of them may fall into multiple categories (e.g., physical barriers may also be infrastructure barriers), depending on the context or circumstances.

Exhibit 2: Barrier types and mitigation strategies

LEVEL OF BARRIER	TYPES OF BARRIERS AND DESCRIPTIONS	STRATEGIES TO OVERCOME
Physical	Physical barriers include those related to the physical space and design of higher education buildings and classrooms (e.g., lecture halls, individual desks lined up in a row, instructors at the front of the room). Higher education buildings and classrooms are traditionally set up as lecture halls where students sit side-by-side, making group or instructor interactions challenging.[38]	To overcome these barriers, higher education institutions need to better align the architecture of buildings and classrooms with the desired pedagogical practices.[39] the learning environment should facilitate social interactions, and evidence suggests that classrooms should also offer flexible spaces for lectures and practicums.[40] Universities may want to consider repurposing existing spaces for learner-centered instruction. Further, when learner-centered classrooms are limited, universities should ensure the space that does exist is consistently used. Dedicated faculty office space is not always available for student-faculty meetings; universities should consider allocating shared or flexible space for these meetings.
Institutional	Institutional barriers may include factors related to teaching conditions (e.g., large class sizes, limited availability of instructional materials), faculty workload and incentives, and university or departmental commitment to learner-centered pedagogy.	To help overcome the challenge of implementing learner-centered pedagogy in large classes, research suggests conducting short lectures and class-wide discussions *prior* to group activities that connect to learning outcomes.[41] Universities might also consider expanding the number of existing faculty or making better use of current faculty positions to address both large class sizes and faculty workloads; they might also provide incentives for programs and faculty to encourage the adoption of new, innovative practices.[42] Finally, to help stimulate the adoption of learner-centered practices, universities could identify faculty who use innovative teaching practices and support them in becoming champions of learner-centered practices.
Pedagogical	Pedagogical barriers include challenges related to existing curricular demands and/or structure, as well as those related to the value placed on high stakes testing and exams.[43]	Faculty frequently note the need to cover an extensive amount of content in a short period of time as a reason for not implementing learner-centered practices. Using research to demonstrate the efficiency and benefits of learner-centered pedagogy may help alleviate faculty concerns about losing instructional time when employing these strategies. To overcome the challenge that mandatory high stakes testing poses in many higher education systems, faculty can implement a continuous assessment strategy in which they measure student performance and progress throughout the semester or year, rather than at the end of the semester or year.

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[38] Aksit et al., 2016; Børte et al., 2023;
[39] Børte et al., 2023; Nordquist et al., 2016
[40] Kok et al., 2015; USAID, 2021
[41] Lee et al., 2018; Maringe & Sing, 2014
[42] USAID, 2021
[43] Ginsburg, 2006, 2009

LEVEL OF BARRIER	TYPES OF BARRIERS AND DESCRIPTIONS	STRATEGIES TO OVERCOME
Educator	A variety of barriers related to faculty have been identified, including limited or low-quality pre-service preparation and experience, limited ongoing support (e.g., professional development) for implementing learner-centered practices, and unsupportive or disengaged management (e.g., Ministries of Higher Education, Directors of Schools, Deans, Department Chairs). Additionally, traditional approaches to teaching (e.g., a lecture-style method) and student-teacher interactions can reduce the likelihood that faculty will implement learner-centered practices.	To help overcome educator barriers, higher education institutions should develop faculty training focused on *why* and *how* to implement learner-centered pedagogical practices.[44] After the training, faculty should receive ongoing individual and institutional support to implement these practices. Recommendations for developing these programs and determining the topics to be covered are the focus of the remaining sections of this brief. In some instances, higher education institutions may want to consider using teaching assistants to help support the implementation of learner-centered pedagogy, especially in large classes.[45]
Student	Three of the most cited barriers to effective implementation of learner-centered practices in higher education are: (1) poor student preparation prior to entering higher education settings; (2) limited or poor social-emotional or soft skills; and (3) student absenteeism, which reduces peer-to-peer and faculty-to-student interactions.[46]	At the national level, the introduction of learner centered pedagogy should occur as early as primary school to help reduce poor or limited student preparation prior to entering higher education. Short of this, higher education institutions can implement a student orientation to learner-centered instruction before courses begin, connect new students with peer mentors, and provide students with relevant support for success. It may also be worth considering a foundation year for all incoming students to take core content courses (e.g., science, math, language, humanities) that employ learner-centered pedagogy. Students could also take study skills and soft skills courses that target essential learning-related competencies. To address absenteeism, higher education institutions can consider introducing attendance requirements/incentives, which have been shown to increase attendance and enhance the effectiveness of learner-centered pedagogy. [47]
Technological	Many learner-centered practices rely on technology to deliver lecture materials outside of the classroom or to engage students inside the classroom. Poor system-level technology infrastructure combined with limited funding to support the system can derail the implementation of these practices. Moreover, faculty report that they lack the skills and training to feel confident delivering essential course material using technology.[48] Students' technology skills also vary considerably and may pose a challenge to implementing technology-based learning strategies.[49]	At the most basic level, higher education institutions need to develop campus-wide information technology (IT) networks that connect to national Internet infrastructure. This includes providing servers, routers, etc., for university campuses. Without consistent access to IT networks, the benefits of many learner-centered practices will be compromised. Institutions may also want to adopt a university-wide learning platform, provide faculty with adequate training, and offer consistent support to use the platform.[50] When faculty do not receive adequate training and support, they tend to implement traditional teaching methods in an online format, which has been shown to undermine learning and motivation.[51] Technology must also be aligned with the learning and teaching goals of learner-centered pedagogy.[52]

[44] Ilie et al., 2020; USAID, 2019
[45] Simonson, 2019
[46] Børte et al., 2023; Shah, 2020
[47] Snyder et al., 2014
[48] Guthrie, 2021; Liu et al., 2020; Schweisfurth, 2011; Sinclair & Aho, 2018
[49] Robinson et al., 2020
[50] Brevik et al., 2019; USAID, 2020
[51] Littlejohn et al., 2012
[52] Lillejord et al., 2018

Findings on Strategies for Improving Learner-Centered Pedagogy in Higher Education through Faculty Preparation

To produce learner-centered practices that result in positive learning outcomes, higher education institutions must commit to reducing or eliminating the barriers described in Section III and support faculty development around these practices. One relatively efficient strategy to enhance faculty uptake of learner-centered pedagogy is through professional development or training programs. While available evidence in this area is limited, this section describes a set of principles that should guide the design of a faculty training program, and highlights specific topics that should be addressed in a faculty development program on learner-centered pedagogy. A set of training resources for learner-centered practices is provided in Annex B.

Limitations to the Data

Formal efforts to train and support faculty in implementing learner-centered strategies remain relatively limited.[53] When faculty development programs do exist, they tend to be voluntary rather than mandatory, so their reach is often limited to faculty who are likely to implement new practices in their classrooms. Even more scarce are formal evaluations of faculty training and development efforts. Results from a global meta-analysis of faculty development programs designed to enhance instruction in higher education suggest that on average, instructional development programs have very small effects on faculty teaching.[54] As a result, little is known about the specific features of faculty development programs that lead to improvements in instructional quality or student learning. However, the decision to implement learner-centered practices should be considered in the context of the barriers that likely exist outside of faculty instruction, not just faculty development.

Evidence of faculty development program impact is even more limited in contexts outside of the United States.[55] In a recent evidence review, only 5 of the 19 relevant articles reflect professional development programs outside of the United States or Western Europe.[56] A 2023 literature scan revealed very few new studies on the efficacy of faculty development programs since the evidence review was published in 2020. This is likely due to the COVID-19 pandemic and the fact that little formal research in educational settings took place during this time—the field has seen a considerable lag in publications on implementation studies since the pandemic began. Despite the lack of extensive evidence, there are isolated and promising practices that offer important insight into strategies for improving faculty preparation for learner-centered pedagogy.

I. Key Considerations for the Design of Faculty Development Programs on Learner-Centered Pedagogy

For a faculty development program to be effective, the following five principles should guide the program design:

■ **Provide Explicit Training and Additional Support:** Faculty often come to their roles without formal training in pedagogy and instruction, so it is important to ensure that they have this preparation, coupled with other forms of systemic support. Studies suggest that training, even short training courses, are associated with greater use of learner-centered teaching strategies,[57] more confidence in using the strategies

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[53] Gilbert & Gibbs, 1999; USAID, 2020
[54] Ilie et al., 2020
[55] Feixas & Zellweger, 2009
[56] USAID, 2020
[57] Gibbs & Coffey, 2004; USAID, 2013

to teach,[58] and improved teaching skills.[59] For example, a study conducted in Iraq found that a majority of participating faculty were willing to adapt their practices to be more learner-centered and reported feeling more confident as educators after participating in the learner-centered training program.[60] Studies also demonstrate the importance of continuous support, coaching, and feedback, including professional learning communities, in maintaining the benefits of professional development programs.[61]

- **Highlight Benefits and Practical Application:** Studies emphasize the importance of determining faculty's level of understanding around *why* learner-centered pedagogy is important and *how* it works when implementing learner-centered professional development, because training appears to be more effective when faculty have at least some basic knowledge in these areas.[62] By providing research evidence on the benefits of learner-centered practices for both students and faculty (see the Key benefits box in Section 2 for resources), faculty can develop a better understanding of why this approach is important.

- **Recognize Local Context:** Studies consistently identify the cultural appropriateness of learner-centered practices as a key factor in successful training.[64] These approaches reflect more egalitarian relations between instructors and students and support the notion that knowledge is socially constructed rather than imparted by a more knowledgeable other,[65] which often contrasts with a country's cultural values and/or resources.[66] For example, in cultures where educators are expected to be in control and learners are expected to be obedient, passive learners, learner-centered pedagogy creates a mismatch between the understanding of teaching and learning and how they are practiced. It may be beneficial to work closely with an individual or group of individuals who support such an approach to help explain the benefits in context and generate buy-in for such an approach.

- **Follow Adult Learning Principles:** To create effective professional development programs that reflect these tenets and ultimately support learner-centered teaching, research suggests that faculty development programs should build on the principles of adult learning.[67] For example, adult learners wish to understand why the new knowledge being taught will be important to them. They also value hands-on or experiential learning and mentoring or modeling by others.[68]

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PRINCIPLES OF ADULT LEARNING[63]

- Adult learners have a self-concept of being responsible for their own learning and decisions (i.e., they are autonomous, self-directed learners).

- Adult learners have extensive experiences that can be a resource for learning and peers alike.

- Adult learners prefer learning about things that are relevant for their current needs.

- Adult learners are solution oriented so want to learn things that can be applied immediately rather than in the future (i.e., they are task-oriented and problem-centric).

- Adult learners are internally motivated; external factors and pressures are less central to an adult's desire to learn.

- Adult learners need to know the value and purpose of what they are learning.

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[58] Desselle et al., 2012; USAID, 2019
[59] Gibbs & Coffey, 2004
[60] Jordan et al., 2014
[61] Darling-Hammond et al., 2017; Plessis & Muzaffar, 2010
[62] Ginsburg, 2009
[63] Knowles, 1978
[64] Ginsburg, 2009; Vavrus, 2009; Thanh, 2010
[65] Berlak & Berlak, 1981
[66] Schweisfurth, 2011; Schweisfurth, 2019
[67] Knowles, 1978
[68] Merriam, Caffarella & Baumgartner, 2007

- **Use Learner-Centered Approaches:** Faculty professional development programs should use learner-centered practices in all activities; allow time for faculty to reflect on their practice; include supervised guidance from other instructors, mentors, trainers, or supervisors; and involve parallel capacity development for administrators and other educational leaders.[69] Research also suggests that professional learning communities and an in-service training system can enhance the quality and impact of learner-centered pedagogy.

SPOTLIGHT: VARIED FORMS OF FACULTY DEVELOPMENT

Mekong Learning Centers Strengthen Project/Problem-Based Learning Capacity

The USAID Lower Mekong Initiative Connecting the Mekong through Education and Training (USAID-LMI COMET) program sought to better equip students for the workforce, particularly in STEM fields, through a variety of strategies, including instructor professional development. The program used high-quality training materials to enhance faculty capacity to implement project-based assignments, work-based learning, and creative problem-solving activities in the classroom.[70] To do so, the team modified existing resources (e.g., the Sourcebook) to allow instructors more flexibility in teaching industry-required skills, and created professional development programs, online courses, and certification frameworks to train faculty. Findings suggest that the training and resources helped faculty integrate more learner-centered practices into their classrooms.

Johns Hopkins School of Public Health Decolonizes Pedagogical Practices

In response to growing calls to decolonize curricula and pedagogical practices, the Johns Hopkins Bloomberg School of Public Health engaged in a yearlong process to transform one four-credit course in its public health program.[71] Faculty were invited to apply for an 18-month professional development program and selected to participate based on their interest and availability. The program used a peer-to-peer mentoring model to guide participants in active reflection on their teaching practices. Discussions were steered by a Curricular Work Plan worksheet, which provided accountability and reflectivity, and helped faculty develop a pedagogical philosophy, a stance on teaching, and specific, measurable, achievable, relevant, and time-bound (SMART) goals. To further incentivize faculty engagement in this work, participants received a $1,000 USD stipend to support teaching activities or additional professional development.

Although this training focused on decolonization, it serves as an excellent model for faculty professional development in any area. Moreover, the engagement of students in the process of decolonization offers an example of the emancipatory perspective on the value of learner-centered practices.

II. Faculty Training Topics to Support Learner-Centered Pedagogy

Promoting the importance of the practices listed below and ensuring faculty have the necessary skills to apply them are critical to the design and implementation of learner-centered pedagogy. Additional faculty training topics are summarized in the callout box.

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[69] Cook-Sather, 2011; Ginsburg, 2009
[70] USAID, 2019
[71] Kalbarczyk et al., 2023

- **Align Activities to Learning Objectives:**
Faculty need to choose meaningful activities or
questions that appropriately reflect the course
material and address student needs. They should
consider what they want students to learn from the
class content (i.e., learning objectives), the common
misconceptions around the class material, and what
kinds of practice can help reinforce student
learning. In addition, faculty should consider what, if
any, products they expect to be generated from
the activity (e.g., quick-write essays or concept
maps).

- **Articulate Intention of Activities:** Faculty
should consider *why* they are asking students to
engage in a specific activity and, before the activity
begins, explain this to the students. This
explanation will be particularly important when
faculty first introduce learner-centered approaches
because students may be uncertain or confused by
these new approaches to teaching.

- **Plan Facilitation Approach:** Faculty should think
about strategies to keep students on task during
class activities. Active learning approaches are
more effective when students are held accountable for their engagement in the activity. Informing
students that they will share their group discussions with the class encourages students to create talking
points; having students turn in their written notes or activities holds students accountable for their
participation. In classrooms where clicker technology[72] (or a similar tool) is available, questions posed at
various times during a lecture can keep students on task. These approaches can also provide students
with feedback on their learning.

- **Develop an Assessment and Feedback Strategy:** Faculty should consider how they want to wrap
up the activities. Having students share their group findings is a good way to highlight different (and
similar) perspectives on a topic, but faculty should also offer a coherent summary following these
discussions. It is also helpful to highlight any misconceptions or misunderstandings. Faculty who gather
students' quick-writes or unclear points activity (see Annex A for details on these activities) at the end of
class may choose to respond to some of the points or issues raised during the next class; this approach
signals to students that their work, ideas, and questions are valued.

- **Plan Logistics:** Faculty should consider the logistics of implementing their activities. For example, what
supplies or resources are needed to complete the activity? What facilities and technology are available to
support activities? Is the classroom set up so that students can work in groups? Small group activities can
be used in large classrooms where seats are fixed to the floor, but some students may need to change
seats. Can students move around the classroom to learning stations?

SELECT TOPICS TO INCLUDE IN FACULTY TRAINING

- Understanding how students learn
- Developing courses and syllabi
- Facilitating class activities (particularly using active-learning pedagogy)
- Building rapport with students
- Constructive grading
- Using technology and integrating it into their teaching
- Addressing challenges in the classroom
- Ethical behavior
- Resources and accommodations for students with disabilities
- Obtaining student feedback on teaching practices

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[72] Clicker technology is an interactive technology that allows instructors to pose multiple-choice questions to students
(verbally or via presentation software like PowerPoint) and immediately collect and view responses from the entire class.

III. Using Teaching Assistants to Help Facilitate Learner-Centered Approaches

The benefits of graduate and undergraduate teaching assistants are well-established. For students, serving as a teaching assistant can foster essential employability skills, including time management, negotiation, communication, and cooperation. It can also help students engage more deeply with course content and foster key communication and interpersonal competencies.[73] For faculty, the use of graduate and undergraduate teaching assistants can help facilitate learner-centered pedagogical practices, especially in large classes. Below are several examples of how teaching assistants can be used:

Facilitating breakout group activities. Learners can be divided into small teams, with teaching assistants assigned to specific sections of the classroom. The teaching assistants serve as facilitators for their assigned groups and help guide students to build knowledge and develop skills like critical thinking.[74]

Facilitating undergraduate seminars/discussion groups. Graduate Teaching Assistants (GTAs) lead small sections that can act as a more learner-centered complement to larger lectures, with small group discussions, question and answer sessions, and other learner-centered pedagogical practices being driven by learners' needs and interests.

Facilitating labs. For lab-based courses (e.g., biology, chemistry), GTAs can help prepare for laboratory sessions by setting up materials or stations and can support students during laboratory activities. GTAs also commonly evaluate student essays, projects, labs, papers, or quizzes to help facilitate formative assessment throughout the semester and can proctor exams. Finally, GTAs can oversee experiential learning opportunities or requirements, including internships, service-learning, and undergraduate research.[75] They have been found to influence students' satisfaction with courses, especially large courses, in part because they are seen as more enthusiastic, more approachable, and better able to relate to undergraduate students than faculty.[76]

Tutoring. Undergraduate teaching assistants are commonly involved in tutoring students who might be struggling, leading study skills sessions or review sessions, and assisting with grading papers and quizzes when a clear rubric is provided. They also support class management (e.g., taking attendance, distributing materials) and serve as peer mentors.[77]

Although there is no single blueprint for effective teaching assistant training, GTA training should involve the modeling of good practices in the classroom, opportunities for GTAs to practice new methodologies and reflect on their own teaching, and observation of their teaching by a faculty and/or peer mentor, combined with the provision of feedback throughout the course, not just at the end.[78]

SECTION 5:
Additional Research and Learning Needs

Despite the rapid growth of learner-centered pedagogy in higher education institutions and mounting evidence that its benefits extend beyond pedagogical needs to support economic and equity objectives, faculty preparation to implement these practices remains limited and systematic evaluations of existing practices are scarce. As a result, it is still unclear exactly which practices work, for whom, and under what conditions. In

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[73] Forbes et al., 2017
[74] Simonson, 2019
[75] Gardner & Jones, 2011
[76] Deacon & Hajek, 2011; Kendall & Schussler, 2012
[77] Forbes et al., 2017
[78] Wheeler, Clark & Grisham, 2017

addition, the potential barriers to success go beyond faculty and extend to all levels of the education system. As noted in the Evidence Review for the USAID Higher Education Learning Agenda, there is a need for evidence generation, capture, dissemination, and socialization.[79] Faculty development in higher education would benefit from additional research in all of the areas introduced in this brief, but especially the following:

- Implementation research on effective faculty development programs and practices that lead to improvements in instructional quality and/or student learning, particularly in LMICs;

- Implementation research in higher education settings beyond four-year universities;

- Strategies for developing student, faculty, and administrative buy-in around learner-centered pedagogy;

- Strategies for implementing learner-centered practices in large lecture settings;

- Instructional models and training for learner-centered practices in online or blended-learning environments;

- Strategies for addressing structural or systemic barriers to implementing learner-centered practices (e.g., faculty incentives); and

- Case studies on innovative or promising practices in general and in challenging or unique contexts.

Annex A. Common Learner-Centered Practices

The strategies below are listed in order of complexity, from simpler to more complex approaches.

STRATEGY	DESCRIPTION/RESOURCES	INDIVIDUAL OR GROUP
Quick writes	Faculty provide students with a topic or prompt based on lecture material or class readings. Students are given 5–7 minutes to write their thoughts or reflections on the topic, thereby actively engaging with the material.[80] Quick writes can be introduced at any point during a class and can be readily implemented with large classes. They can serve as a means to practice writing[81] or be shared orally to enhance public speaking skills.[82]	Individual, Group
Facilitated whole-class discussions	Faculty guide in-class discussions on a specific topic or question and help students come to an understanding of the topic or content. Facilitated discussions are most effective when faculty have a clear goal or objective, students understand the expectations and rules for participating, the discussion remains focused on the question or topic, and it has a clear beginning and end.[83]	Group
Think, write, share	Faculty provide students with a prompt or question and give them approximately one minute to think through their responses to the prompt. Students are then given one minute to write their responses before turning to a peer (or peer group) to share and discuss their responses. One benefit of this approach is that students have an opportunity to practice their responses in a relatively low-risk setting before sharing with the entire class, thereby fostering greater self-confidence and encouraging participation.[84]	Individual, Group

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[79] USAID, 2020
[80] Green, Smith III & Brown, 2007
[81] Ward, 2013
[82] Cleland, Rillero & Zambo, 2003
[83] University of Waterloo, n.d.
[84] Barkley, Cross & Major, 2014

STRATEGY	DESCRIPTION/RESOURCES	INDIVIDUAL OR GROUP
Concept maps	Students are required to think critically about a topic to develop a visual representation of the relationships among core concepts.[85] Concept maps are intended to help students integrate new knowledge (e.g., that learned from the readings or in lecture) with existing knowledge (e.g., prior knowledge or knowledge from an earlier lecture or class reading) and can take the form of charts, flowcharts, Venn diagrams, timelines, etc. Concept maps are an excellent group activity because they require students to actively process and discuss material as they construct their maps.	Group
Content, form, and function outlines	Students are given a document (e.g., an article, essay, poem, or graph) and asked to carefully analyze its content (i.e., what), form (i.e., how), and function (i.e., why). One option is for all groups to analyze the same document and then share their analyses, thereby demonstrating various interpretations of the same document. Another approach is to have groups analyze different documents that reflect various elements of a "problem"; groups then reconvene to share their analyses of the components, thereby creating a shared understanding of the whole "problem."	Group
Case studies	Students are given a case and asked to think about what they already know that is relevant to the case, what they need to know to understand the case, and what impact their decisions or conclusions about the case might have on the case and the broader community. After groups have had a chance to discuss these prompts, bring the class back together and ask them to share their responses; additional activities can include full class discussions of similarities and differences in responses.	Group
Numbered students together	Students are broken into groups and each member is given a unique number. Groups discuss a topic provided by the faculty member and then the class comes back together as a full group. The instructor calls on all students with the number 1 to share their discussion points; then all students with the number 2, etc. This activity illustrates not only how knowledge generation is collaborative but also how different perspectives can enhance our understanding of a single concept or topic.	Group
Peer-to-peer instruction	Faculty pose a question about the class material (often one that exposes common misunderstandings of the material). Students are given a few minutes to think about/write down their own answer. Then, in pairs or small groups, students discuss their responses, with the goal of reaching a consensus on the correct answer.	Individual, Group
Jigsaw discussions	Students are broken into interdependent groups and each group specializes in one aspect of a topic, e.g., climate change impacts on the ocean, or climate change impacts on forests. Groups discuss or research their topic and then the class comes back together. "Expert" groups teach one another about their specialized topic, collaboratively assembling the pieces of the puzzle (e.g., resulting in a comprehensive understanding of climate change). Jigsaw discussions promote cooperation among students by making individuals dependent on one another in pursuit of a common goal.[86]	Group
Flipped classrooms	Students are introduced to core content outside of the classroom through recorded video lectures,[87] narrated PowerPoint presentations,[88] or other content resources (e.g., YouTube videos or readings)[89] and then practice the content in the classroom through interaction, faculty-guided learning activities, assignments, labs, and tests. Other flipped classroom activities include, but are not limited to, guided or unguided skill practice, face-to-face discussions with peers, debates, presentations, lab experiments, and peer assessment and review.	Individual, Group

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[85] Nesbit & Adesope, 2006
[86] Aronson et al., 1978
[87] Shiau et al., 2018
[88] Dehghanzadeh & Jafaraghaee, 2018
[89] Gross et al., 2015

STRATEGY	DESCRIPTION/RESOURCES	INDIVIDUAL OR GROUP
Project-(or Problem) based Learning	Students build deep knowledge around a topic through active exploration of a real-world, personally meaningful challenge or problem.[90] Projects typically occur over an extended period of time (from a week to entire semester, depending on the purpose of the activity and the extent of the task), involve multiple skills, and commonly culminate in a public product (e.g., a brief, paper, or presentation) for an audience outside of the classroom (e.g., other students and faculty, the community).[91]	Group
Experiential or Service Learning	Students learn through hands-on experience in real-world contexts. Common experiential learning activities include, but are not limited to, internships, field experiences or exercises, study abroad, service learning, undergraduate research experiences, and studio or art performances. According to Kolb[92] the experiential learning process involves the integration of knowledge (i.e., the concepts or knowledge acquired through formal learning and experience), activity (i.e., the application of that knowledge to a real-world setting), and reflection (the synthesis of knowledge and activity to create new knowledge).	Individual, Group

Annex B. Resources for Training Faculty to Implement Learner-Centered Practices

The table below offers a set of training and professional development resources to aid faculty and teaching assistants in the development and implementation of effective learner-centered pedagogical approaches.

TRAINING OR RESOURCE	DESCRIPTION
The Harvard Bok Center for Teaching and Learning	Online resource bank including information on how to design a learner-centered course, strategies for different types of classroom activities, and strategies for extending learner-centered approaches beyond the classroom. Active Learning
The New York University Center for the Advancement of Teaching	Online resource with techniques, steps to create a learner-centered environment, and strategies for evaluating learning. This site also includes videos of faculty reflecting on their experiences implementing learner-centered approaches in their classes. Steps to Creating an Active Learning Environment
Teaching@OhioState	A five-module online course on all major aspects of teaching at The Ohio State University. Teaching@Ohio State and Reading List Reflection
Course Design Institute	Provide participants with tools and collegial support to design or redesign an existing or new course to be more learner-centered. Course Design Institute
Teaching Endorsements	Credentials provided by the institute to identify and recognize those who participate in professional learning opportunities to improve their teaching. For graduate students, endorsements appear on graduate student transcripts. Teaching Endorsements

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[90] Larmer, Mergendoller & Boss, 2015; Dias & Brantley-Dias, 2017
[91] Larmer, Mergendoller & Boss, 2015
[92] Kolb, 1984

Annex C. Teaching-Assistant Specific Resources

American University in Cairo	Teaching Assistantships
American University of Beirut	Policy on Graduate Fellowship and Assistantship Program (GFAP)
Peer Mentoring Training Model— Purdue University	A recent study by Lang and colleagues (2020) illustrated the value of training and mentoring graduate students through peer observations. In particular, graduate teaching assistants in training underwent a rigorous observation program designed to facilitate reflection on their own practices while being supported by a more experienced GTA. Trainees were placed into small groups and provided with a more experienced teaching assistant mentor. Over the eight-week session, they observed and were observed by other trainees in their group, were observed by their graduate teaching assistant mentor, and participated in a focus group to debrief their observations and experiences (Lang et al., 2020). In a follow-up survey, participants indicated that all of the observational activities were primarily of "great help" or "much help" (Lang et al., 2020). The experienced GTAs also noted that they enjoyed their mentorship roles and felt that they provided them with important skills they could use in the future as well.
Graduate Teaching Orientation	All graduate students who are new to teaching participate in a series of workshops in the fall before classes begin. Workshops are led **by experienced and award-winning GTAs**. Topics covered include cultivating your teaching identity, knowing your students, understanding your teaching context and role, setting student expectations, the relationship between teaching and learning, obtaining and using feedback on teaching, and how to prepare for your first day of class. Teaching Orientation
GTA Toolkit	A series of workshops offered throughout the year, led **by graduate students for graduate students**. Workshops cover topics that reinforce and deepen graduate students' understanding of teaching and learning strategies (workshop examples: creating an inclusive learning environment, eliciting student feedback, beginning steps of course design, facilitating effective discussions, creating a teaching portfolio). GTA Toolkit

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