



BUILD-IT

ASU Ira A. Fulton Schools of
Engineering
Arizona State University



Digital Pedagogy in Higher Education Playbook

Quick start guide and compilation of best practices



BUILD-IT Playbook Series

Resources for a sustainable world class model in STEM Higher Education

Since 2015 the BUILD-IT Alliance, through strategic collaborative dialogue with industry and the Vietnamese Government (MOET), has focused on creating a world class model for innovative technology and engineering higher education. The BUILD-IT public-private ecosystem is designed to produce graduates who can solve problems and engineer solutions and value for Vietnam's social and economic development. BUILD-IT leverages the vast capabilities of the implementing partner, Arizona State University, America's largest and #1-ranked university for innovation, along with diverse government, industry, and academic partners linking T&E higher education to the needs and capabilities of industry partners, building strategic leadership skills to advance university autonomy, program and instructional quality, and formal lasting

partnerships. BUILD-IT supports female empowerment and has provided leadership forums, academic initiatives, and scholarships, and has laid groundwork strengthening the universities' capacity for building technical English and 21st century professional skills.

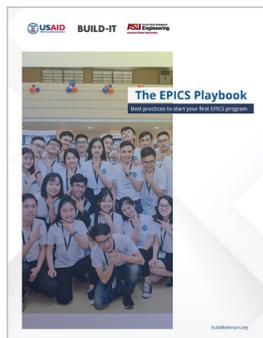
The BUILD-IT Playbook series has been developed with collaboration and input from BUILD-IT partners and is designed to provide a quick start guide and compilation of best practices that have been effectively implemented in Vietnam by our partner institutions. By leveraging these lessons learned and resources for implementation of tested and effective models, you will have resources that will help you develop a sustainable world class model in STEM Higher Education.

Playbooks in our series include:



The Maker Innovation Space Playbook

Multifunctional spaces with workshops and tools to prototype innovations. Makerspaces provide critical learning spaces to the generation of problem solvers.



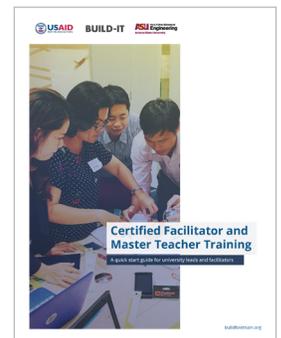
EPICS

EPICS is an internationally recognized engineering-based service learning and social innovation applied project program. Helping students build both hard and soft skills for success.



Women in Project-Based Learning

This playbook presents detailed instructions for creating gender-responsive programs that encourage and support women in engineering.



Certified Facilitator and Master Teacher Training

This playbook provides step-by-step strategies for creating a high yield of trained faculty in a short duration of time who can better drive students towards university success.



A Playbook for University Leaders Seeking AUN-IQA

This playbook presents recommended processes, best practices and key points of emphasis to facilitate the successful completion of AUN-IQA certification.



Digital Pedagogy in Higher Education

Through the digital pedagogy playbook, BUILD-IT university partners have access to proven best practices, methodologies, and approached for teaching and learning in a digital environment.



The Accreditation Playbook

This playbook serves as a quick start guide for leaders and officials of universities who are considering or have begun a journey to external international accreditation for programs.



The Industry Advisory Board Playbook

This quick start guide provides a foundation for setting up your IAB. Learn the basics of forming your board, finding participants, and setting expectations.



This Playbook reviews ongoing interventions within Vietnam’s BUILD-IT university network. The playbook is a manual for faculty to ensure that Digital Pedagogy in Higher Education (DPHE) training is effectively facilitated and sustained. It is a starting point to inspire faculty to become trained, engaged, and to maintain a highly adaptable, scalable, and sustainable training model.

This Playbook was developed by members of the BUILD-IT staff along with faculty from BUILD-IT partner universities. The DPHE was developed to create a high yield of trained faculty in a short duration of time who will be better prepared to improve digital immersion learning in the classrooms. The DPHE produces champion educators who will be the drivers of success in the universities.

The Digital Pedagogy in Higher Education training model and curriculum provides universities with a robust and effective faculty training experience that helps faculty reimagine their teaching practices by infusing digital immersion strategies and best practices in using educational technology.

The Digital Pedagogy in Higher Education Playbook is a resource for institutions who wish to further support their digital immersion strategy and faculty development initiatives. Over the past few years, digital pedagogy in Vietnam has continued to expand and

has become more ingrained in institutional classrooms. The implementation of digital technologies at institutions has been seen across the spectrum, from web-enhanced courses to fully online. While the circumstances of pushing education online have been challenging at times, moving into the future, utilizing digital tools and strategies has become the norm.

BUILD-IT has been working with partners in academia, government, and industry to assist institutions meet their goals in this area. Over the past several years, faculty and staff at BUILD-IT universities have engaged in workshops, seminars, training, and conferences in this area to broaden the knowledge base and develop robust programs to offer faculty the opportunity to enhance their digital pedagogy and virtual classroom approaches.



Components of Digital Pedagogy in Higher Education Program

Programs and support for institutions of higher education

The transformation of higher education in Vietnam must incorporate multiple modalities operating in multiple timelines - both synchronous and asynchronous. The significance of online education in the form of digital immersion opportunities needs to be explored and leveraged to realize this transformation.

With the implied need for faculty training in digital pedagogy, BUILD-IT brought six partner universities together to develop a 3-week, 20-hour faculty development program called "Digital Pedagogy in Higher Education". Because nothing of real importance is created in a vacuum, the group of 8 content developers collaboratively worked together to create this LMS-based training with the pilot launch in the Summer of 2021 with 30 initial participants.

Digital Pedagogy in Higher education consists of several components designed to engage participants in the best practices of online learning.

- **Course Organization:** Explore how Backward Course Design can provide an effective framework for organizing your online learning environment. In the backward design process you structure student learning based upon assessments that are intentionally designed to provide evidence that students have achieved the course goals.
- **Interaction Style:** Online or in-person learning. Synchronous or asynchronous class modality. Are all viable. All are effective. However, instructors need to design their course accordingly.

- **Content Creation & Active Learning:** Active learning is a student-centered approach to learning that focuses on students' active involvement in the learning process. It is anything course-related that all students in a class session are called upon to do other than simply watching, listening and taking notes. Therefore, it is necessary to take an intentional and deliberate approach to creating your content to accommodate active learning.
- **Assessment in Digital Learning:** When we think of assessment, pen, pencils, piles of paper and definitely red pen marking the students' examination sheet come to mind. Just imagine what if we bring cell phones, laptops and other tools in conducting assessment. Online assessment is a method of using web-based digital tools to measure students' achievement against a subject's learning outcomes
- **Digital Tools:** These tools should not replace your teaching! Look for ways to complement or enhance your teaching, not to supplement your teaching. Sometimes, it is just as effective to use a pencil and paper. Make sure there is a clear objective for using a tool. Could you still achieve your learning objective without the tool? How would you do it.

Building a Facilitator Community

The CFT is the foundation of this training program and the key driver to the success of the training program. Current and trained CFs should continue to certify faculty members at their university who have previously completed the Master Teacher Training. The CFT should be viewed as a pool of faculty who all have the ability and knowledge to facilitate an MTT on their own. Partner universities should:

- Strive to have between 1-2 CFTs per year
- A CFT should last 1 or 2 days
- Recruit 10-15 new CFs per year
- Organize and facilitate CFTs on campus
- Be responsible for the CFT and MTT Moodle shells and all documents and supplies needed to conduct MTTs.
- Be responsible for maintaining and keeping track of all digital tools and applications used to track progress during MTTs.

Managing Content and Innovating Curriculum

In order to provide a rich learning experience for faculty year after year, CFs should convene periodically to discuss changes or revisions to the curriculum, work to coordinate trainings with the university, and identify faculty to engage in the program. The content could be expanded to satisfy the needs of the departments or areas of student need. The BUILD-IT CFT/MTT is very heavily structured towards STEM content. Universities should try to certify faculty from other departments outside STEM departments to demonstrate value to faculty from other departments.



In the Digital Pedagogy for Higher Education Training, I learned with the instructors and the participants from other universities who had rich experience in digital pedagogy. The examples and activities in the “class” were varied. We learned to analyze the students’ thoughts and behaviors and we had many chances to practice with each other in small groups. The course inspired us with the necessary knowledge in online teaching in higher education.

Dr. Du Thi Xuan Thao

*Head, Quality Assurance and Testing Office
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Implementing Digital Pedagogy in your Institution

What do you need to make a difference?

The Digital Pedagogy in Higher Education is not a static event. It is a work in progress, affecting more and more members of your institution. As the DPHE program continues to evolve, please continue to consider the outcomes that were mutually established during the design and implementation of the program. These outcomes were at the core of the program and by defining these ensured the continued success of the program. These outcomes will help facilitators remain centered and grounded as they continue to evolve the program.

- Identify preferred teaching modality and how that aligns with university stakeholder's interests and the university's future strategy for digital education.
- Differentiate between methodologies and best practices between a traditional face-to-face environment and an online environment.
- Explore, assess, and integrate digital tools, platforms, and applications into both their traditional and online courses effectively.
- Create an online learning environment conducive to providing students with pathways to help them achieve their learning objectives and course outcomes.

Building a Facilitator Community

The DPHE facilitator pool is the foundation of this training program and the key driver to the success of the training program. Current and trained facilitators should continue to certify faculty members at their university who have previously completed the Digital Pedagogy

in Higher Education program. The facilitators should be viewed as a pool of faculty who all have the ability and knowledge to facilitate a DPHE on their own. Universities should:

- Strive to have between 1-2 DPHE facilitator trainings per year
- A DPHE facilitator training should last 1-1.5 days
- Recruit 10-15 new facilitators per year
- Organize and facilitate DPHE facilitator trainings on campus
- Be responsible for the DPHE Moodle shells and all documents and supplies needed to conduct training sessions.
- Be responsible for maintaining and keeping track of all digital tools and applications used to track progress during DPHE training sessions.

Managing Content and Innovating Curriculum

As mentioned before, DPHE evolves. It grows to meet the needs of an ever-changing education environment. DPHE should not be allowed to become stagnant. In order to provide a rich learning experience for faculty year after year, DPHE facilitators should convene periodically to discuss changes or revisions to the curriculum, work to coordinate training with the university, and identify faculty to engage in the program. The content could be expanded to satisfy departments or areas of students. Universities should try to certify faculty from other departments outside STEM departments to create attractiveness to faculty from other departments.

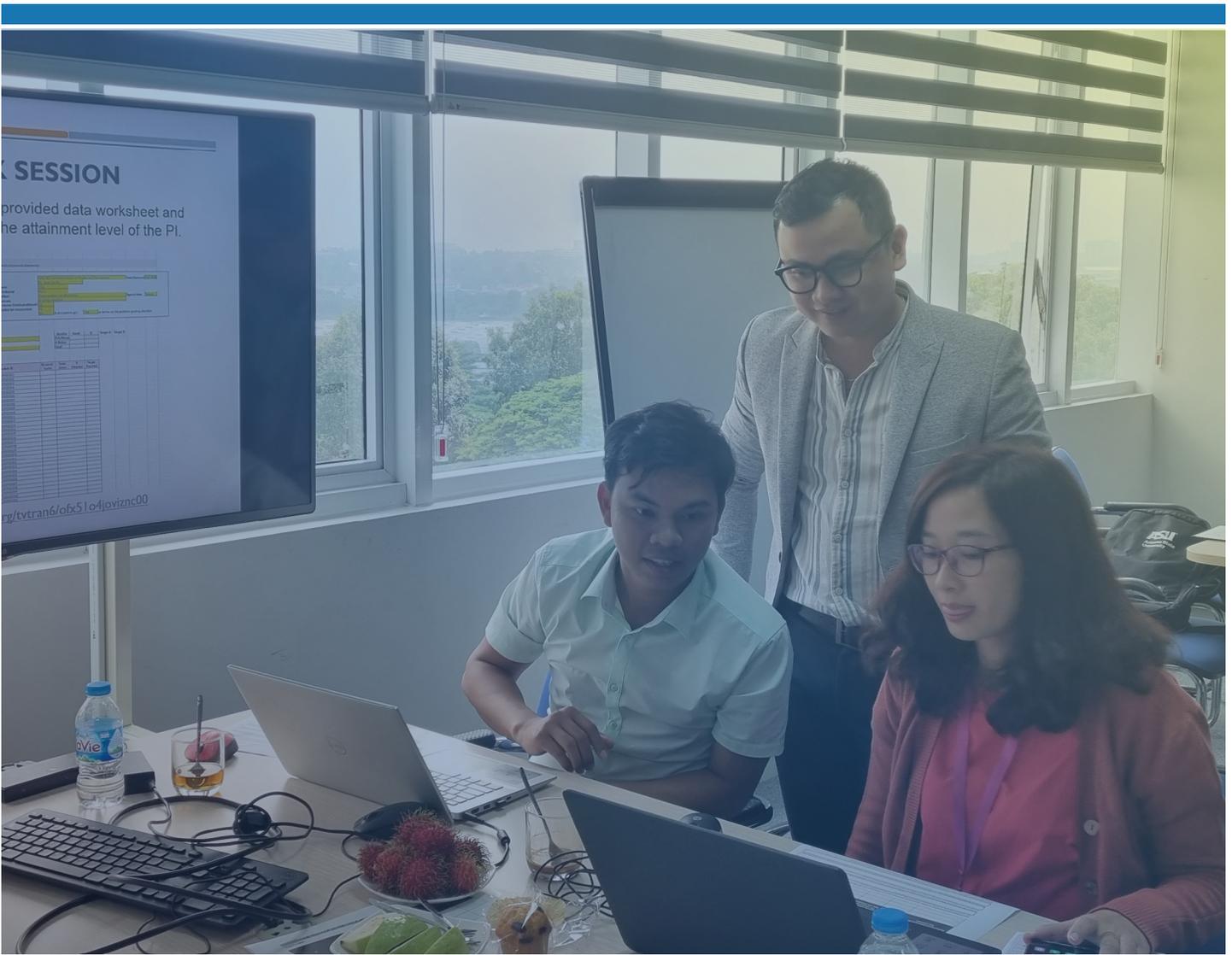


Creating the Digital Pedagogy in Higher Education

With distance learning taking off at the end of the 20th century, the new millennium brought technology that allowed both synchronous and asynchronous digital learning. While it was mostly non-traditional institutions that leveraged this evolution, more and more universities are realizing the benefit of the online environment. Even schools that never thought of themselves as 'online' are now considering how to pivot to provide a quality virtual education. This faculty training in digital pedagogy, BUILD-IT leverages the six partner universities together. The resulting content - a 3-week, 20-hour faculty development program called "Digital Pedagogy in Higher Education" - allows for the sustainable implementation of best practices in virtual education long after the conclusion of the BUILD-IT Program. As this program moves into an independent and self-reliant environment unencumbered by BUILD-IT involvement by the end of 2022, universities should prepare to take the reins of this program through autonomous actions.

To accomplish this, institutions need to:

- Curate the DPHE Moodle Shell, curriculum, e-tool accounts, and materials
- Update content periodically to meet the demands of the university's faculty development strategy
- Expand curriculum to be inclusive of other non-STEM related programs
- Strive to have 2-3 DPHE programs per year
- Organize and facilitate DPHE programs on campus
- Enroll participants in Moodle course
- Facilitate synchronous sessions using DPHE course curriculum
- Recruit DPHE graduates into facilitator trainings



Let us know...

Thank you for your interest in the BUILD-IT playbooks, these useful guidelines will help you develop a sustainable world class model in STEM Higher Education. Make sure to share your input on implementing our playbooks and how you used them.

Additionally, we would like for you to share them with your colleagues, not only in your university but also in your network.

Reach out to builditvietnam@asu.edu to let us know about your successes and any lessons or suggestions you would like to send as feedback.