

Program Review and Assessment Committee

December Meeting 2017: Thursday, December 14, 1:30-3:00 pm, AD 1006

Agenda

Attending:, K. Alfrey, J. Barbee, K. Black, L. Bozeman, A. Chase, D. DeMeester, L. Easterling, T. Freeman, J. Gladden, S. Graunke, E. Grommon, M. Hansen, W. Helling, M. Huffman, S. Hundley, S. Kahn, M Kolb, J. Motter, K. Murtadha, K. Norris, A. Opsahl, E. Ramos, K. Sheeler, M. Urtel, S. Weeden.

1. Welcome, Review and Approval of November Minutes (2 minutes)
 - a. S. Weeden called the meeting to order at 1:34 pm.
 - b. S. Weeden introduced the guest speakers
 - c. Motion made, seconded and passed to approve October minutes.

2. Report on Capstone Experiences — Margaret Ferguson, Senior Associate Vice Chancellor for Academic Affairs; Jay Gladden, Associate Vice Chancellor for Undergraduate Education and Dean of University College; and David Pierce, Associate Professor, School of Physical Education and Tourism Management (20 minutes)
 - a) M. Ferguson described the capstone community of practice (COP) convened by VC Kathy Johnson. There was a COP years earlier, and Johnson wanted to revive it. It included faculty from different units who teach capstone courses. The group engaged readings and had conversations about the purpose of capstones and role they could play at IUPUI. The group travelled to AAC&U's High Impact Practice Summer Institute in Boston (June) to workshop the final document that would go to VC Johnson. The document captures core principles about how capstones should operate and suggests a phased implementation. This implementation was handed over to Jay Gladden and the UAC to engage stakeholders. Ferguson asked for comments on the document.
 - b) D. Pierce noted students need to be prepared for capstones in order for them to be effective courses. This idea led to discussions on how to build clear pathways to the capstone starting in the first year. Principles for capstones were developed with a broad approach to the needs in different disciplines. The 5 principles: 1) reflection on personal growth; 2) time; 3) integrate knowledge from other classes and outside the classroom; 4) produce tangible work product relevant to discipline; and 5) make the work public. Pierce described suggested opportunities for PRAC to assist this effort by including questions on annual PRAC report about how courses prepare students for the capstone.
 - c) J. Gladden explained the realignment of Division of Undergraduate Education to form an institute on engaged learning that creates access to HIPs for all students and uses existing resources optimally. The desire is to create unique, well defined, powerful learning experiences for students as they progress through curriculum. There will be a faculty community of practice in 2018. UAC subcommittee is surveying units to understand the status quo of capstones

at IUPUI with goal to inform future planning. The vision is to spread capstones across all programs. Gladden has visited public demonstrations of capstones on campus in recent days. Community partners can be important parts of capstone experiences.

d) S. Hundley asked to put the document into the minutes.

3. IRDS Presentation — Steven Graunke, Institutional Research and Decision Support; and Amy Powell, Division of Undergraduate Education (20 minutes)
 - a) A. Powell described Themed Learning Communities (TLCs) that include First Year Seminars (FYS) paired with 2 disciplinary or Gen Ed courses with cohorts of 25 guided by faculty teams to explore a common theme in and out of class. The 5 attributes of TLCs: 1) interdisciplinary theme; 2) integration of content; 3) out-of-class activities; 4) active learning; and 5) faculty collaboration. An ePortfolio pilot to enhance integration for students started in 2016 with goal of developing core faculty using ePortfolios in TLCs, increasing integrative thinking, and increasing adoption of use of ePortfolios. Pilot members participated in a summer institute to review ePortfolios, integrative learning, reflection, signature assignments, technology, and peer review processes. Five teams developed project plans and received peer feedback. Teams identified signature assignments across the courses to be used in ePortfolios to integrate learning. Power reviewed 3 examples of ePortfolios. Next steps include replicating this project for summer 2018.
 - b) Graunke reviewed a rubric and relation to IUPUI PULs. Noted that testing does not capture integrative learning. It can be identified through projects, reflections, engagement with real life problems and practice. He reviewed the structure and point system of the rubric. ePortfolios were assessed by a group of faculty raters. Reviewers calibrated the rubric and adapted it for first year students. They reviewed ePortfolios and scored them together. 15 raters divided into 3 groups were randomly assigned 5 ePortfolios. Groups met individually to score. Results were reviewed. The strongest dimension was reflection and self-assessment. Interdisciplinary TLCs scored lower than disciplinary TLCs.

4. Assessment Institute Track Leaders Debriefing — Leslie Bozeman, Office of International Affairs; Max Huffman, Robert H. McKinney School of Law; Eric Weldy, Vice Chancellor for Student Affairs; Kristin Norris, Office of Community Engagement; and Susan Kahn, Office of Institutional Effectiveness, Stephen Hundley, Senior Advisor to the Chancellor for Planning and Institutional Improvement (moderator) — (40 minutes)
 - S. Hundley introduced the panel of track leaders from the Assessment Institute. There were 1,100 attendees from 450 institutions, 13 countries, all 50 states. Track leaders gave overview of their tracks.
 - E. Weldy Student Affairs and Program Services Track. Included evaluation of co-curricular activities. Sessions were well attended. Topics included use of survey data, using graduate assistants in assessment process, assessing co-

curricular learning experiences. Highlighted sessions focused on creating cultures of assessment in co-curricular programs by engaging graduate assistants in doing assessment work.

- S. Kahn led ePortfolio track. Track included preconference, poster sessions and multiple sessions. Most presenters were from state institutions. EPortfolios were recognized as HIP in 2017 when done well for promoting student development and assessment practices. Eportfolios are about student reflection, integrative learning and self-authorship as well as job-seeking. Highlighted preconference workshop on need to integrate ePortfolios into courses not just add them to the schedule.
- K. Norris led community engagement which includes activities done in partnership with community. There was a focus on Carnegie classifications, partnership, community impact, and methods. Highlighted a session focused on data labs that engage faculty from across campus in examining artifacts of student learning.
- L. Bozeman co-led global learning track with Gil Latz and Dawn Whitehead. Included a keynote, workshop, and sessions. Topics crossed many fields/approaches including, intercultural learning, intercultural communication, international studies, global affairs, and curriculum internationalization. Highlighted Miami of Ohio's use of "get out of your comfort zone" activities to challenges students' resistance to global learning.
- M. Huffman led track on Graduate/Professional Programs that focused on law schools as envisioned by Trudy Banta. Track involved keynote and sessions. Pharmacy, Nursing, and other graduate professional programs participated. Found that issues are the same across fields/disciplines. Identified UNC's Pharmacy presentation on first year capstones as way to assess early core knowledge. Another session focused on use of rubrics in assessing legal writing.

5. Vice-Chair Election — (5 minutes)

- S. Weeden announced K. Norris nomination and asked for other nominations. There were none.
- K. Norris elected unanimously.

6. Announcements and Adjournment — (2 minutes)

- Meeting adjourned at 3:02

Future PRAC Meeting Dates:

Thursday, January 18, 1:30-3:00 University Hall (AD) 1006

Thursday, February 15, 1:30-3:00 University Hall (AD) 1006

Thursday, March 8, 1:30-3:00 University Hall (AD) 1006

Thursday, April 19, 1:30-3:00 University Hall (AD) 1006

Thursday, May 10, 1:30-3:00 University Hall (AD) 1006



Eportfolios supporting integrative learning in first-year themed learning communities

Amy Powell, Director of Themed Learning Communities

Steve Graunke, Director of Institutional Research and Assessment

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Themed Learning Communities at IUPUI

First-Year Seminar + 2 disciplinary courses

25 freshmen co-enroll

Guided by faculty team:

- ❖ Explore a theme,
- ❖ Interdisciplinary connections,
- ❖ Out-of-class activities



Five attributes of a TLC at IUPUI

1. **Interdisciplinary theme** shapes each TLC course's design.
2. **Integration** of course content in each TLC course is intentional; course design encourages **integrative thinking** in students.
3. **Out-of-class activities** enhance academic content, integrative thinking, and interdisciplinary theme.
4. **Active learning** strategies are central to each TLC course.
5. **Faculty collaboration** fosters integrative approach, exploration of theme, out-of-class experiences, and student development.



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Five attributes of a TLC at IUPUI

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Eportfolio Grant Goals

- ❖ Core group of Themed Learning Communities (TLC) faculty
- ❖ Implement integrative eportfolio in TLC
- ❖ Increase integrative thinking
- ❖ Increase adoption of eportfolio to promote integrative thinking in TLCs



1.5 Day Summer Institute

- ❖ What is an eportfolio and why use it
- ❖ Integrative learning
- ❖ Reflection
- ❖ Signature assignments
- ❖ Audience / Peer feedback
- ❖ Taskstream
- ❖ Team project sharing and feedback



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Team Projects

- ❖ Start with ePDP
- ❖ “Signature” artifacts from each TLC course
- ❖ Reflection assignments - integrative thinking
- ❖ Start simple

Phase I: Pilot Team Reflection

- ❖ Every team increased TLC quality
- ❖ Every team identified new ideas for next year
- ❖ Team feedback important for idea sharing

Phase II: Pilot Assessment

- ❖ Direct measures of student learning - eportfolios
- ❖ AAC&U Value Rubric Integrative Learning



Integrative Learning

Definition

“Integrative learning is an understanding and a disposition that a student builds *across the curriculum and co-curriculum*, from making simple *connections among ideas and experiences* to *synthesizing and transferring learning* to new, *complex situations within and beyond campus.*”

**-AAC&U Integrative Learning
VALUE Rubric**



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-AAC&U Integrative Learning VALUE Rubric

“Integration and Application of Knowledge:

The ability of students to use information and concepts from studies in multiple disciplines in their intellectual, professional, and community lives.”

“Intellectual Depth, Breadth, and Adaptiveness:

The ability of students to examine and organize disciplinary ways of knowing and to apply them to specific issues and problems.”

-IUPUI PUL's
<https://due.iupui.edu/undergraduate-curricula/general-education/principles-of-undergraduate-learning/>



Key Concepts

Integrative Learning	Beyond academic boundaries	Foundation = Disciplinary knowledge Expand beyond
	Real-world problems	Require multi-faceted knowledge
	Internal changes	Lifelong learner Adaptability

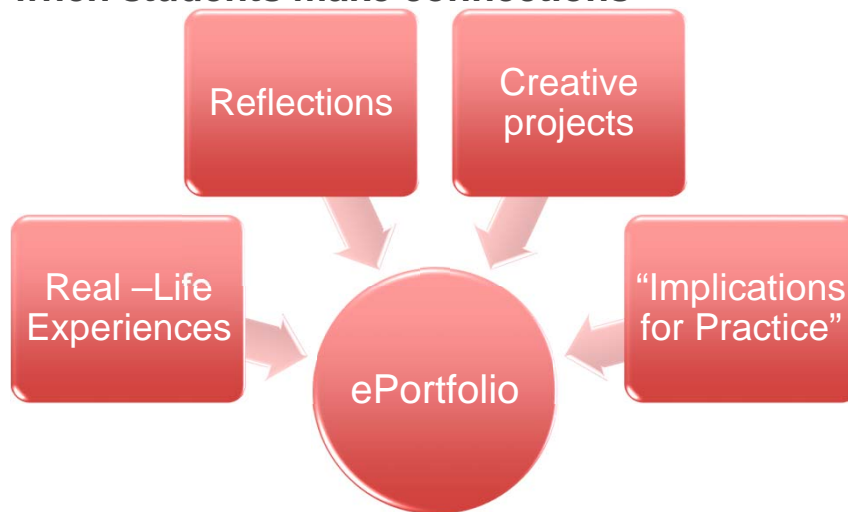


You won't find it in a Test!



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**Where you *might* find it...
when students make connections**



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Components

Rating Scale

- Benchmark (1)
- Milestones (2, 3)
- Capstone (4)
- Can give a 0 if not at Benchmark

Five Criteria

- Connections to experience
- Connections to discipline
- Transfer
- Integrated communication
- Reflection and self-assessment



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Student Examples

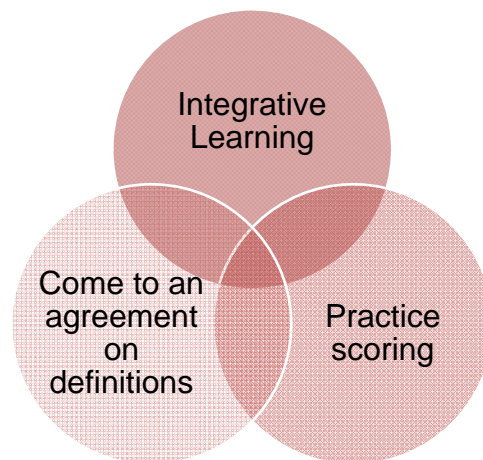
1. Calibration eportfolio - <https://w.taskstream.com/ts/merchant14/MeganMerchantTLCOurStoriesOurVoices.html/arkh1hr00ayhphphvhyhnhthe>
2. Fall 2017 eportfolio - <https://w.taskstream.com/ts/phagan/MalloryPhaganePDP.html/fkzczbzu00fbzbzmzhziczqzu>
3. Fall 2017 eportfolio - <https://w.taskstream.com/ts/nieto17/DanielaNietoFYSPortfolio.html/aff7e6ev00aifjf8ecfd7elfp>



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Calibration and Scoring

Calibration session



Scoring groups

3 groups

- 5 portfolios per group

Randomly Assigned

- Links kept from researchers

Met to discuss scoring

- No interrater reliability

Scores recorded via Qualtrics



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Results

Overall Results

Dimension	Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	Does not meet (0)
Connections to Experience	0 0.0%	1 3.3%	8 26.7%	17 56.7%	4 13.3%
Connections to Discipline	0 0.0%	1 3.3%	6 20.0%	14 46.7%	9 30.0%
Transfer	0 0.0%	2 6.7%	4 13.3%	16 53.3%	8 26.7%
Integrated Communication	0 0.0%	2 6.7%	13 43.3%	12 40.0%	3 10.0%
Reflection and Self-Assessment	1 3.3%	5 16.7%	12 40.0%	10 33.3%	2 6.7%



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Individual Reports

TLC #1

•The majority of students at least met the benchmark on every dimension except Transfer. Four of the six portfolios we rated did not do enough to meet the benchmark on that dimension.

TLC #2

•Connections to Discipline seemed to be both the greatest area of strength and the greatest opportunity for improvement.

TLC #3

•None of the dimensions were particularly weak, but Connections to Discipline was probably the weakest. It may be more difficult in an interdisciplinary course for students to make connections using course content.

TLC #4

•Integrated Communication was the strongest dimension here. Every reviewer that left comments mentioned an interview assignment as providing evidence of integrated communication.

TLC #5

•Digital story particularly effective



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Faculty follow-up - Changes

“We decided to not include the eportfolio this semester. We are going to try using the digital story and linkedin as a reflection and outward facing tool. “

“I have rewritten many of my reflection prompts to be more specific in asking for students to make integrative connections, I have used the VALUE rubric as a guide for doing this. ...”

“...I'm giving suggested topics/artifacts that students might use in each section instead of requiring certain things so that students can be a bit more creative and make it more their own. “

“Students ...will discuss all portions of the TaskStream ePDP, but will focus on Career Goals and Community Connections (service).”

Our TLC has worked on improved integration.



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Faculty follow-up - Impact

“We have a new team member, and so having the eportfolios from last year made it easy to see where we need to work on making better connections. ...”

“I think we have a better plan for working together this semester and have tried to develop projects more closely aligned with each course. ...”

“Always positive interaction, with input from the Advisor, Peer Mentor, and linked course instructors .”

“We have increased our weekly communication in an effort to improve integration.”



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Next Steps for the TLC program

- ❖ Eportfolio 2.0 - Incentivize teams to use eportfolio as integrator the first year (stipend)
- ❖ Professional development
 - ❖ Integrative learning – activity/assignment design
 - ❖ Eportfolio pedagogy
 - ❖ Data and testimonials
 - ❖ Signaling - add a field to the TLC team planning document regarding use of eportfolio
- ❖ Continued Assessment



Q&A



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Report from the 2017 Faculty Learning Community on the Capstone

BACKGROUND

IUPUI students have participated in the capstone experience since the early 1990s. The IUPUI Committee on the Capstone Experience, whose work culminated in April, 1991, defined the capstone as “an educational experience intended to be at once a philosophical summation of the four-year undergraduate program and at the same time an intellectual springboard into each students’ future” (p. 3). In 2004-2005, a Capstone Learning Community was led by Dr. Sharon Hamilton as a component of a FIPSE grant, and an analysis of syllabi from capstone experiences was conducted by Stocker, Rowles and Johnson (2005). In spite of some common underpinnings, different programs and schools imagine the capstone in different ways. Given recent developments around general education and changing demographics of our students, now is a good time to review and revisit the capstone experience at IUPUI. In 2017, Executive Vice Chancellor Kathy Johnson created a new faculty learning community to reexamine, reshape and restate the goals and principles of the capstone experience at IUPUI.

PROJECT DESCRIPTION AND GOALS

The Capstone FLC is made up of faculty from across the campus but with a focus on faculty who have engaged in high impact practice work. Team members included: Kathryn Lauten (LIBA), Marta Anton (LIBA), Youngbok Hong (Herron), David Pierce (PETM), Tyrone Freeman (LFSOP), Ken Wendeln (KSB), and Lin Zheng (KSB). Stephen Hundley (Planning and Institutional Improvement) and Michelle Hanson (IRDS) served as resources for the group. Margie Ferguson (Academic Affairs) chaired the group.

Our immediate assignment was to produce a report for the EVC and the campus that conveys the purpose of the capstone experience at IUPUI, as well as guiding principles and suggested practices that might ideally be infused across the undergraduate capstone experience.

The Faculty learning community met for four, two hour sessions over the spring semester and engaged in a conversation employing the design thinking model. We did a survey of the literature on best practices and drew upon ideas from AAC&U and our peer institutions. A subset of the group (along with Scott Weeden, PRAC) attended the AAC&U High Impact Practices Institute at Boston University in June 2017. This meeting gave us access to faculty leaders from other institutions and more importantly it provided us with space and time to capture and express the ideas generated by the capstone FLC.

What follows is a brief statement of the core principles and goals for the capstone at IUPUI and an outline for the implementation of these ideas. We recognize that a successful implementation of a reinvigorated capstone experience at IUPUI will

necessarily involve the input and support of many actors. We therefore identify key stakeholders and their desired contributions. Finally, we place the capstone into a larger conversation about guided pathways for our students. The ideal capstone experience can only be achieved when students arrive at the capstone with the necessary knowledge and skills. We hope to work with leaders in undergraduate education at IUPUI to build and facilitate clear pathways for our students to carry them from the gateway to the capstone.

PRINCIPLES AND ELEMENTS OF THE CAPSTONE AT IUPUI

The capstone is a culminating experience that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of disciplinary practice. The project the student produces might be a research paper, a performance, a portfolio of best work, an exhibit of artwork, a consulting report prepared for a community partner, a product or service, a field experience, or a technological innovation. The nature of the product is specific to the discipline and based upon the learning outcomes identified by that program. All capstones at IUPUI incorporate the following features:

Reflection on personal growth

Students are provided structured opportunities to reflect and integrate learning. Reflections allow students to make personal connections with the topic, make sense of the entire IUPUI experience, apply those insights to their future, and prepare them for their next stage of career development.

Significant Time Investment

Students contribute a significant investment of time and effort over an extended period of time. During these periods, students are typically revising and refining their work through ongoing collaboration and interaction with faculty members who provide frequent, timely, and constructive feedback. In some cases, student peers and community partners may also provide feedback to students.

Integration of Knowledge

Students integrate the content, knowledge and skills acquired during their coursework leading up to the capstone. Students are encouraged to reflect on and see the connections between their studies and experiences thus discovering the relevance of learning in the discipline.

Tangible work, artifact, or product

The student's effort results in a tangible work, artifact, or product marked by an appropriately high level of expectation. The final outcome can take many different forms based on the nature of the project or assignment. The artifact is assessed in a way that contributes to meaningful evaluation of student learning outcomes and serves as a performance measure for the unit/program.

Public Demonstration

At the end of the culminating experience, students present the outcomes of their work to a public audience. There are many ways to make the work public; such as placing it online, displaying it on a wall, making a presentation, sharing at a showcase, or providing a product or service to be used by others.

IMPLEMENTATION

Having stated the core principles of the capstone, we turn now to the implementation. The work of the capstone must be accomplished in concert with many other actors at IUPUI. Below we list the key actors and explain the roles we expect that they will play.

Stakeholders

Multiple campus stakeholders are important for this process. Each unit or program has a particular area of responsibility, priority, or influence that will support successful implementation and sustainability of this overall initiative. Early in the roll out of the capstone initiative, we will seek the input and support of these stakeholders. There is also a unique role that each stakeholder can play in developing and moving the process forward.

Academic Affairs is a key stakeholder for this process and will play a central role in disseminating the initiative and engaging in campus-wide dialogue about the initiative. There are several ways that Academic Affairs can carry out this work, including:

- Providing coordination for information sharing and expectations setting for the capstone experience
- Creating a capstone community of practice for faculty
- Using the new faculty welcome program as a vehicle for dissemination and building a culture of support.
- Modifying the FAR system (DMAI) to enable faculty to report on capstones and connect to the P&T rewards structure and process.
- Developing faculty trainers to disseminate capstone guidelines and best practices
- Developing a capstone showcase event to promote best practices and pilot programs.

The Indianapolis Faculty Council (IFC) can provide important input and feedback to further refine and enhance this initiative. The support of IFC is critical for success, particularly as it relates to building a supportive culture, aligning faculty rewards systems, and promoting best practices and ongoing dialogue.

IUPUI's Deans can help promote the initiative and build a supportive culture by prioritizing the capstone experience and working with their faculty and units to ensure a connected and integrated learning experience for students in their degree programs.

The newly structured Center for Teaching and Learning/The Forum is a key stakeholder that will be central for supporting faculty professional development on capstones and disseminating best practices and pilot projects, such as:

- Developing boot camp programs on capstone best practices to provide short term, intensive and immersive learning experiences that enable faculty to continue, enhance or create supportive processes for their courses and program curricula.
- Disseminating best practices and pilot programs through the Moore Symposium.
- Providing technical assistance and consulting to faculty and units to enhance capstone courses.

The Office of the Registrar can enable monitoring and evaluation of the initiative, which are critical for success. The Registrar can support this process by:

- Creating a mechanism to identify capstone courses in the schedule of classes to enable tracking of campus offerings.
- Connecting this initiative to the roll out and implementation of the Record of Authentic Learning initiative (REAL) which captures evidence of student participation in high impact practices.

The Program Review and Assessment Committee's (PRAC) oversight of assessment can support the initiative by engaging assessment leaders in the discussion, building a supportive culture, and promoting the overall effort. PRAC might also:

- Modify the annual PRAC report to include discussion about capstone offerings in each unit as well as how the overall curriculum prepares students for the capstone experience.
- Provide regular updates and discussions on the initiative at monthly meetings.
- Showcase exemplary programs to disseminate best practices.

The Undergraduate Affairs Committee's (UAC) management of curriculum is important particularly as it relates to oversight and evaluation of General Education

and curricular changes. UAC will be key to assuring that programs implement and maintain appropriate capstone experiences as well as assessing outcomes.

There are numerous offices, programs, and initiatives in Division of Undergraduate Education that are essential stakeholders, especially the new Institute for Engaged Learning. Due to DUE's student-facing high-impact offices and programs, it can play a leading coordinating role for the second and third stages of this initiative.

- Bridge programs, themed learning communities, and Gateway courses and faculty provide unique launching opportunities for building a culture and expectation among students regarding the capstone experience and supportive pathway. The networks of faculty for Gateway courses and themed learning communities have developed strong entry learning experiences for new students. This initiative seeks to build on their work by urging and encouraging that more attention is paid to what happens after these experiences-- as students progress towards the capstone. In particular, the ePDP is an essential part of these first year experiences that has valuable impact on student learning, but is not consistently used after those experiences end. This initiative envisions the ePDP as a foundational element that grows and builds as the student moves into the second, third and fourth year toward the capstone experience.
- Work with the Center for Research and Learning to engage students in data collection for the initiative through existing faculty-mentored research programs.
- The Institute for Engaged Learning will house many of IUPUI's offices related to high impact practices such as the Center for Service and Learning and the Center for Research and Learning. This initiative supports and advances many of their goals and responsibilities because of their role in preparing students for the capstone experience.

The ePortfolio Initiative has provided support, training, and capacity-building expertise to help spread the use of e-portfolios across campus. Recently, a mission and vision statement has been created for the role and use of ePortfolios at IUPUI that includes providing all students, faculty and staff with opportunities to engage ePortfolios with guidance and support. This new mission and vision fits nicely with the capstone initiative's desire to extend the use of the ePDPs beyond the first year into the second and third in ways that prepare students for the capstone experience. The capstone experience may also be a place for culminating the undergraduate ePortfolio learning experience and launching the post-graduate use of it as a learning tool throughout students' careers and lifetimes. This initiative can also be promoted in concert with the ePortfolio showcase.

Student Government and other student groups must have a voice in this student success effort. This initiative has its origins in supporting student success. Therefore,

engaging students' voices, input, and participation into the design and implementation of this initiative is vital. We envision student participation in multiples ways including:

- Participation in focus groups to identify key points along the pathway toward the capstone experience
- Representation in organizational structures that drive each stage of the initiative.
- Participation in unit-level committees and processes that inform curricular design and innovation.

IMPLEMENTATION AND SUSTAINABILITY

As we worked on how we might invigorate and reinvigorate capstones on our campus, we realized that an important concern was going to be how to be sure that students would be prepared for their capstone experience. So, rather than just making sure that capstones reflect important features of successful practices, we must also pay attention to what happens to students between their gateway experiences and the capstone. Working on the pathway, we realized, was going to be as important as thinking about what departments would do with their capstones and what we could do to encourage alignment with what the literature encourages.

Strategic vision

Implementation of the capstone initiative demands thinking beyond the parameters of the original charge. Implementation requires a broader vision to make sure what we would encourage our campus to do would in fact "stick" and not falter in the inertia that sometimes occurs after an initiative is launched.

We imagine a three-stage process. Stage 1, will involve working with the key stakeholders to get feedback and disseminate information. Stage 2 will provide the means for the campus to align with the new vision for the capstone. During Stage 2, we will work with campus leaders to visualize what is possible with the capstone experience. This will consist of identifying capstone courses already in existence that are exemplary of best practices. We hope then to create showcase mechanisms to help the rest of the campus see what can be possible with the capstone experience. These exemplars will, we hope, pave the way for Stage 3, in which all students at IUPUI have clearly delineated pathways from gateway to capstone, graduation and beyond.

Tools

A key aspect of facilitating this pathway, is the use of two tools that our campus has already developed and employed. These are the electronic personal development plan (ePDP) that entering students compose during our first-year seminars, and the electronic portfolios that some of our programs currently employ. Ultimately, we think these two tools should be brought together, which we will discuss below.

Participatory process

We also see the need to involve students who are going through pathways and using them in the exemplary capstones. We hope to engage the resources of our Center for Research and Learning, which sponsors research for undergraduates. This center can be a means to have students be involved in helping to gather information about our implementation efforts, how their peers are responding to it, and what faculty and staff are finding true as our new vision is enacted. We see this involvement of students as important for making sure we are gathering perspectives from all those key constituencies who are a part of what we sometimes refer to as the gateway to graduation experience.

Communication and connection

As the initiative matures, we ask that the UAC serve as the body that oversees the gathering of information and the synthesizing of the results in order to feed information back into the capstone model. We anticipate that during Stage 2, this will allow for the composition of models that can be shared with departments and programs on ways that they can utilize the pathway idea to "feed" a more robust conception of how to organize their capstone experiences and have them draw upon what is being learned. We anticipate using our showcase and reporting events and moments to communicate best practices with capstones and how best to organize them so that they will serve students best.

A key element of this communication process we have just mentioned is engaging our key stake holders – faculty, administration, staff, students and community partners – so that they can participate in the assessment of how we are doing and what adjustments would make the capstone experience even more beneficial.

Stewardship

By Stage 3, we hope for clear delineated pathways for students that help them to develop along the journey from gateway courses to the capstone. The capstone will be a place where students bring a sense of responsibility to their studies (Shulman) and to the communities they will join by addressing relevant, real world problems. We believe the Division of Undergraduate Education must play a key role in sustaining the implementation and in moving this initiative forward. This will involve keeping the activities going that we conceive for Stages 1 and 2, and drawing upon a redeveloping campus culture to sustain these efforts. By this point, we hope to have a collection of capstone faculty working together as a community of practice joining other campus stakeholders to monitor, facilitate, and sustain practices we hope will catch life once we have been able to employ what we have learned in the faculty learning community.