FACULTY PROFESSIONAL DEVELOPMENT:

CISTL VISION STATEMENT

Paul J. Blohm
Interim CISTL Director

Angela Solic
Instructional Design Specialist

Tameka White
Administrative Assistant

William Radell
Instructional Technology Specialist

Julianna Rodriguez
CISTL Intern

Sarah Jackson
CISTL Intern

July 2012
Vision

Best practices...supportive environments...technology-enchanced instruction. We guide and support faculty as they create a teaching climate that fosters learners’ thoughtful and respectful consideration of new or alternative viewpoints and ideas, personal and collaborative ownership of learning, and construction of personally meaningful knowledge. Targeting key dimensions and proven principles of effective instruction, we focus attention on specific outcomes of our faculty development programs, consultations, and mentorship services. In the conceptual framework of our vision, creating and sustaining a diverse community of learners requires faculty to commit to facilitating learning opportunities for all of their students.

Steeped in the four pillars model of learning (Zhou and Sun, 2001), our vision is predicated on the assumption that faculty can improve their pedagogy through professional development programs, and, as a result, students learn more (Rutz, C., Condon, W., Iverson, E.R., Manduca, C.A., & Willett, G., 2012). That is, students will learn to know, to do, to live together with each other, and be a better person as a result. Conceptualized within this vision, we focus on three program dimensions that are defined and shaped by eight principles of effective teaching:

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<th>Dimensions</th>
<th>Principles</th>
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<td>• Quality-proven instructional practices</td>
<td>o Sufficient coverage/use</td>
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<td>• Supportive physical course (learning) environments</td>
<td>o Accurate implementation</td>
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<td>• Technology for teaching and learning</td>
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<td>o Accountable teaching to course objectives</td>
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All learners learn best when they are facilitated through well-structured activities in appropriate learning settings with optimal tools and devices that challenge them to learn intellectually, academically, socially, culturally, and reflectively. Effective instructors pose authentic, substantive problems and situations for learners and set explicit expectations for learning. Curriculum-based sequences of instructional activities articulate a coherent coverage of course subject matter. Effective instructors make use of their thorough knowledge of curriculum and pedagogical content to construct and sequence curricular activities.
At IU Northwest, more than 70% of enrolled students may be classified as nontraditional students—those with one or more of the following characteristics:

- Has delayed postsecondary education beyond one year following high school graduation
- Attends part time
- Is financially independent from parents
- Works full time or has several part time jobs
- Has dependents
- Is a single parent (NCES, 2009)

The challenge to our faculty is to connect the subject matter, instructional practices, course environment, and technology to the context of traditional and nontraditional students (i.e., all learners). The mission of the Center for Innovation and Scholarship in Teaching and Learning (CISTL) is to provide professional development that assists faculty in identifying, learning to implement, and making those pedagogical connections to the diverse learning worlds of our students.

Center for Innovation and Scholarship in Teaching and Learning

The Center for Innovation and Scholarship in Teaching and Learning (CISTL) at Indiana University Northwest strives to function as a pivotal resource to the university community of faculty who desire to renew, modernize, and/or transform their pedagogy (i.e., teaching practices) to better facilitate the diverse learning needs of today’s postsecondary students. CISTL provides training, consultation, and mentoring to any faculty who have teaching responsibilities on the IU Northwest campus: that is, fulltime tenured and tenure-track faculty, instructors, lecturers, clinical instructors and supervisors, and adjunct teachers.

Professional development and instructional support provided by CISTL focuses on three distinct but interlaced dimensions of instructional design: (1) best instructional practices, (2) a supportive teaching environment (setting) for course delivery, and (3) compelling yet utilitarian instructional technology that help students gather and construct knowledge in the selected course setting.

In the professional development that CISTL provides for effective teaching, faculty bring the content—the what, i.e., the curriculum, the audience—the who, i.e., the students, and the course purposes—the why, i.e. course goals and/or objectives. CISTL brings professional support to faculty for addressing pedagogy—the how and what with, i.e., teaching practices and technology integration options), and the where and when (i.e., choices of course settings for delivery of instruction).
Each of our vision’s three dimensions of professional development, defined by eight key teacher effectiveness principles, is presented in a conceptual framework below.

Four Pillars of Learning

The four pillars of learning embody a range of new key competencies that all learners should be required to learn to succeed in the 21st century (Zhou and Sun, 2001). These four pillars include learning to know, learning to do, learning to live together, and learning to be. Learning to know involves developing the knowledge and skill necessary to function in the world: these include literacy, numeracy, and critical thinking. Learning to do involves acquiring the skills linked to occupational success, such as computer training and on-the-job apprenticeships. Learning to live together involves developing social skills and values, such as respect and concern for each other, interpersonal skills, and an appreciation of the diversity of others. Learning to be involves participating in personal development (body, mind, and spirit) that contributes to creativity, personal discovery, and an appreciation for personal values.

What is key here is that the four pillars of learning relate to all phases and areas of education. They support and permeate through one another and should therefore be applied as basic principles, cross-cutting themes and generic competences for integration in and across subject areas or learning domains. In teaching and learning, these four pillars offer a broad framework of cross-curricular competencies that should be required of all learners, including, but are not confined to, the following:

1. competence in collecting, selecting, processing, and managing information
2. competence in mastering instruments of knowing and understanding
3. competence in effectively communicating with others
4. competence in adapting oneself to changes in life
5. competence in cooperatively working in teams
6. competence in resolving conflict through peaceful dialogue and negotiation.

These four pillars of learning and their related competencies form a conceptual framework in curriculum change that prepare today’s learners for the challenges of a 21st century global society.

Conceptual Framework: Dimensions & Principles

A conceptual framework for teaching is a type of intermediate model that attempts to connect key aspects of instructional intervention in order to address a desired outcome: in this instance, faculty training for teaching leads to enhanced student learning. In this framework, CISTL focuses on three interlaced dimensions of faculty development for teaching: instructional practices, instructional environment, and technology tools and devices. These three dimensions...
address eight key principles of effective teaching (e.g., sufficiency, accountability, reflectivity). These dimensions of training should be considered broadly as each is comprised of two or more components (see bullets in Table 1 below).

### Table 1. Conceptual framework for faculty training that leads to improved student learning.

This conceptual framework establishes a shared vision of CISTL’s efforts to train, provide consultation to, and mentor faculty for acquiring additional effective instructional practices, environments, and tools to support students’ learning at IU Northwest. The three dimensions and their key components are further described below.

**Dimensions**

**Instructional Practices.** Instructional practices that promote the acquisition and application of essential course content with today’s students require that learners are “actively engaged” with the course content and are “collaborative” with their classmates and the instructor throughout their learning (Jones, 2008). These **HOW** techniques, strategies, and approaches are essential for ensuring that students commit to their learning in meaningful, communicative ways. Twenty-first century practices—such as problem-based learning, case-based learning, and collaborative learning—are designed to glean the most from the growing body of evidence that students learn best when they are interested in what they learn, are committed to thinking deeply about the concepts they study, are in regular communication with
their peers and the instructor to collaborate on what they are learning, and are using tools and
devices that are current and appropriate for learning (Velez-Solic and Banas, 2013).

Instructional Environment. Instruction can and should be delivered in a variety of course
settings (i.e., instructional environments), as appropriate. Traditional “technology-supported
face-to-face” classroom settings can be very effective for introducing, explaining, practicing,
and guiding learning at a preset, synchronous time and in a classroom location on campus. More
recently, high quality “distance (online)” education settings have been created that provide
students with the flexibility to learn and collaborate with each other on their own schedule
(asynchronously) and where they want to participate (e.g., at home, library, coffee shop). In
some instances, “blended” (hybrid) classroom delivery is advantageous and very effective when
course topics and/or procedures demand that students gather, explore, and share new subject
matter ideas online but also need to meet occasionally at preset times and locations to extend
their learning experiences for appropriate purposes (e.g., providing well-equipped chemistry lab
settings for conducting necessary course-related experiments).

Technology. Technology for teaching in the 21st century involves the selection and
implementation of a new set of learning devices, teaching applications, web-based
programs and tools, and course management software. New fixed-classroom and mobile
learning devices are constantly emerging: chalkboards are being replaced by electronic smart
boards, large touchscreen LED TVs, and remote screen-sharing projection systems; laptops are
being supplanted by electronic tablets (e.g., iPads); and classroom clickers are disappearing as
smart phones and other BYODs (bring-your-own-devices) replace them. Web-based applications
for teaching (i.e., Web 2.0 tools) are proliferating the web for engaging and supporting highly
effective online learning, interactive etexts are replacing traditional printed textbooks, and
social networking now exist that support student collaboration in ways not imagined several
years ago. Cloud computing is rapidly replacing hard disk and optical storage devices. Course
management systems, such as OnCourse, now house a course framework on the web for
creating, organizing, communicating, monitoring, managing, and grading all course instruction,
collaboration, learning activities, assignments, and assessments: all this to appeal to today’s
generation Y students (Eisner, 2004).

These interlaced dimensions frame the direction and focus of professional development and
support that CISTL provides to our teaching faculty at IU Northwest. Each dimension, with its key
components, is further defined in light of driving principles of effective instruction. These
defining principles are described below.

Teaching Principles

Planning, operation, and assessment of CISTL training, consulting, and mentoring IU
Northwest faculty on (1) instructional practices, (2) instructional environments, and (3)
technology for teaching and learning is defined by the following eight principles of effective teaching:

- **Sufficiency.** Practices, teaching environments, and technology work best for students when each of these is attended to sufficiently. While some adaptation of each dimension of teaching is desirable to fit the immediate context of specific learning, each teaching practice, learning setting, and tool/device must be used consistently enough times and for suitable duration for students to gain the most from their application. Each dimension will require students to learn how to cope with and succeed for that focus, and sufficient attention to the application of each will be necessary for students to profit the most from their use in their learning.

- **Accuracy.** Application of each dimension for teaching will benefit the students most when the conditions of and procedures for implementation of the elements are accurately applied. Attention to precision of the details of each dimension’s utilization will pay big dividends for student learning.

- **Suitability.** Selecting the most appropriate practice, environmental setting, and instructional technology that match the desired knowledge and skills to be taught ensures that students will have the greatest opportunity to learn. Matching teaching to learning increases the likelihood that students will stay focused and on task as they delve into the topics and/or procedures of the subject matter.

- **Authenticity.** Learning is best facilitated through well-structured activities that challenge learners intellectually, academically, socially, and effectively. Effective teachers pose real-i.e., substantive-problems for learners and set explicit expectations for learning. Sequences of activities articulate a coherent curricular whole. Effective teachers make use of their thorough knowledge of pedagogical content to construct and sequence curricular activities.

- **Accountability.** Effective teaching is demonstrated through successful learning. To ensure fruitful learning, effective teachers make use of a wide variety of demonstrably effective teaching strategies, and they know and use current instructional and assistive technologies. Effective teachers go further to assign activities and assignments that match the desired learning, monitor and assess student’s learning, and provide timely and productive feedback to students about their academic growth.

- **Diversity.** With appropriate pedagogical and technical support, all students can learn in heterogeneous classroom environments. In the university, as in society, diversity is a resource for learning, not an obstacle to be overcome. Effective teaching is both culturally responsible and responsive. In addressing student diversity, effective teachers create
pedagogical strategies that are founded on principles of social, cultural, cognitive, emotional, and intellectual development.

- **Equity.** Educational equity creates a culture of fairness for all students regarding opportunity, access, and respect for diverse learning styles. Practices that seek to include all learners, provide environmental support for learning through the delivery options, and make tools and devices for learning available to all learners will ensure fairness of opportunity, access, and diversity.

- **Reflectivity.** Effective teachers are life-long learners. They think about their teaching and connect their day-to-day activities to a coherent social, philosophical, and political framework. They research their own practice. They participate in the professional and academic activities of their academic and professional communities. They are aware of the social and institutional contexts that constrain their practice and work with those institutions to alter those constraints.

The principles described above constitute learning outcomes for our faculty to better serve the needs of our diverse student population at IU Northwest. That is, the three dimensions in our vision and the eight principles of effective teaching upon which they are defined may be operationalized to implicate selection, training, practice, and implementation of effective pedagogical practices that impact success in student learning.

Those learning outcomes that may be derived from the dimensions and defining principles of our vision for effective teaching are presented and described below.

## Learning Outcomes

Learning outcomes spell out the expectations of the dimensions of our vision in light of the four pillars of learning; and, further, these outcomes are developed to answer the questions: *What we are trying to do? How well are we doing it? How can we improve what we are doing?* Each of the learning outcomes expressed below assist us in directing our planning, monitoring our assistance, and assessing our progress with the faculty for developing and maintaining high quality instruction at IU Northwest.

**Outcome 1.** Faculty will design and deliver curriculum-based teaching practices that actively engage and support students in exploring, investigating, applying, and/or evaluating key knowledge and skills to be learned.

**Outcome 2.** Faculty will design and deliver curriculum-based teaching practices that promote and support students’ collaboration with other students and their instructor about the knowledge and skills to be learned.
Outcome 3. Faculty will select and use a variety of effective technology-supported teaching approaches to deliver and maintain conducive 21st century face-to-face instruction and student interaction in the classroom setting.

Outcome 4. Faculty will design and deliver active distance (online) learning activities, assignments, collaboration opportunities, and assessments to support students’ grasp of the desired knowledge and skills with a flexibility that allows the student to decide the time and setting for learning and sharing.

Outcome 5. Faculty will prepare and schedule a blend of effective face-to-face teaching experiences with actively engaging online teaching practices to deliver instruction appropriate for classroom-based, clinical-based, and online learning settings.

Outcome 6. Faculty will select and use an appropriate variety of classroom technology tools (e.g., electronic Smartboards, mobile computer stations) and mobile learning devices (e.g., iPads, Xbox Kinect) to assist students in exploring and engaging desired knowledge and skills.

Outcome 7. Faculty will select and use effective web-based instructional applications (e.g., PollEverywhere.com) and electronic applications (e.g., Prezi, WebQuests) to promote student active engagement and collaboration of desired knowledge and skills.

Outcome 8. Faculty will use a course management system (e.g., OnCourse) to plan, teach, assign, provide communication and feedback, assess, and grade student learning of desired knowledge and skills.

These learning outcomes, derived from our vision, serve to guide and support the design and implementation of CISTL’s programs of professional development, individual consultations, and mentoring operations to the teaching faculty of IU Northwest. To insure the impact of each our eight learning outcomes on our teaching faculty for quality and effectiveness, authentic assessment instruments and practices must be developed, implemented, and analyzed to provide the most direct evidence of attainment of knowledge and skills. Assessing learning outcomes is addressed next.

Assessment of Learning Outcomes

At the heart of powerful program assessment, we want to determine (1) where we want our teaching faculty to be at the end of instruction and training, and (2) how we will know if they get there. When conducted thoughtfully and systematically, we believe that the information gathered will help us serve faculty to refine their teaching practices and grow as educators (Keeling & Hersch, 2012). Further, program assessment must be authentic: we do not just want our faculty to know the best practices, optimal teaching environments, and use of the most effective technology tools for teaching when they complete our training services. We want
them to accordingly use those practices, environmental settings, and technology tools in the “real world” of their teaching (Mueller, 2011).

Each of the eight principles for the three dimensions in our conceptual framework, converted and operationalized as learning outcomes, represent authentic tasks for our teaching faculty to complete as part of their professional development.

**Rubrics.** Authentic assessments typically are criterion-referenced measures for a task (mirroring the knowledge and behavior required in a learning outcome) that is completed. That is, aptitude on a learning outcome-based task is determined by matching the faculty member’s performance against a set of criteria to determine the extent to which the faculty meets the criteria for the task (Andrade, 2005). To assess a performance against a pre-determined set of criteria, a rubric (or scoring scale) is often created which contains the essential criteria for a task (e.g., sufficiency, accuracy, reflectivity) and appropriate levels of performance for each criterion (e.g., novice, developing, accomplished, professional) with descriptors that spell out what expected for each level of performance (e.g., “too little information is included”). These analytic rubrics are used to assess each criterion separately, especially since each task involves a multiple number of criteria: in our case, eight criteria for each task our faculty trainees perform: that is, (1) sufficiency, (2) accuracy, (3) suitability, (4) authenticity, (5) accountability, (6) diversity, (7) equity, and (8) reflectivity. Rubrics are valuable, first, as a formative (low-stakes) assessment as faculty try out new practices, courses settings (environment), and technology tools to provide detailed feedback as to the progress of their development, and, second, as an effective summative (high-stakes) assessment to acknowledge the level of success for faculty upon the completion of a learning outcome-based task (Arter & Chappuis, 2007).

**Checklists.** During training sessions, consultations, and mentoring occasions, a low-stakes checklist serves well as a “yes” or “no” scoring scale when we simply want to know whether the criteria are present (i.e., yes) or absent (i.e., no). When faculty are designing or preparing to teach, we might use a checklist that includes a list of the required components or actions of the teaching plan and check off those components that are presently noted or observed. Checklists are used for identifying whether key tasks in a procedure, process, or activity have been completed. The tasks may be a sequence of steps or include items to verify that the correct sequence was followed (British Columbia Institute of Technology, 2010).

**Observation Instruments.** Used in conjunction with rubrics and checklists, observation instruments serve to confirm that what faculty learned and developed was then used and delivered to their students. Observation of teaching can be characterized as two types: incidental and planned. Incidental observation occurs during the ongoing (deliberate) activities of teaching and learning and the interactions between instructor and students. In other words, an unplanned opportunity emerges, in the context of classroom activities, where the teacher observes some aspect of individual student learning and acts on it to assist the students. This can be observed and noted by a peer observer who can document the opportunity presented
and how the instructor capitalized upon it. Planned observation involves deliberate planning of an opportunity for the instructor to observe specific learning outcomes of the task. This planned opportunity may occur in the context of regular classroom activities or may occur through the setting of an assessment task (such as a practical or performance activity). Peer observation of teaching provides a structured framework for the ongoing improvement of teaching and learning through collaboration, reflection and discussion. The process operates in the spirit of impartiality, professionalism, and peer support with the aim of enhancing the practice of participating faculty, leading to the improved quality of student learning (Valencia College, 2012).

Rubrics, checklists, and observation instruments are powerful and authentic tools—when appropriately prepared, and administered—to assess learning outcomes for a given program of faculty development services. Programmatic implications for faculty development are presented below.

**Programmatic Implications for CISTL Faculty Development**

Vision statements establish the kinds of task-based activities for faculty development that must be included to meet the program’s outcomes. This vision’s task-based activities to address specified learning outcomes includes at least the following implications for identifying, selecting, and structuring experiences for faculty development in CISTL:

- Faculty must have sufficient expertise of and/or experience in their academic discipline to gain meaningfully from pedagogical training.

- Faculty must assume primary responsibility for their students’ learning.

  i.e., course design, delivering instruction, selecting learning materials and technology, assessment design, monitoring learning, mentoring and advising students, grading

- CISTL staff must have relevant expertise for the pedagogical practices, contexts, and technology to effectively provide training, consultation, and mentoring services to our faculty.

  i.e., M.A. (or higher) in instructional design, M.A. (or higher) in instructional technology, online teaching experience, college teaching experience, consultation and mentoring experience, budget and purchasing experience, faculty development experience, course management systems expertise and experience, program directorship experience, internship qualifications
• CISTL staff must offer a variety of effective approaches, times, and course settings for training, consultation, and mentoring to meet the availability and needs of our faculty.
  e.g., short courses, workshops, online helps, breakfast/luncheon sharings, individual conferences, faculty peer-assessment, faculty peer-mentoring, course-shadowing, peer-apprenticeships

• CISTL must stay current with and provide training in the use of the latest and most effective technology and tools for teaching and learning that faculty may learn and use to assist their students’ learning.
  e.g., Web Applications: YouTube, Premier Survey, Postica, TinySong, Jing, Animoto, InstaCalc, Sumo Paint
  e.g., Tools: fixed-classroom devices, such as, mobile cart learning pods, Smartboards, Xbox Kinect, CopyCam; mobile devices, such as clickers, iPads, mp3 players
  e.g., Training: technology tool/device demonstrations, hands-on tool/device tryouts, teaching plans for inclusion of technology, dedicated technology application lab for faculty

• CISTL must implement a system of recognition for faculty accomplishment of their professional development (such as online teaching, use of technology for instruction).
  e.g., awards of excellence, certificates, endorsements, citations, grants, stipends

• CISTL must sponsor special events that foster the interests and needs of high impact teaching practices and approaches.
  e.g., institute days, symposiums, convocations, faculty orientations

• CISTL must support an internship program that assists faculty development for teaching and learning and provide opportunities for students to examine and study program development.
  e.g., assisting development course management system, maintaining webpage design, leading/assisting training sessions, beta testing classroom technology tools, acting as consultants from a student perspective

• CISTL must join with university partners, other Centers for faculty development, and national networks to stay current with the most effective pedagogical practices and support systems for facilitating student learning.
  e.g., IU Teaching Centers Committee, Learning Technology Partners, FACET, Classroom Technology and Distributed Education Committee, Information
These programmatic implications, drawn from the learning outcomes that operationalize the dimensions and principles of effective teaching at IU Northwest must be accountable to our vision, the faculty we serve, and the mission of the university. That is, a system for monitoring and assessing faculty development through the training services of CISTL must be in place to insure that the learning outcomes are being successfully addressed.

In Conclusion

A vision of best teaching practices conducted in supportive environments and using $21^{st}$ century technology creates a teaching climate that fosters successful learners. With care and attention to these dimensions and principles of effective teaching, faculty can expect to develop learners who bring thoughtful and respectful consideration to their subject matter. Beyond this, learners are able to build personal and collaborative ownership of their learning and construct personal and meaningful knowledge and skills to succeed in their world.
References


