Program Review and Assessment Committee

Thursday, January 10, 2002 9:00-11:30 a.m. UL 1126 Ingrid Ritchie, Chair Sara Heiliger, Recorder

AGENDA -

- 1. Approval of December Minutes
- 2. Kelley School of Business Presentation
- 3. School of Education Presentation
- 4. School of Dentistry Presentation
- 5. Performance Indicators Committee

MINUTES -

Present: D. Appleby, S. Avgoustis, S. Baker, T. Banta, J. Bjork, K. Black, D. Boland, P. Boruff-Jones, K. Duckworth, C. Guba, S. Hamilton, S. Heiliger, L. Houser, B. Jackson, K. Johnson, S. Kahn, J. Kuczkowski, R. Lehnen, J. Mac Kinnon, J. McDonald, S. Milosevich, H. Mzumara, A. Olson, R. Osgood, M. Phillabaum, M. Plummer, I. Ritchie, K. Rome, E. Sener, R. Vertner, R. White, G. Williams, C. Yokomoto, N. Young

Guests: Rob Neal, School of Business

Approval of December minutes (I. Ritchie)

Minutes approved

T. Banta distributed a brochure on assessment developed by Laura Lucas, School of Engineering and Technology, with support from a PRAC grant. E. Sener commented that the brochure is intended to help engage part-time faculty in assessment; it summarizes assessment practices and suggests practical approaches tailored to the part-time faculty member's time constraints.

Banta offered to work with Sener to distribute additional copies to interested schools and departments.

Kelley School of Business Presentation (R. Vertner)

Handouts: Overall Assessment Goals; presentation outline

R. Vertner introduced R. Neal, in attendance to represent the Kelley School of Business (KSB-I) Assessment Committee. That committee also includes Melinda Phillabaum, Doug Herrema, and Jane Lambert.

Vertner reviewed the history of assessment in the Kelley School of Business, noting that the assessment committee began its work about five years ago. Since approval of the PULs in 1998, several faculty have incorporated the PULs into their syllabi and discuss them explicitly in their classes, while several have made course and curriculum changes as a result of their own informal assessments. The school participated in the pilot of the undergraduate student portfolio and of the ETS Major Field Achievement Test in Business to track how KSB-I students compare nationally on functional knowledge of business skills. The school's assessment committee wants to go beyond comparing its students against standards set by others, however, and has committed itself to setting its own explicit goals for undergraduate student achievement.

Today's presentation was structured into three parts: discussion of the school's goals for assessment, description of a recent review of the accounting curriculum by one faculty member, and consideration of these questions: What has the school learned from its assessment efforts? What has been changed as a result? What can be done to encourage more faculty involvement in assessment?

School of Business Assessment Goals

- 1. Identify desired student learning outcomes
- 2. Use nationally-normed tests to compare students' knowledge of functional business skills against other institutions
- 3. Implement student electronic portfolios
- Improve feedback from current students, alumni, and employers through better use of data from campus surveys and development of schoolspecific surveys

The school assessment committee is working on each of the above goals. Work on identifying desired student learning outcomes began with a school-wide syllabus analysis, which showed that faculty members were frequently teaching different content and identifying different outcomes for the same courses. These results have been distributed to faculty. Next steps include reaching agreement on specific course outcomes, and assessment approaches for the various departments in KSB-I.

The first attempt to use the ETS tests was helpful, but results were poor. The assessment committee has contacted more than 20 other schools of business to determine whether the ETS test is generally considered relevant to key learning outcomes for business graduates. The school is still in the process of deciding whether to continue using the test; for Spring 2002, faculty members will review the exam questions and agree on a set of supplemental questions to add.

The student electronic portfolio was piloted in one class last semester; following the pilot, faculty decided to delay full implementation until issues such as security and access are resolved. Vertner noted that the portfolio was helpful for storing student work and focusing attention on improvements in writing skills. Once technical issues are resolved, the portfolio has potential to be useful for assessing student progress during their undergraduate careers and for presentation to prospective employers. The portfolio will be even more helpful if faculty occasionally give assignments explicitly intended for inclusion in the portfolio.

Finally, the school will make greater use of IMIR survey data and will supplement these data with its own student, alumni, and employer surveys. The marketing faculty is currently developing a telephone survey of employers' perceptions of KSB–I graduates.

Accounting Example

A member of the Department of Accounting has conducted an analysis of the expectations of faculty teaching upper-level courses to determine what students should already have learned before entering these courses. This effort included analysis of statistical data on student performance and changes over time, examination of part-time faculty members' involvement in assessing course effectiveness, and review of the effectiveness of overall course management for multi-section courses. As a result of this effort, the content of lower-level courses has been revised to incorporate more emphasis on foundational skills. Results to date show that more students are earning A grades, despite higher standards, and that use of computer technology is helping students learn more material in greater depth. Vertner expressed the hope that this accomplishment can be duplicated by other departments.

What the School has Learned

While KSB-I got a late start on assessment, it has learned valuable lessons from efforts so far. Good students seem to benefit most from assessment efforts and resulting changes; so far, results have been less apparent for fair or poor students. A second lesson is that students need incentives to participate in "external" assessments like the ETS test. Among other things, they need to be convinced that they will benefit from participating in an assessment effort that is not directly tied to coursework and grades. Test results have little credibility when taken only by "volunteer" students, who are not necessarily motivated to prepare for the test, and consequently earn lower scores. Administering the test, however, raised important issues among faculty about its use: whether or not its use should be continued; who the school's peer institutions are (i.e., to whom should the school's students be compared?); and relevance of the test questions to the faculty's desired outcomes for the curriculum.

Changes Resulting from Assessment

- The school has re-affirmed its commitment to using technology to enhance teaching and learning.
- Part-time faculty have been given more assistance with grading of exams and greater compensation for using computer technology, among other improvements to support these faculty. This is particularly true in accounting.
- Changes have been made to some courses and curricula; some courses have been deleted, based on industry feedback.

Encouraging More Faculty Involvement in Assessment

- More concentrated effort to disseminate effective examples of assessment is needed.
- More efforts must be made to promote and explain assessment activities to faculty and students.
- Faculty need to identify in-class and homework assignments that are or can be designed to support assessment goals. Assessment need not be conducted as a separate exercise outside the framework of the curriculum.

Questions

- S. Milosevich asked whether the Accounting faculty member's work had been widely shared. Vertner responded that the information had not been shared well.
- S. Avgoustis asked whether the faculty member who conducted the curriculum study had the power to influence course content. Vertner noted that, in this case, the Accounting faculty member is in the position of course coordinator. Students had complained that courses were unfair since they were all taught differently.
- K. Duckworth asked how desired learning outcomes could be communicated to students in ways that are clear and encourage student buy-in. Neal said that it is still too early to answer that question. He suggested that the focus be on saleable outcomes like quality improvement. If faculty understand and appreciate quality improvement and are thus engaged themselves, they will have an easier time convincing students.
- H. Mzumara asked whether assessment efforts had led to narrowing of the curriculum or grade inflation. Vertner replied that the school is at too early a stage to determine that.

Banta observed that working with course coordinators on assessment is an effective way to launch improvement efforts, especially for courses with multiple sections.

School of Education Presentation (L. Houser, R. Osgood)

Handouts: Figure 1 UAS Schematic, Block I Rubric Assessment Form, Block II Performance Task, Five-Year Summative Program Evaluation Plan

Osgood began with a PowerPoint presentation summarizing what the School of Education has learned from assessment, what has changed as a result, and what remains to be done.

Curriculum

The school has incorporated both the Principles of Teacher Education (culled from national and Indiana standards for teachers P-12) and IUPUI Principles of Undergraduate Learning, which are well-aligned with one another, into all school curricula. The program is divided into four "blocks," each emphasizing acquisition and increasing mastery of defined skills and practices. For each block, the school has developed performance standards and rubrics, which form the basis for assessing individual students' progress and for evaluating the program as a whole. Because the school is coming up for accreditation and because the state requires program evaluation, current efforts are focused on developing a student database that interfaces with the registrar student database so that students' progress through the program can be tracked.

J. Kuczkowski asked whether the school has guidelines for dismissing a student from the program. Houser answered that they do not dismiss students after Block I, but do advise each student about how he or she might improve. If performance continues to be unsatisfactory at the end of Block II, students may be dismissed. The database provides evidence of student performance that can be drawn upon if a dismissal is challenged.

The Teacher Education Program has changed dramatically since 1994. Up until that point, students had little opportunity for fieldwork experience and classes could be taken in any sequence. The current organization of the program into deliberately sequenced learning blocks has a coherent developmental design that allows students to build knowledge and skills systematically, with fieldwork incorporated throughout, so that learning is always grounded in real-world experience. Since these changes were introduced, the number of students dismissed on the basis of poor fieldwork has dropped significantly. Earlier experience in the field allows students in the program to experience the realities of the classroom from the start; those students who may be less well-suited for teaching need not wait until their final year to discover this, while students who complete the program have acquired substantial classroom experience.

Assessment

Assessment of student performance begins with evaluation for admission. New students register for Block I courses; at the end of Block I, students are assessed for the second time. Faculty teaching the Block I courses complete a Block One Rubric Assessment Form for each student in order to determine whether the student has successfully completed the requirements for moving on to Block II. Assessments for Block II and subsequent blocks are based on performance tasks. For example, students are asked to demonstrate that they can engage a learner in a two-way conversation that allows them to assess the learner's grasp of a mathematical concept.

The School of Education at IUPUI still needs to involve all stakeholders in assessment and train them. Most other IU campuses, including Bloomington, continue to use a traditional model for teacher education. The IUPU-Columbus campus program is aligned with the IUPUI model.

For NCATE accreditation this fall, the school implemented a five-year summative evaluation plan, collecting data on student performance over three years, identifying concerns and making recommendations to the Teacher Education Faculty, the School of Education and Council on Teacher Education, and the School's Policy Council in turn.

Questions

Karen Johnson asked about how content area faculty are involved in assessment of content knowledge. Houser explained that students take the PRAXIS test and that faculty from content areas help assess student portfolios.

I. Ritchie suggested that development of a database could be an area where the campus could assist. C. Yokomoto commented that this approach would be preferable to buying commercial current database products that are not customized to a campus's specific focuses.

School of Dentistry Presentation (J. McDonald, C. Guba, N. Young)

Handouts: Indiana University School of Dentistry Program Assessment Presentation, IUPUI PRAC Committee Report-Dental Hygiene Program, Course Competencies

Curriculum

J. McDonald explained that the IU School of Dentistry (IUSD) implemented its current curriculum in1997; up until then, the curriculum followed the traditional structure, with two years of conventional coursework followed by two years of clinical experiences for D.D.S. degrees. The first two years of the new curriculum are organized around problem-based learning, small-group learning,

preclinical laboratory experiences, and community-based service learning; it emphasizes critical thinking; ethical behavior; lifelong learning; integration of basic, behavioral and clinical sciences; and clinical skills. The May 2001 graduating class was the first to go through the new curriculum in its entirety.

According to the IUSD mission statement, IUSD educational programs aim to provide the structure and means for students to acquire and apply the necessary knowledge, skills, and professional behaviors to become highly competent, ethical, and socially responsible practitioners of general dentistry, dental hygiene, and assisting. Effective implementation of a new program intended to realize those aims required a new focus on assessment, faculty development, and community engagement.

<u>Assessment</u>

C. Guba noted that students undergo a variety of assessments to demonstrate the outcomes defined in the new curriculum, including: discipline exams, Triple Jump Exams, the Watson-Glaser Critical Thinking Appraisal Test, Competency Tracking Exams, Dental National Boards, a Journal Portfolio of Service-Learning Activities, Objective Structured Clinical Exams (OSCEs), DIT-Defining Issues Test, Outcomes of Care Profile, Senior Clinical Mock Boards, State Dental Board Exams, and exit and alumni surveys. IUSD also surveys employers of recent graduates. The assessment findings are available at www.planning.iupui.edu/prac/2000-2001reports.

Assessment findings have led to a number of changes at IUSD:

- To support faculty development and assessment, the school has established an Office of Dental Education and an Office of Clinical Assessment.
- Input to the Curriculum Management Program by Student Task Forces has resulted in numerous curricular changes.
- A Director for the Division of Community Dentistry was appointed to develop service-related activities and opportunities for students to engage in outreach and civic engagement. For these activities, students receive tuition and time release.

What has IUSD Learned from Assessment?

Guba presented a list of lessons learned: assessment data helps identify trends, strengths, weaknesses, and gaps within the programs; it provides evidence to inform change; it allows for tailoring faculty development programs to specific needst; it enables identification and recognition of faculty who support and enhance student learning and success.

What Still Needs to be Done?

- Hire and/or identify newly-hired faculty interested in assessment
- Identify funding for faculty development in assessment
- emphasis on assessment
- Continue ongoing revision of the promotion and tenure guidelines to clarify the importance of faculty participation in assessment
- Focus faculty development and assessment efforts on faculty who understand the importance of assessment, rather than attempting to "convert" uninterested faculty

<u>Dental Hygiene</u>

N. Young presented the IUSD Dental Hygiene program, which offers an Associate's degree and a Bachelor's degree. The latter program is very small, with only a few participants; the school is currently reconsidering its viability. Both programs are now based on competencies. The program will submit its assessment plan to PRAC very soon.

Questions

Yokomoto asked whether all students take the same courses. Young responded that they do and that the sequence is also prescribed.

I. Ritchie thanked the presenters for their assessment efforts and for sharing the information.

Performance Indicators Committee (T. Banta)

Banta announced that she and V. Borden are developing performance indicators for teaching and learning and are seeking volunteers from PRAC. This effort should involve no more than one meeting and will produce a draft for PRAC consideration.

Volunteers:

- Drew Appleby
- Sharon Hamilton
- Karen Johnson
- Susan Kahn
- Sam Milosevich
- Martel Plummer
- Bob White

Banta also announced that Terry Carey has resubmitted her PRAC grant. Yokomoto added that the committee has yet reviewed it.

Banta asked that anyone with concerns about the NCA Self-Study Plan to please e-mail her about them.

S. Kahn asked that all PowerPoint presentations and handouts used in presentations be e-mailed to her at: skahn@iupui.edu.

NEXT MEETING: February 14th, 2002 9:00 am-11:30 am

DEPARTMENTAL RESOURCES

The Department of Construction Technology has a diverse group of full and associate (part-time) faculty who teach cooperatively. Sharing of assignments and ideas by faculty across sections is encouraged and supported. The following list can be used to contact full-time faculty according to teaching expertise. Each semester, faculty for specific courses can be found by contacting the Dept. Secretary.

For assessment, data collection, or student learning concerns, contact the assessment committee member or department chairman.

For all email use name @iupui.edu

CNT Department Chairman

Erdogan Sener, 274-8720: esener

CNT Department Secretary

Diane Patton, 274-2413: dilpatto

Architectural Technology- ART

Ron Botner, 278-8611: rlbotner Laura Lucas, 274-8708: lalucas

Civil Engineering Technology-CET

Brian Kinsey, 274-0823: bkinsey

Interior Design- INTR

Carol Brown, 278-4975: caabrown

Liz Coles, 274-1938: ecoles

Construction Technology- CNT

Daphene Cyr, 274-8909: *dcyr* Chul Kim, 274-5541: *cskim*

Assessment Committee Member

Laura Lucas, 274-8708: lalucas

Departmental web page is www.engr.iupui.edu/cnt/

Oncourse & individual course pages and information can be found at http//oncourse.iu.edu

CONTENTS

Inside front cover

Appendix A- ABET a-k Learning Objectives **Inside back cover**

Appendix P- PUL Learning Objectives

Pg

1. Introduction:

• Why and how to use this guide

2. Implementation Outline

- Prior to start of classes- expectations
- Wk 1 & 2 explaining
- Wk 3 14 including in coursework
- Wk 15 & 16 documenting activities
- Summarizing improvements

3. Overview of the Assessment Process

- The role of the Dept., faculty and students
- Teach, Practice, Test and Improve
- Collecting Samples, Refining Measurement
- Incorporating Improvements and Feedback

5. Checklist (centerfold)

• Copy and turn in for each course taught

7.FAQ? What is Assessment?

- What is ABET and why are we doing this?
- What are PULs and how do they affect me?
- How do the University, School, Department & Assessment Committee help me in the classroom?
- Classroom instructors role...?
- Doesn't this add work...?

9. LEARNING OBJECTIVES (Appendix L)

• CNT (ABET) & INTR (PUL)

10. LEARNING OBJECTIVES (Appendix L)

• CET (ABET) & ART (ABET)-

11. DEPARTMENT RESOURCES

- Faculty names & contact numbers
- Staff names & contact numbers

Supplemental Information available from the Department:

- Departmental Annual Assessment Report
- Courses and Assessment Activities per Program
- Dept. Efforts per ABET a-k and Measurable Outcomes
- ABET/PUL cross reference Matrix

INTRODUCTION

Why are the associate faculty involved?

As an instructor for the Department of Construction Technology (CNT) your participation in assessment activities is of great value and is needed for the department to maintain its accreditation. In fact, you, the classroom instructor, are the most important part of this process to improve student learning because you have the most impact on the students as you spend time with them in the classrooms.

Assessment is a methodology and process that documents the teaching you are already doing and provides the department, the school and eventually the University with data that will lead to and quantify improvements in student learning. Associate (Part-time) instructors teach some of our most important courses, and our departmental assessment efforts would be incomplete and inconclusive without your involvement!

This guide will clearly explain what your role is in the overall Assessment Process and provide simple instructions to lead you through the activities you will be doing as you teach.

How to use this quick reference guide:

With this handbook you can acquaint yourself with the overall aspects of assessment at IUPUI or just concentrate on your specific responsibilities for your specific courses.

The **Implementation Schedule** will help you determine what to do as the semester progresses, depending upon where you are in the semester. Along with the checklist, it will allow you to find clarifications of each step of the implementation process.

The **Appendix** will provide the additional information needed to easily complete your activities. Appendix L- Learning Objectives for each course matches up the course you will teach to expectations of and indication of the data you will be collecting. Further explanation of Accreditation Criteria are listed on the inside front (Appendix A- ABET) and back (Appendix P- PULs) covers.

The **Supplemental Reports** provide in-depth information in tracking the progress of all courses and the progress of the department in terms of meeting the departmental goals for appropriate learning of all the accreditation criteria. They are available from the Department.

APPENDIX L

CET (ABET) LEARNING OBJECTIVES

CET 104	c)	Improve Process
	f)	Solve tech problems
	g)	Communicate Effectively
	k)	Qual, Timeliness, Imprmnt
CET 160	a)	Mastery of Discipline
	c)	Improve Process
	f)	Solve tech problems
	k)	Qual, Timeliness, Imprmnt
CET 231	a)	Mastery of Discipline
	c)	Improve Process
	g)	Communicate Effectively
CET 260	f)	Solve tech problems
	g)	Communicate Effectively
	k)	Qual, Timeliness, Imprmnt
CET 267	c)	Improve Process
	d)	Apply Creativity
	f)	Solve tech problems
	g)	Communicate Effectively
	k)	Qual, Timeliness, Imprmnt
CET 312	c)	Improve Process
	f)	Solve tech problems
	g)	Communicate Effectively
CET 350	f)	Solve tech problems
	k)	Qual, Timeliness, Imprmnt
CET 452	c)	Improve Process
	f)	Solve tech problems
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ART (ABET) LEARNING OBJECTIVES

ART 117	f)	Solve tech problems
	g)	Communicate Effectively
ART 120	a)	Mastery of Discipline
	k)	Qual, Timeliness, Imprmnt
ART 155	d)	Apply Creativity
	I)	Responsibilities
	k)	Qual, Timeliness, Imprmnt
ART 165	a)	Mastery of Discipline
	e)	Team member
	g)	Communicate Effectively
	k)	Qual, Timeliness, Imprmnt
ART 210	g)	Communicate Effectively
	I)	Responsibilities
	j)	Be Cognizant
ART 222	a)	Mastery of Discipline
	d)	Apply Creativity
	e)	Team member
ART 284	a)	Mastery of Discipline
	b)	Apply knowledge
	f)	Solve tech problems
ART 285	a)	Mastery of Discipline

1

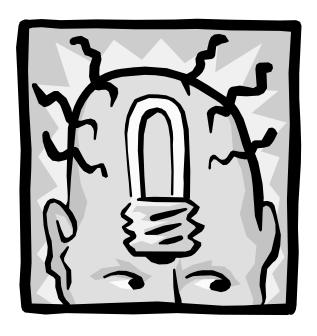
FAQ's: WHAT IS ASSESSMENT?

1. What is ABET and why are we doing this?

The Construction Department of Technology as part of the Purdue School of Engineering and Technology is accredited by the Accreditation Board for Engineering and Technology (ABET). They set certain standards and expectations that we must meet to get and maintain our accredited status. Accreditation is the assurance to students, parents and taxpayers that our professional school, and our degrees meet standards of quality. Thus, we as a department and as a school must do what it takes to satisfy the ABET criteria. (see Appendix A inside front cover)

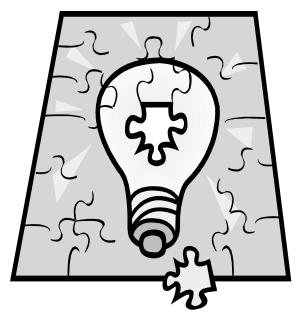
2. What are PULs and how do they affect me?

The university as a whole is accredited by the North Central Association of Colleges and Schools., IUPUI has adopted performance criteria called Principles of Undergraduate Learning (PULs). By meeting ABET criteria a-k, we can meet the PULs since they are very compatible and interchangeable. See supplemental reports for complete cross listing matrix. (see Appendix P inside back cover)



Collecting Data, Samples and Refining Measurement Activities is a cooperative effort between the faculty and the department. As data is collected for each course, (and gathered to document the overall effort), the ideas from faculty for improvements in each course should result in refinement of measurement activities for all courses. As a baseline, this department measured course grades, then as a refinement measure we have begun to identify specific work for assessment activity so as to better pinpoint and target improvements to instructional objectives and scoring rubrics.

Developing **Incorporating** and Improvements in the classroom is the ultimate goal of collecting data from student work and the part most crucial to improving student learning. Improving student learning continual looping process incorporating feedback for the faculty and the Perhaps another work item department. would better indicate the student learning for the chosen objective, or maybe this work item would better measure a different objective. The department and instructor will work together for the continual improvement of process and work products to improve student learning.



4

ASSESSMENT MADE SIMPLE

CNT (ABET) LEARNING OBJECTIVES

CNT 105 g) Communicate Effectively h) Pursue Lifelong Learning j) Be Cognizant CNT 280 a) Mastery of Discipline	
j) Be Cognizant	
7/	
CNT 280 a) Mastery of Discipline	
f) Solve tech problems	
CNT 302 k) Qual, Timeliness, Imprmnt	
CNT 330 a) Mastery of Discipline	
e) Team member	
f) Solve tech problems	
k) Qual, Timeliness, Imprmnt	
CNT 341 f) Solve tech problems	
k) Qual, Timeliness, Imprmnt	
CNT 342 b) Apply knowledge	
g) Communicate Effectively	
k) Qual, Timeliness, Imprmnt	
CNT 347 g) Communicate Effectively	
CNT 390 g) Communicate Effectively	
CNT 447 a) Mastery of Discipline	
e) Team member	
h) Pursue Lifelong Learning	
I) Responsibilities	
CNT 470 a) Mastery of Discipline	
e) Team member	
f) Solve tech problems	
CNT 494 a) Mastery of Discipline	
b) Apply knowledge	
f) Solve tech problems	
g) Communicate Effectively	

INTR (PUL) LEARNING OBJECTIVES

INTR 103	1a,c,e	Communication
INTR 124	1a,	Communication
	2a	Critical thinking
INTR 125	1a	Communication
INTR 151	1b,e	Communication
INTR 202	1a,d,e	Communication
INTR 204	1b	Communication
	2e	Critical thinking
INTR 224	1c	Communication
	2e	Critical thinking
	4c	Intellectual depth
INTR 225	1c	Communication
	2c	Critical thinking
	4c	Intellectual depth
INTR 226	1c	Communication
	2a,c	Critical thinking
	4c	Intellectual depth
INTR 228	2a	Critical thinking
	3	integration
	4a,b,c	Intellectual depth
	5	society
	6	ethics
INTR 252	1b,d,e	Communication
	2d	Critical thinking
INTR 253	1a,b	Communication

A BEGINNER'S GUIDE

IMPLEMENTATION SCHEDULE

for the classroom instructor

Review and Understand Assessment Expectations

Prior to starting classes-

- Handbook distributed to PT faculty
- Determine ABET learning objectives each class is responsible for and include on syllabus
- Review and understand ABET objectives
- Determine work item/s to use to measure the objective
- Review checklist (see pg 5 & 6)

Include Assessment Concepts into Coursework

Weeks 1 & 2.

- Discuss with students the ABET objectives a-k as listed on syllabus
- Explain assessment process to students

Weeks 3-14

- Develop Instructional Objectives for CNT courses and work item/s to be assessed
- Assign and collect work items and data for each objective
- Revise and improve student learning based on data collected

Document Assessment Activities

Weeks 15 & 16

- Record data collected on checklist pg 5&6 (to be turned in with final grades)
- Save instructional materials that demonstrate assessment activities
- Save work items that demonstrate assessment activities

Improvements to Student Learning

Entire course

• Develop improvement strategies based on assessment information

ASSESSMENT MADE SIMPLE

Appendix A **Learning Objectives**

ABET CRITERIA

- a) Demonstrate an appropriate mastery of the knowledge, techniques, skills and modern tools of their discipline
- b) Apply current knowledge and adapt to emerging applications in mathematics, science, engineering and technology
- c) Conduct, analyze and interpret experiments and apply experimental results to improve processes
- d) Apply creativity in the design of system, components or processes appropriate to program objectives
- e) Function effectively on teams
- f) Identify, analyze and solve technical problems
- g) Communicate effectively
- h) Recognize the need for and possess the ability to pursue lifelong learning
- i) Understand professional, ethical and societal responsibilities
- Recognize contemporary professional, societal and global issues and be aware of and respect diversity
- k) Have a commitment to quality, timeliness and continuous improvement

See Supplemental Information for more details about TAC-ABET Criteria

A BEGINNER'S GUIDE

Appendix P Learning Objectives

PUL CRITERIA

- 1. Core Communications and Quantitative Skills. The ability of student to write, read, speak, and listen; perform quantitative analysis; and use information resources and technology.
- 2. Critical Thinking. The ability to analyze complex issues and make informed decisions from multiple perspectives.
- 3. Integration and Application of Knowledge. The ability to use information and concepts from studies in multiple disciplines in their intellectual, professional and community lives.
- 4. Intellectual Depth, Breath and Adaptiveness. The ability of students to examine and organize disciplinary ways of knowing and to apply them to specific issues and problems.
- 5. Understanding Society and Culture. The ability to recognize their own cultural traditions and to understand and appreciate the diversity of the human experience, both within the United States and internationally.
- 7. Ethics and Values. The ability of students to make judgments with respect to individual conduct, citizenship and aesthetics

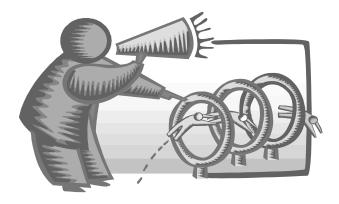
See supplemental Information for more details about PUL Criteria

OVERVIEW: ASSESSMENT PROCESS

The role of the Department, faculty and students is to work together to understand the process of assessment and participate in the goal of documenting any improvements in student learning. The Construction Technology Department's role is to establish the methodology of assessment and to provide the necessary guidance to all faculty towards each course meeting the PUL and ABET goals for improving student learning. The faculty gather the data from scored (graded or otherwise evaluated) work from their courses and incorporate any improvements (generated from this data) into their courses. students participate by providing the work or survey data that is assessed.

Teach, Practice, Test and Improve- This process underscores the basic assessment axiom that the instruction process is essential to improving student learning. Students learn best by completing this cycle and having the opportunity to use faculty feedback to improve their understanding of the knowledge and skills they are learning. Assessment data should come from subject matter that is adequately taught, practiced with faculty input, tested as to retention and then evaluated with feedback given so misunderstandings are not repeated.

Clear and useful instructional objectives and evaluative feedback are as important as telling the students what they are learning and why they need to learn it. Students are expected to learn from the evaluation (i.e. scoring) of their work, and be able to apply what they learned (either in this course, the next course or in work-related situations).



3. How do the University, the School and my department help me do assessment in my classroom?

Overall goals, objectives and assessment strategies and methodologies are discussed and worked out in committees at these various levels. Clarifications of issues and strategies that are working for other schools and departments are discussed and shared. Many of the conceptual strategies and methodologies are developed at these levels so that the assessment work in the classroom can focus on student learning.

4. What is the classroom instructor's role in the assessment process?

It is the job of the classroom instructor to make sure that the ABET a-k learning objectives attributed to that course are appropriately taught and learned by the students and, if not, to refine instruction to increase student learning of those objectives. In order to document this learning the instructor collects data from scored work and saves teaching materials and student work which will be collected from all instructors at the end of the semester.

5.Doesn't this add more work to an already busy instructor?

You are already improving student learning with every class you teach. This assessment process will serve to document your good teaching in a way that ABET accepts. You are already providing well thought out instructions for your assignments and giving grades to evaluate student work. The only additional documentation consists of turning in scores (on the checklist pages 5& 6) from specific work items (scoring that you would have already done as part of your grading process) in addition to the final grades. Also with this emphasis on improving student learning, there will be increased discussions and thus dispersal of best practices, tips, and innovative ideas between full time and associate faculty.

3

CONSTRUCTION TECHNOLOGY ASSESSMENT CHECKLIST

complete this page for each course taught, turn in with final grade roster

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	Internship Report	IR	Prob. Solving or Drawi	ng Homework	PSH	Text/Essay Exam	TX
	Journal	J	Problem Solving or	Drafting Quiz	PSQ		
	Lab Group	LG	Problem Solving or I	Drafting Exam	PSX		
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	IMPROVEMENTS	S FOR	NEXT TIME YOU TEAC	H THIS COUF	RSE		
	Generate co	mmen	ts/ ideas (write here or or	n the back) Or	attach	n revisions	
	_semester as	taugh	nt by	_ Course n	ame	and #	





Can you answer these questions about your courses?

- 1. "What will Student Smith know and be able to do by the end of your course?
- 2. "How will Student Smith learn these things?"
- 3. "After completing your course, what evidence could you and Student Smith provide the parent or the employer to demonstrate that Student Smith knows and can do the things you told them she would learn?"
- 4. "Have you and your colleagues looked collectively at the work of Student Smith and the entire class to see what, in general, they know and can do? And if so what do your findings imply about your teaching?"
- 5. "Are there additional implications of your findings for assessment at the departmental level?"

A Beginner's **Guide for** Associate Faculty in the **Department** Construction **Technology** SIMPLE

PRAC Presentation I.U. Kelley School of Business January 9, 2002

- 1. Introductions and assessment background:
 - a. Current committee
 - b. Committee's origin: 4 5 years
 - c. Other pertinent historical items:
 - -PULs included w/course syllabus, discussed by a few faculty
 - -Eport pilot project
 - -ETS Business Skills test
 - -Several faculty have changed, added, or eliminated courses as a result of their own 'informal' assessment of their course' effectiveness. Also based on student and corporate feedback, industry trade journals, certification requirements, etc.)
- 2. Assessment Goals Agreement April 2001
 - a. <u>Goals & outcomes</u> most faculty have been given a summarized list of discipline-specific goals stated in their syllabus to update. Then they will identify how they will measure these outcomes for their programs first, and later for their respective courses.
 - b. <u>Nationally-normed tests-</u> 1st effort was instructive but with poor results. We've emailed 20+ other business schools and will incorporate their responses in our recommendations to the UGPC. Our faculty will be asked to review questions for the 2002 exam, and we will most likely add supplemental questions for this spring's test.
 - c. <u>Student electronic portfolios</u> minimally effective for storing and focusing attention on improvements in writing skills, but has much greater potential. Project put on hold due to changing textbooks in one class, and pending resolutions to security, access, and other utilization issues.
 - d. <u>Greater survey use</u>- plan on greater use of the IMIR survey data, and will supplement several going to our alumni, employers and students with targeted questions. We plan to survey employers of our students by phone this spring, under the guidance of our marketing faculty.
- 3. Excellent Accounting Faculty sample:

As part of a group, this faculty member:

- Analyzed the learning needs of upper level courses. Changed the content and challenge of lower level courses to better meet these needs.

- Gathers statistical data on student performance: scores, means, and changes over time
- Involves part-time faculty in analyzing/surveying the effectiveness of courses and his effectiveness in the management of the courses.

Because of these changes, they can now boast of:

- Higher number of students getting A's than ever before.
- Through the use of new computer technology, students are learning more material and in more depth than ever before.
- The standards for getting A's have been raised, and still many students are meeting the challenge!

4. Focused summary of our efforts: What have we learned from doing assessment?

- Still too early to tell what we've learned. Late & slow start.
- Good students do better; average or poor students seem to not improve as significantly
- Cant significantly affect student motivation levels to excel (ETS & accounting)
- ETS testing requires a lot of planning. Difficult to do w/any credibility on a 'volunteer' basis. Generated some GREAT discussions about:
 - 1. Should we use this test?
 - 2. To whom should our school be compared?
 - 3. Are the test questions relevant to what we feel should be taught?
 - 4. Should we add different, more relevant or discipline-specific questions?
- Pilot ETS test experience also told us our students may not be motivated enough to volunteer and prepare for a major test, and be expected to do well. They need considerable 'prodding'!! Learning from other schools was certainly necessary!

What have you changed as a result of your assessment?

- Re-affirmed our commitment to using technology
- Made improvements in the treatment and support of part-time faculty relative to grading exams, compensation for various things and use of computer technology
- Several courses and programs have been reviewed or changed

What needs to be done to encourage more faculty and student involvement in assessment? At KSB.

- Faculty and students need to be given more and clearer examples of how and where assessment programs are "making a difference".
- There needs to be a LOT more promotion and explanation of assessment-related activities, in and out of class.
- Faculty need to point out classroom and/or homework activity that support assessment goals.

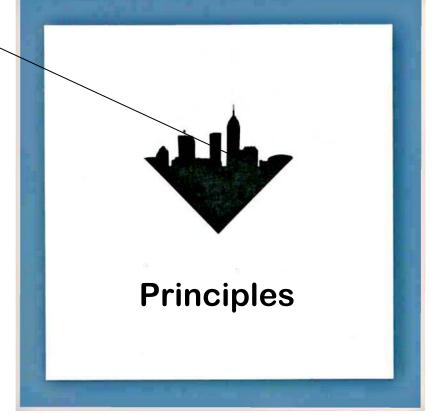
I.U. Kelley School of Business – Indianapolis Overall Assessment Goals As of April 2001

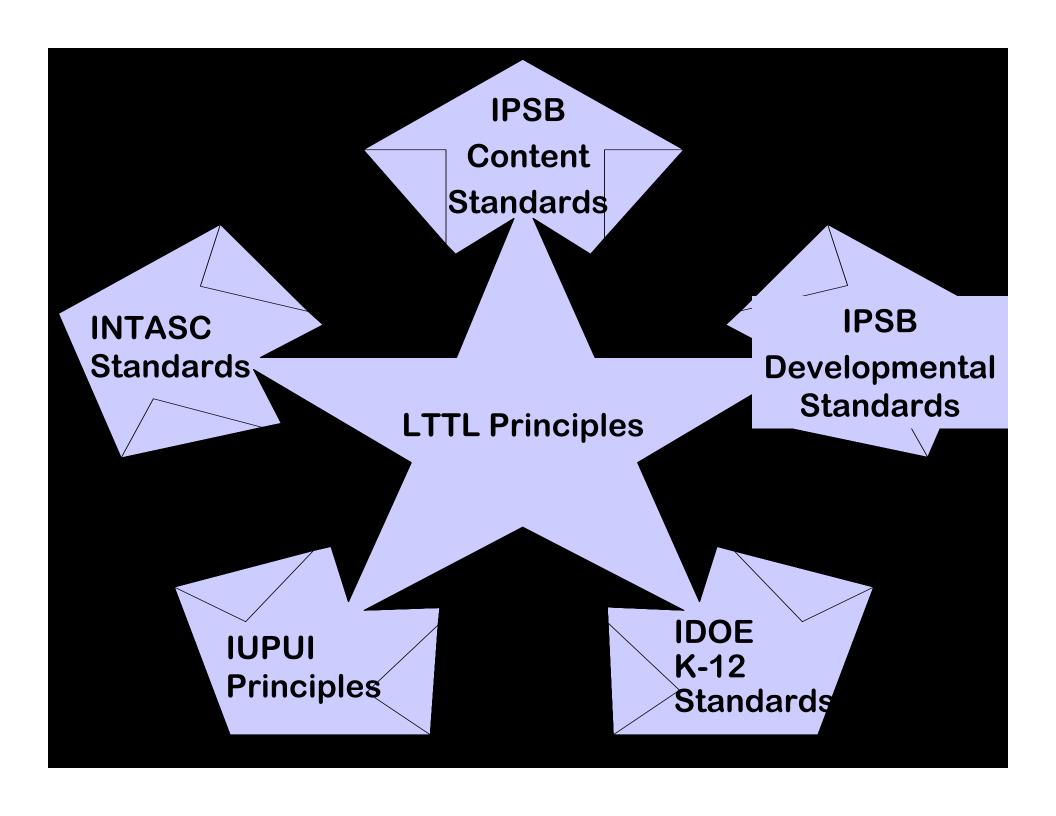
The assessment committee came to the conclusion that unless the school sets explicit goals for undergraduate student achievement and for the curriculum, and measures results against them, assessment will amount to no more than comparing ourselves against standards set by others. Therefore, the committee proposes the following objectives for undergraduate KSB-I assessment for faculty approval:

- 1. **Identification of goals and student learning outcomes** our faculty should commit to establishing objectives and measurable learning outcomes for students, for the curriculum as a whole, and for each major. Guidelines will be provided. These goals will evolve over time, but it seems reasonable that an initial plan could be pulled together by the middle of the fall 2001 semester for each major.
- 2. **Nationally-normed tests** KSB-I will use the ETS Major Field Achievement Test in Business. For what it's worth, these tests will tell us how we compare nationally in teaching functional knowledge of business skills.
- 3. **Student Electronic Portfolios** These are collections of work samples that illustrate technical business proficiency and communication skills, showing how students have progressed during their undergraduate careers. They may be good review material for prospective employers. To make these meaningful, the faculty should begin to give occasional assignments that students can add to their cumulative electronic portfolios.
- 4. **Improved feedback via surveys** to better gage employers' satisfaction with our students and with our graduates, we will begin better use of current campus surveys, both general and focused, to identify employers' perceived strengths and weaknesses of our school. Additional surveys will be designed and implemented over time as we assess our gaps in 'feedback knowledge'.





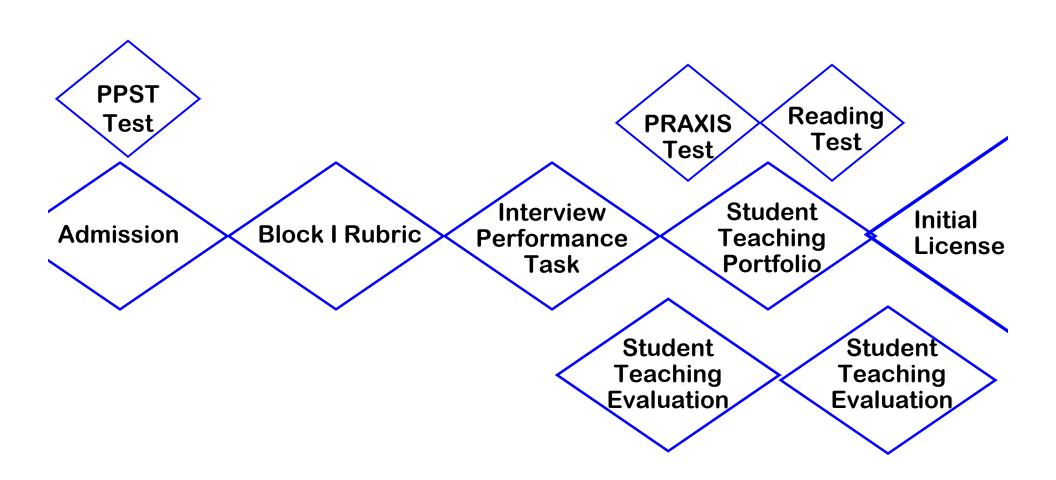




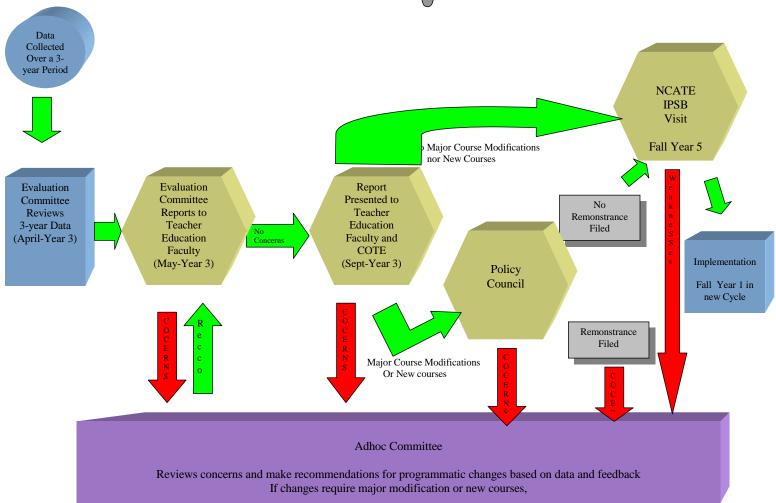
LTTL Principles

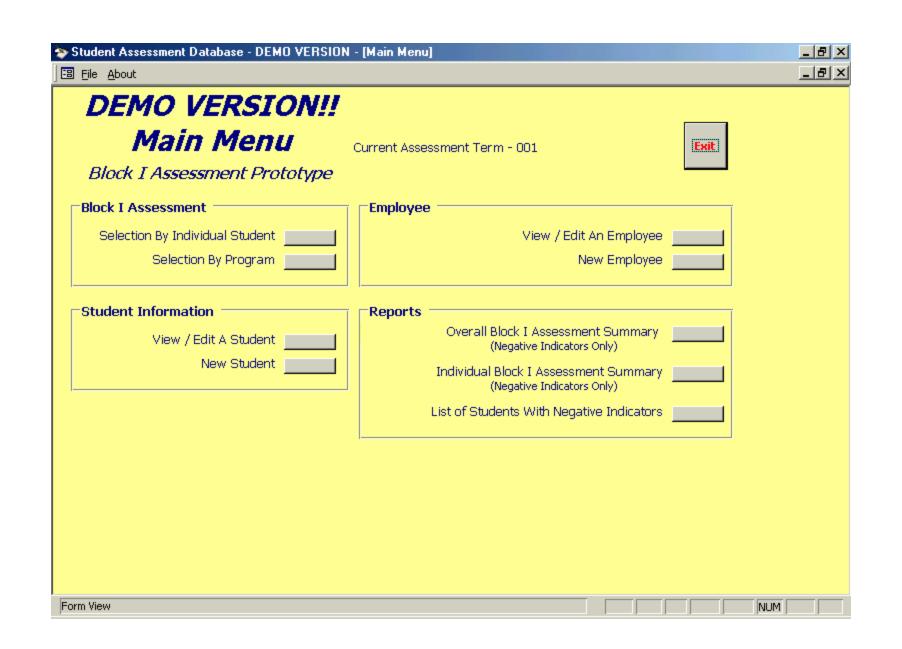
- 1: Conceptual Understanding of Core Knowledge
- 2: Reflective Practice
- 3: Teaching for Understanding
- 4: Passion for Learning
- 5: Understanding School in Context of Society and Culture
- 6: Professionalism

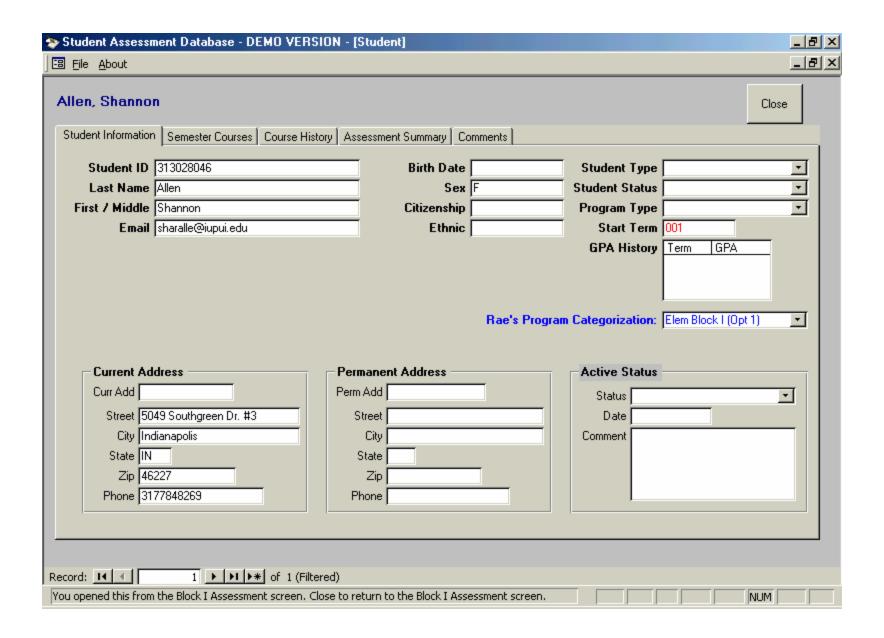
Student Assessment System



Five-Year Summative Program Evaluation Plan



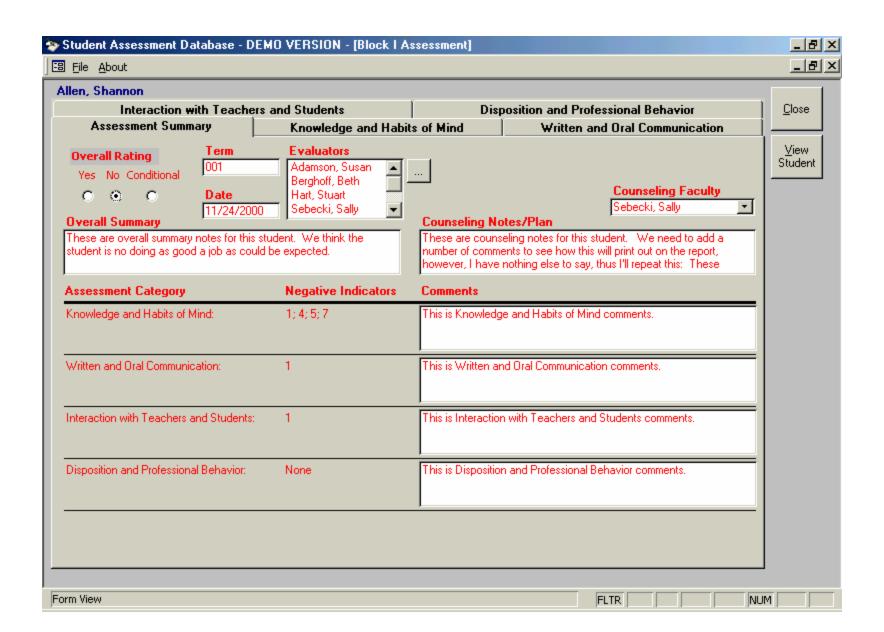


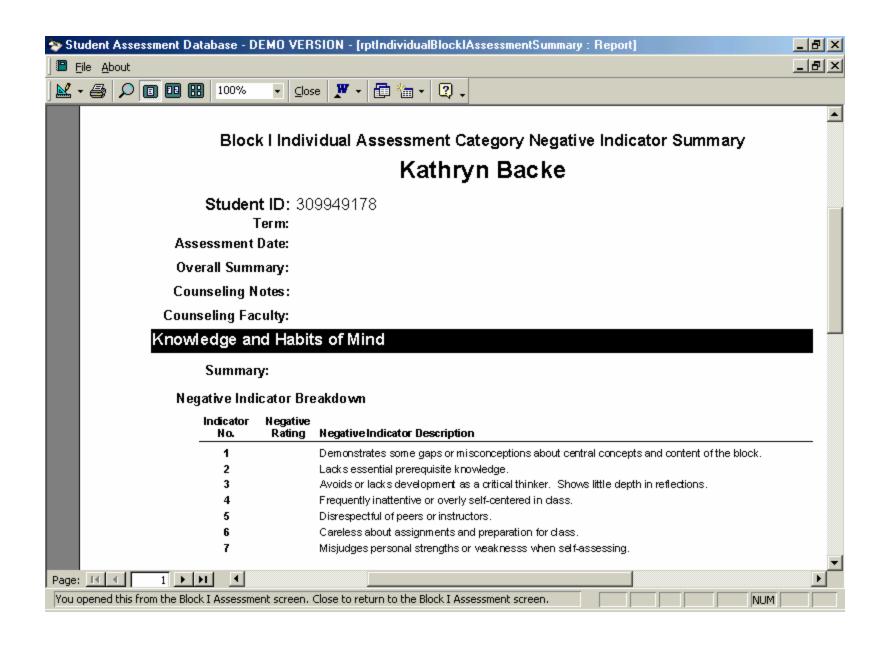


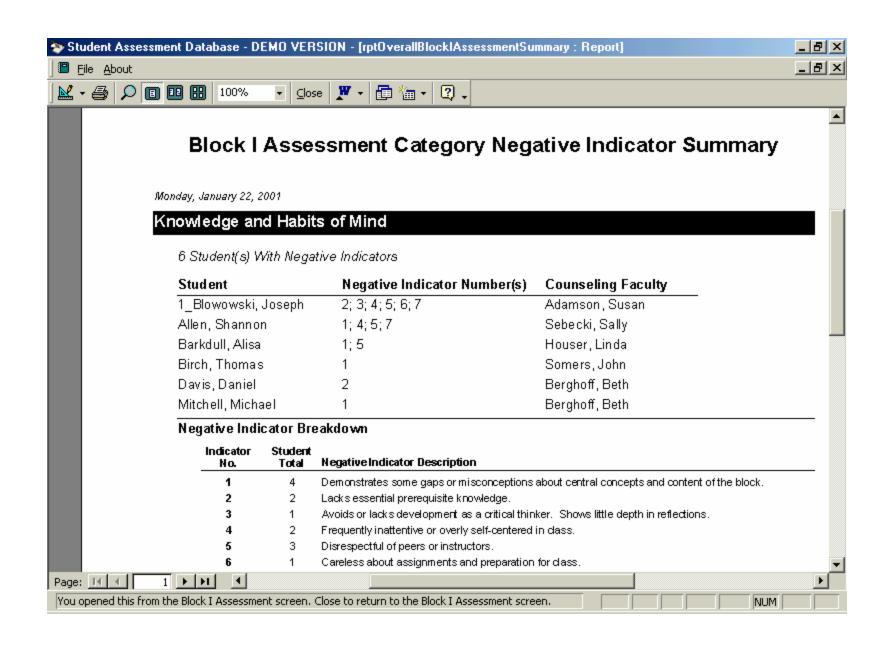
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		ent Summary	Knowledge and I	Habits		Written and Oral Communica	ation	<u>C</u> lose
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1	Establis	shes good rapport with te	eachers and students.	0	Shows little aptiti students.	ude for building rapport with teachers and	•	Studen
2	Comes and res		iences prepared with plans	•	Comes to field pl	acement experiences unprepared.	0	
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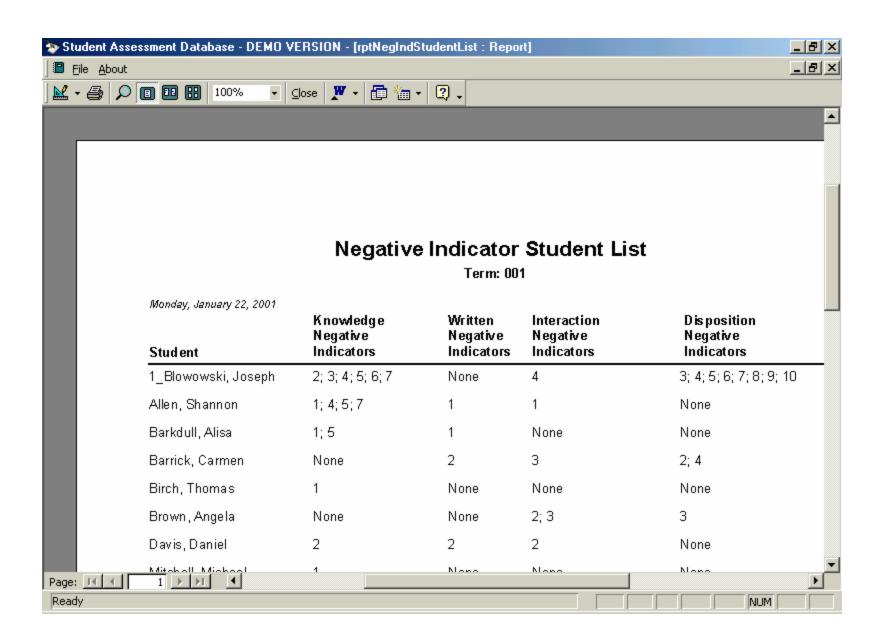
	Shannon Assessment Summary	Knowledge and	Habits	of Mind	Written and Oral Communic	ation	<u>C</u> lose
	Interaction with Teache	rs and Students		Dis	position and Professional Behavior		1-
	Positive Indicator			Negative Indi	cator		<u>V</u> iew Studen
1	Focuses on the positive.		•	Complains, Blar	nes problems on others.	0	Staden
2	Makes adjustments as necessar	у.	•	Struggles with in	nterruptions and changes.	0	
3	Works well with different person backgrounds.	alities and cultural	•	Occasionally dis prejudice.	plays negative attitude, bias and/or	С	
4	Appreciates multiple perspective	es.	•	Prioritizes persor	nal perspective.	0	
5	Willing to give and receive help.		•	Not attuned to t feedback.	he needs of others or open to constructive	e O	
6	Commits to being in class. Take up work.	es responsibility for making	•	Misses 3 or more to make-up work	e days worth of classes. Makes little effor k.	0	
7	Commits to being on time.		•	Not consistent a	about being on time.	С	
8	Meets deadlines.		•	Turns in late ass	signments.	0	
9	Has good organization.		•	Lacks effective	organization.	0	
10	Neatly, appropriately dressed.		•	Grooming or dre	ss is often inappropriate.	0	
Соп	nments: This is Disposition and F	rofessional Behavior comm	ents.				

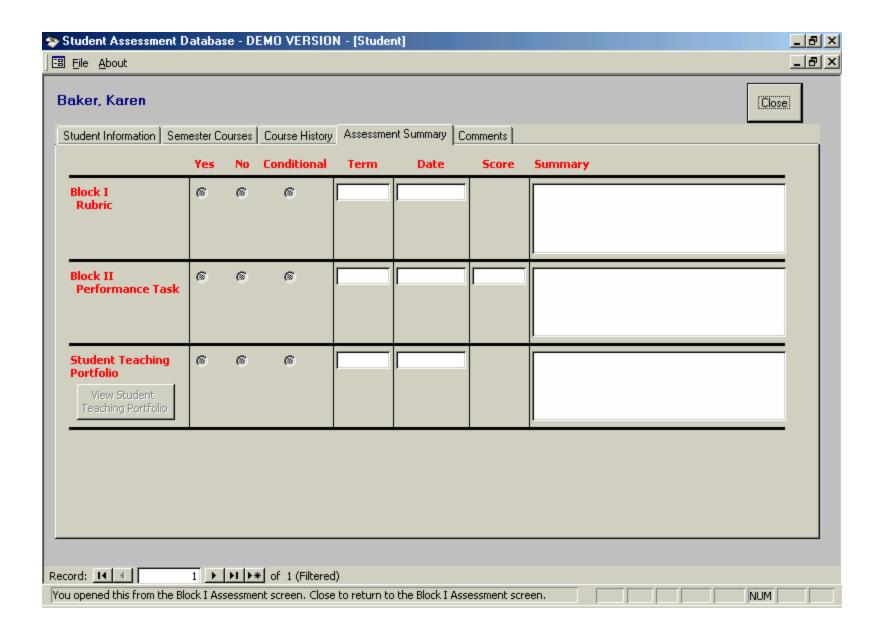
Assessment Summary Knowledge and Habits of Mind Written and Oral Communication Interaction with Teachers and Students Positive Indicator Negative Indicator Shows little aptitude for building rapport with teachers and students. Comes to field placement experiences prepared with plans and resources. Takes the initiative to ask questions and help where needed in the classroom or school. Demonstrates enthusiasm for teaching and seeks success for all students. This is Interaction with Teachers and Students comments.		Shanno							,	
Positive Indicator 1 Establishes good rapport with teachers and students. 2 Comes to field placement experiences prepared with plans and resources. 3 Takes the initiative to ask questions and help where needed in the classroom or school. 4 Demonstrates enthusiasm for teaching and seeks success for all students. Negative Indicator Shows little aptitude for building rapport with teachers and students. Comes to field placement experiences unprepared. Takes little initiative to become involved in the classroom or school. Very tentative about teaching and easily frustrated by for all students.					Habits				tion	Close
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Comments: This is Interaction with Teachers and Students comments.	4	Demor	nstrates enthusiasm for te students.	eaching and seeks success	•		out teaching and ea	sily frustrated by	0	











What Have We Learned?

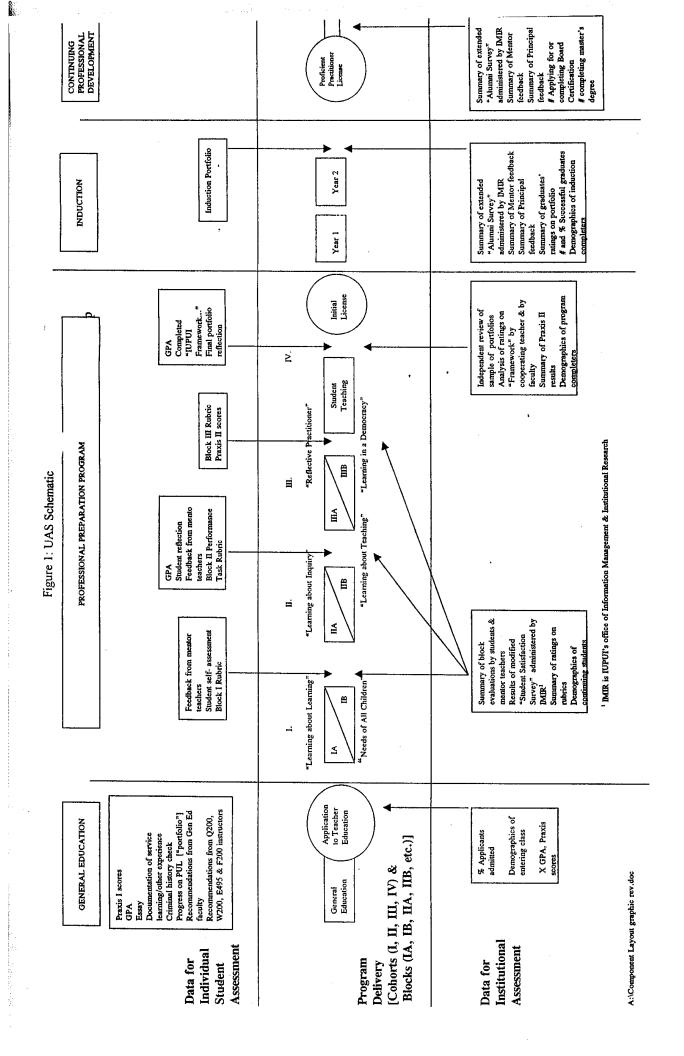
- 1. Making dramatic changes in a program, while difficult for all concerned, has been beneficial.
- 2. Good formal assessment is time consuming, complication and requires the effort and commitment of all.
- Performance-based asessment has proven to be a more valid and meaningful approach to determining students' knowledge, skills, and dispositions

What Have We Changed?

- Sequencing
- Blocking
- Expansion of Field Experience
 Opportunities
- Course & Field Experience Integration
- Program Course Requirements
- Student Assessment External to the Courses

What Still Needs To Be Done?

- Better Training of Assessors to Insure Reliability
- Continual Revision of Assessment Instruments
- Better Integration of Course Assignments Across Blocks
- Improving Communications with Other Campus Units.
- Apply What We Have Learned to Graduate Programs.



IUPUI Learning to TeachITeaching to Learn Block II Performance Task - Secondary

To the Intern:

This performance task is designed to assess your ability to analyze a student's conceptual knowledge. You will demonstrate that you can engage a learner in a two-way conversation that allows you to assess his or her grasp of a concept in your area of certification or specialization. You will also show that you can identify good follow-up experiences for the learner and self-assess your own effectiveness as an interviewer.

This task should be completed during the last 6 weeks of Block IIb and submitted at the Student Services window before 12 noon of the last day of classes.

Use white paper, one-inch margins, 12-point font, and double-spacing. Prepare a cover sheet with the title Block II Performance Task, your name, your student identification number, and the date. Staple the packet. No notebooks or folders, please.

The School of Education is in the process of developing a reliable scoring rubric for this task and will retain all submissions to help with development work. Because this is a pilot assessment, no scores will be reported to students.

School of Education faculty will assess performance tasks during finals week. An intern who fails to submit a task or to demonstrate the expected skills will lose eligibility to continue in Block III.

Steps to Follow:

- Choose a student who is likely to be responsive and secure permission to tape record your conversation about a concept in your area of certification or specialization. (Please do not interview someone from your own family.)
- Select a topic or concept in your area of certification or specialization from the Indiana Academic Standards. Make sure this topic or concept is age appropriate for the student with whom you are working.
- Identify an activity dealing with the topic or concept you have selected (e.g. demonstration, reading, problem, discussion, etc.) which will engage the student in a dialogue.
- Sit in quiet area so you can audio-tape your interaction.
- Present the activity to the student. Engage in a discussion with the student to determine his/her level of understanding of the topic or concept presented in the activity. Tape record your dialogue with the student.

• Listen to the tape and determine which segments are most significant. Transcribe two pages of the conversation. Use I: (Intern) and S: (Student) to identify the speakers. Please do not use names.

Preparing the performance task packet:

Write an analysis of the conversation with the learner using the headings and questions below to organize and guide your reflection (12 pt., double spaced). Please be concise.

The Student and Context:

Include age and grade, gender, setting, your professional relationship to the student, and any other important information. (Do not include the student's name.)

The Concept and Learning Activity:

Explain the concept or topic you selected for this exercise. Explain the activity you selected. What did you predict you would learn from the child while doing the activity?

Analysis of the Student's Grasp of the Concept/Topic:

Draw on what you have read and experienced in Block I and Block II classes to analyze the student's actions and comments. What understandings has the child constructed? (Use quotes from the transcript or observations to provide specific support for your assessment of the child.) What is confusing or missing in the child's thinking about the concept? What are the strengths of the child's thinking? Was the activity developmentally appropriate? How do you know? Which theories of learning can you use to explain what you have observed?

Curricular Implications:

What would you do next with this student to help extend or develop the target concept/topic? Why? Do you have follow-up questions or predictions to check? Have any of your own ideas about the concept under consideration changed as a result of this activity?

Evaluation of the Interview:

Assess the quality of your engagement with the student and your effectiveness as an inquirer attempting to understand the student. Does the interview yield meaningful insight into the learner? What do you think is missing? What can you observe about your own strengths and weaknesses as an interviewer? Do you see any missed opportunities when you reflect on the interview?

Appendix:

Interview Transcript Student Work

IUPUI Learning to Teach/Teaching to Learn Block II Performance Task

To the Intern:

This performance task is designed to assess your ability to analyze a child's conceptual knowledge. You will demonstrate that you can engage a learner in a two-way conversation that allows you to assess his or her grasp of a mathematical concept. You will also show that you can identify good follow-up experiences for the learner and self-assess your own effectiveness as an interviewer.

This task should be completed during the last 6 weeks of Block IIb and submitted at the Student Services window before 12 noon of the last day of classes. (12-11-00, 4-30-01)

Use white paper, one-inch margins, 12 point font, and double-spacing. Prepare a cover sheet with the title Block II Performance Task, your name, your student identification number, and the date. Staple the packet. No notebooks or folders, please.

The School of Education is in the process of developing a reliable scoring rubric for this task and will retain all submissions to help with development work. Because this is a pilot assessment, no scores will be reported to students.

School of Education faculty will assess performance tasks during finals week. An intern who fails to submit a task or to demonstrate the expected skills will lose eligibility to continue in Block III.

Steps to Follow:

- Choose a child who is likely to be responsive and secure permission to tape record your conversation about a mathematical concept. (Please do not interview your own children.)
- Plan a specific mathematics activity as an entry point into the interview. Choose an
 activity that will help you discover how the child thinks about a particular concept.
 Choose a concept that is appropriate to the age and experience of the child. For
 example, you might want to know what a student understands about counting,
 multiplication, or volume.
- Engage the child in a conversation while doing the activity. Probe the child's understanding with questions and problems. This is not a teaching exercise, but an assessment interview. You want to understand the child's grasp of the concept you have chosen. Tape-record your interactions with the learner.

Listen to the tape and determine which segments are most significant. Transcribe two
pages of the conversation. Use I: (Intern) and C: (Child) to identify the speakers.
 Please do not use names.

Preparing the performance task packet:

Write an analysis of the conversation with the learner using the headings and questions below to organize and guide your reflection. Please be concise.

The Student and Context:

Include age and grade, gender, setting, your professional relationship to the student, and any other important information. (Do not include the student's name.)

The Concept and Learning Activity:

Explain the mathematical concept you are interested in assessing. Why did you select this concept for this student? Explain the activity you selected. What did you predict you would learn from the child while doing the activity?

Analysis of the Child's Grasp of the Concept:

Draw on what you have read and experienced in Block I and Block II classes to analyze the child's actions and comments. What understandings has the child constructed? (Use quotes from the transcript or observations to provide specific support for your assessment of the child.) What is confusing or missing in the child's thinking about the concept? What are the strengths of the child's thinking? Was the activity developmentally appropriate? How do you know? Which theories of learning can you use to explain what you have observed?

Curricular Implications:

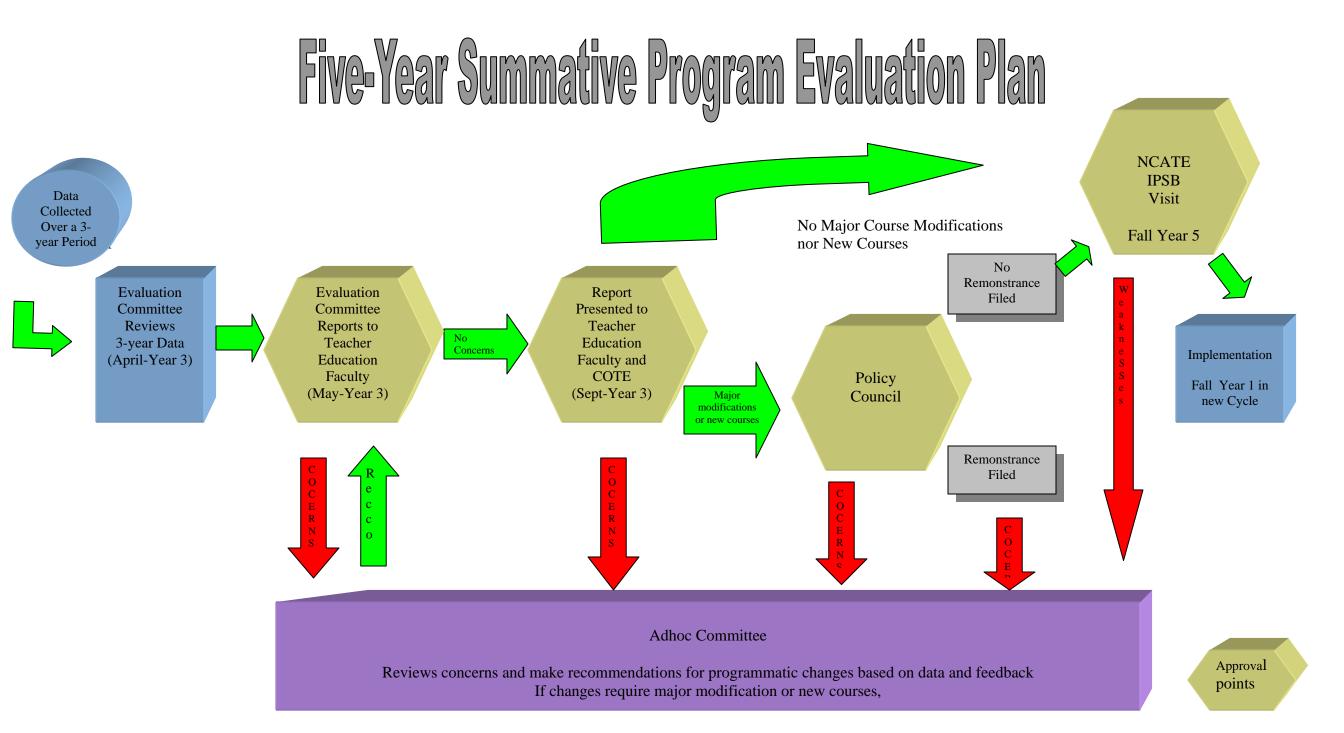
What would you do next with this student to help extend or develop the target concept? Why? Do you have follow-up questions or predictions to check? Have any of your own ideas about the concept under consideration changed as a result of this activity?

Evaluation of the Interview:

Assess the quality of your engagement with the child and your effectiveness as an inquirer attempting to understand the student. Does the interview yield meaningful insight into the learner? What are you missing? What can you observe about your own strengths and weaknesses as an interviewer? Do you see any missed opportunities when you reflect on the interview?

Appendix:

Interview Transcript
Student Work





IUSD Dental Hygiene Curriculum

Degrees Offered

- Associate's Degree in Dental Hygiene
- Bachelor's Degree in Public Health Dental Hygiene

- Full-time
- 30 cr. hr. prerequisites prior to admission
- 60 cr. hr. curriculum
- 4 semesters and one summer term

- Part-time or full-time
- ASDH degree is pre-requisite
- 32 credit hours
- Degree completion program



Dental Hygiene Program Competencies

What will Mary Smith know and be able to do by the time she graduates??

- Core Competencies (10)
- Health Promotion and Disease Prevention (2)
 - Individual Client
 - Community Clients
- Patient Care (5)
 - Assessment
 - Diagnosis
 - Planning
 - Implementation
 - Evaluation



- **■** How will Mary learn these things?
- At graduation, what evidence could you and Mary provide to demonstrate her knowledge and skills?
 - Instructor-designed exams
 - Laboratory evaluations
 - Clinical observation and evaluations
 - > Self-evaluation
 - > Peer Evaluation
 - > National board exam results
 - State Licensing exam results
 - Surveys: exit, alumni, course evaluations

Examples of Assessment Outcomes from Coursebased Assessment

- Course evaluations were informing instructors but not curriculum.
- Student problems with applications of instructional technology in Semester 3
 - Oncourse (new)
 - Computer data-base searching
- High stress levels semester 3 due to collective course requirements



- More computer-based orientation and instruction provided in summer preceding Semester 3.
- Special Patients project moved out of Semester 3 and into preceding summer term.
- Assignments involving simple computer-based searching incorporated into semester 1 and 2 courses so that students were more prepared in semester 3.
- Incorporation of orientation to Oncourse as part of Semester 1 orientation
- Investigate inclusion of computer skills as a required pre-requisite course or as an orientation course at the beginning of semester 1.

National Board Exam Assessment Results

- 4% failure rate
- Student survey of national board preparedness
 - Identified areas of weakness
 - Student Suggestions:
 - Rx: institution of a mock board exam
 - Provide evaluation of board review courses and texts
- Faculty review of 2000 national
 Board item analysis Chicago
 - Item analysis review
 - Analysis of question format

National Dental Hygiene Board Exam

Improvements:

- Creation of a mock board examination, to be instituted January 2002.
- Topical feedback shared with course directors for inclusion and/or emphasis in their course.
- Course directors incorporated question formats similar to those used on National Board in their course examinations to familiarize students with these types of multiple choice and case-based questions.



- All but 4 students completed requirements on time.
- Clinic grades were incongruent with students' need for remediation
- Students identified faculty calibration as a major problem
- During assessment process, faculty noted that current clinical evaluation system did not address problems with each stated competency.



- Scheduled more faculty in-service meetings for calibration
- Faculty investigating improvements in clinical evaluation model
- Clinical competency exams to assess individual student competencies
- A plan for remediation of students who do not achieve competency was developed



Other Assessment Methods

- Exit Survey of graduates (Initiated Spring 2000)
 - In most topical areas the majority of students felt their preparation was excellent or good
 - Four topical areas identified where instruction was unsatisfactory;
 - Usefulness of some results led to revision of survey instrument
- External Assessment: Indiana state licensing examination
 - Re-evaluated clinical achievements of those students who did not pass the examination to identify weaknesses in our evaluation system
- Alumni/Employer Survey (done every two years next one in 2002)



- Establish benchmarks for each competency
- Continue to align competencies with instruction and assessment
- Evaluate current course evaluation policy
- Apply assessment plan to Bachelor's degree program:
 - Establish competencies and assessment plan for Bachelor's degree-completion program
 - Assess graduate needs relative to BS program

What needs to be done to encourage more faculty and student involvement in assessment?

Faculty

- Educational opportunities and <u>time</u> to discuss effective assessment practices
- Clear evidence of the usefulness of assessment to educational outcomes
- Administrative and budgetary support for improvements indicated by assessment
- Professional rewards for assessment activities

Students

- Clear linkage of academic assessment and achievement of personal and professional goals
 - How is it relevant and useful to their needs?

INDIANA UNIVERSITY SCHOOL OF DENTISTRY PROGRAM ASSESSMENT PRESENTATION

Program Review and Assessment Committee (PRAC)

Thursday, January 10, 2002

Christianne Guba
Office of Clinical Assessment - DDS Program

James McDonald
Office of Dental Education - DDS Program

Nancy Young Dental Hygiene Program

Background:

In 1997 the DDS Program adopted a new curriculum that encompasses "student-centered learning" and emphasizes:

- critical thinking
- ethical behavior
- lifelong learning
- integration of basic, behavioral and clinical sciences
- clinical skills

The first class to undertake the entire new curriculum was the recently graduated class of 2001.

"DOMAINS OF LEARNING" AT IUSD

I. Knowledge

- > Biomedical
- > Populational
- Behavioral
- > Ethical

II. Skills

- > Critical appraisal
- > Surgical and technical
- > Management
- > Learning

III. Professional Behavior

- > Respect
- > Communication
- > Responsibility
- > Self-awareness and self-evaluation

What general outcome are we seeking?

"The aim of the IUSD educational program is to provide the structure and means for students to acquire and apply the necessary knowledge, skills and professional behaviors that will prepare them to become highly competent, ethical and socially responsible practitioners of general dentistry, dental hygiene and assisting."

-excerpt from "IUSD Statement of Mission and Goals"

<u>Overview</u>

IUSD Institutional Outcomes Assessment Time Line

- 1995 IUSD Strategic Plan was developed and adopted by the IUSD Faculty Council
- 1997 As part of the overall Strategic Plan, an "IUSD Institutional Outcomes Assessment Plan" was conceived at the Annual Faculty Teaching Conference Retreat, that would allow for ongoing assessment.
- 1998 This assessment plan was refined several times and approved by the IUSD Executive Committee for use and implementation. Data collection was started.
- 1999 First year data placed in rubric to begin review of information per the outcomes assessment plan protocol.
- 2000 Assessment rubric data updated annually, information reviewed and managed per IOA protocol.
- 2001 Same; protocol includes annual review of the process itself by the faculty and administration.

What will Mary Smith know and be able to do by the time she graduates?

- Deliver general dental care that is state-ofthe-art and patient-centered
- > Apply basic science principles to clinical practice
- > Be an effective communicator
- > Have a community perspective
- > Be aware of personal qualities as they affect professional behavior
- > Learn to self-evaluate, and take part in responsible peer evaluation
- > Be a life-long, self-directed learner
- > Contribute to the solution of healthcare problems

How will Mary learn these things?

- > Self-directed learning
- > Problem-based learning (student-driven)
- > Small-group learning
 - -tutorials (teacher-driven)
 - -seminars (rounds, GLA's)
- > Lectures
- > Preclinical laboratory experiences
- > Clinical practice
- > Community-based service learning

At graduation, what evidence could you and Mary provide to demonstrate her knowledge and skills?

- Discipline Exams
- >Triple Jump Exams
- > Watson-Glaser Critical Thinking Appraisal Test
- > Competency Tracking Exams
- > Dental National Boards, Part I and Part II
- > Journal Portfolio of Service-Learning Activities
- > OSCE'S (Objective Structured Clinical Exams)
- > DIT-Defining Issues Test
- > Outcomes of Care Profile
- > Senior Clinical Mock Boards
- > State Dental Board Exams
- > Exit Surveys
- > Alumni Surveys

What are the assessment findings?

Please see:

www.planning.iupui.edu/prac/2000-2001reports

for the IUSD Institutional Outcomes Assessment Table.

Changes Made on the Basis of Assessment Data

- Establishment of an Office of Dental Education
- Establishment of an Office of Clinical Assessment
- ► A Curriculum Management Program was formalized and includes significant input from Student Task Forces from each academic year. A multitude of curricular changes have resulted from this Program.
- > A Director for the Division of Community
 Dentistry was appointed
- > Students receive tuition discounts and time release for CE courses

What has IUSD learned from doing assessment?

- > Assessment data <u>can help identify</u> trends, strengths, deficiencies and disconnects within our program.
- ► Use of this data <u>provides evidence-based</u> <u>backing</u> for changing and/or modifying a course or teaching methodology etc. (As opposed to anecdotal or "gut-feeling" feedback)
- Faculty development programs <u>can be more</u> <u>specifically tailored</u> to meet measured deficiencies or areas in need of enhancement, so that the faculty and administration are spending their precious resources in an appropriate fashion.
- Faculty that support and enhance student learning and success <u>can be identified and rewarded</u> for their efforts.

What still needs to be done?

- Continue to hire and/or identify newly-hired faculty with an interest in assessment.
- > Continue to identify further funding for faculty development in assessment.
- > The use and advocacy of an assessment paradigm by faculty in their teaching is a criterion for teaching awards, but needs further emphasis and publication.
- The IUSD document used for promotion, tenure and salary decisions has been initially modified to include sections on the use of assessment by the faculty in the course of their work. However, these sections are continuing to evolve.
- > IUSD acknowledges that some faculty will never "get with the program," and that these faculty will eventually be lost by the regular routes of attrition (retirement, relocation, etc.). School energies can be better expended on the faculty who want to incorporate assessment into their academic lives.

Are there additional implications of IUSD's findings for work at the campus level? Yes.

Supporting the 1st of IUPUI's missions – Teaching and Learning:

 <u>Pedagogy</u>: Schools can share innovative or successful program pieces at campus-wide venues:

Example - At the recent 2001 Assessment Institute, IUSD faculty presented a workshop on "Generating and recognizing productive learning issues in PBL: Consensus Training for Tutors."

 <u>Assessment</u>: Schools can promote active involvement and sharing of information on campuswide committees such as PRAC:

Example - The presentation we are giving today, and the opportunity to learn from our university colleagues about their successes/struggles and innovations. Not to mention the moral support!

Implications at the campus level con't.

Supporting the 2nd of IUPUI's missions – Research, Scholarship and Creative Activity:

 <u>Money</u>: Based on strengths and/or deficiencies within a program, as determined by assessment, collaboration between units or schools can be sought for research and training grants:

<u>Example</u> - IUSD and the other health sciences schools on this campus collaborated on a grant for several million dollars to develop an interdisciplinary "Clinical Skills Education Center."

• <u>Research</u>: Assessment program development and progress can be published in discipline-relevant peer-reviewed journals to broaden the body of scholarly work available to others on campus and elsewhere.

Example - Lennon, A.M., Anderson, P.F., McDonald, J.L., and Stookey, G.K.: Problem-Based Learning and the Dental School Library. JDE 65/No. 11, 1219-1224, Nov. 2001.

Implications at the campus level con't.

Supporting the 3rd of IUPUI's missions – Civic Engagement:

<u>Recruitment</u>: Armed with the assessment facts, schools can collaborate
with campus and state-wide student affairs offices to more clearly
identify students for whom their discipline might be a good match; or to
help prospective candidates improve their credentials, thereby
strengthening the applicant pool and returning trained health care
providers to care for Indiana residents:

<u>Example</u> - IUSD sends out a quarterly newsletter (the <u>IUSD Dental Advisor</u>) to <u>all</u> pre-professional advisors in Indiana that reviews the current profile of the dental student populations, any curricular changes or enhancements, as well as pre-professional courses that might be of benefit. This information is accurate and available due to prior assessments of our students and curriculum.

 <u>Service</u>: Assessment can promote the design and implementation of meaningful service-learning activities that potentially involve undergraduate students, graduate students, and the community.

<u>Example</u> - IUSD faculty, students and staff team up with shelters for victims of domestic violence and homeless shelters on a monthly basis to provide free dental sealants to children in residence. The agencies involved are the <u>Julian Center</u>, <u>Coburn Place</u>, <u>Holy Family Shelter</u>, and <u>Day Spring Shelter</u>.

A.	В.	Courses in	C.	D.	E.	F.
General Outcome	What will the student	which	How will students	How will you measure	Assessment Findings	Improvements
Sought	know or be able to do?	competency is	learn it?	the outcomes		
		learned				

CORE						
COMPETENCIES						
C1. Apply a professional code of ethics in all endeavors.	 A. Recognize behaviors that are inconsistent with the IUSD Code of Ethics B. Report behaviors that do not comply with the Code of Ethics C. Comply with all elements of the IUSD Code of Ethics 	 214 303 205 215 219 242 221 301 311 351 344 347 305 307 	 IUSD Code of Ethics Document Case-study examples of ethical decision-making within courses Utilization of Professional Conduct statement for each exam 	 Instructor-designed tests Survey student willingness to report code violations. Assess frequency of code violations reported for DH students Assess faculty regarding student reports of misconduct cases not reported to SPCC Clinical competency evals Peer evaluation Comm. Project journal 	Analysis of curriculum and Informal survey of faculty revealed students did not have many opportunities to actively discuss ethical decision-making until the last semester of the program. A richer discussion such as those revolving around case studies was recommended.	Beginning Fall 2001: discussion of SPCC, professionalism and ethical dilemmas incorporated into H218 at beginning of program rather than waiting until 4 th semester to include this material into didactic curriculum. Spring 2001: Case studies relevant to specific topical areas will be identified distributed to course directors for them to incorporate into their courses.
C2. Adhere to state and federal laws, recommendations, regulations and safety practices in the provision of dental hygiene care.	 A. State the content of laws relevant to the practice of dentistry and dental hygiene in the state of Indiana. B. Relate elements of federal laws that are relevant to the practice of dentistry and dental hygiene. C. Exhibit behaviors which comply with state and federal laws 	 H218 303-307 205 215 219 221 217 301 311 351 344 J210 - Ora Micro segment 	 Indiana State Dental Practice Act OSHA regulations Discuss legal and ethical consequences of non-compliance Case studies Legal review exercise 	 Instructor-designed tests J210 – OSHA H218 – CPR H344 – Practice Act DHNB State Dental Hygiene Exam results: practice act Clinic evaluation: Compliance with infection control guidelines during 	100% Pass rates on law portion of Indiana Dental Licensure exam	Request course directors to provide specific record of student achievement on this competency

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
C3. Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice.	needs of the Dental Hygiene Human Needs theory B. Identify needs of	 H344 206 H218 224 205 H219 H311 H301 H302 	 Reading Assignments Lecture Discussion Case Studies Clinical Practice Community Projects Special Patient Project PBL Group Project Table clinic assignment 	clinical procedures Instructor-designed exams PBL evaluation Special Patient Report evaluation Community Project evaluations Dental Product report Research Project Table Clinic National Board Preparedness survey Clinical Evaluations of: Treatment plans Pt. Assessmen t Tx Evaluation Clinical Competencies: Patient Ed.	Students could provide answers/solutions based on sound research evidence to complete projects Students needed more practice with concepts related to research design and statistical analysis of research results – based on H311 exam results and reports of national board survey	Additional 6 hours of active learning activities incorporated into H311 to provide more instruction on research design and statistical analysis prior to completion of literature critique assignment.

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
responsibility for dental hygiene actions and care based on	A. Identify appropriate standards of care for specified dental hygiene interventions B. Select and perform procedures in a manner consistent with currently accepted approaches to dental hygiene care.	 204 218 215 308 221 217 301 351 344 311 H302 H347 	Class reading assignments, lectures, discussions Case studies Clinical Practice Article evaluation	 Instructor-designed exams Course Evaluations PBL evaluation Special Patient Report evaluation Community Project evaluations Dental Product report Research Project Table Clinic National Board Preparedness survey Clinical Evaluations of: Treatment plans Pt. Assessment TX Evaluation Clinical Competencies: Patient Ed. 	Students reported that instructional activities to prepare them to read and understand research articles were insufficient. This was confirmed by their performance on literature critique assignments and course exams.	 H311 course added 6 additional hours of instruction on research design and statistics that employed multiple active learning strategies to give students opportunities to use information and assess learning in classroom setting.
C5 Continuously perform self- assessment for life- long learning and professional growth.	A. Self-assess personal and professional learning goals	 301 302 214 219 344 347 	H301/302 journals H311 PBL self- assessment H347 journal H344 ethics assessment	Currently no means for students to report measurable progress on their achievement of competencies	Formal assessment needed	 DEVELOP COMPETENCY ASSESSMENT SURVEY TO BE GIVEN EA. SEMESTER Students assess progress toward clinical competencies and develop learning plans

IUSD Dental Hygiene Program – Assessment Report: 2000-2001

ourses in C. D. E.

A. General Outcome	B. What will the student	Courses in which	C. How will students	D. How will you measure	E. Assessment Findings	F. Improvements
Sought	know or be able to do?	competency is learned	learn it?	the outcomes	-	·
profession through service activities and	A. Participate in service activities while a student at IUSD B. Join SADHA	• 311 • 344 • 347	Affiliation with SAC service activities SADHA service activities H347 community service activities	 Reported participation in SAC activities SADHA membership H347 Projects 	2 students participated in alternative spring break service project 8 students volunteered for homeless shelter activities All students participated in community service through H347 80% of class hold membership in SADHA	Provide curricular recognition of students who participate in service activities Expand service learning component of H347 Promote SAC service activities to DH students, e.g. IUSD homeless shelter sealant programs
quality assurance mechanisms for health services	 A. Evaluate quality of care provided to clinic patients and seek appropriate remedies for remaining patient needs B. Identify mechanisms for evaluating dental services in clinical practice and community settings 	 303 308 351 344 305-307 	 Classroom instruction and assignments Clinical practice 	 Clinic evaluation Lab project self-assessment and lab grades Course exams Faculty chart review of patient care 	Students do not actively participate in planning and implementation of quality assurance mechanisms	 Identify ways to involve students in planning for quality assurance related to clinical services Integrate planning for quality assurance into curriculum (H344, H347, H302)
		 204 215 219 221 311 351 347 305 306 307 	 Course Instruction Role-playing Written assignments Oral Presentations Documentation of clinical procedures Patient education 	 Patient Ed. Competency Clinical evaluation Community education projects Table Clinic Group research presentation Course Evaluations 	Table clinic abstract assignment revealed need to provide more instruction on common elements to be included in research abstracts Informal chart audit indicated that students were following prescribed elements for completing treatment notes All students completed communication segments of patient ed peer review, patient ed competencies, table clinic presentation, and group research	Course directors advised of need to incorporate more written assignments to increase and improve assessment of this competency. H311 incorporated a format for writing abstracts for use with table clinic assignment The curriculum committee will review the competencies to evaluate where emphasis on team development and interactions would best be entered into the competency document. H347 added an oral report to class activities to provide students with more practice and feedback on public speaking in a "safe" environment to better prepare them for community education

A.	В.	Courses in	C.	D.	E.	F.
General Outcome Sought	What will the student know or be able to do?	which	How will students learn it?	How will you measure the outcomes	Assessment Findings	Improvements
	understanding of cultural differences in attitudes toward health care and preventive practices. F. Correct and appropriate use of professional terminology when communicating with other health professionals				presentation, and community education projects at satisfactory levels It was noted that several written projects required repeated drafts due to grammar and format errors. It was noted that students would benefit from more practice with written assignments that provided them with feedback on writing clarity and grammar. Faculty identified the need to clarify this competency with a sub competency with a sub competency that dealt specifically with collaboration and communication within the dental team due to assessment from alumni, employers, and the literature indicating a need for improved education related to team interactions. H347 course evaluation and discussion groups revealed that students felt they needed more experience in classroom settings that would allow them to practice public speaking prior to giving community-based presentations	assignments.

A.	В.	Courses in	C.	D.	E.	F.
General Outcome	What will the student	which	How will students	How will you measure	Assessment Findings	Improvements
Sought	know or be able to do?	competency is	learn it?	the outcomes		
		learned				

C9. Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.	information, TX data and comments in patient charts in a clear, concise and comprehensive manner. Chief complaint Vital signs Lesion description Periodontal	 204 218 215 219 221 301 311 351 305 306 307 	 Course Instruction Case studies Clinical practice 		Student performance satisfactory on all assessment measures	No Improvements Indicated based on assessment
C10. Provide care to all clients using an individualized approach that is humane, empathetic, and caring.	individualized treatment plans Students demonstrate concern for patient comfort, respect for patient values and needs Students treat all	221 I	Course instruction Role playing Clinical practice	 Clinic evaluation Patient feedback Clinic evaluation Clinic competency exams Peer review 	Clinic observations and patient feedback reveal no deficiencies in this competency	B. No specific improvements indicated based on assessment

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
Health Promotion 1: Individual. The dental hygienist should be able to provide planned educational services using appropriate interpersonal communication skills and educational strategies to promote optimal oral health.	A. Promote healthy lifestyles for clients.	2.0		A. Clinical Grades B. Clinical Competencies C. Peer Review D. Course Exams E. Patient Feedback F. National Board Exam G. NB Student Survey H. Exit Survey I. Alumni Survey J. Self-assessment based on videotaped performances	Satisfactory Attainment of competency	No Improvements Indicated based on assessment
	B. Recognize oral and related general health needs of individuals and assist in development of individualized self care regimens.		Course Instruction Clinical Practice Community Dental Health Projects Special Patient Project	Course Exams Clinical Grades Project Grades National Board Exam NB Student Survey Exit Survey Alumni survey Patient Feedback Clinical Competencies	Satisfactory Attainment of competency	H311 course updated its content to include a newly published model for the Human Needs Theory of Dental Hygiene Care
	C. Support clients' efforts to assume responsibility for their oral health and promote adherence to self care regimens.	215219221	Course Instruction Clinical Practice Community Dental Health Projects Special Patient Project		Satisfactory Attainment of competency	No Improvements Indicated based on assessment

F.

A.

В.

Courses in

General Outcome Sought	What will the student know or be able to do?	which competency is learned	How will students learn it?	How will you measure the outcomes	Assessment Findings	Improvements
	D. Respect the goals, values, beliefs and preferences of the patient/client while promoting optimal oral and general health.	219311351	Course Instruction Clinical Practice Community Dental Health Projects Special Patient Project	Competency	Satisfactory Attainment of competency	No Improvements Indicated based on assessment
	E. Refer patients/clients who may have a physiologic, psychological and/or social problem for comprehensive patient/client evaluation.	 207 215 242 311 351 	Course Instruction Clinical Practice Community Dental Health Projects Special Patient Project	Competency	Satisfactory Attainment of competency	No Improvements Indicated based on assessment
Health Promotion 2: Community: The dental hygienist should be able to initiate and assume responsibility for health promotion, health education and disease prevention activities for diverse populations.	A. Assess, plan, implement and evaluate community based oral health programs within a population group.	311 347 307	H311/h347 lesson plan assignment H347 case studies H311 special patients project H347 community-based projects H221/H301/H302 Special clinic assignments	 Course evaluation 	 H347: student achievement on course exams did not parallel achievement on quizzes given using Oncourse format. Instructor assessed major different in approach of assessing students in an openresource format (Oncourse) may have made it less likely for students to retain information for final examination Student evaluations and their performance in applying APIE model in community project plans revealed that more instruction was needed on this competency More instructional resources were needed to support the development of comprehensive lesson plans for student use in H347 – much instructor time and revision was required for this class Clinical opportunity for 	 the APIE planning model to community dental health projects. H347 community project assignments are begin structured with more opportunities for students to provide reflective comments on their experiences through an on-line journal over the course of the semester. A new textbook, which included a detailed instruction in lesson plan development, will be introduced next year to provide students with better resources for completing this project.

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which competency is learned	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
					providing clinical services to special patient populations at Peoples Health Clinic was eliminated due to administrative changes. This required identification of a new site to meet these need.	summer of 2002
	B. Identify community based services and resources that can assist in oral health promotion and disease prevention.	347	Course instructionCommunity Dental Projects	 Course Exams Community Project grades CDH Journal 	Satisfactory Achievement of competency	No Improvements Indicated based on assessment
	C. Demonstrate knowledge of the current dental care delivery systems including factors that affect utilization of dental services.	347351	Course instructionCommunity Dental Projects	Course Exams	Satisfactory Achievement of competency	No Improvements Indicated based on assessment
	D. Identify strategies to increase consumers' access to the health care delivery system.	347	 Course instruction Community Dental Projects 	 Course Exams Community Project grades CDH Journal 	Satisfactory Achievement of competency	No Improvements Indicated based on assessment

IUSD Dental Hygiene Program – Assessment Report: 2000-2001

Courses in C. D. F.

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E.	F. Improvements
	E. Provide dental hygiene services in a variety of settings.	347 219 221 301 311	Course instruction Community Dental Projects Special Clinic Assignments	 Course-based exams CDH Project grades Special Clinic Assessments 	Satisfactory Achievement of competency	No Improvements Indicated based on assessment
Patient Care 1: Assessment. Systematically collect, analyze and record data on the general, oral and psychological health status of a variety of patients/clients using methods consistent with medico legal principles.	A. Select, obtain and interpret diagnostic information recognizing its advantages and limitations.	 204 206 218 224 205 207 210 215 219 221 301 217 311 351 205 206 	 Course Instruction Case Studies Laboratory practice Clinical Practice 	 Course Exams Course Evaluations Clinic Competencies Clinic Evaluation of Patients Special clinic assignment reports Clinic journal National Board Exam State Board Exam Exit Survey National Board Patient Survey Alumni survey 	 H214 course exams and evaluations revealed that students were not able to independently identify all critical dental structures following the tooth anatomy drawing exercises; students felt this assignment was not beneficial in light of the amount of instructional time devoted to it. 	 H214 reorganized the laboratory instruction on dental anatomy from individual drawing exercises to group learning activities where groups labeled oral anatomy elements and worked collaboratively to perform identification assignments. This permitted more instruction with a smaller instructor to student ratio for each laboratory group. Laboratory grade outcomes and course evaluations on this change will be compared to see if this change was effective
	B. Recognize predisposing and etiologic risk factors that require intervention to prevent disease.	207	 Course Instruction Clinical Practice Special Clinic Assignments 	 Evaluation of patient assessment form National Board Exam 	Specific risk factors are identified indirectly as part of the treatment plan; a more direct means of identifying student recognition is needed	 Formalize risk assessment procedures via specific assessment forms H221 and H301 instructional content on periodontal classifications was changed to reflect the development of a new classification system by the APA which will be assessed on the next national board

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
	C. Obtain, review and update a complete medical, family, social and dental history.	 218 20 207 215 219 221 301 217 311 351 307 	 Course Instruction Case Studies Laboratory practice Clinical Practice 	 Completion of required elements of assessment form and chart information Course Exams National Board Exam State Board Exam NB Student Survey Exit Survey Alumni Survey 	Some students require faculty instruction and reminding to complete all elements	Identify a way to indicate those students who Depend on faculty instruction to complete these sections; discuss how this could be reflected in the clinic grade
Patient Care 1 (cont)	D. Recognize health conditions and medications that impact overall patient/client care.	 204 206 218 205 207 210 215 219 221 321 217 301 311 351 307 	 Course Instruction Case Studies Laboratory practice Clinical Practice 	 Question student during case presentation Periodontal Case Documentation Assignments Treatment plan decisions Course Exams National Board Exam State Board Exam NB Student Survey Exit Survey Alumni Survey 	 Student performance on periodontal evaluations and nutritional counseling indicated that all students performed at satisfactory levels after 4 periodontal evaluation assignments were completed and after 3 nutritional counseling assignments Student exit surveys and course evaluations indicated that students felt that the minimum requirements for periodontal charting and nutritional assessments were set too high Student performance in clinic on caries risk assessment and treatment planning was not at satisfactory levels for all students – many required faculty intervention in 	 Revised minimum clinic requirements of periodontal evaluations from 6 to 4 Revised minimum clinic requirements of nutritional counseling evaluations from 6-3 H311 and H217 added additional instruction on caries risk assessment based on the Proctor and Gamble oral Risk Assessment instructional CD-ROM and case study assignments

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which competency is learned	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
Patient Care 1 (cont)	E. Identify patients/clients at risk for a medical emergency and manage the patient/client in a manner that prevents an emergency.	 206 218 205 207 215 219 221 301 311 	Course instructionClinical PracticeCPR training		Satisfactory Achievement of competency	No Improvements Indicated based on assessment
	F. Perform a comprehensive examination using clinical, radiographic, periodontal, dental charting and other data collection procedures to assess the patient's/client's needs.	■ 215 ■ 219	Course Instruction Laboratory instruction Clinical practice	Course exams	Satisfactory Achievement of competency	No Improvements Indicated based on assessment

IUSD Dental Hygiene Program – Assessment Report: 2000-2001 purses in C. D. E.

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E.	F. Improvements
critical decision-making	a. Use assessment findings, etiologic factors and clinical data in determining a dental hygiene diagnosis.	 204 214 218 224 210 219 308 221 321 217 301 311 351 305 306 307 		Clinic evaluation of assessment form Chart review	 Most students provide accurate diagnoses, but current system does Chart reviews indicated that students were not uniformly providing a periodontal diagnosis in the chart notes 	
	b. Identify patient/client needs and significant findings that impact the delivery of dental hygiene services.	 204 206 218 207 219 242 221 217 301 311 351 		Development of treatment plans which address all stated patient needs		Clinic evaluation needs to reflect whether students received instruction on treatment plan development
	c. Obtain consultations as indicated.	 206 224 207 219 242 221 301 302 311 351 	 Course instruction Clinical practice 	 Clinic evaluation Course Exams National Board Exam State Board Exam Exit Survey Alumni Survey 	Some students do not include this information in their original case presentation	Include need for referral and consultation on assessment evaluation form as part of clinic grade.

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which competency is learned	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
with the patient/client, and /or other health	a. Prioritize the care plan based on the health status and the actual and potential problems of the individual to facilitate optimal oral health.	 206 205 207 215 308 221 321 217 301 311 351 	 Course Instruction Special Patient Project Clinical Practice 	Clinical practice	patients; It is unclear from the	this section without advice or instruction;
	planned sequence of care (educational, clinical and evaluation) based on the dental hygiene diagnosis; identified oral conditions;	210 219 221 321 301 351 307	 Course instruction Clinical practice 	 Clinical 	Clinic treatment plans frequently required instructor intervention in H301	Instruction on treatment plan components and decision-making was moved earlier in the curriculum from H221 to H219 so that beginning students were more prepared to make these decisions for their patients
	c. Establish a collaborative relationship with the patient/client in the planned care to include etiology, prognosis and treatment alternatives.	 219 308 221 301 311 351 	 Course instruction Clinical practice Special clinic assignments 		Satisfactory Achievement of competency	No Improvements Indicated based on assessment

F.

A.

В.

Courses in

General Outcome Sought	What will the student know or be able to do?	which competency is learned	How will students learn it?	How will you measure the outcomes	E. Assessment Findings	Improvements
Patient Care 3: Planning (cont.)	d. Make referrals to other health care professionals.	 206 205 219 221 301 311 351 307 	 Course instruction Clinical practice Special clinic assignments 		Not currently assessed on a student by student basis	Identify a means of recording this on the clinic evaluation form
	e. Obtain the patient's/client's informed consent based on a thorough case presentation.	• 308 • 301 • 311	Course instruction Clinical practice	form completed for all patients; direct observation	Students in H219, H221, and H301 do not always seek informed consent for all procedures; didactic instruction on this principle is emphasized in H344, too late in the curriculum	 Increase instruction in H219, H301 on case presentation through role-playing Emphasize approach to informed consent as each new procedure is introduced didactically.
Patient Care 4: Implementation. Provide specialized treatment that includes preventive and therapeutic services designed to achieve and maintain oral health. Assist in achieving oral health goals formulated in collaboration with the patient/client	a. Perform dental hygiene interventions to eliminate and/or control local etiologic factors to prevent and control caries, periodontal disease and other oral conditions.	206 208 207 219 242 221 321 217 301 351	Course instruction Laboratory practice Clinical practice	Patient Education	 All students complete each competency and minimum requirements prior to graduation All students had not had laboratory and clinical experience Numerous student were not demonstrating competency in instrument sharpening in H 301 and H302 indicating a need for assessment of this skill and remedial instruction earlier in the curriculum 	 H311/H301: an instructional module and clinic competency exam was designed to instruct students on the use of powered irrigators The instrument sharpening competency normally conducted in H301 was moved up one semester to H221 so that students having trouble with this skill could be identified earlier and provided with remediation

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which	C. How will students learn it?	D. How will you measure the outcomes	E.	F. Improvements
	b. Control pain and anxiety during treatment through the use of accepted clinical and behavioral techniques.	224 207 215 219 221 301 351		Clinical observation Patient Interviews NB student survey	A variety of assessment measures indicated that students were not competent in their understanding of local anesthesia	Additional instruction in H301 (3 hrs) was added on issues related to use of local anesthesia
	c. Provide life support measures to manage medical emergencies in the patient/client care environment.		CPR certification course	Successful completion of CPR certification	 All students certified during semester 1, prior to treating patients CPR certification takes a significant amount of student and faculty time out of curriculum and 	Require students to take a recommended level CPR course prior to entering the program in August
Patient Care 5: Evaluation. Evaluate the effectiveness of the implemented clinical, preventive and educational services and modify as needed.	a. Determine the outcomes of dental hygiene interventions using indices, instruments, examination techniques and patient/client self-report.	204 219 221 217 301 351	 Course instruction Clinical practice 	Students perform re- assessment and re- evaluation on all patients scheduled for multiple appointments	Re-evaluation appointment and treatment evaluation performed on all patients undergoing therapy for Class III and IV treatment plans	Develop a patient opinion survey to assess patient self-report and satisfaction
-	b. Evaluate the patient's/client's satisfaction with the oral health care received and the oral health status achieved.	• 221 • 351	Clinical practice		Only informal assessment mechanisms currently in place	Develop a patient opinion survey

A. General Outcome Sought	B. What will the student know or be able to do?	Courses in which competency is learned	C. How will students learn it?	D. How will you measure the outcomes	E. Assessment Findings	F. Improvements
	c. Provide subsequent treatment or referrals based on evaluation findings.	219242221	 Course instruction Clinical practice Special clinic assignments 	evaluation and	All treatment plans completed, referrals indicated in chart notes, need for follow-up noted in chart notes	Document charts which required additional follow-up
	d. Develop and maintain a health maintenance program.	218207219301	 Course instruction Clinical practice Private practice observation Special clinic assignments 	 Course exams Clinical practice Clinic journal 	 Students provide recall services to patients they have previously treated Course evaluations and exams revealed a deficiency in use of insurance codes and planning for soft tissue management programs 	Additional instruction in insurance coding and STM P will be added H302

DENTISTRY

PHILOSOPHY AND GOALS

The program philosophy of the Dental Hygiene Program at Indiana University School of Dentistry is to provide a knowledge base to educate the dental hygienist to be a health care provider whose responsibility is the prevention of oral disease and the promotion of oral health to all segments of the population. As the provider of educational, clinical and therapeutic services supporting total health through the promotion of optimal oral health, the dental hygienist serves as a preventive oral health professional.

The Dental Hygiene Program will provide a foundation in the biomedical, behavioral and clinical sciences which will enable the dental hygienist to assume responsibility in various career roles. An environment conducive to the pursuit of lifelong learning will prepare the dental hygienist to increase the knowledge base for serving as a health care provider.

In addition, the program will prepare the dental hygienist to assume responsibility in judgment and decision making skills as well as providing an academic foundation for further education. The program will also prepare the dental hygiene professional to deliver quality dental health care and apply research to dental hygiene practice.

INTRODUCTION

This document describes the abilities expected of a dental hygienist entering the profession. These competency statements are meant to serve as guidelines and are designed to describe (1) the desired combination of knowledge, psychomotor skills, communication skills, and attitudes, and (2) the standards used to measure the hygienist's independent performance. The following should help to assess the competence of dental hygiene students and to improve the dental hygiene curriculum. Given the dynamic nature of science and the health professions, these competencies will be reviewed and updated periodically.

The dental hygienist must possess the Core Competencies and the ethics, values, skills and knowledge integral to all aspects of the profession. These core competencies provide the foundation for the dental hygienist to perform the roles of a preventive health care provider.

CORE COMPETENCIES

- 1. Apply a professional code of ethics in all endeavors.
- 2. Adhere to state and federal laws, recommendations, regulations and safety practices in the provision of dental hygiene care.
- 3. Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice.
- 4. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.
- 5. Continuously perform self-assessment for life-long learning and professional growth.
- 6. Advance the profession through service activities and affiliations with professional organizations.
- 7. Provide quality assurance mechanisms for health services
- 8. Communicate effectively with individuals and groups from diverse populations both orally and in writing.
- 9. Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.
- 10. Provide care to all clients using an individualized approach that is humane, empathetic, and caring.

HEALTH PROMOTION AND DISEASE PREVENTION (HP)

In the practice setting the dental hygienist plays an active role in the promotion of optimal oral health and its relationship to general health. The dental hygienist serves the community in both practice and public health settings. Public health is concerned with promoting health and preventing disease through organized community efforts, which is an important component of any interdisciplinary approach. The dental hygienist should have a general knowledge of wellness, health determinants and characteristics of various patient/client communities. The dental hygienist, therefore, should be competent in the performance and delivery of oral health promotion and disease prevention services in public health, private practice and alternative settings.

HP1: Individual:

The dental hygienist should be able to provide planned educational services using appropriate interpersonal communication skills and educational strategies to promote optimal oral health.

This competency includes:

- a. Promote healthy lifestyles for clients.
- b. Recognize oral and related general health needs of individuals and assist in development of individualized self care regimens.
- c. Support clients' efforts to assume responsibility for their oral health and promote adherence to self care regimens.
- d. Respect the goals, values, beliefs and preferences of the patient/client while promoting optimal oral and general health.
- e. Refer patients/clients who may have a physiologic, psychological and/or social problem for comprehensive patient/client evaluation.

HP2: Community:

The dental hygienist should be able to initiate and assume responsibility for health promotion, health education and disease prevention activities for diverse populations.

This competency includes:

- a. Assess, plan, implement and evaluate community based oral health programs within a population group.
- b. Identify community based services and resources that can assist in oral health promotion and disease prevention.
- c. Demonstrate knowledge of the current dental care delivery systems including factors which affect utilization of dental services.
- d. Identify strategies to increase consumers' access to the health care delivery system.
- e. Provide dental hygiene services in a variety of settings.

PATIENT CARE (PC)

The role of the dental hygienist in patient/client care is ever changing, yet central to the maintenance of health. The dental hygienist must use skills to assess, diagnose, plan, implement and evaluate treatment.

PC1 Systematically collect, analyze and record data on the general, oral and psychosocial health status of a variety of patients/clients using methods consistent with medicolegal principles.

This competency includes:

- Select, obtain and interpret diagnostic information recognizing its advantages and limitations.
- Recognize predisposing and etiologic risk factors that require intervention to prevent disease.
- c. Obtain, review and update a complete medical, family, social and dental history.
- Recognize health conditions and medications that impact overall patient/client care.
- e. Identify patients/clients at risk for a medical emergency and manage the patient/client in a manner that prevents an emergency.
- f. Perform a comprehensive examination using clinical, radiographic, periodontal, dental charting and other data collection procedures to assess the patient's/client's needs.

PC2 Diagnosis:

Use critical decision making skills to reach conclusions about the patients'/clients' dental hygiene needs based on all available assessment data.

This competency includes:

- a. Use assessment findings, etiologic factors and clinical data in determining a dental hygiene diagnosis.
- Identify patient/client needs and significant findings that impact the delivery of dental hygiene services.
- c. Obtain consultations as indicated.

PC3 Planning:

Collaborate with the patient/client, and/or other health professionals to formulate a comprehensive dental hygiene care plan that is patient/client centered and based on current scientific evidence.

This competency includes:

- a. Prioritize the care plan based on the health status and the actual and potential problems of the individual to facilitate optimal oral health.
- b. Establish a planned sequence of care (educational, clinical and evaluation) based on the dental hygiene diagnosis; identified oral conditions; potential problems; etiologic and risk factors; and available treatment modalities.
- c. Establish a collaborative relationship with the patient/client in the planned care to include etiology, prognosis and treatment alternatives.

d. Make referrals to other health care professionals.

e. Obtain the patient's/client's informed consent based on a thorough case presentation.

PC4 Implementation: Provide specialized treatment that includes

preventive and therapeutic services designed to achieve and maintain oral health. Assist in achieving oral health goals formulated in collaboration with the patient/client.

This competency includes:

 Perform dental hygiene interventions to eliminate and/or control local etiologic factors to prevent and control caries, periodontal disease and other oral conditions.

- b. Control pain and anxiety during treatment through the use of accepted clinical and behavioral techniques.
- Provide life support measures to manage medical emergencies in the patient/client care environment.

PC5 Evaluation: Evaluate the effectiveness of the implemented clinical,

preventive and educational services and modify as

needed.

This competency includes:

- a. Determine the outcomes of dental hygiene interventions using indices, instruments, examination techniques and patient/client self-report.
- b. Evaluate the patient's/client's satisfaction with the oral health care received and the oral health status achieved.
- c. Provide subsequent treatment or referrals based on evaluation findings.
- d. Develop and maintain a health maintenance program.