Transforming Assessment in Education
Implementing the Instructional Decision Support System of the AEFIS Solution Platform

Education and Information Systems, Technologies and Applications: EISTA 2010
June 30, 2010, 10:10am-12:10pm
Orlando, Florida, USA
Presenting Team

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*Session Organizer
**Session Co-Organizer
Presentation Outline

► Creating and Sustaining Change: Assessment of Student Learning Outcomes – 15 minutes
► Small Group Activity and Discussion – 15 minutes
► An Iterative Mapping Strategy for Improved Curriculum Design and Assessment – 15 minutes
► Break - AEFIS 3.0 Demo – 15 minutes
► Learning Analytics: Targeting Instruction, Curricula and Student Support – 15 minutes
► Drexel EduApps: Freeing Faculty for Innovative Teaching – 15 minutes
► Instructional Decision Support Systems: A New Approach to Integrating Assessment, Teaching and Learning – 15 minutes
► Question and Answer Discussion – 15 minutes

Each presenter will speak for 10 minutes, followed by a 5 minute question/answer/discussion period.
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Creating and Sustaining Change: Assessment of Student Learning Outcomes

Metta Alsobrook
University of Texas at Dallas
Problem

Concern of the quality of higher education institutions


Student Learning Outcomes = SLO
Process at UT Dallas

- Support Team
- Leadership
- Communication

- Good Relationship
- Change agents
- Assessment Tool
- Resources

Faculty
Evaluating the Process

- Is it working?
- Is it beneficial/meaningful?
- Can it be done?
The Reality

- Yes, we have a process of assessment
- No, it is not beneficial for improving our program
- Cannot be done (too much work to do, too little time)
- One size fits all

- Insufficient message from the leadership
How to Sustain the Effort?

- Clear and correct message from institution’s leaders
- Assessment process that fits schools and departments
- Aligning program assessment with other reviews such as school review, department review, other accreditation review
- Intensive communication about the goals, what is going on, benefits, and champions
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An Iterative Mapping Strategy for Improved Curricular Design and Assessment

Fred Allen
Elisabeth Papazoglou
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Philadelphia, Pa
School of Biomedical Engineering
Science and Health Systems
Summary

- Definition of Assessment
- Student Outcomes vs. Student Learning
- Product vs. Process Quality
- “Student as Product” Paradigm
- Role of Mapping
- Multiple Assessment
- Importance of Iterative Mapping
Modes of Assessment

• **Multiple Levels**
  - Institutional
  - Programmatic
  - Course/Activity
  - Instructor
  - Student

• **Student Outcomes vs. Student Learning Outcomes**
  - Student outcome – SAT scores, retention, graduation rate
  - Student Learning Outcome – what value has been added to each individual student?
**Product versus Process Quality**

- **Product Quality** - ensures that the end product meets specifications

- **Process Quality** - relates to the management process or the means by which product quality is **achieved and monitored**
  - Continuous Quality Improvement (CQI)
  - Process Quality Management (PQM)
Student as Product Paradigm

• Why?
• Strengths
  – Manufacturing processes are well understood - many quality management models available
  – Process Management concept is generally accepted by engineering faculty
• Limitations
  – Student as human being and customer
  – Product must collaborate in own manufacture
Establishing Goals

• Manufacturing Quality Goal: To ensure that products meet specifications

• Academic Translation: To ensure that students achieve program learning outcomes upon graduation and alumni meet program objectives

• Thus,
  – Students = products
  – Specifications/requirements = outcomes and objectives
Two Possible Results

• Products meet specifications
  – All is well
  – No action required

• Products do not meet specifications
  – *What* specification(s) are not being met?
  – *Why* are these specification(s) not being met?
  – *Where* in the process is the problem occurring?
  – *What action(s) must be taken to correct the problem?*

• Good Process Quality Management Models allow all questions to be answered
Multiple Sample (Assessment) Points

• **A - Raw Materials**
  – Must know properties of starting materials
  – If starting materials change, a change in the manufacturing process will be needed

• **Students**
  – What characteristics are important?
  – How to measure?
  – How to use results?
Multiple Sample (Assessment) Points

• **B and D - Stage Monitoring**
  – Measure effects of *selected* number of processes/activities
  – Measure progress towards ultimate goals

• **Students**
  – Mapping process
  – Monitor student progress in order to effectively intervene
  – Multiple Levels of Intervention
    • **Student**
    • **Instructor**
    • **Course/Activity**
    • **Programmatic**
Multiple Sample (Assessment) Points

• C - Subcontractor/Outside Source
  – Need to determine if subcontractor/outside source meeting expectations
  – Allows for possibility of replacement

• Students – More Mapping
  – Extracurricular activities
  – Co-operative education
  – Service and/or Service Learning

• Students and Activity are Assessed
  – Not just to monitor students
  – Also assess effects of non-classroom experience
  – Part of the curricular paradigm
Multiple Sample (Assessment) Points

• **E - Final Product**
  – Must determine if products met acceptable levels of specifications
  – Final confirmation that all other measures and activities are valid
  – Also determines if process quality management plan is adequate
    • If A-D predict successful product and final product does not meet requirements, the process quality management plan needs to be revised

• **Students – More Mapping**
  – Capstone Experiences
    • Senior Design
    • Senior Sequence
  – Limited Intervention for Individual Student
Quality Control Questions

- *What* is our error margin for a defective product?
- *What* happens to a defective product?
- *What* frequency of defects calls process into question?
Correct Mapping is Vital

• What is being Mapped?
  – Performance criteria
    • Constituent elements of student learning outcomes
    • Measurable
    • Indicate when and where students are exposed to learning opportunities
    • Can also be used to indicate level of knowledge / skill acquisition
  – Assessments
    • Depend on performance mapping but are not the same
    • Serve different purpose
Performance Mapping is Iterative

• Initial Stages
  – Develop Student Learning Outcomes and Program Objectives
  – Decompose Student Learning Outcomes into Performance Criteria

• Example: School of Biomedical Engineering, Science and Health Systems at Drexel
  – 14 General Student Learning Outcomes
  – Concentration Area Specific Outcomes
  – Approximately 70 Performance Criteria
Why? Performance Criteria
Student Learning Outcomes
Program Objectives

How?

Courses; Co-Operative Education; Extracurricular Activities, etc.

Where?

Map 1 – Performance Criteria

What?

Map 2 – Educational Activities

When?

Map 3 – Curriculum Sequence
First Map

• Set Performance Levels:
  • Introduce; Reinforce; Emphasize
  • Introduce; Practice; Review; Utilize
  • Not Critical – Refine Later

• Associate Performance Criteria with Activity
  • Small group (ex. Curriculum Committee)
  • Use syllabi to associate criteria with course
  • After initial analysis, submit to faculty for review – buy in
<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>Introduction Level</th>
<th>Reinforcement Level</th>
<th>Emphasize Level</th>
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<tbody>
<tr>
<td>Ability to demonstrate an understanding of the rights and limitations associated with intellectual property and confidentiality of intellectual property agreements</td>
<td>BMES 125</td>
<td>BMES 338; BMES 409</td>
<td>CO-OP</td>
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<tr>
<td>Ability to treat others with respect and does not discriminate on the basis of gender, race, religion, sexual orientation, social class ethnic background, physical disability, martial status, national origin or other attribute not related to academic or research performance</td>
<td>ENGR 101; ENGR 102; ENGR 103; UNIV 101</td>
<td>CO-OP</td>
<td>BMES 491-3</td>
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<td>Ability to create a well-organized document that is visually appealing</td>
<td>BIO 122; BMES 212; ENGR 103; ENGR 201; ENGR 202; PHYS 101</td>
<td>BMES 301; BMES 411; BMES 412; BMES 423; BMES 460; BMES 471; BMES 472; BMES 491-2; INFO 200</td>
<td>BMES 422; BMES 443; BMES 473; BMES 478; BMES 493/THESIS</td>
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<tr>
<td>Ability to use appropriate words and grammatical structure</td>
<td>BIO 122; BMES 212; CHEM 101 ENGL 101; ENGL 102; ENGL 103; ENGR 103; PSY 101</td>
<td>BMES 301; BMES 411; BMES 412; BMES 423; BMES 460; BMES 471; BMES 472; BMES 491-2; INFO 200</td>
<td>BMES 422; BMES 443; BMES 473; BMES 478; BMES 493/THESIS</td>
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<td>Ability to use appropriate equations, numerical expressions and illustrations</td>
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<td>Acknowledges the work of others in a consistent manner according to standard norms</td>
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<td>BMES 422; BMES 443; BMES 473; BMES 478; BMES 484</td>
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Utility of First Mapping

• Reveals Uneven Distributions of Performance Criteria

• Indicates Gaps or Over-Emphasis

• Begins to Reveal True Nature of Current Curriculum
Second Map

• First Map: Performance Criteria vs. Course
  – Reveals Relative Importance of Various Performance Criteria in the Curriculum
  – Not Enough

• Second Map: Course vs. Performance Criteria
  – Shows Relative Roles of Courses in Curriculum
  – Reveals Disconnects between Course Requirements and Performance Criteria
  – Uncovers ‘Core’ or ‘Gateway’ courses
<table>
<thead>
<tr>
<th>Course</th>
<th>Introduce</th>
<th>Reinforce</th>
<th>Emphasize</th>
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<td>BMES 212 - The Body Synthetic</td>
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</table>
Refining the Mapping

• Place the Performance Criteria in a Temporal Context

• Look at *When* Performance Criteria are covered as well as *Where*

• Can Reveal Additional Disconnects
  – Learning as a Developmental Process
  – Does the Curriculum Develop Learning Properly?
  – Do not desire to reinforce or emphasize a concept yet to be introduced.
<table>
<thead>
<tr>
<th>Category and Course</th>
<th>Introduce</th>
<th>Reinforce</th>
<th>Emphasize</th>
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<td>MATH 121  Calculus I</td>
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<td>ENGR 100  Beginning CAD for Design</td>
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<td>BMES 432 - Biomedical Systems and Signals</td>
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<td>Senior Design I</td>
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</table>
Additional Refinements

• Translate Levels into Bloom’s Taxonomy
  – Reinforce the Developmental Aspects of Learning

• Place Additional Resources into Key Courses
  – Many Performance Criteria
  – Transitional Timing

• Begin Mapping Assessments into the Curriculum
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Learning Analytics: Targeting Instruction, Curricula and Student Support

Craig Bach
Drexel University
Philadelphia, Pa
Office of the Provost
INTRODUCTION

Common Applications of Analytics
- Insurance Industry
- Pharmaceutical Industry
- Credit and Financial Services
- Academic (e.g., Enrollment)

How do we apply these techniques to improve and inform learning?

Definition

By learning analytics we mean the application of advanced statistical modeling to target instructional, curricular, learning, and advising actions in support of achieving specific learning goals.

Learning analytics provides actionable insight from data.
We are inundated by data...

- Test scores (e.g., ACT, SAT, CLA, MAPP)
- Class and project grades
- Demographic, psychographic, bio data
- Learning styles, characteristics or preferences data
- LMS/CMS activity data
- Survey data (e.g., CIRP, NSSE)

How do we select the most salient data that can inform how we support student learning?

How do we integrate data from across the institution in support of student learning?
Possible Applications

- Predicting Outcome Achievement
- Curricular Sequencing
- Complexity Index
- Prioritizing Learning Outcomes
- Setting Course and Instructional Policies
- Defining Academic Quality
LIMITATIONS

1. Quality of data
   Garbage In => Garbage Out
2. Communication of Data (dashboarding)
3. Appropriateness of assumptions of analysis to learning data
4. Potential for misuse
ETHICAL CONSIDERATIONS

► What data is appropriate (legal) to collect about students? What data is inappropriate?
► Who should be able to access the data and view results? Which data should be reported anonymously? Which can be tagged to students for educational purposes?
► What is the impact of showing faculty modeling results? Do any of the data bias faculty instruction and evaluation of students?
Convergence in Higher Education

- The increasing focus on applying analytics to problems in higher education and the attention on learning outcomes assessment provides us with a unique opportunity to support student learning in new ways.

Discussion Points:

- How can analytic tools be use to address the most pressing instructional, curricular or operational problems your faculty confront?

- What are the benefits and challenges of developing a learning analytics program?
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EduApps: Freeing Faculty for Innovative Teaching

Craig Bach¹
Donald McEachron²
Drexel University
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¹Office of the Provost
²School of Biomedical Engineering, Sciences and Health Systems
The Problem

Definition and Context

There are several barriers to faculty adoption of innovative teaching methodologies:

- **Time** and **effort** involved
- Insufficient **opportunity** and **reward**
- Lack of **demonstrated effectiveness**
- **Insufficient support** and **resources**
- Significant **personnel dependence**
- Lack of **scalability**
- Lack of **faculty ownership**
- Current educational “**apps**” not particularly good

**How do we overcome these barriers?**
The Audience:

Faculty, in terms of adoption of instructional innovations, can be separated into three groups:

- **Usual Suspects**: Faculty members who regularly attend professional development activities, attend educational conferences, and use educational research to improve their instructional methodologies.

- **The Majority**: Faculty members with little training in teaching methods who are heavily focused on their research and scholarly activities and have little or no time to seek out and try new educational pedagogies.

- **Untouchables**: Faculty members who will never voluntarily spend time on these issues and grouch at the smallest provocation.

The first group is always, already in. The third group never. Our focus is on supporting the second group!
The Approach:

- Modeled after the iPhone approach for distributing applications
- Not necessarily a software application or technological in nature
- Small, transferrable and modular
- No significant learning curve required in order for faculty to implement
- No significant additional investment of time and/or resources to implement
- Provides instructional, curricular or operational support
- Responds to a specific educational need
Identifying and Prioritizing Problems:

- **Focus on faculty-identified problems** (may also include students/advisors)

- **Build in feedback loops** from faculty (and students/advisors?)

- **Build early success across broad range of faculty** (and students/advisors?)
Point-of-Use Integration

Training and support is needed for faculty to understand how to respond to a range of data collected about learner characteristics and course feedback. EduApps can “plug into” specific points of use – educable moments.

- **Pre-/Post-Course Surveys**: EduApps aligned to questions, specific constructs, or results
- **Outcome Assessment Results**: EduApps aligned to specific areas of student challenge
- **Learning Styles Inventory**: EduApps targeted to specific styles
- **Institution Learning Goals**: EduApps developed to support instruction or evaluation of specific learning goals
- **Accreditation Standards**: EduApps focused on supporting compliance to specific standards (e.g., syllabus content)
Problem: During a lecture, an instructor wants to determine student understanding in order to pace or redirect the discussion. We have an EduApp for that: Clickers.

Main Features:
- Contact information for several faculty with experience using clickers
- One-page setup/implementation instruction set
- Best use, potential pitfalls and suggestions
- Directions to use collected data
- Evaluation and usage data collection tools
Problem: A program director wants to assure consistent quality of course information while encouraging faculty to re-think the syllabus around student learning outcomes.

We have an EduApp for that: The Learning Syllabus

Main Features:
- Syllabus tool (technology) will lead users through syllabus development focused around a set of learning outcomes
- Delineate required, optional, and suggested items
- Support decision points to determine length of syllabus and what other related documents are created to supplement the syllabus
- Contact information for expert resources
- Evaluation and usage data collection tools
Future Directions

Problem: How to Best Utilize EduApps
Solution: EduApps in Context

Associate and Integrate:

- Incorporate into *Instructional Decision Support System*
  - Provide faculty with EduApps in the Context of a Class or Other Educational Experience
- Incorporate into *Learning Decision Support System*
  - Provide students with personalized learning support system
  - Provide faculty and students with *right information* in the *right format* in the *right place* at the *right time*
EduApp Examples:

- What are the most pressing instructional, curricular or operational problems your faculty confront?
- Identify several ways to address these problems that could be implemented using the EduApp model?

Implementation

- What do you see as the most significant roadblocks to implementing an EduApps portal?
Presentation Outline

► Creating and Sustaining Change: Assessment of Student Learning Outcomes – 15 minutes
► Small Group Activity and Discussion – 15 minutes
► An Iterative Mapping Strategy for Improved Curriculum Design and Assessment – 15 minutes
► Break – 15 minutes
► Learning Analytics: Targeting Instruction, Curricula and Student Support – 15 minutes
► Drexel EduApps: Freeing Faculty for Innovative Teaching – 15 minutes
► Instructional Decision Support Systems: A New Approach to Integrating Assessment, Teaching and Learning – 15 minutes
► Question and Answer Discussion – 15 minutes
Instructional Decision Support Systems: A New Approach to Integrating Assessment, Teaching and Learning

Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) Funding Supported by Grant #: NSF 0835985 awarded to D. McEachron

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Problem Statement

► “Engineering Education must change in light of the changing workforce and demographic needs”

► Much data on student performance and perceptions on course recorded, but then where does it go?

► Assessment data pushed up administrative hierarchy before returning to where its needed
  – Loss of time
  – Data becomes less detailed, looses resolution

How can this loop be closed and essential faculty receive the information when and where it is needed?
Proposed Solution

An *evidence-based intervention system* is proposed for the *guided evolution* of engineering education programs.

The implementation of *Instructional Decision Support System* (IDSS) approaches will provide rapid feedback of assessment data combined with student characteristics to empower faculty instructors and enhance student learning.

- Preliminary data is provided as proof-of-concept of this approach
Outline

1. Problem Statement
2. Concept Overview
3. Proposed Solutions
4. Current Studies
5. Conclusion
Our Approach

1. Employ a *dynamic view of learning and teaching styles* where the characteristics of student and faculty are periodically measured to establish an assessment process calibration.

2. Use *knowledge management systems* to process voluminous data collection and analysis in an efficient and flexible manner.

3. Use a *modular design* of an established assessment paradigm that provides points of real-time intervention to responsively optimize educational practices.
Instructional Decision Support System

◆ The potential of a web-based knowledge management system that promotes *personalized learning* is investigated.

◆ Provides *rapid feedback of assessment data* combined with student characteristics to empower faculty instructors and enhance student learning.

◆ Dr. Robert Hayward of the Centre for Health Evidence, in medical practice, *clinical decision support systems* (CDSS) “link health observations with health knowledge to influence health choices by clinicians for improved health care”.

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Knowledge Management

1. To develop and implement an information system for the collection and analysis of student and faculty instructors characteristics

2. To develop and implement an information system for the collection and analysis of course and curricular characteristics

3. Develop and implement a method for instructional support that ensures these data are used to enhance student learning.

This information must be collected without overburdening the users with data and delivered in context for maximum usability.
Outline

• Problem Statement
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What is an IDSS?

An interactive computer-based information system which links student characteristics, student performance, instructor characteristics, learning outcomes, and instructional methods to inform faculty decisions on the appropriate educational pedagogy to improve student learning.
What is AEFIS?

AEFIS™ is the web-based academic assessment management solution that automates best practices in assessment and evaluation in order to enhance curriculum development and streamline the accreditation process.

AEFIS: Academic Evaluation, Feedback and Intervention System

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IDSS Approach

Instructional Decision Support System – IDSS features on AEFIS Solution Platform

Incoming Student/Course Profile (ISCP)

Course Rationale and History Profile (CRHP)

Evaluation Results, Notes and Recommendations (ERNR)

...and other features and functionality to be added to IDSS implementation.

Evaluations & Surveys
- Direct Assessment & Evaluation Feedback
- Student Feedback
- Faculty Feedback
- Alumni Feedback

Course Syllabus
- History & Details
- Course Objectives
- Course Outcomes
- Assessment
- Recommendations

Program
- Courses
  - Learning Outcomes
  - Performance Criteria

Meeting Minutes & Documentation

http://www.goaefis.com/
Avoiding Data Overload

Three standard reports to be presented to each faculty instructor prior to the beginning of any term in which that instructor is teaching:

A useful data “Snapshot” to facilitate instructional decision without requiring significant additional effort

1. Incoming Student/Course Profile

1. Course Rationale and History Profile

1. Evaluation Results Notes and Recommendations
IDSS Format

✿ Incoming Student/Course Profile (ISCP)

I. Relevant student characteristics (learning styles, course load, work load, lifestyle, etc.)

II. Current performance – achievement on performance metrics related to the course materials

III. Suggestions for instructional approaches

I. Definitions of terms (what is meant by global or visual learning, etc.)

II. Links to possible instructional approaches for students with such characteristics

IV. Clear, simple format with links to additional information
**IDSS Format**

► **Course Rationale and History Profile (CRHP)**

I. *How does course fit into program curriculum?*
   I. What *performance criteria* and/or student learning outcomes are *associated with the course*?
   II. What *educational experiences* came *before* this class?
   What can students expect to *encounter afterwards*?

II. *What is the value of the course?*
   I. How does learning this material and/or skill set *facilitate program goals*?
   II. How does learning this material and/or skill set *facilitate student goals*?
   I. Employment
   II. Professional advancement
I. Summarize assessment data for this course
   I. Student/instructor observations/opinions/insights
   II. Any direct measures of performance on previous students
      I. Grouped data
      II. Correlations with student characteristics and instructional approaches

II. Recommendations
   I. Archival recommendations (searchable)
   II. Current recommendations from latest assessment and evaluation
Prototype IDSS Summary Report

AEFIS University Unit Demo
Academic Evaluation, Feedback and Intervention System v3.0b

- Visual Learner: 90%
- Verbal Learner: 10%
- Global Learner: 70%
- Sequential Learner: 30%
- Reflective Learner: 40%
- Active Learner: 60%
- Intuitive Learner: 40%
- Sensing Learner: 60%

Concentration A
Average GPA: 2.9

Concentration B
Average GPA: 3.2

Concentration C
Average GPA: 3.4

Concentration D
Average GPA: 3.4

Number of Students: 25
Average GPA: 3.4

Performance Criteria

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Current Studies

► Drexel University School of Biomedical Engineering, Science and Health Systems students being used as test-case

► Data collected from students at three points within curriculum:
   1) Freshmen 2) Pre Junior and 3) Senior Years

► Surveys
  – Inventory of Learning Styles
  – Myers-Briggs Personality Inventory
  – Student Developmental Task and Lifestyle Inventory
  – Multiple Intelligence Inventory
  – Perspectives and Motivation Inventory
  – Student Lifestyle Impact Survey
Current Studies

Data collected from 150+ students over the past academic year.

Survey data collected is initially sorted by academic level and gender.

Continuously obtain valuable insight into the student body’s:
- Personality and characteristics as a whole
- Characteristics within particular demographics
- For an individual class or course
- On an individual student basis

Provides the ability to precisely modify teaching methodologies to best fit the student body and maximize learning outcomes.
Index of Learning Styles

- **Active Learner**: 59.27%
- **Reflective Learner**: 40.73%
- **Visual Learner**: 88.90%
- **Verbal Learner**: 11.10%
- **Sensing Learner**: 59.20%
- **Intuitive Learner**: 40.80%
- **Sequential Learner**: 37.90%
- **Global Learner**: 62.10%

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Multiple Intelligence Survey

Average Logical Mathematical Intelligence: 7.05
Average Interpersonal Intelligence: 5.54
Average Bodily Kinesthetic Intelligence: 5.52
Average Intrapersonal Intelligence: 5.30
Average Musical Intelligence: 5.28
Average Spatial Intelligence: 4.79
Average Linguistic Intelligence: 3.96
Average Naturalistic Intelligence: 3.47
Myers-Briggs Analysis

Educational Goals

Student Satisfaction

Educational Level

Satisfaction Level

Age

Age

Male
Female

Male
Female

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Additional Surveys

Salubrious Lifestyle
Tolerance
Peer Relationships
Mature Interpersonal...
Instrumental Autonomy
Academic Autonomy
Interdependence
Emotional Autonomy
Developing Autonomy...
Cultural Participation
Educational Involvement
Lifestyle Planning
Career Planning

Student Developmental Task and Learning Assessment

Engineering Perspectives

- Interest: 5.30
- Career: 5.60
- Difficulty: 5.70
- Negative Perceptions: 4.63

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Results in Action

► Students prefer having material presented as a series of small steps from which they will derive an overall understanding – a kind of ‘bottom up’ method.

► Dr. Papazoglou, is a global thinker and was using a ‘big picture’ approach in her instructional delivery – a type of ‘top-down’ methodology.

► Having the information about the specific learning styles of her students in time to adjust her instructional delivery enabled Dr. Papazoglou to enhance those students’ educational experience.

<table>
<thead>
<tr>
<th>Course Poorly Organized</th>
<th>Global</th>
<th>Sequential 1</th>
<th>Sequential 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>42%</td>
<td>26%</td>
<td>10%</td>
</tr>
<tr>
<td>Ability to Follow</td>
<td>35%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Outline

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Future Work

► Future studies will focus on other student characteristics, the interactions of these characteristics with faculty instructor teaching styles and the effect these interactions have on metrics of student performance across the entire curriculum.

► Faculty Characteristics

► Repetition and increased analysis of survey data

► Learning Decision Support System
Conclusions

► Data collection is actually not a significant issue in assessment. There are many methods and techniques available for the collection and storage of assessment results.

► The real problem is getting the right data to the right people in right format and at the right time.

► It is also important to build into any such system the flexibility to adapt to new circumstances.
Conclusions

► The use of an integrated KM platform has demonstrated proven capabilities to manage information and deliver real-time data to all user groups appropriately.

► Through the development of faculty-friendly IDSS structures this work can lead to enhanced student learning, continuous quality improvement and the necessary validation to support accreditation.

► The system is being implemented to provide a continuous and on-going process of data collection, analysis, use and evaluation so that as the student body changes – and their needs and the needs of society change – instructional delivery can adapt.
References


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Thank You!

► Thank you for joining us!
► Please see us if you have any questions

► Interested in getting involved?
  – AEFIS is currently seeking 3.0 Partner Program Participants
  – Learn more at www.goAEFIS.com/partner
  – Contact us at info@goAEFIS.com