
Coming Second Generation of Assessment Methodologies: Cheaper, Easier, More Meaningful

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What's Wrong With Current Assessment Methodologies?

- Expensive
 - Time Consuming
 - Politically Unpopular with Faculty
 - Gives Very Little Information at the Cost of Tons and Tons of Work
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Worse – These Assessment
Methods Do Not Tell
Colleges and Universities
What They Really Want To
Know

Traditional Methods Can Not Answer the Big Questions About Higher Education I

- What Experiences in Our College Do or Do Not Give Students Adequate Preparation for the Labor Market?
 - What Experiences in Our College Lead to Our Students Having Happy Fulfilled Adult Lives?
 - What Experiences in Our College Lead to Students Being Better Able to Cope With Life's Hardships As Adults?
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Traditional Methods Can Not Answer the Big Questions About Higher Education II

- Is Our College Providing Skilled Workers Who Are Making Real Contributions to Our Economy?
 - Is Our College Providing Informed Citizens Who Are Making Real Contributions to Our Community?
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Traditional Methods Can Not Even Answer the Little Questions.

- Do Professors Prepare Students For Advanced Work Better Than Do Graduate Students or Non-tenure Track Lecturers?
 - Do Our Required Math Courses Help Our Students Perform Better In Science Courses?
 - Do Our Students Learn Spanish Better From Us or From The Community College Across Town?
 - What Classes Really Help Us Retain Minority Students?
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Second Generation Methodologies Exist That Are:

- Cheaper
 - Easier
 - Less Intrusive on Faculty Time
 - Less Intrusive on Faculty Autonomy
 - Capable of Answering Profound Questions About the Impact of the University That Current Methods Can't Reach.
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What Are These
Second Generation
Methodologies?

Generation One: Traditional Assessment of Academic Programs

- Attempt to Measure Student Cognition Directly
 - Requires Direct Collection of Skills Data By Exam or By Evaluation of Student Work
 - This Approach Often Mandated By Accreditation Agencies or Legislatures
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Advantages of Traditional Methods

- Often the First Form of Assessment to be Implemented. Anything is Better Than Nothing.
 - Directly Measures Learning – A Key Outcome for Many Educators.
 - Accepted By Current Set of Outside Reformers Demanding Accountability.
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Disadvantages of Traditional Methods: Inefficiency

- Super Slow. Evaluation Occurs One Course or One Set of Graduating Seniors at a Time.
 - Takes Significant Faculty Time Both in Political Processes and In Participating in Evaluations.
 - Does Anyone Really Think These Tests or Embedded Questions Fully Capture the Contributions Made by A Major or a University?
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Generation One Point Five: Boeing's Savage But Ingenious Innovation

- Boeing Measures the Quality of Its Workers By Various Measures of Productivity, Technical Skill and Ability to Work With Its People
 - It Correlates Those Data to What School the Worker Graduated From.
 - It Then Hires Students From “High-Performing” Schools and Avoids Students From “Low-Performing” Schools.
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How Boeing Has Rejected Generation One Type Methods

- Boeing Does Not Measure What Is In Student's Heads While They Are in School.
 - They are not Interested in Tests, Embedded Items, or E-Portfolios.
 - Boeing Cares About the Consequences of Education on Real Life After School.
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Shouldn't We Be Caring About the Long
Term Consequences of What Happens to
Our Students In Our School?

You Can Measure How Individual
Classes, Majors and University
Experiences Affect This.

And You Can Do It Cheap.

Generation Two: Use The Two Datasets That No One Ever Thinks of Looking At

- Student Academic Records
 - Alumni Records
 - Individually, they are great. Combined they are a powerhouse.
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Advantage # 1 of Student and Alumni Records

- They Are All PRECOLLECTED for you!
 - They Cover the Entire University.
 - They Go Back Historically For Long Periods of Time.
 - Do Not Require Faculty Time to Collect Fresh Data.
 - Precollected Means Cheap.
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What Is In The Alumni Records That You Can Use?

- Employment
 - Income
 - Obtaining Advanced Educational Degrees
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Kicker: Alumni Records Contain Lots of Survey Data

- Student Satisfaction With the University Experience
 - Student Civic Engagement
 - Student Ability To Appreciate the Arts
 - PLUS You Can Always Add Questions to the Alumni Survey
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Student Academic Records Also Are Filled With Information

- What Courses Students Have Taken
 - What Courses Students Have Taken Prior To a Particular Course
 - Student Retention
 - Student Grade Performance
 - Student Demographics
 - Student “IQ” (Entrance Exam Scores or HS Grades)
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Make New Studies By Combining One From Column A With One From Column B

- Taking Math Course X vs Y
 - Taking Hands-on Art Courses
 - Studying Philosophy
 - Being in Small Classes
 - Taking Your Business Courses
 - Being in Your Non-traditional Student Adjustment Program
 - Works In a Job That Uses Math
 - Active Participation in the Arts as an Adult
 - Getting Into Law School
 - Retrospective Satisfaction w/ University
 - Adult Income
 - High Status Employment or Going On For Further Education
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But

Can You Measure Learning
With Data From
Student Records

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YES! Use the Grades In Courses Subsequent to the Course Being Evaluated!

- What Sections of Your Intro Course Lead to Good Grades In Your Advanced Courses?
 - What Sections of Your Math Courses Lead to Good Grades in Advanced Math, Physics, or Economics?
 - Which Courses Best Prepare for Advanced Courses Involving Critical Thinking?
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But Accreditors Won't Let Us Use Grades!!

- Assessment is Often For Your Own Organizational Purposes Rather Than Just Pleasing the Accreditation Agency.
 - Grades are a Corrupt Measure When The Evaluated Professor Provides His Own Grades
 - Grades are an Independent Measure When Outside Professors Provide the Grade in Subsequent Semesters
 - Using Other Professor's Grades Is No Different Than Having Outside Professors Jury Student Portfolios or Read Evaluation Exams
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Examples of Generation Two Learning Studies

- Having an Intro With Professors Vs. TAs
 - Taking Courses on the Web vs. Live
 - Taking Courses In-House vs. At Your Feeder Institution.
 - Grades In the Next Course in the Sequence
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Other Generation Two Learning Studies

- Do Students Who Take Your Calculus Really Do Better in Economics?
 - Do Students Who Take Your English Composition Really Do Better in History or Philosophy?
 - Do Students Who Take Your Sociology Intro Really Do Better in Other Social Science or Cross Cultural Subjects?
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Advantage # 2 of Student and Alumni Records

- You Can Do Twenty Years of Experience For Every Program in Your University in One Analysis.
 - The Effort for Doing Twenty Years of All Your Programs Using Generation Two is Less Than the Effort of Doing One Year of One Program Using Generation One Methods.
 - The Huge Amount of Data You Get in Generation Two Runs Allows You To Do Very Useful Advanced Analyses.
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Generation Two: Useful Advanced Techniques I

- Looking at Subgroups Such as Minorities, Legacy Students or Non-traditional Students.
 - Generation One Studies Have Too Few Underrepresented Groups in Their Populations To Allow For Careful Study.
 - Because Generation Two Studies Give You Huge Datasets Quickly, Small Subgroups Are Easy to Examine.
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Generation Two: Useful Advanced Techniques II

- Generation One Studies PUNISH Schools and Departments Who Teach Students With Low Test Scores
 - Generation One Marks Departments With Low Scores as Underperforming – Even If the Core Issue is Weak Student Preparation.
 - Generation Two Studies Allow You to Compare Students Within Ability Groups – High Test Score vs Other High Test Score/Low Test Score vs Other Low Test Score
 - This Guarantees Programs That Teach Non-Traditional Students Get a Fair Evaluation By Having their Scores ADJUSTED For Student Quality
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Policy Recommendation: Take Your In-House Student Records Data and Merge Them With Your Alumni Records. Find out What University Experiences Correlate With:

Being Employed

Income

Continuing With Higher Education

Being Happy

Artistic or Civic Engagement

Performance in Advanced Coursework

You Will Get Much More Useful
Information Than You Are Getting Now
With:

- No Need to Disturb or Fight With Faculty
 - Very Low Financial Cost
 - Relatively Little Staff Effort
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