

Today's webinar

Building a Better Toolkit

Armed with the learning outcomes big picture and a common language, you're ready to choose and develop the tools to assess students' achievement of learning outcomes.



Meet today's experts



Dr. Lori Goff is Manager of Program Enhancement at McMaster University and lead author of HEQCO's *Learning Outcomes Assessment: A Practitioner's Handbook*.

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Dr. Barbara Walvoord, Professor Emerita at the University of Notre Dame, has consulted at more than 400 institutions of higher education and is the author of many publications on assessment, learning, and writing across the curriculum.

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LEARNING OUTCOMES ASSESSMENT

Dr. Lori Goff

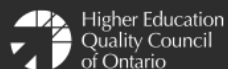


McMaster Institute for
Innovation & Excellence
in Teaching & Learning



Learning Outcomes Assessment:

A PRACTITIONER'S HANDBOOK



Authors: Lori Goff (McMaster University), Michael K. Potter (University of Windsor), Eleanor Pierre (EJPCommunications & Mohawk College), Thomas Carey (Transforming Learning Together/San Diego State University/Kwantlen Polytechnic University), Amy Gullage (McMaster University), Erika Kustra (University of Windsor), Rebecca Lee (McMaster University), Valerie Lopes (Seneca College), Leslie Marshall (Mohawk College), Lynn Martin (McMaster University), Jessica Raffoul (University of Windsor), Abeer Siddiqui (McMaster University), Greg Van Gastel (McMaster University)



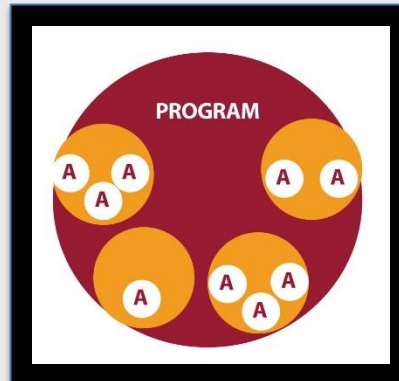
PHILOSOPHY AND PRINCIPLES



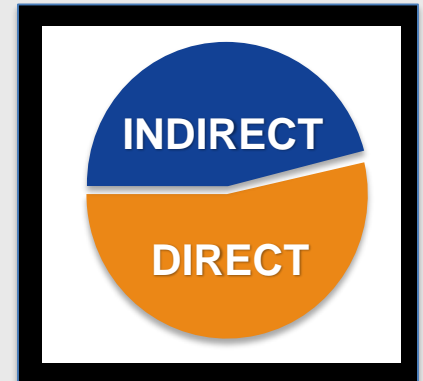
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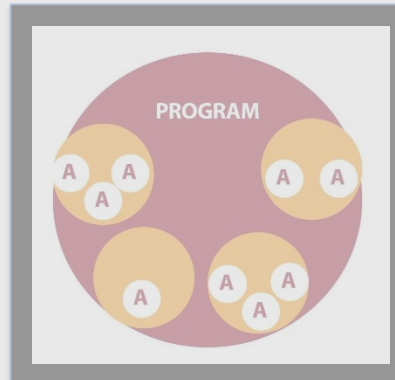
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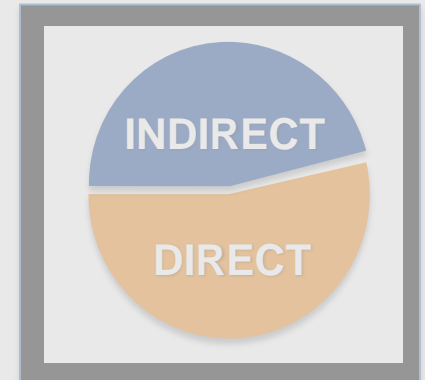
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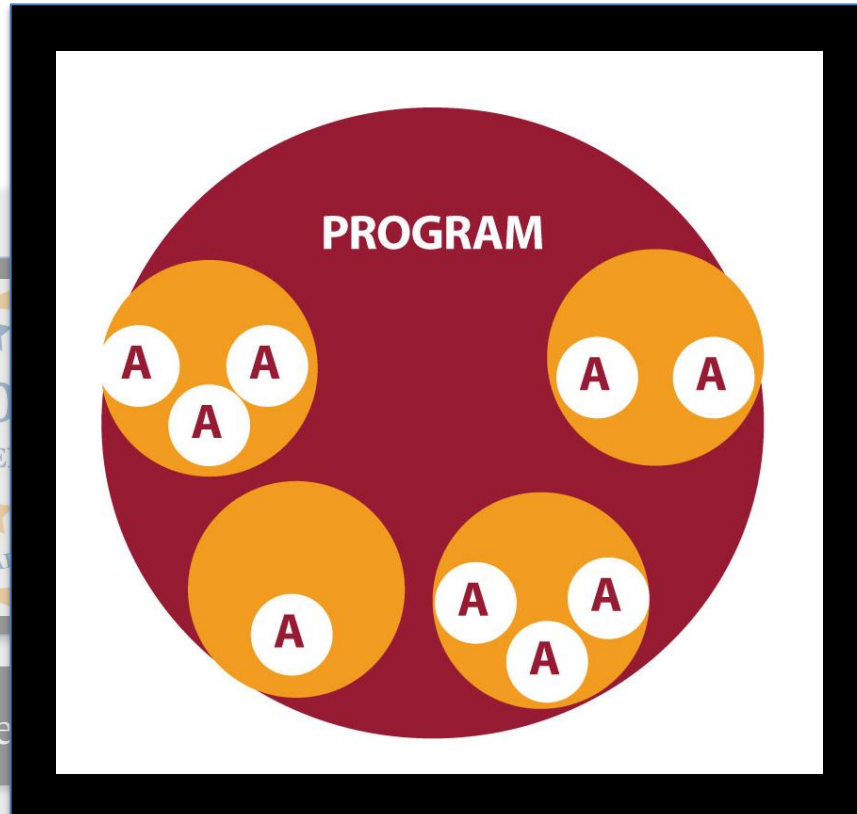
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PHILOSOPHY AND PRINCIPLES



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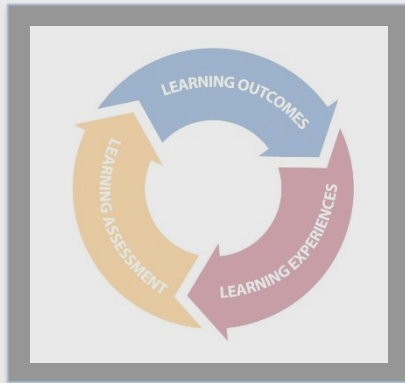
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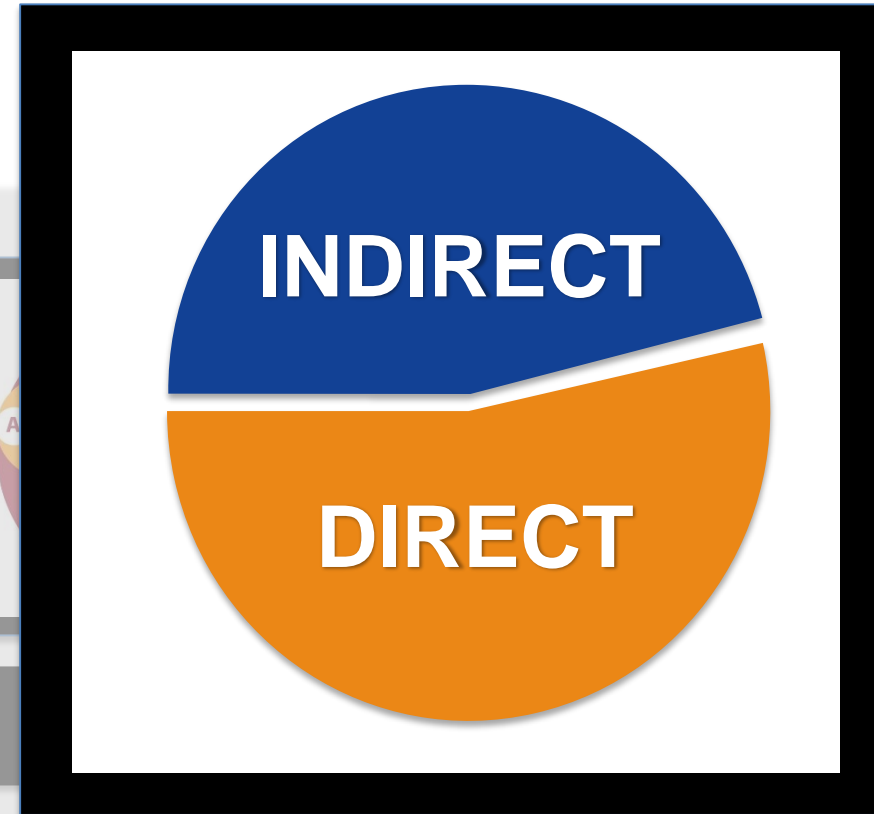
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Alignment



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Authentic Assessment Practices

Examples of assessments...	Can be used to assess...
Problems, cases, debates, analyses	Critical thinking skills
Research/inquiry projects, annotated bibliographies	Research skills
Essays, reports, stories, poems, proposals, presentations, posters	Communication skills
Creation of diagrams, simulations, models	Creativity, comprehension, research skills
Reflective writing, practicums, learning portfolios	Professional competence, application



Choosing valuable assessments

Can the selected assessments be embedded into existing courses?

Or can you select assessments that already exist within courses that could be used to provide information about learning throughout the program?

Do the selected assessments assess the intended outcomes?

Are they valid? Trustworthy? Reliable? Credible?



Choosing valuable assessments

Are the selected assessments an authentic representation of what the student is expected to be able to do in the future?

Are they true to the discipline or profession?

How do the selected assessments help contribute to the students' learning?

Diagnostic feedback? Formative feedback?



Assessment Tools

Course-level tools

Course plans or outlines can be used to clearly depict how the course assessments align with the course goals and intended outcomes

Rubrics and **grading schemes** can help you ensure that you are consistently evaluating the extent to which students demonstrated the achievement of the learning outcomes within course-embedded assessments.

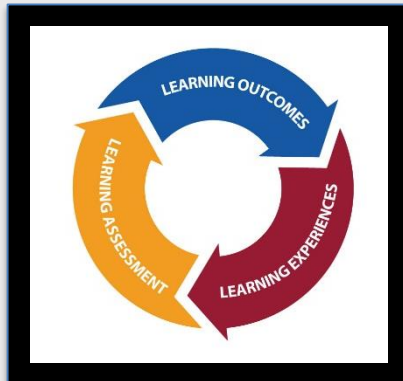
Program-level tools

Curriculum mapping tools and **outcomes grids** are tools that help ensure that the elements within the program are aligned to the program learning outcomes.

Assessment analytics are emerging as a way of documenting and reporting learning achievements throughout the program.



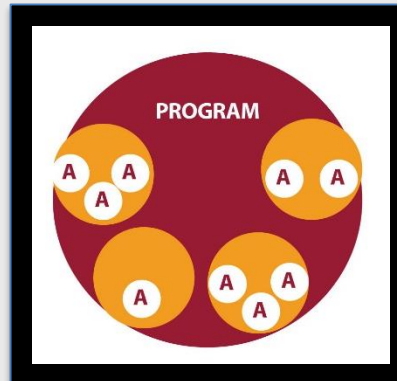
SUMMARY



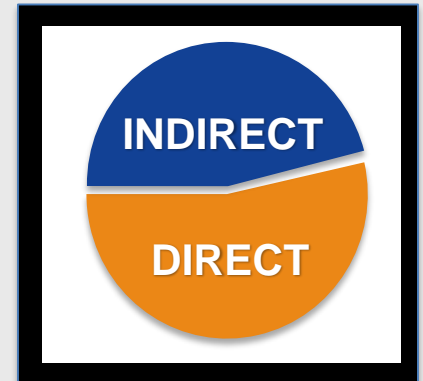
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ANALYSIS OF EVIDENCE



BUILDING A CULTURE OF ENHANCEMENT







MTCU provides learning outcomes for most College programs. They also specify 11 Essential Employability Skills grouped into 6 categories.



- Communication
- Interpersonal Skills
- Personal Skills
- Numeracy
- Critical Thinking and Problem Solving
- Information Management



Higher Education Quality Council of Ontario initiated projects related to evaluating learning outcomes.



We decided to try using an e-portfolio to develop and assess the EES.



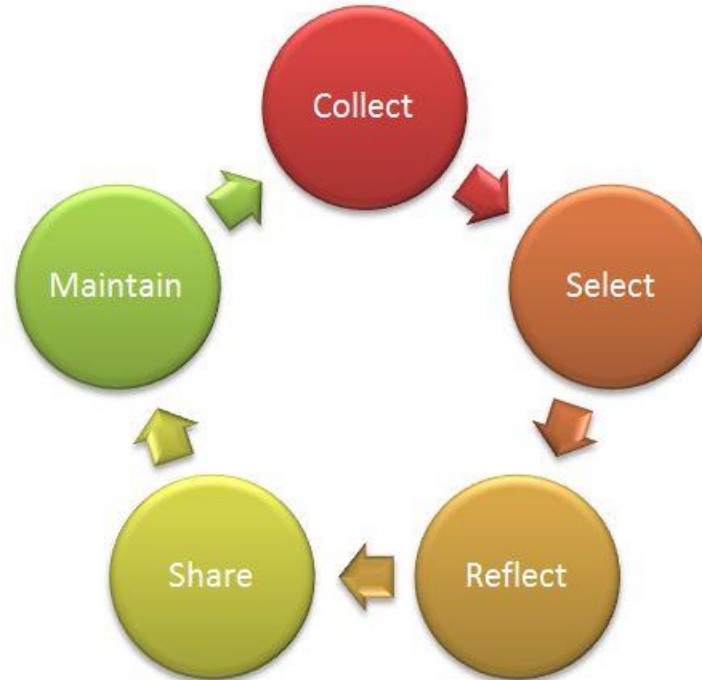


- Deepens student learning
- Helps organize one's work and achievements
- Creates positive professional digital footprint
- Effective method of assessing achievement
- Supports students in career planning and preparation
- Helps students prepare for interviews





What is included in an ePortfolio?



Types of items/artifacts:

- Documents (e.g. papers, assignments, certificates, resume)
- Multimedia
- Reflective summaries





- Will employers use them?
- Training and support is needed
- Time to create it
- Unsure what to put into it
- Confidence in making a professional product
- Not linked to a mark

Challenges

- Time required for faculty to plan and integrate into curriculum
- Implementing on a broad scale once its value is established
- Platform Dilemma





Tool choice

- Sharing with faculty, peers, and employers
- Integration with LMS
- Portability after graduation
- Trade off between creativity and ease of use





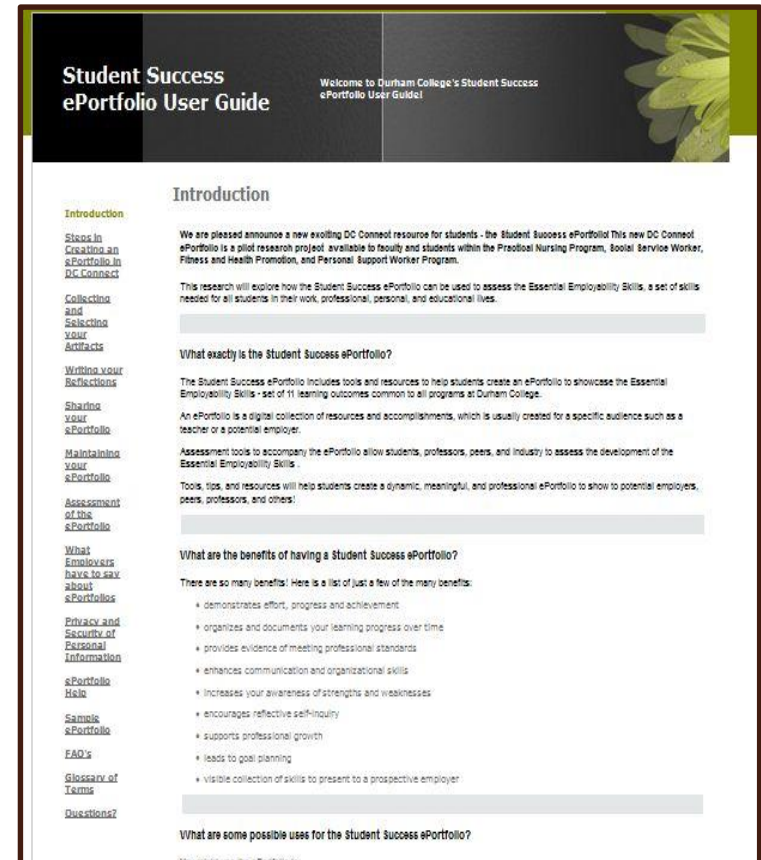
High level advice:

- Start early in program
 - Promote the Idea
- Cross-course buy in
- Clear rubrics
- Ample support for faculty and students
 - In-class, online, peer
- Connect it to an evaluation





- Introduction
- Benefits
- Uses
- Essential Employability Skills
- Key Steps
- How To
- Collecting and Selecting Items
- Writing Reflections
- Assessment
- Sharing
- Maintaining
- Tips on Designing a Professional ePortfolio
- Sample ePortfolios
- FAQs
- Glossary of Key Terms
- Contact Us





Sections:

- sHow to Edit Template
- My ePortfolio - My Introduction
- Resume
- Communication Skills
- Numeracy Skills
- Critical Thinking and Problem Solving Skills
- Information Management
- Interpersonal Skills
- Personal Skills
- Professional Skills and Abilities

Each section:

- Overview of skill
- Learning outcome
- Context
- Examples of skills
- Potential Artifacts
- Questions to guide the selection of artifacts
- Questions to guide your reflection
- Assessing your artifacts and reflection

The screenshot displays the 'My ePortfolio' editing interface. At the top, a dark header bar contains the title 'My ePortfolio' and a decorative image of green leaves. Below the header, the page is divided into two main columns. The left column features a vertical navigation menu with links to various sections: 'How to Edit Template', 'My ePortfolio - My Introduction', 'Resume', 'Professional Skills and Abilities', 'Career Goals', 'Communication Skills', 'Numeracy Skills', 'Critical Thinking and Problem Solving Skills', 'Information Management', 'Interpersonal Skills', and 'Personal Skills'. The right column is titled 'How to Edit Template' and contains a 'Table of Contents' with links to 'The Basics of Editing', 'How to Make a Copy of the Template', 'How to Add a New Page', 'How to Add Content to a Page', 'How to Edit an Existing Page', 'How to Delete a Page', and 'How to Reorder Pages'. Below the table of contents, the section 'The Basics of Editing' is shown, which includes a list of four steps: 1. Select Edit from the drop down action menu next to the template presentation. 2. To edit content, select Content/Layout tab and edit components (e.g. text) and pages. 3. To edit title, tags, and properties, select Properties. 4. To edit colors, themes, and fonts select Theme. The interface also shows a sidebar on the right with options like 'New', 'Subscribe', 'Share', 'Print', 'Add to Collection', and 'Generate Learning Objectives'. At the bottom, there is a section for 'Add your contact information here'.





contact us for more info



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Using Rubrics to Assess Student Learning

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My Presentation Answers Two Questions:

1. Why are rubrics useful for assessment?
2. How can rubrics best be used by an institution?

1. Why are Rubrics Useful?

Institutions must answer:

When students complete their degree at your institution,

- How well have they achieved the learning goals you wanted for them?
- How do you know?
- How are you using this information to improve learning?

Bias toward quantitative data

One Way to Get Quantitative Data: Standardized Tests

BUT:

- Does the test measure what we value or teach?
- Will we be able to act on the results?
- Does standardized testing present broader dangers?

Instead of Standardized Tests, Let's Use Classroom Work Scored by Rubrics

- Classroom work reflects what we value and what we teach.
- Rubrics can reflect OUR judgments.
- Rubrics turn judgments into numbers.
- Rubrics can assess ineffable qualities.
- Rubrics identify strengths and weaknesses.

Rubric for Research Reports in Biology

(Each cell contains description of student work.)

Aspect of Student Report	5	4	3	2	1
Title	[Description of work at this level]				
Introduction					
Scientific Format					
Materials and Methods					
Designing the Experiment					
Collecting Data					
Interpreting Data					

Adapted from Walvoord and Anderson, *Effective Grading: A Tool for Learning and Assessment*, 2nd ed., 2010, pp. 195-199.

Detail of Materials and Methods Section

5	4	3	2	1
Contains effective, quantifiable, concisely-organized information that allows the experiment to be replicated; is written so that all information inherent to the document can be related back to this section; identifies sources of all data to be collected; identifies sequential information in an appropriate chronology; does not contain unnecessary, wordy descriptions of procedures.	As above, but contains unnecessary information, and/or wordy descriptions within the section.	Presents an experiment that is definitely replicable; all information in document may be related to this section; however, fails to identify some sources of data and/or presents sequential information in a disorganized, difficult pattern.	Presents an experiment that is marginally replicable; parts of the basic design must be inferred by the reader; procedures not quantitatively described; some information in Results or Conclusions cannot be anticipated by reading the Methods and Materials section.	Describes the experiment so poorly or in such a non-scientific way that it cannot be replicated.

Average Rubric Scores of Senior Biology Majors

Rubric Item	Mean Score
Title	2.95
Introduction	3.18
Scientific Format	3.09
Materials and Methods	3.00
Designing the Experiment	2.68
Collecting Data	2.86
Interpreting Data	2.90
Overall	2.93

Conclusion: Why Rubrics are Useful

- Classroom work reflects what we value and what we teach.
- Rubrics can reflect OUR judgments.
- Rubrics turn judgments into numbers.
- Rubrics can assess ineffable qualities.
- Rubrics identify strengths and weaknesses.

My Presentation Answers Two Questions:

1. Why are rubrics useful for assessment?
2. **How can rubrics best be used by the program, department, and institution?**

How Can Rubrics be Used: Two Decisions

Decision 1: Will rubrics be generic, assignment-specific, or a middle ground?

Decision 2: How will rubrics be used for analysis and action at every level?

Generic vs. Assignment-Specific Rubrics

General Rubric (from inquiry and analysis rubric developed by AACU)

Design Process:

All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology or theoretical frameworks may be synthesized from across disciplines or from relevant subdisciplines.

Assignment-Specific Rubric (from rubric for biology senior research reports)

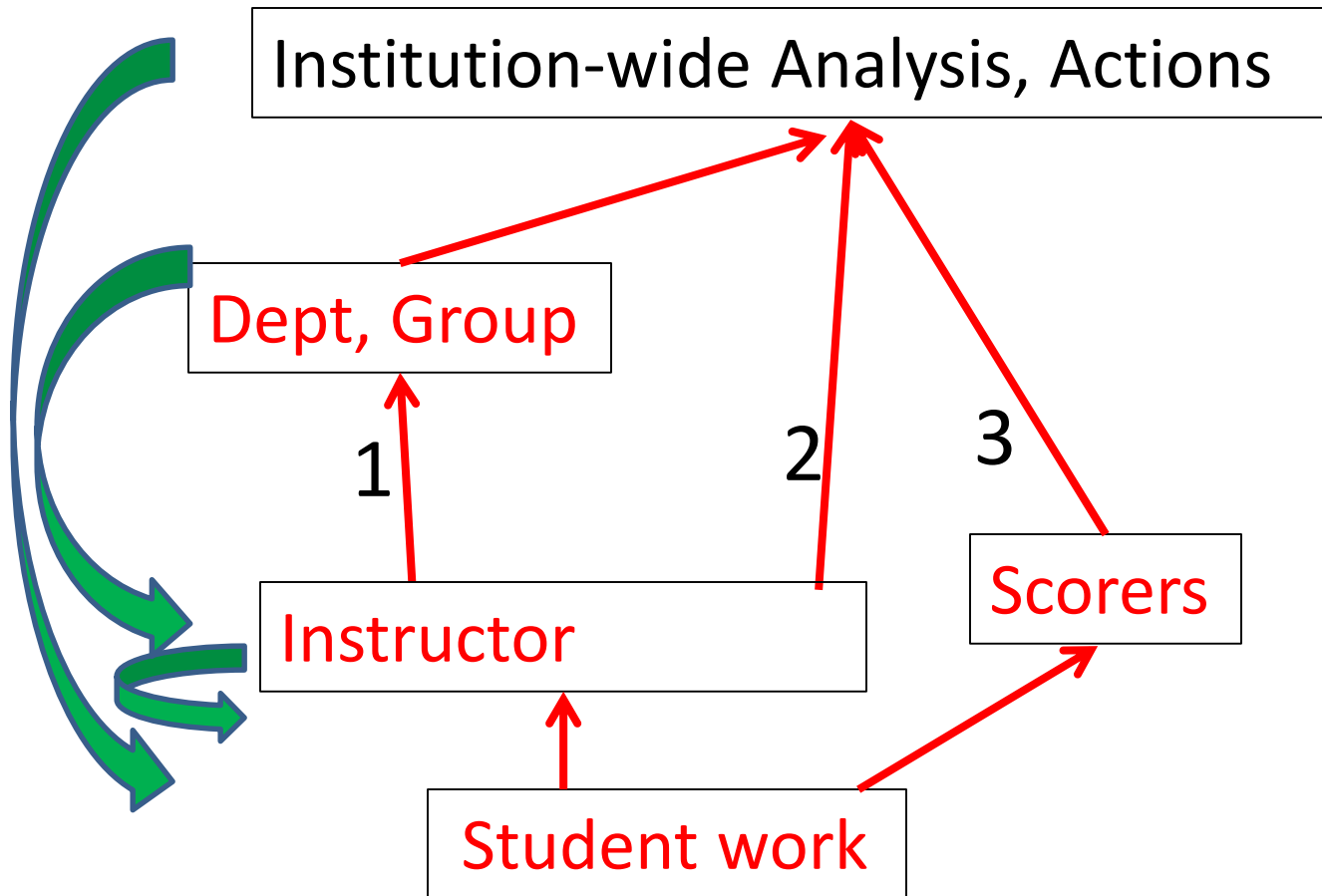
Experimental Design: Student selects experimental factors that are appropriate to the research purpose and audience; measures adequate aspects of these selected factors; establishes discrete subgroups for which data significance may vary; eliminates bias from the design and bias-ridden statements from the research; student selects appropriate sample size, equivalent groups, and statistics.

How Can Rubrics be Used: Two Decisions

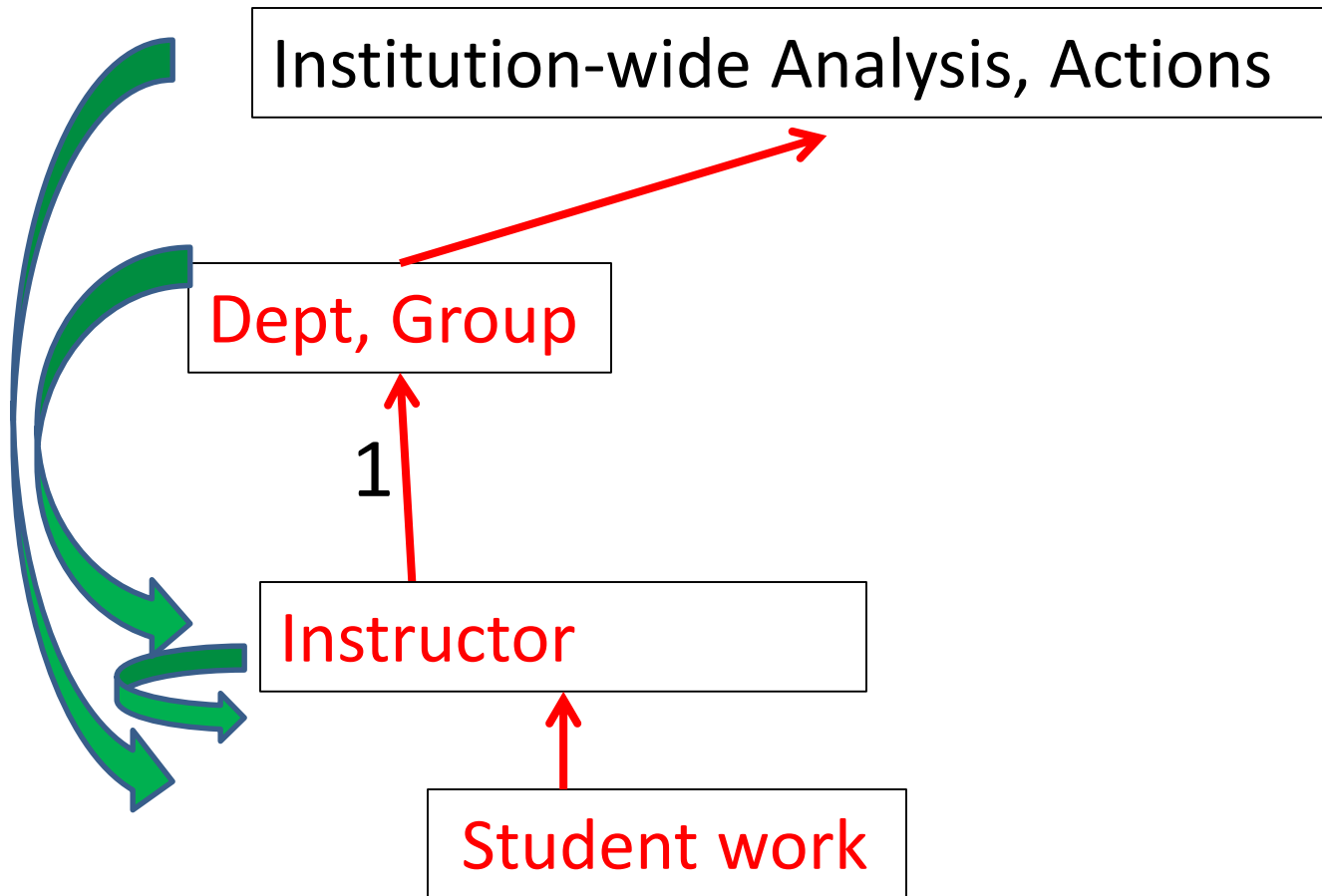
Decision 1: Will rubrics be generic, assignment-specific, or a middle ground?

Decision 2: How will rubrics be used for analysis and action at every level?

Using Rubric Results for Decisions: Three Pathways



Pathway One: Discussion by Department or Group



Path 1: Department Analyzes Classroom Rubric Scores for Senior Work: “Let’s Work on Designing the Experiment.”

Rubric Item	Mean Score
Title	2.95
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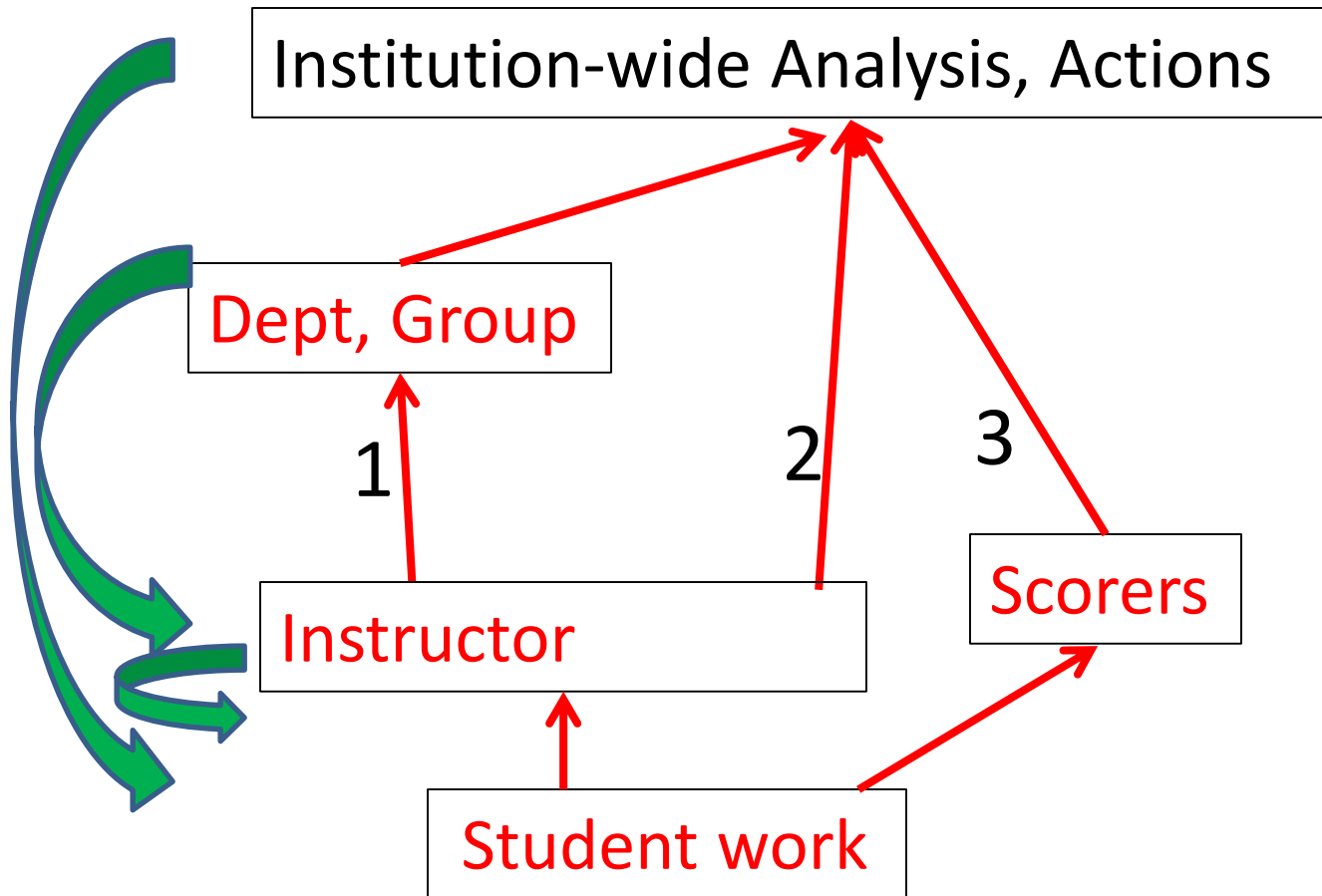
Path 1: Departmental Report to Institutional Decision-Makers

- *Our Learning Goals:* Use the scientific method
- *Evidence we examined:* Senior research reports
- *What we found:* Students weak in designing experiments
- *What we are doing:* change curriculum
- *What we recommend the institution work on:* student writing and graphing skills

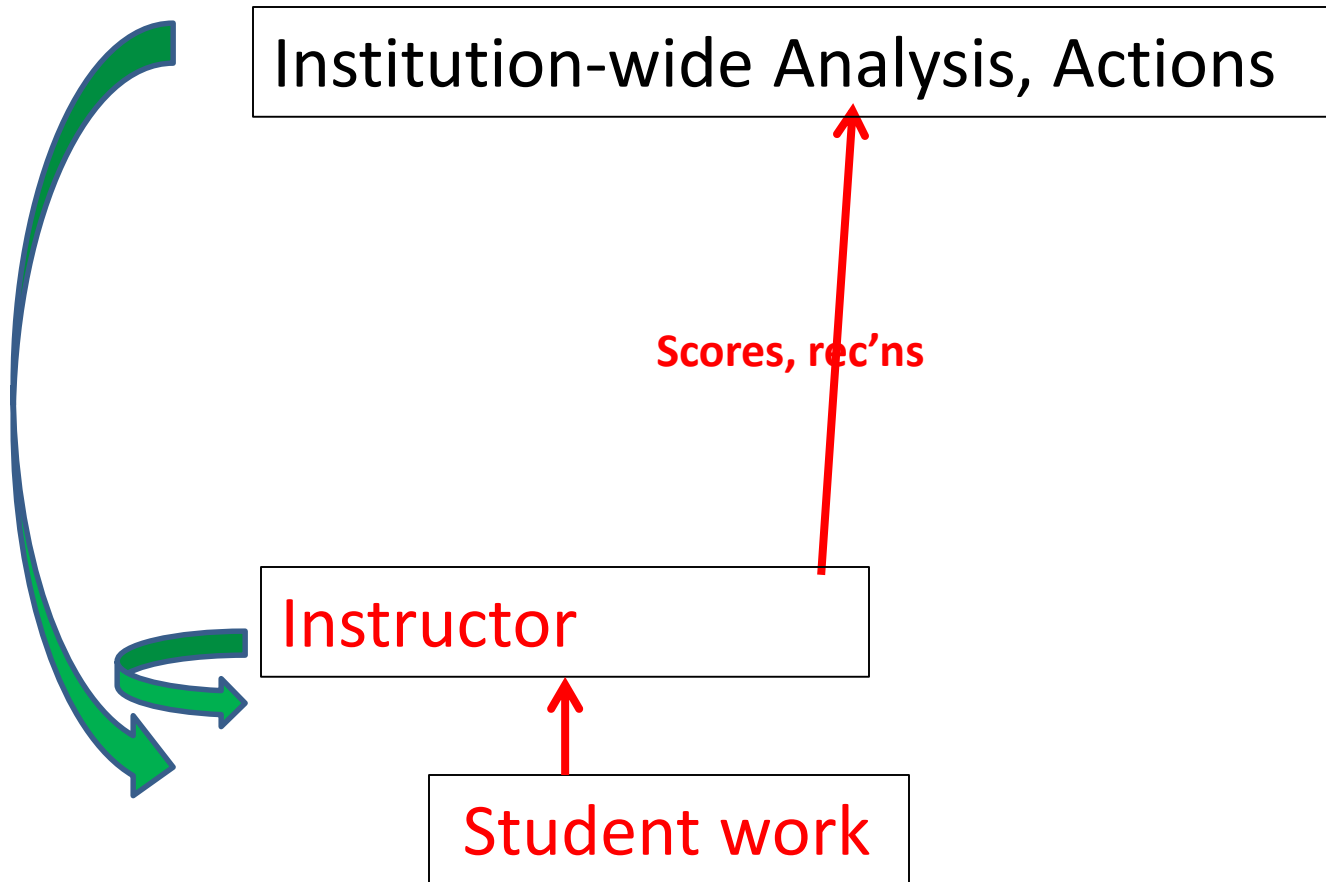
Institutional Report Based on Analysis of Departmental Reports

- Areas departments find most problematic:...
- Most common actions of departments:....
- Changes in student learning:....
- Recommendations: Institution should work on students':
 - Writing
 - Finding and using sources

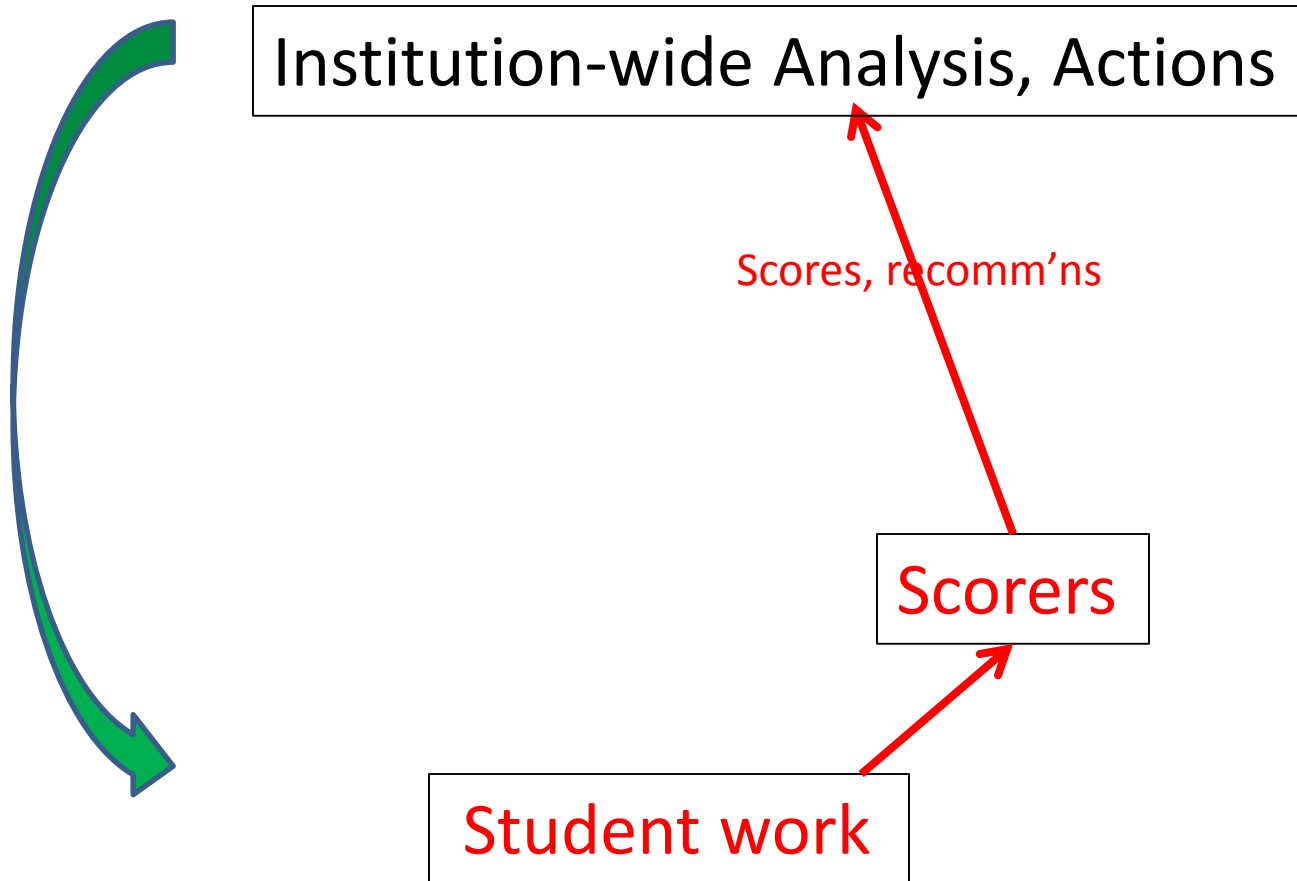
Using Rubric Results for Decisions: Three Pathways



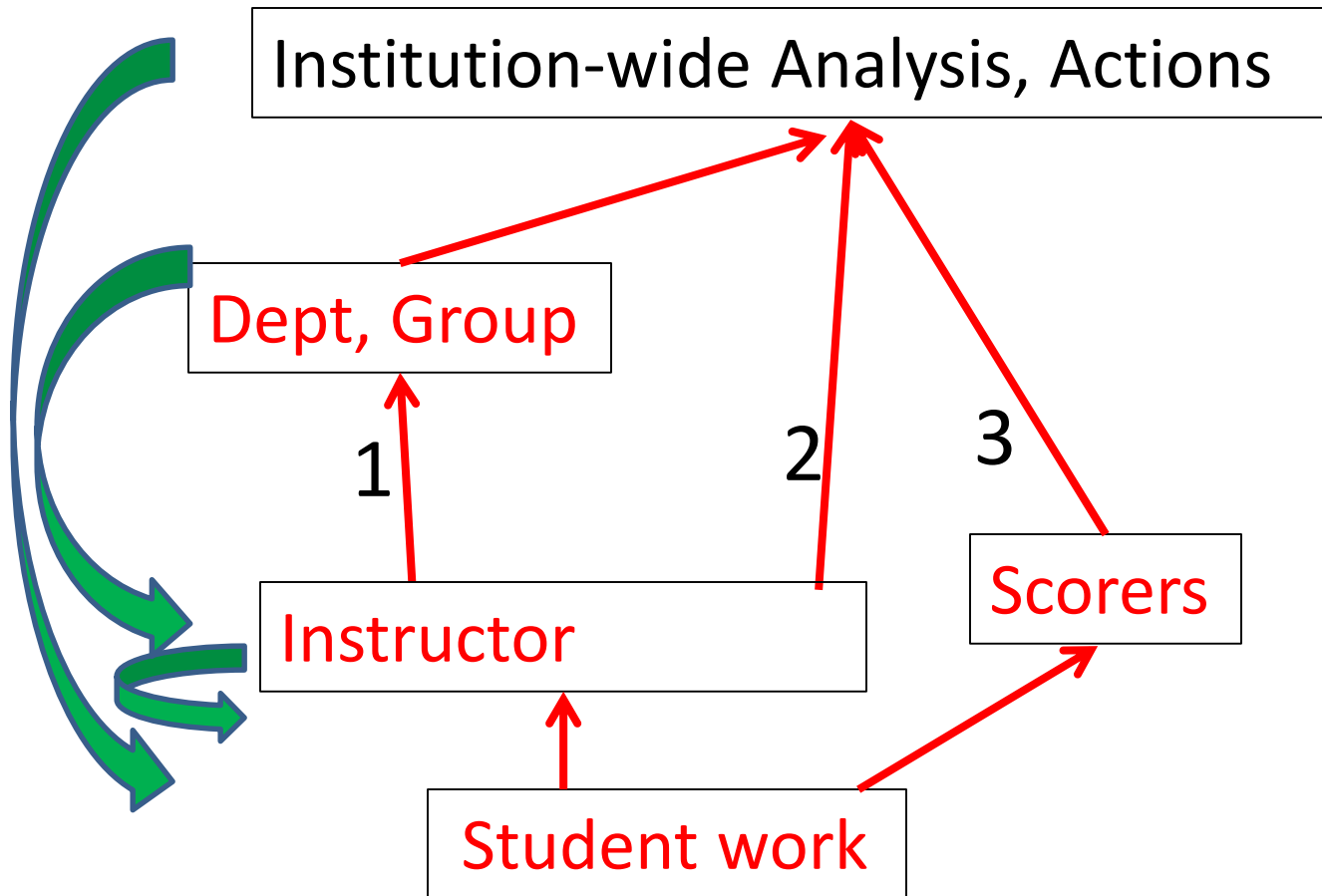
Path 2: Instructor to Database



Path 3: Institutional Scoring Team



Using Rubric Results for Decisions: Three Pathways



Resources

- Leap Value Rubrics by the Association of American Colleges and Universities at aacu.org.
- Stevens, D. E. and Levi, A. J. *Introduction to Rubrics*. Stylus, 2005.
- Walvoord, B. and Anderson, V. *Effective Grading*, 2nd ed. Jossey-Bass, 2010. Chapter on rubrics.
- Walvoord, B.E. *Assessing and Improving Student Writing in College*. Jossey-Bass, 2014.
- Walvoord, B.E. *Assessment Clear and Simple*, 2nd ed. Jossey-Bass, 2010.

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Stay informed. Visit heqco.ca.

The screenshot shows the HEQCO website with a teal header. The logo is on the left, and navigation links (Home, Newsroom, Contact Us, Sitemap, Français) are on the right. A search bar is in the center. Below the header, there are links for Postsecondary Issues, Research, It's Not Academic Blog, and About Us. The main content area features a large graphic with three horizontal bars (green, blue, red) and the text "CANADIAN POSTSECONDARY PERFORMANCE IMPACT 2015" and "Money matters but outcomes matter more". Below this is a quote by Marshall McLuhan: "When this circuit learns your job, what are you going to do?". The page is divided into three columns: "FOLLOW US ON TWITTER" with two tweets from @HEQCO, "IT'S NOT ACADEMIC BLOG" with two blog posts, and "LATEST RESEARCH PUBLICATIONS" with three research papers. At the bottom, there are sections for Quick Links, Social Networking (Twitter, Facebook, YouTube, RSS), Contact Us (address, phone, email), and a "Join Our Mailing List" form with fields for Name and Email, and a "Keep me informed" button. The footer includes a Privacy Policy link and copyright information.

Remember
to join our
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