



# Conducting “Transformative” Program Assessment

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# Learning Outcomes for this Workshop

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- At the end of this session, participants will be able to
  - Develop measurable student learning outcomes at the program level.
  - Map these outcomes to courses in the program where the outcomes are measured and to Marshall's Domains of Critical Thinking.
  - Identify the measures you will use to assess program outcomes (most measures will come from identified courses, although some may be administered outside of courses).
  - Differentiate between direct and indirect measures of student learning.
  - Develop a workable timeline for data collection and analysis.
  - Develop a plan for using data to inform program improvement.





# Initial Thoughts

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Promoting Integrated and Transformative Assessment, Wehlburg (2007).

- To be transformative, assessment must be
  - Appropriate
  - Meaningful
  - Sustainable
  - Flexible and ongoing
  - Used to improve teaching, learning, and institutional effectiveness





# Program Learning Outcomes

## Student Learning Outcomes

### Level 0

\_\_\_ No outcomes are provided or Level 1 was not fully achieved

### Level 1

\_\_\_ Learning outcomes are identified

\_\_\_ Learning outcomes are clearly derived from the program's educational mission (which in turn is derived from the university's educational mission).

### Level 2 *All in Level 1 plus*

\_\_\_ Stated learning outcomes are measurable (either qualitatively or quantitatively; i.e. they state what students will be able to do).

### Level 3 *All in Levels 1 and 2 plus*

\_\_\_ Learning outcomes span multiple learning domains, emphasizing higher orders of learning, i.e. analysis, synthesis, and evaluation.



# First Steps

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- Develop your program's student learning outcomes (goals). These should align with
  - The College' goals and/or learning outcomes
  - The University's goals and/or learning outcomes
- Program Learning Outcomes should
  - Specify what your students should be able to do, or what competencies they should possess, when they have completed your program.





# First Steps

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- Marshall University's Student Learning Outcomes (Domains of Critical Thinking):
  - Aesthetic and Artistic Thinking
  - Mathematical and Abstract Thinking
  - Scientific Thinking
  - Multicultural/International Thinking
  - Social, Ethical, and Historical Thinking
  - Oral, Written, and Visual Communication
  - Information and Technical Literacy





How does one determine an appropriate outcome?

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- Bloom's Taxonomy – Cognitive Domain
  - Knowledge and Comprehension
  - Application
  - Analysis, Synthesis, and Evaluation
- Suskie's (2009) Suggested Taxonomy
  - Knowledge and Conceptual Understanding
  - Thinking and Other Skills
  - Attitudes, Values, and Habits of Mind





## Suskie/Bloom Compared – suggested verbs in red

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- Knowledge and Conceptual Understanding - Suskie
  - Knowledge - Bloom
    - Define, label, list, memorize, name, recognize, recall, repeat, state, identify, match, reproduce
  - Comprehension - Bloom
    - Describe, discuss, explain, paraphrase, restate, translate, summarize







## Suskie/Bloom Compared - suggested verbs in red

- Thinking and Other Skills - Suskie
  - Thinking
    - Application: Apply, illustrate, show, operate, practice, sketch, solve, use, write, compute, construct, prepare, produce
    - Analysis: Analyze, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test, debate
    - Evaluation, problem solving, and decision making: Appraise, argue, assess, judge, predict, evaluate, conclude, justify, critique
    - Synthesis and creativity: Arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, write, compile
    - Critical Thinking
    - Information Literacy
  - Other Skills
    - Performance
    - Interpersonal





# Suskie's Suggested Taxonomy Continued:

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- Attitudes, Values, and Habits of Mind
  - Metacognition
    - Evaluate your study skills, problem solving skills, etc.
    - Develop plans for completing work
    - Develop plan to improve study skills
  - Productive Dispositions or Habits of Mind
    - Work independently
    - Set personal goals





# First Steps: Writing Learning Outcomes

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- Use action verbs – what will students do?
  - Verbs to avoid:
    - learn
    - know
    - understand
    - appreciate
    - become aware of.....





## First Steps: Writing Learning Outcomes

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- Focus on product (end), not process (means)
  - ask why –
    - Students will write a research proposal – why?
      - Evaluate research in the discipline
      - Formulate a plan to conduct research in the discipline
      - Write clearly in the discipline





Writing Learning Outcomes [Examples based on information from Suskie (2009). *Assessing student learning: A common sense guide (2<sup>nd</sup> ed)*. San Francisco, CA: Jossey-Bass].

Upon completion of the program, students will be able to	Why are these outcomes important?
Evaluate research in the discipline	To be competent clinicians, speech-language pathologists must be able to evaluate the validity and reliability of evidence from scientific studies regarding the efficacy of various treatment methods. They must be able to identify where research is lacking, i.e. questions that still need to be answered.
Formulate a plan to conduct research in the discipline	To add to the body of knowledge in the discipline, speech-language pathologists must be able to formulate an answerable research question and design an appropriate methodology to answer the question.
Write clearly in the discipline	To share findings of research with other professionals, it is important that future speech-language pathologists write clearly in the discipline, using APA style.





## First Steps: Writing Learning Outcomes

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- Take a few minutes to develop student learning outcomes for your program.
- Learning Outcomes should be
  - Measurable
  - Emphasize Higher Order Thinking
  - Emphasize product over process (you should be able to explain why each outcome is important)
- Align outcomes with Marshall's Core Domains of Thinking





## Step 2: Outcome/Course Mapping

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- Determine where in your curriculum each outcome will be measured.
  - Try to evaluate each at different points in the curriculum to show student growth over time.





## Step 2: Outcome/Course Mapping

Course/ Program Outcome	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6	Course 7
PO 1							
PO2							
PO3							
PO4							
PO5							
PO6							
PO7							





## Step 2: Outcome/Course Mapping

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- Take a few minutes to outline the courses in your program.
  - Which courses cover each outcome?
  - Where does it make sense to assess each outcome?
    - Suggestion: In the capstone and at least once earlier.





# Assessment Measures

## Assessment Measures

### Level 0

\_\_\_ No measures are identified or Level 1 was not fully achieved.

### Level 1

\_\_\_ Measures are identified for outcomes assessed this year.

\_\_\_ Measures are valid in that they afford reasonable inferences regarding outcomes.

### Level 2 *All in Level 1 plus*

\_\_\_ Complementary assessment measures (of which the majority should be direct) were used.

### Level 3 *All in Levels 1 and 2 plus*

\_\_\_ Complementary assessment measures allow sufficient detail to inform improvement, e.g. employ analytic rubrics or other methods of analysis.

\_\_\_ Complementary assessments are integrated throughout the curriculum, i.e. they allow performance to be gauged over time.





## Step 3: Choose Valid Assessment Measures: Direct

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- Direct Assessment Measures (Examples)
  - Class projects, presentations, performances, or any student work sample
  - Elements of a portfolio
  - Juried Review of Student Projects or Performances
  - Questions embedded within final exams
  - Common questions embedded in exams across course sections
  - Capstone Projects or Exams
  - Senior Thesis
  - Internship Evaluation
  - Exit exams
  - Pre- and Posttests
  - Licensure or Certification Exams





## Step 3: Choose Valid Assessment Measures: Indirect

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- Indirect Assessment Measures (Examples)
  - Surveys
  - Exit Interviews
  - Employment and Graduate School Placement Data
  - Focus Groups
  - Retention and Graduation Data





## Step 3: Choose Valid Assessment Measures

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- Now that you know where in the curriculum each outcome will be measured, determine how each will be measured.
  - Will the assessment measure be administered in designated courses?
  - Will the assessment measure be administered as part of non-classroom learning activities?
  - Will direct measures be supplemented with indirect measures?
  - Make sure each assessment is appropriate for the outcome!
  - Try to choose at least two direct measures per outcome.





## Step 3: Choose Valid, Appropriate Assessment Measures

Outcome	Course/s or Other Learning Experiences	Measure/s
SLO 1		
SLO 2		
SLO 3		
SLO 4		
SLO 5		
SLO 6		
SLO 7		



# Authentic Assessments

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- What are authentic assessments?
  - Students typically perform a “real-world” task.
- What is a rubric?
  - A rubric is a scoring guide.
- Types of rubrics – Suskie (2009)
  - Checklist
  - Rating Scale
  - Descriptive
  - Holistic





## Step 4: Developing a Rating Scale or Descriptive Rubric/Primary Traits Analysis

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1. Clarify what you want students to learn from the assignment.
  - i.e. list the traits or criteria you want students to show in the completed assignment.

or

2. Clarify the important traits associated with the learning goal (outcome).







Example of Traits for Oral Communication (Used by the LCOB's BBA Program  
(Dr. Harlan Smith, AOL Director):

Learning Outcome: Students will communicate orally in an effective and professional manner.

Trait				
Clear Topic Coverage				
Organization				
Audience Appropriateness				
Voice Quality				
Grammar/Word Choice				
Eye Contact and Body Language				
Communication Aids				
Personal Appearance				

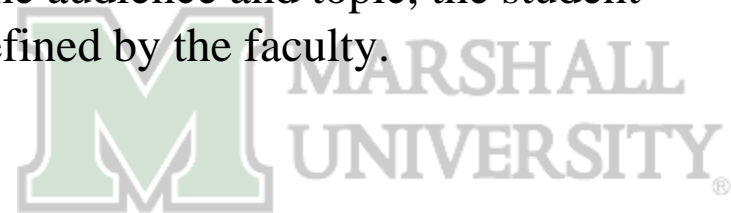




Example of Outcomes/Traits for the Oral Communication Rubric for the BBA Degree in the LCOB: Developed by AOL Director Dr. Harlan Smith

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- Students will communicate orally in an effective and professional manner.
  - **Topic and Organization:** Given the purpose, time constraints, and audience, the student will deliver a well organized, focused presentation moving logically from an introduction to a coherent conclusion.
  - **Audience and Grammar:** The student will use grammatically correct language that is clear and appropriate for the audience.
  - **Vocal Quality, Body Language, and Eye Contact:** The student will enhance his or her delivery with the appropriate use of nonverbal communication.
  - **Communication Aids:** The student will choose communication aids that enhance the message.
  - **Professional Attire:** Given the audience and topic, the student will dress professionally as defined by the faculty.





## Step 4: Developing a Descriptive Rubric/Primary Traits Analysis

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2. Choose a scale with at least three levels.
  - Excellent, Satisfactory, Unacceptable
  - Well Done, Satisfactory, Needs Improvement, Incomplete
  - Excellent, Good, Satisfactory, Unsatisfactory
  - Accomplished, Proficient, Developing, Novice
  - Excellent, Good, Satisfactory, Fair, Poor
  - A, B, C, D, F





Example of Rating Scale for Oral Communication (Used by the LCOB's BBA Program (Dr. Harlan Smith, AOL Director):

Learning Outcome: Students will communicate orally in an effective and professional manner.

Trait	Excellent (4)	Proficient (3)	Needs Improvement (2)	Unacceptable (1)
Clear Topic Coverage				
Organization				
Audience Appropriateness				
Voice Quality				
Grammar/Word Choice				
Eye Contact and Body Language				
Communication Aids				
Personal Appearance				





## Step 4: Developing a Descriptive Rubric/Primary Traits Analysis

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3. Fill in cells by first describing performance of your top student – that “A +” project that blew you away. Next, describe the project that was totally inadequate. Then, complete descriptions for the middle levels.
4. Look for models of rubrics





## Example of Descriptive Rubric for Oral Communication (Used by the LCOB's BBA Program (Dr. Harlan Smith, AOL Director):

Learning Outcome: Students will communicate orally in an effective and professional manner.

Trait	Excellent (4)	Proficient (3)	Needs Improvement (2)	Unacceptable (1)
Clear Topic Coverage	Description	Description	Description	Description
Organization	Description	Description	Description	Description
Audience Appropriateness	Description	Description	Description	Description
Voice Quality	Description	Description	Description	Description
Grammar/Word Choice	Description	Description	Description	Description
Eye Contact and Body Language	Description	Description	Description	Description
Communication Aids	Description	Description	Description	Description
Personal Appearance	Description	Description	Description	Description





## Step 4: Develop an Analytic, Descriptive Rubric

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- Choose one learning outcome with one or more authentic assessment measures.
- Develop a descriptive, analytic rubric to assess student performance on these measures.





## Using a Rubric for Program Assessment Purposes

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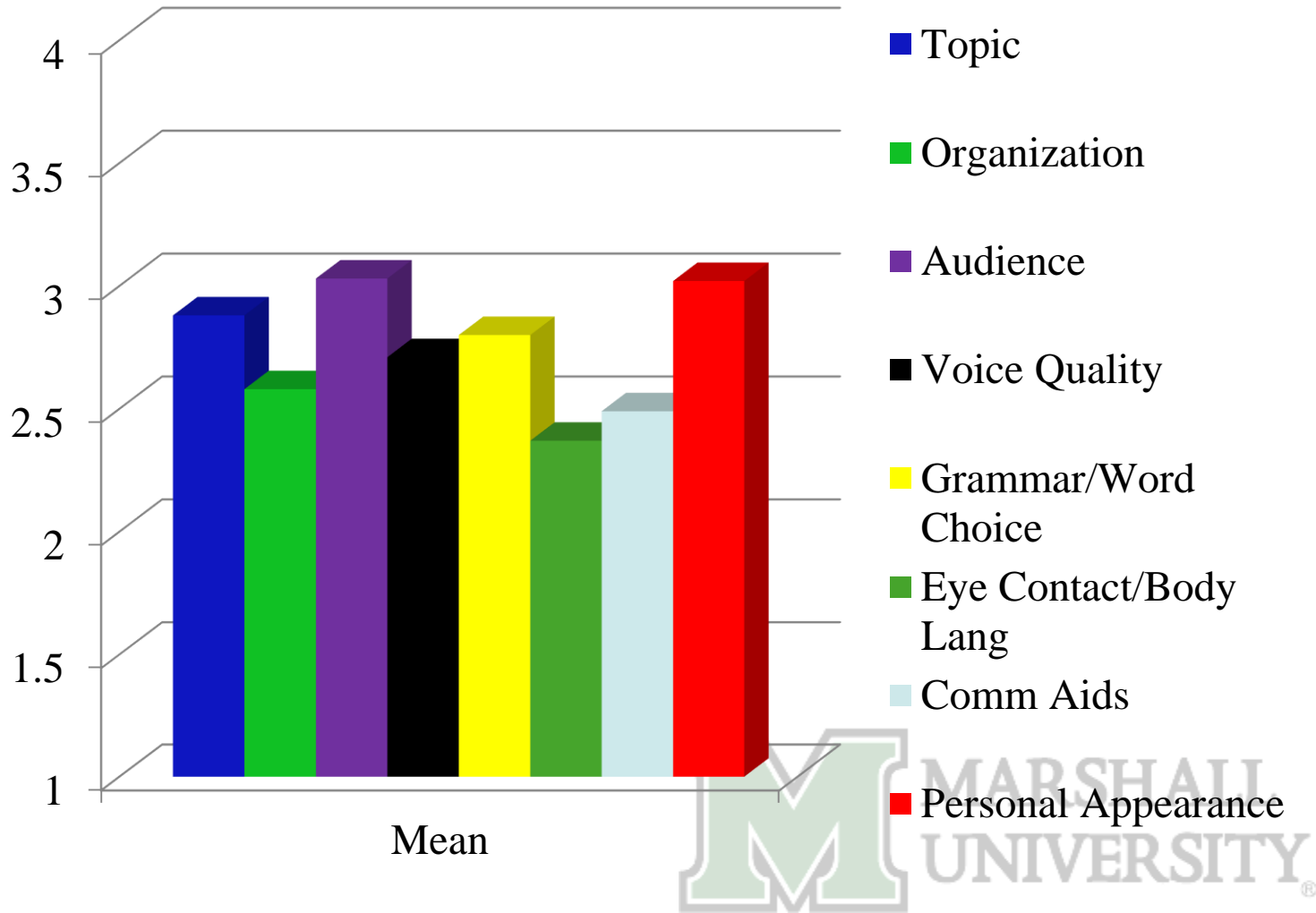
- Each course instructor
  - Determines mean score for each trait across all students in class
  - Determines percentage of students who scored at each level
  - Chair or program assessment coordinator compiles data from assessments in all courses
- Doing above will identify relative strengths and weaknesses.
- Instructional strategies can be modified to addresses weaknesses or other improvement plans can be implemented.





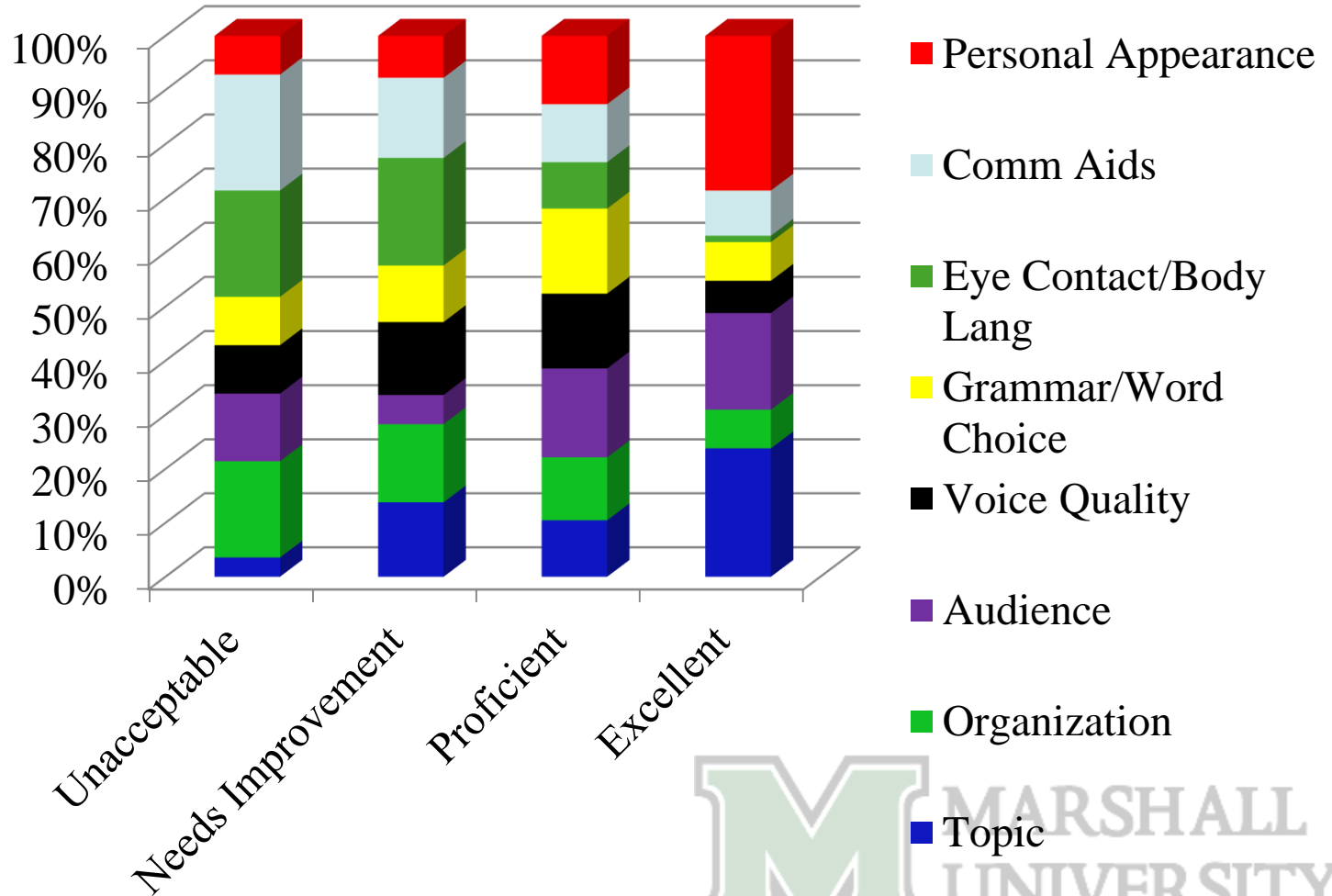


# Analysis of Oral Communication Data





# Analysis of Oral Communication Data





## Advantages of Descriptive Rubrics – Suskie (2009)

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- Help to let students know your expectations
- Enable students to evaluate their work
- Make scoring easier and faster for you
- Make scoring more accurate, unbiased, and consistent
- Improve feedback to students
- Reduce disagreements between you and students





Examples of Descriptive Rubrics can be found in the following sources

- *AAC & U Value Rubrics* can be accessed at <http://www.aacu.org/value/rubrics/index.cfm>
  - Critical Thinking
  - Inquiry and Analysis
  - Creative Thinking
  - Written Communication
  - Oral Communication
  - Reading
  - Quantitative Literacy
  - Information Literacy
  - Teamwork
  - Problem Solving
  - Civic Knowledge and Engagement – Global and Local
  - Intercultural Knowledge and Competence
  - Ethical Reasoning
  - Foundations and Skills for Lifelong Learning
  - Integrative and Applied Learning





Examples of Descriptive Rubrics can be found in the following sources

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- Maki, P. L. (2004). *Assessing for Learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing, LLC.
  - Quantitative Reasoning
  - Information Literacy
  - Interior Design Studio Final Project
  - Psychology Senior Thesis





Examples of Descriptive Rubrics can be found in the following sources

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- Suskie, L. (2009). *Assessing student learning: A common sense guide (2<sup>nd</sup> ed)*. San Francisco, CA: Jossey-Bass.
  - Checklists
    - Web Site
  - Rating Scale
    - Oral Presentation
    - Information Literacy Assignment
    - Evaluating Fellow Group Members
    - Health Education Field Experience





Examples of Descriptive Rubrics can be found in the following sources

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- Suskie, L. (2009). *Assessing student learning: A common sense guide (2<sup>nd</sup> ed)*. San Francisco, CA: Jossey-Bass.
  - Descriptive
    - Slide Presentation with Findings from Research Sources
  - Holistic
    - Ballet Performance





Examples of Descriptive Rubrics can be found in the following sources

- Walvoord, B. E., & Anderson, V. J. (1998). *Effective grading: A tool for learning and assessment*. San Francisco, CA: Jossey-Bass.
  - Rating Scale
    - Nursing and Occupational Therapy: Group Activities
    - Mathematics: Journals
    - Business Management: Case Analysis
  - Descriptive
    - Biology: Original Scientific Experiment
    - Economics: Analysis of a Proposed Law
    - Career Planning: Field Observation
    - Business Management: Team Project
    - Architecture: Architectural Program
    - Statistics: Statistical Investigation
    - Office Administration: Spreadsheet
  - Holistic
    - Art History: Hypothetical Newspaper Article
    - Education: Poster Presentation
    - First-Year Composition: Essay









# Timeline for Data Collection

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- Work on plan for program assessment timeline.
  - Data Collection
  - Data Analysis
  - Using data to improve the program
  - Evaluating the impact of improvements





## References

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- Maki, P. L. (2004). *Assessing for Learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing, LLC.
- Suskie, L. (2009). *Assessing student learning: A common sense guide (2<sup>nd</sup> ed)*. San Francisco, CA: Jossey-Bass.
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