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One Team's Journey with iRubrics

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ONE TEAM'S JOURNEY WITH IRUBRICS

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Grading rubrics have become a popular assessment tool throughout academia, because rubrics increase consistency and transparency (Hack, 2015), clarify assignment expectations for students (Andrade, 2000), and offer efficient grading for faculty (Stevens, 2013); however, traditional grading rubrics become less convenient in an online educational setting. When using a traditional or paper-based rubric, faculty members need to copy and paste the rubric onto the student's document before reviewing the work and adding feedback. Then they need to review, comment, and save the new document, manually calculate the score, add that score manually into the Learning Management System (LMS), upload the new document for student review, and then finally release feedback to the student. Many faculty members in our institution found using traditional paper rubrics arduous and time consuming, so this team explored the use of a rubric tool that could be integrated directly into the LMS. Our goal was to cut down the time and steps in the grading process. This team found the use of one such tool, iRubric, to be much more streamlined than the use of paper-based rubrics and a convenient method for grading. Faculty could just click, comment, save, and submit. Reazon Systems, creators of iRubric, offer assessment and support tools for education. iRubrics is a "free" program to create rubrics; however, to use the rubric within a course or courses requires a subscription of $4.95 a month (Reazon, 2018). Using the iRubric tool, rubric scores are automatically adjusted to the assignment grading scale, sent to the student for review, and posted in the gradebook. These automations have contributed to a grading system that is more efficient than the previous method used at our institution, offering easy access to performance reports.

"Adoption of an online rubric tool can provide a quick and potentially data-rich avenue in the online classroom space" (Dryden, 2017, p. 69), such that institutions that adopt the use of an online rubric tool can generate qualitative performance reports easily, based on institutional learning outcomes (ILOs), program objectives, and course objectives. These performance reports allow institutions, departments, and individual faculty to see how students are performing on specific assessments and specific course sections as well as

pinpoint how students are meeting ILOs. The many potential benefits drew our online university to assign a team to pilot electronic rubrics rather than the manual version the university had been using for years. Authors creating the rubrics and piloting the course were faculty with extensive experience teaching and grading with traditional, paper rubrics and scoring guides at online universities. Additional the authors have each had several years' experience teaching a specific Digital Literacy course discussed below.

Some LMS platforms, such as Canvas and Blackboard, include integrated rubric tools; however, Sakia, the LMS used at our institution, did not, for which reason our institution selected iRubrics for the pilot discussed in this study. The course chosen for our iRubric pilot was the university's high-enrollment gateway Digital Literacy course, a course designed to provide students with sustainable and useable skills essential to success in both academic and professional settings. In this course, students learn best practices to locate and evaluate sources and to communicate effectively using digital literacy as they become proficient 21st century learners. This gateway course began as a course to familiarize new online students to online learning. It evolved to additionally become an information literacy course designed to teach students how to use the university library, determine scholarly sources, and properly use those sources in their work. It further explored cloud storage and presentation tools to prepare students for their core courses.

For this study, the iRubric team used multiple sections of the Digital Literacy course. The university chose this course for the iRubric pilot because it is an introductory course most students at the university are required to take as a first course in their program of study, such that the institution offers multiple sections of the course each month; therefore, piloting the iRubric system in this course would provide the university with a large, useable data set, quickly, a data set which the university could then use for research, quality control, and institutional outcome inquiry. The team selected for the pilot included a select group of faculty members with extensive experience teaching the course. After the iRubrics were integrated into the LMS course shells for sections of the Digital Literacy course, participating faculty members could track, assess, and modify instruction based on data to help improve both faculty and student performance. This study describes iRubrics adoption process by which our institution has transitioned from paper rubrics to iRubrics.

FIRST STEPS

One potential issue with rubrics is misalignment with assignment directions. Often, universities, departments, or individual faculty members make minor revisions to assignments but fail to update the rubrics. Effective rubrics need to align well with the assignments they are designed to assess (Wolf & Stevens, 2007), so the first stage in implementing new rubrics for this high-enrollment gateway course was to review the existing assignments and course objectives for proper alignment. That process involved evaluating the rubrics already in place, in addition to evaluating the corresponding assignments. The team's goal was to make sure the new rubrics would accurately assess the assignments, but before we could accomplish this alignment, team members needed to verify that assignments clearly articulated the material faculty wanted students to learn. The process for these early stages began with team members looking at feedback from experienced members of the faculty. Subsequently, the Core Learning Department of this online institution selected a team of four experienced faculty members who all taught the Digital Literacy course and who had shared knowledge of the course assignments and current rubrics. The team completed an online professional development course in the creation and use of iRubrics, divided the research among team members, shared resources via email, and regularly met as a group to discuss each step. While taking the online iRubrics professional development course, team members reviewed the Association of American Colleges and Universities' value rubrics, in an effort to use common criteria used by other higher learning institutions to meet the specific institution's learning outcomes (AAC&U, 2010). Team members also reviewed our institutional learning outcomes, as well as the iRubrics system itself. (See Appendix A for a sample iRubric).

The iRubric team looked at the language in each assignment in the Digital Literacy course to make sure the directions for each assignment clearly conveyed faculty expectations to students. The Digital Literacy course included four assignments: A concept map and short paragraph assignment, a source information worksheet, an annotated bibliography, and a multi-media presentation. The concept map, information worksheet, and annotated bibliography all supported the final multi-media presentation, a project that students work on throughout the duration of the course. Team members reflected on their personal experiences grading assignments and read the reflections of faculty regarding the rubrics originally in place. This analysis which gave the team insights regarding ways in which assignment directions required expansion or clarification and allowed team members to harness our collective knowledge to pinpoint weak areas in the existing directions for Digital Literacy course assignments. For example, all members of the team had experienced instances in

which students had used unreliable websites while conducting their research, for which reason the team added specific guidance to assignment directions to guide students to use different types of credible sources rather than information from non-viable websites. The team also expanded the directions regarding several aspects of each assignment to clarify expectations, in once case (for example) requiring that students use at least two scholarly sources from the university library. Then the team restructured the directions to follow a more concise, bullet style format, so as to offer students consistent directions for each assignment. The final step of assignment review was to check for adherence to accessibility mandates of the Section 508 Compliance Standards. Only at that point was the team ready to move from revising assignment directions to revising rubrics themselves.

Previous grading experience and faculty feedback had already identified disconnects between the existing rubrics and assignment directions. Therefore, the team set out to ensure good alignment between the newly refined assignment directions and the assignment rubrics we were beginning to redesign. Team members looked carefully at the revised assignment directions to brainstorm necessary components that would need to exist in the corresponding rubrics. Faculty input allowed the team to generate lists of essential components to include in the new rubrics and enabled us to avoid problems associated with misalignment or poor communication.

In this stage of the process, we examined each assignment and worked to articulate clearly the specific performance criteria in order to provide students with clear expectations within the grading rubrics (Wolf & Stevens, 2007). Leveraging the professional development course through which team members had learned how to create the iRubrics, members of the team discussed how to set performance levels for all criteria, and created performance descriptions for each level. For this stage in the rubric creation process, the team relied heavily on course objectives and information gathered from Institutional Learning Outcomes (ILOs).

ILO'S AND RUBRICS AS ASSESSMENT

Institutional Learning Outcomes, or ILOs, have been adopted by numerous universities nationwide. ILOs are a set of university-wide learning outcomes that align with identified signature assignments and are mapped to program learning outcomes. This mapping and alignment provides the university with a method to assess student achievement, which supports regional and specialized accreditation criteria and reporting. ILO mapping and assessment as well as incorporating ILO reporting within the university's triennial program review process can provide a

wealth of data regarding student success (Kinzie, 2015). For example, a rubric component describing the students' ability to use the information learned during a course within a final paper could be linked to the university's ILO for Applied Learning (ILO-AL). When a university wants to measure Applied Learning aptitude in a course or sequence of courses, a report can be generated to show results for all items wherein the ILO-AL standard is used. This report can show strengths and weaknesses in curricula across the university. Reports can then be created for individual courses, courses offered within a certain time period, or even all courses across the university and across degrees (Kinzie, 2015).

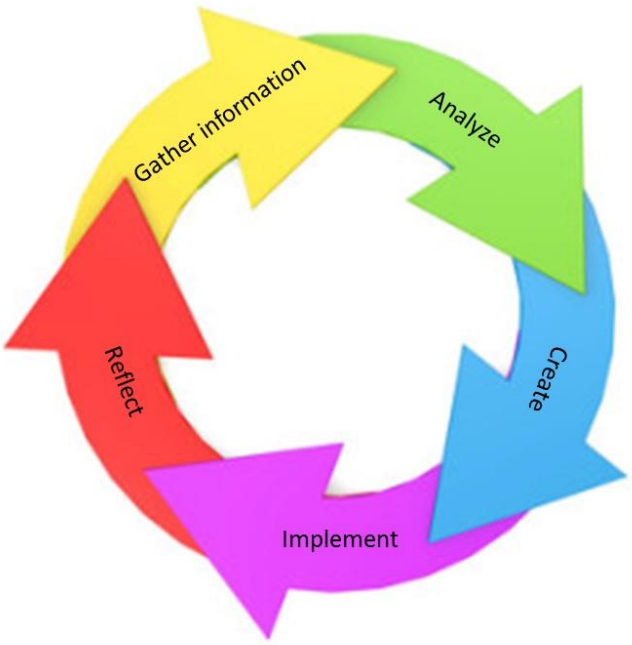
To support the assessment efforts of the university, the iRubric team matched its course assignment criteria and iRubrics to specific university ILOs. To learn how to do this, the team participated in the iRubrics professional development workshop designed to train faculty in creating effective iRubrics (as discussed above). Using the assignments and ILOs, the team determined which ILOs align with specific assignments. It was necessary to make sure the new ILOs supported the assignment directions as well, so care was taken to align the ILOs with even minor tweaks to the assignment directions. Incorporating university ILOs into course iRubrics allowed the institution to measure student achievement not only at the course level but at the program and institutional levels as well. In addition to institutional ILOs, the team also used another tool, the Association of American Colleges and University (AAC&U) Value Rubrics. Much like standards for K-12, these rubrics are used to "position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success" (AAC&U, 2010, para 1). Using the AAC&U Value Rubrics helped ensure that the assignments and assessments aligned with national-wide expectations.

THE PROCESS

Before making changes to existing rubrics, the team referred once again to input from faculty who had taught the course being revised. A few months prior to the iRubric team beginning work on new rubrics, all full-time faculty who taught the gateway Digital Literacy course participated in a workshop designed to guide them through the early stages of Communities of Practice (CoP) development. The CoP model emphasizes social learning, and involves groups of people meeting regularly to become better at what they do (Wenger-Trayner & Wenger-Trayner, 2015). CoPs can exist and can sustain practices in a virtual environment as well as on-ground. For this pilot, faculty were divided into several smaller CoP teams to explore problem areas and ultimately to improve instruction. One activity these newly formed CoP teams tackled was to review and analyze

existing course rubrics to evaluate assignment alignment with course objectives and explore strategies for improving feedback to students – a process we describe above from the perspective of the pilot support team members, but a process that was conducted in parallel fashion by faculty members, as well. Feedback from CoP members' rubric exercises referenced above provided a wealth of information for those of us on the iRubric support team to explore.

Our refinement process was a cyclical effort, similar to the cycle of reflective teaching shown in the graphic below. The team first revised assignment directions to clarify and define the expectations, giving careful attention to the wording of assignment directions. It was imperative that assignment directions aligned with the new iRubrics; therefore, any changes made to the rubrics had to be supported in the assignment directions as well. The team decided to bullet the list of elements in the assignment directions, so students could clearly see the material that needed to be included. Then the team used the assignment directions, reviewed the Institutional Learning Outcomes and the AACU rubrics to write the iRubrics, carefully matching each item in the assignment directions to an iRubric aspect.



Once the iRubrics were completed, the team piloted the rubrics and new assignment directions, meeting and refining each over a period of six months. In the context of our institution and the pilot course (Digital Literacy), six months equated to six new course starts, since a new section of the 8-week, three credit course started each month. Throughout the pilot, the team met to reflect on the revised, evolving assignment directions and rubrics. The team gathered information, analyzed the results, and then systematically made improvements to the assignment directions and iRubrics. One revision arising from the recursive review process involved adding an "exceeds" minimum expectations qualifier to the iRubrics, a modification designed to ensure that students were aware of how to meet and/or exceed assignment requirements and could engage in higher level learning if they so choose. (See Appendix A to understand how the "exceeds" criteria and other rubric criteria were structured.)

As noted, we adopted iRubrics in an effort to streamline the process by which faculty members grade student work. It was our hope, that while grading, faculty members could easily match items within a student's assignment to both the iRubric criteria and the assignment directions to support the grade assigned to the work. The iRubrics system streamlines this process by allowing faculty to click on a criterion to choose a qualifier in order to provide specific feedback within a feedback box included in iRubrics grading system. Once grading is complete, faculty members can click "save," and the grade and feedback automatically populates in the LMS for student review.

NEXT STEP: TRAINING

The Digital Literacy gateway course that prepared students for college success was taught by a large faculty cadre. This led to the concern that the rubrics be used consistently across all sections of the Digital Literacy course. While some level of subjectivity will naturally occur when multiple faculty members teach the same course, the authors strove to reduce misuse and confusion about utilizing the tool. To achieve consistent use of the iRubrics among all faculty members teaching the Digital Literacy course, members of the iRubric team designed a one-hour live webinar to orient the faculty to the philosophy behind the new rubrics and to train faculty members in how to use iRubrics in the course. The team members shared their experiences of using the new iRubrics and of piloting the course with fellow faculty and helped new adopters adapt to the new grading method, knowing that acclimating to change can be difficult. Members of the iRubric team created videos to explain the steps to using the iRubrics and to guide faculty, step-by-step, through the grading process. Further, for consistency and clarity in grading, the team broke down each row of the iRubric for each assignment to make clear exactly what part of the assignment each row of the

iRubric addressed. (See Appendix B for an example of how the team broke down one, single row of one of the iRubrics. These instructional videos and rubric guides were sent out to all faculty members before the webinar provide an opportunity to view the process before attending the synchronous training. During the webinar, the iRubric team explained the grading process and explained the grading guidelines, hoping to reduce the strain involved in learning a new tool.

NOT THE END

Even though the iRubric development team used faculty input to review the existing rubrics and went through a long pilot with constant revision, the task did not stop once widespread adoption had begun. One part of curriculum writing is ongoing feedback, input, and revisions. Through the first round of implementing the rubrics in course sections, faculty met in their respective Community of Practice (CoP) teams. These teams discussed the rubrics, asked numerous questions, and vented frustrations. This led to the creation and administration of a faculty survey from which the iRubric team could learn from peers the refinements necessary to continue to improve the grading and feedback process. (See Appendix C for a copy of the survey administered to faculty members).

CONCLUSION

The development, piloting, and implementation process for the iRubric team was lengthy and arduous; however, the team learned the validity of conducting a proper pilot and of sequencing the launch of a university-wide iRubrics adoption initiative. One of the most beneficial aspects of the pilot was establishing a clear alignment among course objectives, institutional learning outcomes, assignment directions, and assignment rubrics. The team learned that a process such as this cannot be rushed and must be handled with both patience and persistence. Lastly, the group learned that without such a process, a consistent grading element such as iRubric would not be possible.

LIMITATIONS OF THIS STUDY

Researchers examined the experiences of one team implementing the use of one electronic rubric within a single course. No comparison was made between iRubrics and other forms of electronic rubrics, so no conclusions were drawn about how iRubrics adoption equates with the adoption of other online rubric options. While iRubrics was the right choice for this institution, many other options exist. Since each institution has a specific set of needs, any choice of

electronic tool would be specific to that institution. Choices should be well researched to determine which tool best accommodates each university's specific needs.

In addition, experiences of a single online university may not be applicable to other institutions. As a large institution with a predominantly remote student body and staff, participants' demographics differed greatly from community members of many other institutions. The large number of faculty teaching this one gateway course from disparate physical locations and time zone complicated communication regarding adapting to a new classroom tool, and made the adoption more stressful and time consuming than might be the case for a smaller group of faculty members teaching at the same physical campus. The course used in this study was a single, gateway course required for entering students, a specific population. While the course was selected for the pilot because of its large size and frequency of sections, with new sections beginning every month, other courses taught to a different student demographic by a different faculty demographic may encounter different experiences implementing the same tool. Finally, the faculty members participating in this study were the same faculty who developed the rubrics and ran the pilot, creating a potential bias. These limitations suggest that results of our experiences may not be generalized.

IMPLICATIONS FOR FURTHER STUDY

The positive results of this team's experience suggest that further study be conducted about the implementation of electronic grading. Since this study was limited to several sections of a single course at one university, additional study should be conducted using a wider variety of subjects. The students in this course all intentionally opt for online courses, so they may respond very differently to the use of electronic rubrics than students at a traditional university. The same may apply to faculty. All faculty members serving on the iRubric pilot were full-time, experienced, online faculty. Less experienced or part-time faculty working for traditional universities likely could respond differently to incorporating electric rubrics into their classrooms. Implementing the use of the electronic rubrics across disciplines may additionally reveal results varying from department to department.

Since this study was also limited to a single electronic tool selected by the university, we recommend data mining to learn more about other existing electronic rubrics and the adoption experiences of a wider variety of faculty and courses. These studies should examine both stand alone and integrated LMS tools. Evaluation of options, assessment quality, reliability, and cost should all be considered. Additional comparative studies are needed to offer institutions the

opportunity to better evaluate *which* tool is most appropriate and beneficial to them. Each institution has a specific set of needs, so any choice of electronic tool should be researched to determine which tool best accommodates those specific needs.

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APPENDIX A

Rubric: Blogging Rubric

Modification of my blogging rubric to incorporate some ideas from others and to take out items that can be measured using the 6 Traits rubrics. Been a while since I have been here need to look at attribution.

Blogging Rubric	Strong 20 pts	Proficient 17 pts	Develop More 15 pts	Needs Improvement 12 pts
Ideas				
Critical Thinking	Strong Post is on topic offering description, evaluation and insightful analysis. Post offers connections between assigned, or selected, article and research readings.	Proficient Post is on topic offering description and evaluation Post offers connections between assigned, or selected, article and research readings.	Develop More Post is on topic offering description of the reading. Post offers no connection between assigned, or selected, article and research readings.	Needs Improvement Post is off topic offering no connection to assigned, or selected, article.
Support Finding information that related to your Blog post.	Strong Entry uses both quoted and paraphrased information from the article and research readings to support post. Initial article is cited using proper MLA format using Zotero.Three external links to related sites have been added.	Proficient Entry uses both quoted and paraphrased information from the article and research readings to support post. Initial article is cited using proper MLA format using Zotero. Three external links to related sites have been added.	Develop More Entry uses both quoted and paraphrased information from the article. Initial article is cited using proper MLA format using Zotero.	Needs Improvement Entry uses no direct information from the article. Initial article is cited using proper MLA format using Zotero.
Participation				
Community	Strong Comments are positive and supportive of classmates. Comments are made in a thoughtful manner that extend the blog conversation. Number of comments exceed expectations for each assigned blog.	Proficient Comments are positive and supportive of classmates. Comments are on topic and add to the Blog conversation.	Develop More Comments show little support of classmates and are at times off topic. Comments are at times trivial.	Needs Improvement Comments are off topic. Comments are short and trivial.
Appearance	Strong A copy right friendly graphic that enhances the topic being discussed has been added. Consideration of graphic placement and size is evident. Caption based attribution and image link is evident.	Proficient Three external links to related sites have been added.A copy right friendly graphic that enhances the topic being discussed has been added. Consideration of graphic placement is evident.	Develop More Three external links to related sites have been added. Post includes a graphic that is relevant to the topic being discussed.	Needs Improvement There are no external links. Graphic has little relevance to blog post.
Expectations	Strong All posts and comments are completed before the assigned date.	Proficient Blog post is completed on time but some comments are completed after the assigned date.	Develop More Blog post is completed on time but no comments are completed before assigned date.	Needs Improvement Blog posts and comments are completed after the due date.

APPENDIX B

	Exceeds (4)	Meets (3.4)	Needs Improvement (3)	Developing (2.6)	No Attempt (0)
Critical Thinking Reponses to others demonstrates understanding (Quality of your dialogue)	Responses to others shows evidence of critical thinking by advancing the learning through the use of at least two of the following components: •offering advice or strategy •posing a question •providing an alternative point-of-view, •acknowledging similar experiences •sharing a resource	Responses to others shows evidence of critical thinking by advancing the learning through the use of one of the following components: •offering advice or strategy •posing a question •providing an alternative point-of-view •acknowledging similar experiences •sharing a resource	Responds to others but does not advance the learning in a substantive way by including at least one of the following: •offering advice or strategy •posing a question •providing an alternative point-of-view •acknowledging similar experiences •sharing a resource	Responds to others but response is not on forum topic.	No response to peers.
This row refers solely to the quality of the posts. Students received a 4 ("Exceeds") by going beyond the minimum requirement of including "at least two" components, whereas they received a 3.4 ("Meets") if they accomplished only "two" of the components. Note: The rubric schema does not require students to post to peers more than once for the students' work to be deemed to "exceed" expectations. Rather, it is possible for students to earn a "4" by making a single post to peers. As such the rubric measures quality not quantity of the students' work.					

APPENDIX C

Now that you have had the opportunity to use the new iRubrics for several months, the iRubric team would like your feedback. It was your evaluations of the old rubrics and directions in our course last year that helped us to make these rubrics. Your feedback on the current rubrics can help us to refine and improve upon our current practices and it is valued. Thank you for taking the time to reflect on your use of iRubrics.

1. **Using a scale from 1 to 5 with 5 being "extremely comfortable" and 1 being "what is an iRubric," please respond to the following questions:**
   a. What is your current comfort level using iRubrics for grading?
   b. What is your current comfort level using iRubrics in the feedback process?
   c. What is your current comfort level for sharing the iRubric with students for feedback purposes?
   d. What is your current comfort level sharing the iRubric with students as a tool for assignment completion?
2. **Metacognitive questions - please be thoughtful in your answers. If there is a question for which you do not have an answer, please just type n/a.**
   a. With the new iRubrics, how much time do you currently spend on grading? Is it more or less than before? How significant is the time difference (use specific examples, if possible)?
   b. What positive benefits have you notices using iRubrics?
   c. Have you seen an improvement in the quality of student work? Explain
   d. How has your grading process changed? How so?
   e. How have the assignment scores changed? Have you noticed that assignment scores are higher or lower? Please explain.
   f. How have your overall grades changed?
   g. In what ways do you use the iRubrics to share assignment requirements with students?
   h. How can the iRubric team support you?
3. **Specific feedback questions: Please be thoughtful and constructive with your responses. If you do not have a specific suggestion, please just type n/a.**
   a. What specific suggestions do you have for the Week 2 Rubric?
   b. What specific suggestions do you have for the Week 2 assignment directions?
   c. What specific suggestions do you have for the Week 3 Rubric?
   d. What specific suggestions do you have for the Week 3 assignment directions?
   e. What specific suggestions do you have for the Week 5 Rubric?
   f. What specific suggestions do you have for the Week 5 assignment directions?
   g. What specific suggestions do you have for the Week 7 Rubric?
   h. What specific suggestions do you have for the Week 7 assignment directions?
   i. What specific suggestions do you have for the Forum Rubric?
   j. What specific suggestions do you have for the Forum directions?