Abstract

The aim of this project was to increase student engagement by involving them in the grading process for their individual class projects. Students were enrolled in two sections of College HDV 102 Freshman Seminar, Survival of the Fittest: Maximize Your Learning to Maximize Your Potential, a course designed to identify and validate their personal studying preferences through interactive lectures and completion of the VARK survey which differentiated their learning/studying styles as Visual (V), Aural (A), Read/Write (R) and/or Kinesthetic (K). All students were required to create and deliver a learning/studying tool for an academic course or personal interest. To function as an efficient learning/studying tool that accommodated a variety of learning styles, required elements included interactivity and self-assessment and correction features. As a required class participation project, students created a grading rubric for these individual presentations. An additional class participation activity required students to score and submit a grading rubric for each peer presentation. For both seminars, 100% of students stated they were not involved in the grading process for any of their other college courses. Serving as an authentic assessment measure, each seminar section's rubric uniquely reflected the features and correlating scoring points students deemed appropriate for grading individual learning/studying tools. Rubric element similarities for these individual presentations included minimum and maximum time allotments, interactivity, and explaining how different learning styles were accommodated. Rubric differences included point allocation and criteria for exceeding expectations. The two Freshman Seminars were similar in student composition; the Monday Seminar (Group 1) consisted of 18 students while the Thursday Seminar (Group 2) had 19 students. Group 1’s rubric was constructed to grade each of the four class chosen attributes: Organization/Timing, Effort, Presentation/Content Effectiveness and Creativity on a scale where one point meant Unsatisfactory, two points indicated Needs Improvement and three points identified Meets or Exceeds Expectations. A learning/studying tool scored the maximum of 12 points would receive a grade of 100%. Data analysis for this group showed 18/18 received a grade between 97-100% with 2 awarded 100%. The class average grade was 98.5%. Group 2’s rubric was constructed to grade each of the four class chosen attributes: Effectiveness, Effort, Presentation/Content and Creativity on a scale where one point meant Unsatisfactory, two points indicated Needs Improvement, three points identified Meets Expectations and four points distinguished Exceeds Expectations. A learning/studying tool scored the maximum of 16 points would achieve the grade of 100%. Data analysis for this group revealed 10/19 received a grade between 95-100% with 1 achieving 100%; 8/19 were scored in the 90-94% range; and 1/19 graded as 80%. The average class grade was 95%. Data suggest that peers may have a tendency to be very lenient graders despite the expectations of the rubric. All students were engaged during presentations and student presenters were treated with respect.

Keywords: Rubric, authentic assessment, student engagement, VARK, learning styles.

1 INTRODUCTION

Student engagement, defined by Axelson, is a frequently used phrase that describes how interested or involved students seem to be in their learning and how connected they are to their institutions, their classes and their peers. Increasingly, student engagement is seen as a valid indicator of institutional excellence. [1] To incorporate and demonstrate examples of where and how these ubiquitous buzzwords are visible in a course can pose a challenge to higher education faculty. Flexible, adaptive course design promotes a learning environment that is learner-centric. Lee remarked that traditional curriculum, teaching and grading methods emphasized "compliant understanding, expecting and receiving explicit directions from instructors, and focusing on narrowly prescribed outcomes over depth of individual understanding or independent learning" fostered passive student engagement. Currently, learner-centric course design requires active learning where students assume responsibility "to organize, analyze, and synthesize rather than merely acquire content from the teacher" and "are
empowered to refine their learning processes with support from teachers and peers.”[2] Faculty and students alike may initially experience uneasiness while undergoing this paradigm shift; faculty must hand over control while students must prepare to assume greater autonomy and responsibility for their learning.

According to Montgomery, the process of learning, the progress of learning, and the product of learning are measured through assessment. [3] “Authentic assessment includes the holistic performance of meaningful, complex tasks in challenging environments that involve contextualized problems. Authentic tasks are often multidimensional and require higher levels of cognitive thinking such as problem solving and critical thinking.”[3] Along these lines, McTighe and Wiggins encourage instructors to embrace the following mindset, “The bottom-line goal of education is transfer. The point of school is not to simply excel in each class, but to be able to use one’s learning in other settings.” [4] Their Understanding by Design (UbD) framework identifies authentic performance as a key indicator of student understanding. They explain, “understanding is revealed when students autonomously make sense of and transfer their learning.” Authentic performance and, consequently, authentic assessment include and measure the “six facets of understanding – the capacity to explain, interpret, apply, shift perspective, empathize, and self-assess.” [4]

Rubrics, as described by Wiggins, “provide examples of what students must do to demonstrate that they have learned at a specified level.” [4] Luft intensifies defining the goal of a rubric as follows, “If rubrics are used in the context of students’ peer review of their own work or that of others, or if students are involved in the process of developing the rubric, these processes can spur the development of their ability to become self-directed and help them develop insight into how they and others learn.” [5] Additionally, Luft informs that the rubric creating process can result in meaningful discussions on the topics of learning, assessment, instructional goals, and curriculum. Students’ utilization of rubrics provides them with an assessment opportunity for evaluating their own learning and “understand what they know about science education.” [5]

The impact of accommodating learning/studying styles is increasingly becoming accepted as vital to knowledge acquisition, skill attainment and critical thinking development. Wiggins and McTighe [6] ascertained that deep understanding is developed and revealed through an individual’s ability to accurately self-assess and self-regulate what is not understood. These authors connected the concepts of deep understanding and metacognition as follows: “Metacognition refers to self-knowledge about how we think and why, and the relation between our preferred methods of learning and our understanding (or lack of it)”. Learning Styles has been defined in numerous ways. Keefe [7] defined learning styles as the composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment. Kolb’s [8] experiential learning theory is based on learning that is grounded in experience. Learners’ concrete generalizations about experiences guide new experiences. “Learning Styles is the way individuals begin to concentrate on, process, internalize, and remember new and difficult academic information or skills”. [9] Dunn & Dunn refined their definition of learning styles as the “biological and developmental set of personal characteristics that makes the identical instruction effective for some students and ineffective for others”. [9] Lohri-Posey reported the heart of the definition as “Learning styles indicate an individual’s preferential focus on different types of information, the different ways of perceiving the information, and the rate of understanding the information”. [10] Cassidy defined learning styles as “the application of cognitive style in a learning situation” and defined learning styles as “the (automatic) ways in which individuals characteristically approach different learning tasks”. [11] According to VARK developer Fleming, “a learning style is a description of a process, or of preferences”. [12] Arthurs stated that “learning style refers to a broader concept that includes cognitive functioning and indicates general preferences for methods and environments for learning”. [13] The application of cognitive processes and learner recognition of preferred learning environments and methods is the common thread of learning styles definitions.

The VARK was designed by Fleming to serve as a “starting place for a conversation between teachers and learners about learning”; “to provide feedback on one’s preferred modes for communicating”. Attention to these ‘modal preferences for learning’ allows “flexibility for students and teachers to modify their behaviour, if not their preference”. [12] Underscoring the importance of learning preference inventories, Fleming states: “Any inventory that encourages a learner to think about the way he or she learns is a useful step towards understanding, and hence improving, learning”. [12]

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course designed to identify and validate their personal studying preferences through interactive lectures and completion of the VARK survey which differentiated their learning/studying styles as Visual (V), Aural (A), Read/Write (R) and/or Kinesthetic (K). All students were required to create and deliver a learning/studying tool for an academic course or personal interest. To function as an efficient learning/studying tool that accommodated a variety of learning styles, required elements included interactivity and self-assessment and correction features. As a required class participation project, students created a grading rubric for these individual presentations. An additional class participation activity required students to score and submit a grading rubric for each peer presentation.

2 METHODOLOGY

Institutional Review Board did not require informed consent. There was no specific, individual student identifying information. The VARK Surveys and Grading Rubrics were grouped by seminar section.

- The VARK survey was administered and used to determine the learning/studying styles of students in each Freshman Seminar Section.
- These students completed the survey outside of class and were instructed to bring it to class the following week when their results would be reviewed and discussed. This information grounded subsequent class discussions about learning styles and teaching/learning/studying methods to accommodate them so that best learning and retention of new and difficult information can be achieved.
- The students created individual teaching/learning/studying tools as a final course project. The focus of the tool could be any academic subject or topic of their personal interest (hobby, sport, etc.). In addition to required elements that accommodate a variety of learning styles, tool creation guidelines included required elements such as interactivity and self-assessment and correction features.
- As a class participation activity, the students created a grading rubric for these individual presentations. An additional class participation activity required students to score and submit a grading rubric for each peer presentation.
- The students were asked the questions: “Are you involved in the grading process for any of your other college courses?” and “Were you involved in the grading process for any of your high school classes?”

3 RESULTS

Serving as an authentic assessment measure, each seminar section’s rubric genuinely reflected the features and correlating scoring points students deemed appropriate for grading individual teaching/learning/studying tools. Rubric similarities for these individual presentations included minimum and maximum time allotments, interactivity, and explaining how different learning styles were accommodated. Rubric differences included point allocation and criteria for exceeding expectations. The two Freshman Seminars were similar in student composition; the Monday Seminar (Group 1) consisted of 18 students while the Thursday Seminar (Group 2) had 19 students. Group 1’s rubric was constructed to grade each of the four class chosen attributes: Organization/Timing Effort, Presentation/Content Effectiveness and Creativity on a scale where one point meant Unsatisfactory, two points indicated Needs Improvement, three points identified Meets Expectations and four points distinguished Exceeds Expectations. A teaching/learning/studying tool scored the maximum of 12 points would receive a grade of 100%. Data analysis for this group showed 18/18 received a grade between 97-100% with 2 awarded 100%. The class average grade was 98.5%. Group 2’s rubric was constructed to grade each of the four class chosen attributes: Effectiveness, Effort, Presentation/Content and Creativity on a scale where one point meant Unsatisfactory, two points indicated Needs Improvement, three points identified Meets Expectations and four points distinguished Exceeds Expectations. A teaching/learning/studying tool scored the maximum of 16 points would achieve the grade of 100%. Data analysis for this group revealed 10/19 received a grade between 95-100% with 1 achieving 100%, 8/19 were scored in the 90-94% range; and 1/19 graded as 80%. The average class grade was 95%. For both seminars, 100% of students stated they were not involved in the grading process for any of their other college courses. Group 1 reported 9/18 had some involvement in the grading process for high school classes that included subjects like health, AP physics, AP chemistry and English. Group 2 reported 5/19 had some involvement in the grading process for high school classes like English and health. Both groups reported that their high school grading process involvement focused on rubric development.
4 CONCLUSIONS

Involving freshman seminar students in the creation of a grading rubric for individual presentations of a teaching/learning/studying tool appears to be an effective method of increasing student engagement. All students were engaged during presentations and student presenters were treated with respect. Students willingly volunteered to help the presenter demonstrate the interactivity, self-assessment and correction features of their individual teaching/learning/studying tool further demonstrating their engagement.

For both sections, the students were able to articulate and demonstrate how and why they created their teaching/learning/studying tool to accommodate their preferred as well as several other learning styles. During presentations many students stated they wished they had these tools when studying for prior tests. Post course feedback included positive statements like “I feel validated in the way I study” and “I will prepare a tool for an upcoming test because creating the tool was a form of studying!”

The data presented here suggest that peers may have a tendency to be very lenient graders despite the expectations of the rubric. This is evidenced by such student comments written directly on rubrics as “this presentation was on how this student studies – it is not a study tool” and “super quick presentation not thoroughly explained but loved the Styrofoam balls and pipe cleaners to model shapes of molecules”. These comments did not correlate to the high rubric score assigned to the presentations. Further, these findings suggest that there may be gaps in authentic assessment for some presentations that were scored high but had contradictory pencilled-in comments. An inference can be made that the students were exhibiting the six facets of understanding, especially empathy.

REFERENCES