Management and Organizational Behavior Teaching Society (MOBTS)
48th Annual Conference (Virtual)
Tradition Meets Technology: Finding Ways Forward

Title: Engage on the Stage: Using Poster and ePoster Presentations to Motivate Students and

Assess Learning

Abstract: (100-word maximum)

This activity session will include an overview of poster implementation strategies, present

scholarly research regarding pedagogical uses of poster presentation assignments, provide *how-*

to information, include a student-led poster presentation, and discussion. Session attendees will

gain the knowledge and have the resources to implement poster presentation assignments in their

courses.

Three Keywords: posters, student presentations, visual learning assessments

Time Requested: 60 minutes

Session Type: Activity or Exercise

Classroom Style: Both, a traditional classroom and a virtual classroom

Course Level: All, UG and graduate

Resource Needs: Zoom (or similar) with screen sharing and chat functions

Introduction:

Creating practical and engaging assignments that effectively assess student learning can prove challenging. Poster presentation assignments, commonly used in the sciences, can be an efficient and effective way to improve learning, increase interaction, and engage students. This activity session will include an overview of implementation strategies for including poster presentation assignments in your classes, present scholarly research this pedagogical tool, provide *how to* information, and include a student-led poster presentation, poster samples, and discussion. Session attendees will gain the knowledge and have the resources to implement poster presentation assignments in their courses.

Learning Objectives:

- Students will be able to research, analyze, and evaluate information on a self-selected, course-relevant topic.

- Students will be able to synthesize findings and create a visually appealing summary of their research.

- Students will be able to orally communicate and discuss findings concisely to stakeholders.

- *(Optional)* Students will be able to plan, deliver, and facilitate a poster conversation as a team.

Exercise Overview:

Poster presentations are multi-faceted and multi-modal and may include the following 12 phases: (a) explain assignment, (b) form team*, (c) select topic, (d) conduct research, (e) synthesize data*, (f) create poster, (g) create 1-page takeaway*, (h) print poster*, (i) conduct interactive oral presentation, (j) receive peer-review*, and (k) receive faculty assessment. Each phase will be explained during this session with Phase *i* presented by graduate students. (*optional)

Session Description: Proposed format of the 60-minute session.

1. Session Plan and Introductions (5 minutes): *Session organizer will provide the agenda and short introductions of each facilitator*

2. Overview of Poster Presentation Assignment (10 minutes): *Basic assignment details will be provided*

3. Student Presentation of Work (15 minutes): *Attendees will interact with student presenters and attend an actual poster presentation session (see samples)*

4. Participant Prompts and Questions (25 minutes): *Attendees will be invited to ask questions*

   i.   How might you use poster presentations in your teaching?

   ii. What concerns do you have about using this technique?

5. Summary and Wrap-up (5 minutes)

Theoretical Foundation:

Poster presentations support Knowles' (1980) theoretical principles by involving learners in hands-on, problem-focused activities that encourage the construction of knowledge on a specific student-selected topic with the end deliverable demonstrating learning comprehension, both visually and orally (Bracher, Cantrell & Wilkie, 1998). Adult learners prefer to be involved in planning and evaluating the instruction they receive, as well as, personally *experiencing*

learning activities. They are also more engaged in learning that has immediate relevance to their jobs (or personal lives) and that is problem-centered (versus content-centered). In short, poster presentations support constructivist teaching strategies because they seamlessly externalize student learning via active application of course content.

Teaching Implications:

The main intent of a poster presentation assignment is to effectively communicate (visually and verbally) research to stakeholders in a way that encourages networking and discussion (Shelledy, 2004). Poster presentation sessions initially emerged in Europe as an efficiency response to paper presentation time and capacity limits at professional conferences (Hess & Brooks, 1998). Posters have traditionally been used in scientific fields such as engineering, computing, medicine, nursing, geology, and biology, and to a lesser extent in fields such as communication, education, psychology, and management (Brownlie, 2007). Posters are a visual illustration of research that is intended to summarize the work and engage stakeholders in discourse (Erren & Bourne, 2007). More specifically, they are designed to be highly-condensed versions of visual representations of data with only essential details on context, interpretation, and conclusions (Hess, Tosney & Liegel, 2009). An effective poster presentation conveys research projects quickly, possibly resulting in broader dissemination of results (Hess, Tosney & Liegel, 2009).

A poster presentation encourages students to articulate both the micro and macro aspects of their projects (Hess & Brooks, 1998) by organizing and interpreting research findings in a clear and meaningful way (Conyers, 2003). This type of assignment is multifaceted and may include the use of library resources, data collection, critical thinking, selection and synthesis of material, possibly group cooperation, use of graphical organizers, and presentation skills (Bracher, Cantrell & Wilkie, 1998). Stegemann and Sutton-Brady (2009) reported that students

find poster assignments to be challenging, interesting, stimulating, interactive, original, creative, and motivating (for grades and research and for confronting presentation anxiety). Posters can also help students develop self-efficacy, peer-review skills, and written and oral communication skills (Stegemann & Sutton-Brady, 2009).

Versatile

Poster presentation assignments are known to offer numerous diverse advantages (Bracher, Cantrell & Wilkie, 1998) and are seen by both students and faculty as a more pragmatic method of demonstrating learning as compared to research papers (Bracher, Cantrell & Wilkie, 1998). Poster presentation assignments also offer an efficient use of synchronous class time (Hartman & Conklin, 2020) and the flexibility, novelty, and ability to interact with each other in an otherwise isolated (COVID-19) learning environment (Holt, Heim, Tessens & Walker, 2020), making them a superior option. Poster presentation assignments are suitable for classes of all sizes, online and in-person formats. The teaching venue becomes less significant since collaborative learning, creativity, critical thinking, learner independence, communication skills, and easing the grading burden on instructors is embedded in the assignment design (Baird, 1991). Due to the individualized nature of poster presentation assignments, end deliverables have a wide variety of content and visual appeal (Hartman & Conklin, 2020).

The culmination of the poster assignment is for students to view, discuss, and critique the work of their peers, further broadening their learning (Conyers, 2003). Poster assignments cater well to diverse students, differing learning styles and most university courses (Stegemann & Sutton-Brady, 2009). When peer-assessment or group assignments are incorporated into the learning experience, it also scaffolds the multimodal, social and collaborative nature of learning (Gioko, 2013). Stegemann and Sutton-Brady (2009) found that this method of assessment

positively enhanced the diversity of the classroom and created a more collaborative environment for teamwork.

Faculty Benefits

Although the initial phase in setting up the assignment is time intensive, detailed, and usually requires technical adeptness, with careful planning by instructors, the rewards are immense! Evaluating student work is quick and easy, and can include peer assessment options (Conyers, 2003). To support faculty usage, Erren and Bourne, (2007) provide ten helpful hints on the poster process that are worth reading and possibly sharing with students. Again, using posters significantly reduces faculty grading (Hess & Brooks, 1998) but is also more enjoyable to grade these diverse, interesting assignments (Conyers, 2003). Oral poster presentations allow faculty to observe student learning and engagement first-hand, as well as engaging in laughter and discussion (Hartman & Conklin, 2020) as the student becomes the teacher (Stewart, 2008). According to Altintas, Suer, Sari, and Ulker (2014) poster projects are a more effective motivation and learning tool than traditional term papers and may reduce a student's desire to cheat by discouraging plagiarism (Hale, 2018). In short, poster presentation assignments reduce the faculty grading effort and may curtail academic dishonesty which clearly outweighs the set-up requirements.

Student Benefits

Poster assignments are becoming increasingly popular as a teaching tool and learning assessment method (Altintas et al., 2014) because the value of the learning experience and assessment model is multi-dimensional (Holt, Heim, Tessens & Walker, 2020). By divesting from the traditional rote learning techniques, poster assignments cultivate active, ongoing, and deep learning (Stegemann & Sutton-Brady, 2009). Encouraging the vital skills of enquiry, critical analysis, and clear promulgation of student research findings (Bracher, Cantrell &

Wilkie, 1998) has a welcome impact on the classroom climate and primes the way for sustainable learning (Hartman & Conklin, 2020). Outcomes improve when students are involved in constructing their own learning (Gioko, 2013). Specifically, the structure of the poster assignment spurs a self-directed approach resulting in student locus of control for learning (Conyers, 2003). In summary, poster assignments bolster the development of reflection, analysis and synthesis and allow for the meaningful application of course content and the pragmatic integration of student learning (McNamara, Larkin, & Beatson, 2009).

Motivation

As mentioned earlier, poster projects may be a more effective learning and motivational tool when compared to traditional research and term papers (Altintas et al., 2014). The uniqueness and creativity of creating a poster can increase interest and motivation among students (Hess & Brooks, 1998) and the obligatory oral presentation positively influences student engagement levels (Gioko, 2013). The autonomous learning orientation (Hartman & Conklin, 2020), personal pride, and ownership over their learning (Bracher, Cantrell & Wilkie, 1998) creates enthusiasm. The opportunity to be creative, and interact in a social way with peers regarding their research is another positive motivating outcome reported by students (Stegemann & Sutton-Brady, 2009). Anecdotally, many students claim to have *fun* (Hartman & Conklin, 2020) find the presentation event *interesting* and *cool* (Holt, Heim, Tessens & Walker, 2020).

Communication

The presenter-to-audience synergy was noted as an important factor by students who preferred posters, over traditional term paper assignments (Gioko, 2013). Students valued the additional sources of feedback and the opportunity to share their work with a wider audience which cultivated the development of important communication skills (Hess & Brooks, 1998). While in-class discussions can present challenges with managing time and logistics, verbose

students, and maintaining faculty content control, poster presentations allow learners to convey their learning experiences in an informal and unscripted setting, encouraging more immediate and organic conversation among participants (Hartman & Conklin, 2020, Stewart, 2008). Unity, clarity, and simplicity are fundamental aspects of all communication (Stewart, 2008) and critical in presenting a poster. The visual nature of the poster also adds to the holistic nature of the presentation and permits interaction that differs from other class presentation modalities (Knight, Paroutis & Heracleous, 2018).

Lower stress

Students report that poster presentations are lower stress and less intimidating public speaking assignments than traditional classroom presentations (Stegemann & Sutton-Brady, 2009), but still challenging. Students reported *less pressure and stress* associated with presenting in the virtual reality environment from their homes using an avatar (Holt, et. al., 2020). Generally, poster presentations are a more informal and relaxed setting for presenting and discussing ideas (Smith, Fuller & Dunstan, 2004). Summarily, students report poster presentation sessions as less frightening and pressure inducing, while remaining rigorous (Shelledy, 2004; Stegemann & Sutton-Brady, 2009).

Networking

This assignment uniquely encourages interaction and rich dialogue (Hartman & Conklin, 2020) among students and with faculty while offering extensive opportunities for social networking (Stewart, 2008). Students report the importance of group dynamics to their experiences (Gioko, 2013) and enhanced communication, partnership, and advocacy skills (Crawley & Frazer, 2015).

Peer-feedback

The poster presentation format inspires students to view and benefit from the work of their classmates (Conyers, 2003). Both the self and peer assessments are overt. Giving and receiving feedback supports student reflection on performance and enhances learning. For example, students develop skills in offering and accepting dissenting opinions and critique with tact, diplomacy, and grace (Berry & Houston, 1995). Plus, the feedback at poster presentations quite often scaffolds to new and improved ideas (Shelledy, 2004). Student perception research found that they actually preferred poster presentations. Students appreciated the involvement of their peers in the assessment, found the group dynamics gratifying, welcomed the opportunity for autonomous decisions, and enjoyed having an audience for their learning (Gioko, 2013).

Conclusion

In conclusion, poster presentation assignments—where students complete a self-directed research project that is presented visually and orally in an interactive session assessed by faculty and peers—support the kind of active, practical learning that is especially prized among adult students. This pedagogical tool is rich and multi-dimensional, requiring learners to engage in critical thinking, conduct library research, possibly collect data, select and synthesize appropriate material, work cooperatively as a group, use graphical organizers and technology, and demonstrate effective communication and presentation skills. Trust us, poster presentation assignments can be a great learning experience for students and a memorable one for faculty! You will recall your student's work years later.

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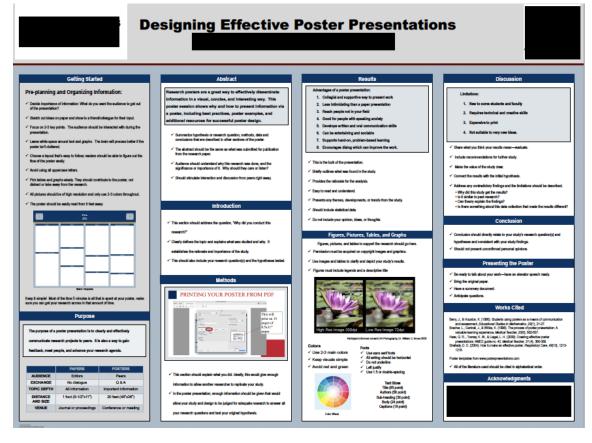
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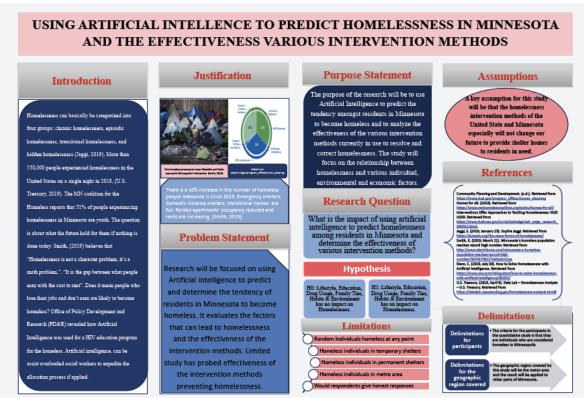Hess, G. R., Tosney, K. W., & Liegel, L. H. (2009). Creating effective poster presentations: AMEE guide no. 40. *Medical Teacher, 31*(4), 319-321. https://doi.org/10.1080/01421590902825131

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Student Samples:

Sustainable Brewing and Corporate Social Responsibility Through Water Management

Introduction

Water is one of the four primary ingredients used in the production of beer making up 90-95%~ of the finished product. In addition to being a primary ingredient in beer, water is also used for cleaning and sanitizing and as an input to create steam for heating. For industrial use such as brewing, water is expensive to acquire, reuse and even more expensive to dispose of.

Justification

Water is a valuable natural resource, which needs to be cared for responsibly. With more than 7,450 breweries in operation in the U.S now, breweries have a Corporate Social Responsibility to practice efficient water management.

Research Purpose

Purpose Statement

The purpose of this research will be to conduct a qualitative, multiple case study to better understand current and best practices in various breweries water management systems and to offer suggestions for improvement to both current and future brewers.

Problem Statement

For breweries, water usage is directly correlated with the amount of finished beer produced. As breweries grow, the water used to beer produced ratio tends to shrink, meaning as breweries grow their water efficiency gets better. Larger breweries tend to use water efficiently at a ratio of 3:1, three units of water for every one unit of beer produced, where the efficiency in smaller breweries tend to vary with the average being 6:1 but can be as high as 10:1. Breweries have fiscal responsibility to their stakeholders and Corporate Social Responsibility to the stakeholders in the environments in which they operate.

Framework

Theoretical Framework – Stakeholder Theory & Motivational Theory

Sustainability

Corporate Social Responsibility

Water Management | Brewing | Waste Water Treatment

Research Question(s)

With such a varying degree of water use to beer produced ratio among breweries, why aren't breweries practicing better water management? Is it strictly financial means that prevent smaller breweries from practicing better water management or is it due to lack of research and knowledge available to help promote water management best practices?

Assumptions & Limitations

Limitations – Available data on best water management practices, willingness of breweries and municipalities to participate in interviews and/or respond to surveys, breweries and publically owned treatment works being honest about the information they provide

Delimitations – Value of water

Assumptions – Breweries lack ability to practice efficient water management due to lack of knowledge and lack of pressure from publicly owned treatment works. Breweries want to participate in sustainability efforts.

Key Terms - Stakeholder Theory, Motivational Theory, Autonomous Adaption, Pragmatism, Brewing, Sustainability, Corporate Social Responsibility, Water Management, Environmental Management Systems, Water Scarcity , Natural Recourses, Waste Water Treatment, Effluent, Biological Oxygen Demand, Chemical Oxygen Demand, Total Suspended Solids, Publically Owned Treatment Works

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