Authentic Experiences: How Active Learning and User-generated Content can Immerse University Students in Real Life Situations

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ABSTRACT[1]

This design-based research study brought the pedagogical methods of active learning and user-generated content into a post-secondary seminar using scripted workshops and scaffolded assignments to immerse students in the real-life experience of working with actual musical artists. The site was a fourth-year undergraduate music business course. It was built upon a social constructivism framework to create a learning community environment, fostered through student blog post discussions on current music industry issues and by way of hands-on work with six musical artists. Student groups created marketing and production artifacts for each artist as needed for their burgeoning careers. In this learning environment, students interacted with music industry stakeholders: musicians, venues, managers and record labels. These tasks culminated in a student conceived, planned and executed live public showcase featuring the artists. The researchers focused on how 21st century skills could be effectively taught in a dynamic active learning environment. Secondarily, the researchers examined the instructor role in the delivery of course content that is largely student-generated. Results indicate that while students achieved most of the stated learning outcomes and experienced an invaluable real-life learning experience, the unpredictable nature of student-generated content and student anxiety associated with real-life activities make future applications of the curricular design challenging for educators who wish to replicate the design. Further research will address the balance between a dynamic learning environment and the ability of instructors to intervene when necessary, without disrupting the model.

Keywords: Active Learning, Problem-Based Learning, Knowledge Community and Inquiry, Learning Community.

1. INTRODUCTION

The need for students to obtain 21st century skills is a common refrain amongst educators, but pedagogical practices remain largely entrenched in a top-down instruction mode with rote memory testing. In contrast, Ann Brown [1] viewed students as "active constructors" of their knowledge within a community of learners. This perspective, when applied, leads to curricular designs that incorporate individual inquiry, collaboration and sharing as well as experiential learning activities leading to a consequential goal.

When devising a curricular plan, it has become increasingly important to consider that present-day undergraduate students tend to view their education as the means by which they can obtain the necessary skills required for employment and for use throughout their professional lives [2]. Active learning is a relevant instructional method in that regard, whereby students are engaged in (non-lecture) activities designed to promote collaboration, reflection, and problem solving, with the goal of improved learning outcomes, critical thinking and applications of course content [3]. Informed by a constructivist perspective, active learning designs typically occur in the classroom, often in conjunction with a "flipped classroom" approach (e.g., where students watch videotaped lectures at home, and then engage in inquiry activities during class) and almost always includes collaborative or co-operative activities [4]. Active learning that involves the solving of complex, interdisciplinary questions is called problem-based learning.

Slotta and his colleagues [5] have advanced Knowledge Community and Inquiry (KCI) as a pedagogical design that scaffolds student and teacher activities in carefully designed inquiry scripts. KCI is based upon the Fostering Communities of Learners model (FCL) first conceived and

[1] We wish to thank our colleague, Dr. Alexandra Mazalek, for proof-reading this paper.

applied by Brown and Campione [6], which is itself part of the larger domain of study, called learning communities [7].

The purpose of this study was to immerse students in a real-life music business scenario, and to investigate the impact of student-generated content on the curricular design. This design-based research studied the efficacy of an active learning KCI-inspired pedagogical model. It was situated in an undergraduate seminar setting, populated by 56 undergraduate students in two sections in order to investigate the model's viability and to make recommendations as to improving its affordances for future research and application [8]. The researchers also wished to reflect on their own practice utilizing action research. Specifically, this study examined the following research questions:

1) How can 21st century skills be effectively taught in an undergraduate seminar class by way of active learning and user-generated content?
2) What augmentations to the model can help respond to the limitations in the course design, specifically the implementation of KCI principles?
3) What can we say about the teacher's role within an active learning course?

2. INTERPRETATIVE FRAMEWORKS

Knowledge Community and Inquiry

The KCI model aims to create learning community curricula by way of scaffolding successive topics with precise inquiry scripts. The subject matter of the course under study did not lend itself to extensive scripting, but the ethos of KCI was maintained by introducing topics of increasing complexity in a scaffolded manner. Central to KCI is the creation of a collaborative knowledge base around a particular theme which becomes a resource repository for the students. The knowledge base is indexed to the specific learning goals of the curriculum. The KCI model is predicated on three guiding principles: (1) collective and collaborative inquiry activities that lead to building a knowledge base; (2) inquiry activities that create emergent themes of interest to the entire community, and (3) that inquiry activities are capable of being assessed and are linked to the learning goals of the course [9]. Another vital component of KCI is the importance placed on student understanding of the learning process being undertaken. This metacognitive overlay allows students to become aware of the mechanics of learning and acquiring understanding as to how the curriculum unfolds in a strategic manner, and most importantly, it plants the seeds for a learning community to develop [10].

An aim of this study was to adapt the essential feature of the KCI design to an undergraduate seminar course, then analyze the enactment to determine how the adaptations served the fostering of a learning community. KCI was chosen due to its focus on collaborative learning and the use of a student-populated knowledge base, intended to be a permanent online research repository that would be impossible for one student to amass if working independently.

The challenges to the curricular design under study were threefold; firstly, adapting the KCI model to an undergraduate seminar class, as most applications of KCI have occurred in middle school science classes; secondly, scripting the role of the teacher in a dynamic active learning design without mutating the model, balancing student generated content with scripted workshops; and thirdly, creating a collaborative student knowledge base where topics and themes are left to the students to research, analyze and then share. The authors understood that their overriding goal would be to meet all challenges by being diligent and creative in the maintenance of a community where ideas and theories are constantly being generated [11].

Active Learning

Active learning activities are the primary teaching tool for the learning community approach. These hands-on activities can be an effective method to facilitate the understanding by students of deep disciplinary content and actual professional procedures. However, as Prince [4] points out, it can be difficult to measure what works in an active learning activity, be it a measurement of facts or testing of skills. To be considered active learning, activities must be designed with reference to course learning outcomes and encourage critical thinking [12]. There is a tendency to provide in-class workshop-type assignments without a deep understanding of, or appreciation for, the pedagogical value of such activities for students. As Prince [4] points out, it can be difficult to measure what works in an active learning activity, be it a measurement of facts or testing of skills. Any study that includes an active learning component should attempt as far as possible to make a comprehensive assessment of learning outcomes as opinions may vary and data may be deemed unreliable without it. This study has been purposeful in its curricular design to not only input active learning components into the design, but to create criteria to measure the epistemological impact of those activities.

Problem Based Learning

Problem-based learning is a type of active learning. It was developed to encourage students to solve specific problems in an interdisciplinary context. As is the case in this study, PBL provides real-world problems prior to students having developed the tools to solve them [13]. PBL promotes cognitive and metacognitive skills so that students achieve not only learning outcomes but gain an understanding of their learning process [14].

3. COURSE HISTORY and OBSERVATIONS

Prior to the creation of the course under study, the introductory Business of Music course was a smaller class

of 25 students which eventually grew to 40. It introduced students to various music industry practices and contracts. It was also comprised of an experiential component where students made arrangements with actual artists to provide various marketing tools (e.g., photographs, videos, audio) for their careers. However, once the student cap was raised to 130, assessments involving actual artists became impossible to manage. Instead, virtual activities were designed to emulate working with real artists. One of the authors campaigned to add an advanced level music business course to the program, targeting those students with a keen interest in the music industry. The promise of this course would be to create an active learning environment where students would once again work with actual artists but in a more intense, hands-on manner and throughout the entire term. Three iterations of this new course ran in Winter 2014, 2015 and 2016. Students formed groups and each one was responsible for creating various marketing tools for their artist. The class then planned an end-of-term showcase for their artists.

Observations

Deficiencies in course design were identified as the course ran each year. Expertise was not evenly distributed between groups, blogs were written but often not discussed in class, and the artist showcase lacked a concerted effort by all class members. Ineffective marketing led to small audiences. In short, the course lacked a comprehensive design backed by learning science principles.

4. METHODOLOGY

Design Based Research

The value of Design Based Research (DBR) for the study of curriculum is the flexibility it affords, allowing researchers to create curricular designs, enact those designs, reflect, then re-design by way of iterative changes to the original design. This flexibility provides a platform for re-designs in a cyclical, recursive manner [8]. As Bannan-Ritland [15] note, DBR is ideally suited for studies in the learning sciences where *complex educational systems* are being designed to test applied learning theories. The summative value of DBR in the study of a curricular design is its recurring cycle of design, enactment and evaluation.

DBR is an effective methodology when applied to identifiable obstacles or deficiencies in a particular pedagogical design with the aim of providing solutions around these issues. While drawing more often than not on qualitative measures to analyze data, DBR is flexible enough to incorporate quantitative measures as well. While much past educational research has focused on comparisons of individual subjects and to test hypotheses related to educational interventions, DBR adopts a more inductive approach to theory building, providing an environment where new design ideas are spawned from the running of the original design [16]. An effective DBR study attends to both a complex curricular design meant to test a learning theory and a rigorous assessment based on tangible and repeatable results that educators may elect to implement. Built into the KCI design were authentic learning with real-life activities and artifacts. This methodology is therefore a logical choice for the design and enactment of a complex curriculum guided by the KCI principles laid out by Slotta and Najafi [9].

Action Research

By situating themselves as instructors, the two teaching authors made the decision to implement action research in their study with a view to improve their practices and ensure that student welfare was kept at the forefront of the design [17].

Participants

Participants in this DBR study were enrolled in either a media production or creative industries program, divided into two section, which met at the same time. The structure was a seminar class with 28 students in each section (N=56), meeting for three hours once a week. Two of the authors led the two sections of the course. The student subjects were an incidental sample, sourced strictly by their election to take the course under study and meeting the prerequisite, an introductory music business course meant to introduce students to various aspects of the music industry, including management, recording and publishing agreements and finance. The lead author has extensive experience in the music industry as an entertainment lawyer.

Ethics Protocol

This study was assessed by the university's Research Ethics Board and it was their decision that this study was, in fact, a study of curriculum and as a result, their approval was not required. Nonetheless, the authors proceeded with an ethics protocol in which students were oriented as to the nature of the study and all students signed a consent form, agreeing to participate in the study and to separately agree to participate in a focus group, if called upon to do so. All students were of the age of majority in the jurisdiction where the study occurred, giving the researchers written, informed consent to participate in the study in accordance with the Declaration of Helsinki.

Research Sites

This study was conducted in five locations: two 60-person capacity generic classrooms (one for each section), two recording studios (field trip), and a local music club (showcase event). Classrooms were used for 10 of the 12 weeks of the term, while the field trip and the showcase completed the 12 scheduled classes. Students self-selected for a field trip to one of two recording studios. A local music venue was selected by the students for the end-of-term artist showcase.

Methods of Data Collection

In order to triangulate data sources, various data collection methods were utilized in this study, as follows:

1) *Field notes*, which were written by both of the author-instructors, providing in-depth descriptions of each class from two perspectives of the two sections, both separately and when the classes were combined.
2) A *focus group transcript* was inputted into NVivo for content analysis. Content analysis is recognized as a versatile tool for analyzing textual data [18]. The focus group consisted of five student volunteers.
3) *Student blog posts* were also subjected to content analysis.
4) *Student grades* were assessed as quantifiable measures for comparison purposes with the pilot study group.
5) A *student survey* was conducted after grades were officially uploaded and simple statistical measures were applied to the results.

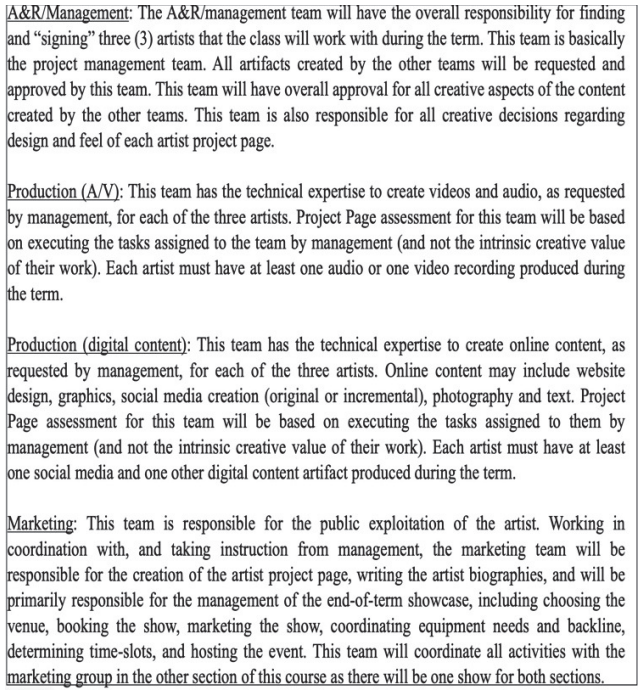
5. PILOT STUDY

The pilot study was run in the winter of 2017. A second section had been added to this music business course due to high demand, which provided an opportunity to alter the course structure and observes the results. The major curricular change was the elimination of individual groups working with individual artists. The curriculum was instead modified to emulate various departments and positions at a record label. Students self-selected one of four groups to join (See Figure 1).

Each section would have the following teams: an Artist and Repertoire (A&R) management team, a marketing team, a digital media team and an audio/video team. This helped ensure that expertise was distributed into groups as required. As in prior iterations of the course, students were required to continually blog about music-related topics throughout the term. Curricular design changes were made weekly *on the fly*. The instructors decided in some cases to combine both classes to work on planning for the showcase or when it was felt that one of the professor's area of expertise would be better delivered to the entire student body at the same time and in the same space.

A large space was secured to accommodate both sections. This allowed for more active learning activities and on a larger scale. The same groups from each section (e.g., marketing) met to discuss various strategies, such as the marketing of tickets for the showcase. Groups with the same mandate pitched in together to create various artifacts for the artists, plan strategies and to organize the showcase. And while there was little lecturing during the term, in two instances, where the intricacies of both recording and publishing agreements were discussed and decoded, the lead author led the discussion, given his area of expertise. The instructors also decided to create a culminating presentation in the penultimate class to showcase the work produced by the various groups on behalf of the artists.

During this prototype design phase, the curriculum changed and formed organically, both by design tweaks made by the instructors during the term, and from student-generated content by way of blogs, which became the subject matter for discussion and argumentation. It was decided to formalize the design by applying KCI principles to the curriculum. The plan was to study the iteration by analyzing its effectiveness in achieving the course learning outcomes as well determine its viability as a workable and repeatable design that could serve as a template for other active learning courses. Deficiencies in the pilot course design were identified and a re-design implemented.



A&R/Management: The A&R/management team will have the overall responsibility for finding and "signing" three (3) artists that the class will work with during the term. This team is basically the project management team. All artifacts created by the other teams will be requested and approved by this team. This team will have overall approval for all creative aspects of the content created by the other teams. This team is also responsible for all creative decisions regarding design and feel of each artist project page.

Production (A/V): This team has the technical expertise to create videos and audio, as requested by management, for each of the three artists. Project Page assessment for this team will be based on executing the tasks assigned to the team by management (and not the intrinsic creative value of their work). Each artist must have at least one audio or one video recording produced during the term.

Production (digital content): This team has the technical expertise to create online content, as requested by management, for each of the three artists. Online content may include website design, graphics, social media creation (original or incremental), photography and text. Project Page assessment for this team will be based on executing the tasks assigned to them by management (and not the intrinsic creative value of their work). Each artist must have at least one social media and one other digital content artifact produced during the term.

Marketing: This team is responsible for the public exploitation of the artist. Working in coordination with, and taking instruction from management, the marketing team will be responsible for the creation of the artist project page, writing the artist biographies, and will be primarily responsible for the management of the end-of-term showcase, including choosing the venue, booking the show, marketing the show, coordinating equipment needs and backline, determining time-slots, and hosting the event. This team will coordinate all activities with the marketing group in the other section of this course as there will be one show for both sections.

Figure 1. Excerpt from the course outline describing groups.

Limitations of the Pilot Study Design and Opportunities for Re-Design

1) *Introduce KCI*. The pilot curricular design had some of the elements inherent in KCI but implementing the complete KCI model required a metacognitive understanding by the instructors on how to best introduce tweaks and augmentations through scripting and scaffolding in order to bring the course under the KCI umbrella.
2) *Formalize the relationship between sections*. Certain benchmark lessons could be taught to the combined sections. Both sections could work on the showcase together. Blogs would be formally shared.
3) *Formalizing student presentations*. The instructors saw the value in formalizing the year-end presentations as a consequential task by turning the event into a mini music conference.
4) *Distributed Expertise*. Over 50% of the students were enrolled in a creative industries program and

therefore, unlike the media students, had no formal training in audio, video or digital production. This was yet another reason to coordinate the interactions between the two sections so that expertise in one section could be utilized by students in the other section who required a specific skill set but did not themselves possess it.

Design constraints during the pilot study consisted of the following:

1) *Physical space*. Issues of space and the length of time for one section of students to travel to the other section were wild cards that would have to be dealt with once the intention to combine the sections in a more formal way was introduced into the curriculum.
2) *Composition of students*. The course is open to any student who meets the prerequisite. While the instructors know which programs most students will come from, i.e., Media Production and Creative Industries, there is no advance knowledge of the percentage representation of those two programs as well as how many students from outside those two programs will find their way into the course

6. THE STUDY

In this section, we describe the course re-design by way of the implementation of curricular modifications, most notably those geared towards the consideration of all KCI principles. Unlike KCI in K-12 settings, teacher scripting was minimal, given that much of the content for the course was student-generated. That said, the orchestration for each class was carefully conceived by both instructors, allowing for a free flow of ideas generated by blog discussions in the first hour, followed by more scripted and scaffolded activities in the remaining two hours, including workshops and joint activities between the two sections. Paramount to the success of the design was student metacognitive awareness of the epistemological structure for the course. This "icebreaker" was accomplished in the first class by an informal explanation of the study, the pedagogical approach and the theory behind this approach.

The curricular design was divided into five parts, blog discussion, workshops, a field trip, a conference and a showcase of the artists which the students worked on throughout the term.

Blog Discussion

In the first hour, students participated in a discussion of their WordPress blogs with open-ended topics of their choosing, thereby creating student-generated curriculum each week. This KCI-inspired collaborative knowledge base provided individual inquiry while class-wide discussions of the blogs provided argumentation and discussion. This knowledge base contains the blogs from four iterations of the course (including the pilot and main study contributions), thereby allowing current students the opportunity to view and discuss the blogs of past classes.

Blog discussions in the first hour of each class culminated with the instructor's lead-in to the workshops, often linked to a first hour topic, thereby creating a flow from individual inquiry (blogs), to discussion and argumentation, followed by a hands-on learning task conducted in groups (Figure 2).

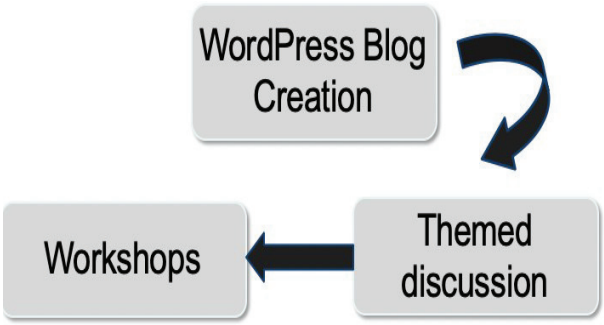


Figure 2. Typical class sequence.

Problem-based Active Learning Activities

The second and third hours were reserved for active learning workshops. In week two, students heard from a Journalism student on the effective creation and use of artist biographies, followed by a session of individual and group inquiry into the various kinds of biographies found on the Internet, their style and application. In week three, the latter part of the class was devoted to the various groups interacting with each other to formulate a marketing plan for the three artists chosen by each section's A&R management team. Week four involved a deep dive into a recording agreement. In week five a similar exercise was conducted, whereby a co-publishing agreement was similarly dissected. In week seven, a guest from Society of Composers, Authors and Music Publishers of Canada came to talk to the class about career possibilities in publishing and to describe her job as an A&R manager. In week eight, groups planned a tour for one of the artists they were working with, including club dates and a budget (Figure 3).

Figure 3. Students during workshop activity.

Week nine produced an unintended consequence that was both disruptive and instructive. Students decided that the

club where the showcase was to be held, a venue used the previous year, was no longer appropriate due to a disturbing public disclosure involving the club's owner. The instructors decided to not step in and let this "real life" situation play itself out. By the end of the third hour, several venues had been contacted, culminating in a booking at new club. This situation ultimately reinforced in the minds of the students that the curriculum was to a large extent student-generated, and the activities, real life.

Studio Visits

In the middle of the term, students self-selected to visit one of two recording studios. The first was a more traditional recording studio where albums are recorded and mixed, the second, a post-production facility that catered to advertising agencies for commercials. Both field trip groups were exposed to the realities of studio life, the pace of production, the demands on employees, and the expectations of clientele.

The Conference

In the penultimate class of the term, the two sections combined for an artist presentation conference. The management teams hosted the event, presenting each artist by way of slides, music and oral explanation. The audio and video teams exhibited the artifacts they had created for each artist, such as photos and videos, then the digital production team demonstrated their work, including social media platforms and websites they either created or enhanced. The marketing team explained their efforts in planning the artist showcase. The presentations were witnessed by the two instructors and a person from the music industry.

The Show

Despite the late booking of a club, the term-ending showcase of artists was a resounding success. Over 200 people paid $7.00 ($10.00 at the door) to attend the event. Led by the marketing teams from both sections, students created a poster for the event (Figure 4), sold and collected tickets, determined the order of performances, organized equipment, hosted and took tickets at the event. Each of the six artists received $300 dollars for their performance, an amount far in excess that usually received by artists at this stage of their careers.

Assessment

Assessment for the course consisted of both individual and group tasks (Table 1). In year's past, students had been responsible for creating artist biographies for their chosen artist. For this iteration students were asked to conduct individual inquiry on high profile artist biographies of their choice, analyzing writing styles, the biography's purpose and how the biography's context affected the writing style, length and content.

The recording studio reflection allowed students to express their experience in a recording studio, meeting studio professionals and being exposed to actual productions. Blogs, another individual activity, were assessed for content as well as quantity and frequency over the entirety of the term.

Figure 4. Artist show poster. © A. Legault 2018

As an aid to assessing student engagement, participation and critical thinking, students were encouraged to create a Google document file each week containing their thoughts, notes ideas and questions, written in real time during the class. This was a public document, viewable by the instructors and students. It was described as a means by which even those who were more reluctant to engage in discussion during class time could demonstrate their thoughts and ideas in written form.

Table 1. Course Assessment Breakdown

Assessment Item	Worth
Artist Bio Reflection	10 percent
Studio Visit Reflection	10 percent
Blogs-individual	25 percent
Participation and Critical Thinking	20 percent
Group Project	10 percent
Conference Presentation	25 percent
The Show	Pass/fail

The conference presentation grade was assessed by the panel. The management groups were assessed for their introductions and the overall flow of the conference. The audiovisual production and digital production groups were assessed for their presentations and the quality of their created artifacts. The marketing group was assessed for their ability to market the show. Feedback was immediate and comprehensive. The show had no grade attached to it

but its importance to the overall success of the course was vital. As the saying goes, *The show must go on!*

7. RESULTS

Study Enactment

An analysis of the focus group transcript and student blogs revealed a recurring theme centered around anxiety. The instructors witnessed several instances of student anxiety, which was exacerbated at times by the instructors' decision to maintain a hands-off position with regards to many of the decisions being made by students. If the end justifies the means, then the success of the showcase, with over 200 attendees, would support this hands-off approach as a positive result. However, the instructors discovered that this hands-off stance, allowing chaotic issues to find their own conclusion, proved to be stressful to some students. A related theme that arose from the focus group was a desire for instructor intervention. Students were made aware that the instructors' intercession would be minimal, but it became clear in the analysis that this *freedom* was not always appreciated. And by allowing students to devote their attention on the showcase during class, especially in the second half of the term, much to the exclusion of all else, a number of learning outcomes were not adequately achieved. For instance, one learning outcome was, *You will have an advanced knowledge and understanding of recording agreements, copyright and publishing*. In the words of one student, learning about contracts, *...wasn't what we signed up for*, even though it actually was. Students tended to revise their own understanding of the nature of the course over time, despite a clear description in the course outline. Most students in the focus group felt that activities such as the deconstruction of contracts detracted from working on the showcase. Some students felt strongly about this issue. As one student put it:

The only thing we knew that was in the forefront of mind was putting on the show. Because that's what we knew this class was about. Reading through publishing agreements again or breaking up the sections and explaining them back. That didn't feel useful.

One student summed up the real-life nature of the course by stating, *I think it's a good practice round for real life.* Another student noted that,

It was a good learning experience just to learn about yourself, like when you come to terms with stressful last-minute things. You'll either be the calm collected one who gets it done or the one who freaks out and distances yourself from it. It teaches you about yourself because it is emulating that real life experience.

Synchronization of Sections

Throughout the term there were instances where instructions or explanations given by the two instructors were not identical, given the fluid nature of the course design and lapses in unified class preparation. This resulted in conflict between the two sections. One student in the focus group brought this to the fore.

That's why my conflict was there because we were getting no direction from [instructor 1], there was no interference, or, this is a good idea/bad idea but the other class had gotten that from [instructor 2] . . . that's where that conflict came from because [the other section] felt they had [instructor 2's] authority behind them and I was just another student in the class who had none.

Student Survey

One hundred percent of survey participants felt that the music industry was a viable career option for them. When asked about the curricular design, 86.4% of students agreed that an active learning student-generated content teaching approach better suited their style of learning and was preferred over a lecture format. Further, 91% agreed that they had participated in a real-life music industry activity with group situations that transcended the classroom and 68.2% agreed that in this class they experienced stress and pressure at the threshold or beyond their normal range.

Blogs

The blogs provided a platform for students to experience a wide range of opinion, knowledge and information that individually, they would not be able to obtain or be self-motivated to investigate, given the breadth of topics uploaded. A student in the focus group voiced the opinion of all when they said,

For me and a bunch of others the blog post was...you said we were making the curriculum ourselves and that was the curriculum. These discussions were teaching us about current events and other people's interests in the industry and I thought that was so interesting, that's what I really liked about the class.

With the implementation of this platform, both sections were able to read each other's work, engage in self-reflection and group discussion online and in person. In total, 448 blogs were posted through the study.

Grades

Final grades for the course ranged from A to C. Over half of the students received a mark of A or A- (57%). Significantly more students in the pilot study received a grade in the A range (89%). In both the pilot and main studies, the only differentiation between a mark in the A's and one in the B's or C's was the number of blogs a student wrote. More students in the pilot wrote the requisite number of blogs. The drop in blog participation during the main study may have been a result of the late-term disruption caused by the necessity to change venues. For instance, a student who was instrumental in facilitating the change of venues and who essentially took over as producer of the showcase, only wrote two blogs. He told

one of the instructors he just didn't have the time, he was too busy planning the gig.

Overall, the enactment of the study proved successful as, in the main, most learning outcomes were met. Artists benefited from the media artifacts made on their behalf, and students were able to experience the trials and tribulations of working with artists and putting on a show, providing them with real-world experiences with measurable benefits and observable repercussions for those artists. In addition, by way of the student-generated blogs, students were able to expand their musical horizons, discuss contentious issues in the music industry, and discover, through their peers, music and ideas that they alone could not have discovered.

8. DISCUSSION

University students who wish to experience real-life experiences related to their studies and future career plans are often afforded either internship or co-operative placement opportunities. The course under study provided a rare opportunity to study a complex pedagogical design that allowed students to experience working with real artists by creating for them artifacts such as recordings, photos, social media and other media. It is a course with real life implications and consequences built into the design, including giving students the opportunity to be involved with the planning and execution of an artist showcase.

In response to our first research question (i.e., How can 21st century skills be effectively taught in an undergraduate seminar class by way of active learning and user-generated content?), the KCI design model was used to foster deep learning, critical thinking, problem solving and teamwork, implemented in an interdisciplinary setting with industry-relevant projects. Students developed these skills while immersed in artist management and booking, event logistics, administration, marketing and promotion. Through this active learning, approach, students were at times forced to solve problems near the edge of their cognitive and emotional ability. And while these situations emulated the kind of delegated authority situation found in the real world, this pedagogical tactic had the potential to unintentionally scuttle some of the learning outcomes for the course, since real elements had to occur in real time. It is debatable whether this *Toss the baby into the deep end* approach was a sound pedagogical decision, however feedback tended to follow a common human experience, namely, that adversity, while unpleasant, is seen as a positive experience when the outcome is positive. This is unsurprising given that the students had self-selected to enroll in an advanced, hands-on music business course. It was encouraging to see that students still felt they had a positive experience even after surviving several stressful situations with real repercussions for their artists. The success of the showcase provided students with a justification for the angst experienced during the term. That said, moving forward, the researchers intend to improve the curricular design in terms of a positive student experience by giving more guidance during difficult times and anticipating unplanned for conflicts.

In response to our second research question (i.e., What augmentations to the model can help respond to the limitations in the course design, specifically the implementation of KCI principles?), the authors were mindful of the importance of being faithful to all components of the complex curricular KCI model, while being realistic about the realities existent in a dynamic active learning undergraduate class that could not be scripted to the degree possible in a K-12 class, either for students or teacher. The tradeoff for strict adherence to the KCI principles was an expansion of the design to incorporate a dynamic class where outside forces sometimes overtook the intentions of the instructors to orchestrate even the scripted portion of some classes. The researchers were committed to minimizing these minor "infractions" to the model and thereby avoid what Brown and Campione [6] call "lethal mutations" of the learning principles upon which the KCI model is based. This was accomplished by instructor-led and facilitated blog discussions and the scripting of much of the second and third hours of each class with specific activities. The one vital KCI element, the collaborative knowledge base, became the focal point for the class, a collection of not only reflection, knowledge and opinion, but also a repository of artist artifacts and links to their websites and other social media, creating a central archive of the works of all students who have taken the class.

In response to our third research question (i.e., What can we say about the teacher's role within an active learning course?), and continuing the discussion from the previous paragraph, the researchers strove to create a useful, repeatable design template for other practitioners to implement. However, the dynamic design of the course and the hands-off stance taken by the instructors may be perceived as too anarchic for professors more comfortable delivering instruction from the front of the classroom. The researchers intend, in future research, to provide more guidelines for instructors without interfering with the students' ability to generate content for the course and direct activities and discussion they deem to be important.

Design Considerations

KCI provides an excellent framework for an active learning curriculum. When applied to a class designed around real-life activities, or those that emulate real-life, the following design considerations are offered to instructors.

1) Instructors implementing a dynamic curricular design around constructivist principles that includes student contributions to content and real-life activities must be prepared for, and anticipate, fluid topics and discussion and disruptions to planned scripted activities. However, these deviations can themselves

be accounted for and anticipated (even encouraged). In our study we found that being able, as instructors, to observe and allow – even encourage - moment-by-moment shifts in class discussion, resulted in a free-flow of ideas and the development of unanticipated themes.

2) Create a collaborative knowledge base in order to nurture a sense of learning community amongst students. Such a student-populated knowledge repository exposes a narrative of changing ideas, opinions and issues related to the subject matter. It allows for the development of themes through individual and collective inquiry. The permanency of the research allows it to survive the temporality of a single term.
3) While being mindful of the point made in 1. above, care must be taken in any active learning environment to build in features that allow the instructor to guide the class without interfering with the dynamic nature of the design. It is therefore vital in an open-ended curricular design, to build in instructor-led, facilitated discussions and scripting, no matter how modest. Example activities include workshops, field trips, guest speakers and time allowed to work on each group's consequential task, which in the case of this study, was planning and executing the creation of artifacts for artists and the end-of-term showcase.
4) Spend time explaining the curricular design to students. This icebreaker creates buy-in from students regarding your design plans and allows for a metacognitive understanding of not only how the course will proceed, but why it has been designed in such a manner.

9. CONCLUSIONS

In this study we first designed a complex active learning curriculum utilizing the KCI model, then enacted the design in order to assess its ability to achieve the stated learning outcomes. We provided students with a hands-on, authentic experience as they worked with real music artists in order to advance their careers. Results show that students experienced a wide range of situations when working with their artists and planning a showcase, both positive and negative, and these experiences provided students the opportunity to self-reflect on the viability of a career in the music industry and their potential roles in it. Future research will focus on refining the role of the instructor in a fluid curricular design in order to create a design template for instructors interested in using active learning to create a real-life learning environment for their students.

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