

Students Perceptions of Collaborative Learning in Intermedia and Performance Arts

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Abstract

This paper examines three case studies of student work from University Centre Doncaster. It explores the student perception of collaborative learning and working in interdisciplinary settings to create performance works. By exploring the notions of working interdisciplinary as discussed by Newell together with Dillenbourg-Pierre's concepts of collaborative learning, the student process is examined and applied to these theories, providing a practical example of how students in higher education may work within performing arts settings.

Keywords: Collaborative learning, Interdisciplinary, Intermedia, Higher Education

Introduction

The aim of this paper is to explore collaborative learning within an interdisciplinary setting in an undergraduate performing arts department. The paper will discuss notions of interdisciplinary in performance, collaborative learning and then examine three case studies of performing arts students (from theatre, dance and music technology), their work and their perceptions of working collaboratively in an interdisciplinary setting. It will explore the concepts of interdisciplinary and collaborative learning in an applied higher education manner to demonstrate how these ideas are supported by student perception of their learning.

Interdisciplinary

Within higher education there has been a development of interdisciplinary learning. And while the single discipline working is still the primary mode of teaching and learning at undergraduate level in the UK, it is important to remind students that “a discipline’s perspective provides the means by which it arrives at an answer; it is not the answer itself” (Newell, 1997, p216). Students must realise that different disciplines provide new methods and potential ways to solve problems. Within performing arts, different subjects provide different insights into creating performance work and working across these disciplines may create new forms of performance in between disciplines.

Interdisciplinary learning has been discussed by Newell (1997), as well as Mackey (2001) and Klein, and various approaches to successfully providing methods to interdisciplinary work have been debated. While Newell aims to define interdisciplinary studies as its own field, he also outlines methods of approaching interdisciplinary by examining complex and nonlinear systems and highlights the difference between interdisciplinary work and multidisciplinary.

In order to justify the interdisciplinary approach, its object of study must be multifaceted, yet its facets must cohere. If it is not multi-faceted, then a single-discipline approach will do (since it can be studied adequately from one reductionist perspective). If it is multi-faceted but not coherent, then a multi-disciplinary approach will do (since there is no need for integration). To justify both elements of interdisciplinary study—namely that it draws insights from disciplines and that it integrates their insights—its object of study must then be represented by a system. Because the connections among the facets will be predominantly nonlinear, the system must be complex (Newell, 2001, p2).

Mackey (2001) suggests Newell's work is problematic in that Newell assumes that these concepts are being developed as applied theories. Mackey suggests they are theoretical as Newell creates his own definitions of complex systems to apply to an interdisciplinary approach. However, in this paper Newell’s definition is useful as it relates to the concept of intermedia in performing arts. Within the creation of interdisciplinary performance, there must be a cohesive yet multifaceted method. It is this part of the definition that will be discussed as part of this paper. For example, within performance arts, a theme might serve as the starting point for an interdisciplinary collaboration between artists from various disciplines (dance, music, theatre). To fully explore the theme the all the disciplines must not only contribute material from their perspective but be aware of how this is conveyed in the overall performance and the connections that this makes with the other disciplines within the piece.

Collaborative learning across disciplines

This paper explores the collaborative learning model of Dillenbourg-Pierre (1999) as applied to learning in the performing arts. Dillenbourg-Pierre (1999) examines various possible definitions of collaborative learning and explores four ways that collaboration may occur, including situation, interaction, mechanisms and effects of collaboration. This collaboration can happen in interdisciplinary settings where two or more peers are grouped together. The performing arts are predominantly teams and or small groups in which collaboration is necessary for successful performance. For example, in a theatre there must be a team to work operate the technical theatre aspects, as well as performers, directors, choreographers, etc. In examining situation and interaction in collaboration, many elements of group work within performing arts are reflected. While all four concepts within collaboration do occur in performing arts, within the student work discussed in this paper these two concepts, situation and interaction, will be utilized as a framework for exploring elements of collaborative learning.

Situation

Dillenbourg-Pierre describes the situation within collaboration as peers that are either at the same level, can perform the same actions or have a common goal. While students may have the same goal (to create an interdisciplinary performance work), and are at the same level (undergraduate), there is a difference in the skills they have acquired in their disciplines. However, this difference in skills is usually looked upon as a positive within collaborative learning as it allows for exchanges, negotiations and broadening of the students' knowledge and allows the situation to facilitate the learning process in order to "benefits from moving between different understandings" (Anderson & Kalman, 2010, p207). This difference in skill can also, however, allow for one discipline to become dominant and allow for an uneven distribution of work towards the final project.

Interaction

Interaction as described by Dillenbourg-Pierre draws on interactivity, synchronicity and negotiability. This includes finding appropriate ways to communicate, to work simultaneously, as well as working reactionary. For students one of the most difficult elements of collaborative learning is negotiability. In collaborative learning there must be space for negotiation, space for misunderstanding and a grounding level for the negotiation process. This space is a safe environment where communication can effectively take place. "This grounding and negotiation process, i.e. the way through which partners can build a shared solution, becomes a central concern for research in collaborative learning" (Dillenbourg-Pierre, 1999, p10). Grounding and negotiation is also effected by how well peers are communicating, how understood the roles are in a collaboration and the collaborative effort used to achieve understanding within the group.

Space for misunderstanding is also an important element in the interaction within collaborative learning. Anderson and Kalman (2010) discuss a similar idea of working with presuppositions. They suggest that every discipline has elements that presumed and

assumptions may be made about process, language or even the format of the end product. “These presuppositions are not necessarily bad in themselves, but in certain situations it is essential to identify them and make them the focus of attention in order to convey them to others” (Anderson & Kalman, 2010, p205). Students often have different views of how this space is negotiated and how their discipline is represented within the overall goal. To further explore this, students from University Centre Doncaster were interviewed about their collaborative working methods after creating interdisciplinary performance projects. These students are part of a larger trend in higher education in the UK to find collaborative learning opportunities in performing arts (HEA, 2007).

While there are four non-linear elements to collaborative learning as discussed by Dillenbourg-Pierre this research focused on these two in the context of intermedia performance assessments created by students from varying performing arts disciplines.

Intermedia Performance Practice in Higher Education

One form of interdisciplinary performance is intermedia. Fluxus artist Dick Higgins used the term intermedia to describe works in the 1960s that fell in between disciplines (Higgins, 2001). Within the fluxus era of the 1950s and 1960s many artists were creating works that blended disciplines to create performance art, happenings and other experimental artistic practices (Friedman, 1998). A later definition by Chapple and Kattenbelt (2006) incorporates the use of other media within performance works with a primary aspect being digital media. These definitions seek to incorporate interdisciplinary approaches to performance and may include various types of media, including digital video, music technology or interactive systems. “The capacity of digital technologies multi-modally to integrate sound, visuals, words and temporal dynamics (in respect of the ease of digital editing in both real time and during recording) have, perhaps radically, extended the multimodality of theatre” (Bay Cheng, et al, 2010). Performance that is no longer recognizable as simply a play or a musical concert but is driven by a multimedia approach has become the aim characteristic of intermedia performance. Within this research, intermedia as a concept is interdisciplinary and to create such a performance requires collaborative working. The term intermedia is used within the case studies of this paper as a form of interdisciplinary performance as it is multi-faceted and complex as suggested by Newell.

Performing arts within higher education may explore the concept of working interdisciplinary and teaching and learning as collaboration between subjects to provide new learning experiences, such as those studying dance creating a performance with students from theatre. This may be applied in various ways throughout undergraduate curriculum, finding different ways to encourage students to step out of their comfort zones to find work that is often in between disciplines. Within the UK various higher education institutions have found ways to incorporate digital media and interdisciplinary practice into their performance arts curriculum, such as Brunel, Exeter, Edge Hill, Bath Spa or Hull¹, who offer modules where either new media explored in performance or students create interdisciplinary works which explore collaborative methods of creating

1 Modules from UK universities include Performance and Creative Technologies Collaboration 1 and 2 (University of Hull, Scarborough Campus), New Media and Performance Practice and Interdisciplinary and Collaborative Practice: Intermedia Performance (Bath Spa University), and Digital Performance 1 and 2 (Brunel University).

performance. While some courses use the terminology of 'intermedia', other find other ways of introducing this approach, such as Digital Performance or Performance and New Media. The authors of this paper suggest that central to this pedagogical mode is the notion of collaborative learning.

Collaborative, interdisciplinary performance is may be encouraged within higher education as students need to work within an increasingly digital world and be able to work across disciplines with their peers. By focusing on collaborative methods in making this work, students are given the opportunity to accomplish "... a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem" (Roschelle & Teasley, 1995, p. 70). This focus on project work and problem solving allows for collaborative learning.

Student perceptions of collaborative learning

Three case studies are presented in this paper to explore the concepts of situation and interaction within student interdisciplinary performance projects. All three are from University Centre Doncaster from 2005-2010 from the Experimental Live Performance module. The module originally ran during the third year of the BA (Hons) Performing Arts with Digital Media, BA (Hons) Applied New Music and the BA (Hons) Creative Music Technology. Later it was students on the third year of BA (Hons) Contemporary Performance Practice, BA (Hons) Dance Practice, and BA (Hons) Creative Music Technology. Students from the participating programs were team-taught practical and theoretical approaches to making interdisciplinary performance works. For the module assessments students are assigned groups of five to ten and were asked to create new performative work.

The following three case studies were third year projects which were all interesting in the students approaches to collaborative learning and how they reflect the students choices for the situation in which they placed themselves, as well as how they handled their interactions in working towards their end goal of creating interdisciplinary, experimental live performance work.

Overview of Student Assessment and Methods in Case Studies

Focusing on the use of new media in Theatre, Creative Music Technology, Dance and Performance Art, the assessment strategy was designed with the intention of providing an opportunity for students to develop an understanding of the aesthetic principals in parallel art forms together with an understanding of the wider social and cultural issues raised by new technology which we feel is critical in developing innovative performance practitioners who are able to fully explore and implement interdisciplinary performance. Below is the Learning Outcomes and Assessment Criteria matrix which features in the module handbook (University Centre Doncaster, 2011).

Outcomes	Assessment Criteria To achieve each outcome a student must:
1. Apply principles of Experimental Live practice to create a performance	1. Engage practically and creatively with a range of technologies as part of the process of creating new performances 2. Construct a rationale for a creative process which supplies knowledge, practices, concepts and skills from a range of performance disciplines 3. Work significantly, positively and effectively as a member of a production team 4. Manage workloads; meet deadlines effectively and efficiently in pursuing the goal of Experimental Live performance.
2. Critically evaluate the creative process and performance outcomes	1. Keep a critical reflective log of their performance project which contextualizes and interrogates the creative approaches undertaken

Students were expected to work collaboratively and across disciplines to create performance work. This process was largely independent from lectures and workshops and did not was necessarily teacher-led. The following case studies are comprised of student interviews, in which students reflected on their collaborative learning and interdisciplinary performances after they have been performed and assessed. The interviews were open-ended discussions with the learners and the researchers, focusing on qualitative results, rather than quantitative data.

Case Study One – *Eth*

During 2005-2007 intermedia performances were made by dance, theatre, music and music technology students and a requirement was that there was also a use of digital media within the work. This third year module of Intermedia Performance Production saw one group of student realize a production that was of professional quality in terms of performance and concept. It was not only a first class work but also one that left an impact.

The piece, entitled *Eth*, began outside the side door to the theatre and the audience was invited into the space by a performer. Upon entering it was clear that the theatre had been transformed into an installation space with interactive elements and this became the site of the piece rather than a black box. The audience was led around the space in a promenade performance style encountering alcoholic faeries, musical toys, animated detailed in the set and many other whimsical characters, design features and compositions. There was live music, surround sound, physical theatre, movement and original text used to tell the stories of each character. The piece could not be described as a dance piece, a play or a musical performance but instead became much more.

However, this project did not have such a positive and promising start. The first assessment within the module was a group presentation of a proposal for the performance. Within this presentation there was no mention of what the end product

would be. Each group member stood up and discussed their own views of what character they would like to portray, what music they would like to compose, or what technology they would like to use. But there was no articulation of what the overall piece was. At this point, there was no group cohesion and no vision driving the performance. There was no overall goal to collaborate on and students could not remove themselves from their own discipline in order to create an intermedia production. In hindsight one student commented on how there was “no clear vision”. The presentation was failed as they could not clearly state what the outcome was. They could not even clearly provide an answer to whether their final piece was going to be a live performance. This group has issues with what Dillenbourg-Pierre described as the situation. They did not provide themselves with an overall vision to work towards together.

The group realized quickly their mistake of not looking outside of a single discipline to create intermedia. As one student reflected the “experience of presentation helped us in the long run because it made us realize what we needed to sort out” (personal communication, 2011). From this experience they began to define their direction, but more important negotiate a process that allowed for definitions of intermedia to be applied and experimentation beyond their own discipline to be explored.

To rectify this they created a plan where they would create the project in “open sessions”. All group members would work in the same room on different things, whether they were rehearsing the delivery of text or designing a surround sound system. However, they would stop at various points and exchange ideas. They created an environment in which they could work next to someone from another discipline and communicate ideas freely. The students recalled it created a “creative and working relationship and a kind of environment. It was conducive to exchanging ideas, exchanging feedback and there was never any kind of pressure” (personal communication, 2011). This openness to exchange soon led to the interdisciplinary approach needed to conceive and develop intermedia performance. There was not only the literal space of the open session but there was also a space for negotiation and understanding developed through working side by side and clearly demonstrated the interaction elements of collaborative learning according to Dillenbourg-Pierre.

The group also created their own way of sharing their individual disciplines with each other and created a grounded level where they could build upon in their negotiations. There was also clarity in the end goal of the performance. The group “started to talk about how we could create pieces with lots of different elements and in that sense we moved out of our comfort zones” (personal communication, 2011). Once they established this understanding, finding new performative elements between disciplines came easily and using new technologies to underpin these relationships also could be explored.

The final piece worked as intermedia as it reflected many of the theoretical concerns that help to shape intermedia performance. It could not be clearly placed into one discipline as it was not conventional theatre, music or dance. The use of technology was also present throughout the piece, including digital video and animation and interactive soundscapes. The group even created their own instrument out of MIDI sensors and a bicycle for one section of the piece. This end result reflects the “multimodal” approach to performance which intermedia demands.

But what is more interesting is how the group came to the realization that they were not utilizing definitions of intermedia within their practice. The presentation

assessment revealed that the group members were not working interdisciplinary. They were simply concerned with their own work and could not see an overall end product. However, due to the feedback and learning from that assessment, students were able to change their thinking about their work and become the intermedia team to create their production. They shaped their own process and working methods through their use of “open space” rehearsal settings and allowed for the borders of disciplines to be blurred.

Case Study Two - *Always Follow the Rules*

One notable piece of third year performance work that students created during the 2009-2010 academic year was *Always Follow the Rules* which was essentially a digital theatre performance that also included choreographic material and video projection. This character-based performance featured an oblique approach to narrative that focused on the experiences of a young woman who is trying to make sense of her life after being attacked and psychologically damaged. The actual scene of the attack is never explicitly shown within the performance but is implied through cinematic projection sequences that are designed to show the girl’s state of anxiety as she goes through her everyday activities, expressionistic live performance scenes that merge with choreography and audio devices that explore the girl’s inner thoughts. The sound-scape also included voice mail recordings of the girl’s work colleague who is trying desperately to identify the reason for her absence.

While this particular performance featured some very strong material, especially in the areas of dramaturgy, filmmaking, screen and stage performance and a general sense of élan in the way intermedia *mis-en-scène* was orchestrated and performed, the performance was problematic in terms of interdisciplinarity, which was reflected in the assessment feedback.

A strong piece of performance work that managed to incorporate a range of different media and inter-disciplinary features. The video sequences and screen performance work were excellent and there was evidence of a strong aesthetic throughout, although it could be argued that there was a sense of incongruity between the narrative/drama based material and the choreographic/dance based material, this was especially noticeable during the second dance piece. The sound design and music were strong throughout and enhanced the dramatic nature of the material although it could be said that the score that accompanied the second dance section was incongruous (personal communication, 2009).

The feedback seems to highlight a pedagogical issue that is synonymous with this type of collaborative, creative work, namely that there can be a tendency for students from different disciplines to force or “shoehorn” their own disciplines into the performance, sometimes to the detriment of the piece as a whole. This notion is highlighted by one of the students involved, as they agreed “The dance, for me, felt like an added on element that we were forcing as it opposed to letting it flow and working and there being room for it, it grated stylistically and didn’t work” (personal communication, 2011). When asked whether the student felt that the project had been compromised due to the forcing of the interdisciplinary elements into the performance, they responded by saying that students wanted to highlight their own discipline rather than focus on the overall production. “We needed to step back and see that it’s actually about the type of performance we want to create not the disciplines that are included” (personal communication, 2011). The

performance reflects Newell's (2001) discussion of interdisciplinary versus multidisciplinary work. While the performance may have been multifaceted in that it did incorporate different performance disciplines, the facets did not cohere. This also reflects Dillenbourg-Pierre's (1999) notation of the situation within collaborative learning. If the end product had been negotiated more thoroughly as the students suggested, then the division of discipline skills may have not been as divided and led to a more cohesive performance.

One issue this raises is the complexity that Newell discusses, where on one hand the teaching team are making demands on students to look for ways to integrate disciplines within an experimental performance and on the other hand, in certain instances, seem to be penalizing students who have included multi disciplines that are deemed to be incongruous or in some way substandard. The feedback comment on the music in *Always Follow the Rules* highlights the fact that a particular piece of music clearly stood out as being aesthetically and technically weaker than other sound features in the performance. In this particular case, the dance student who had devised the choreography for this section had also composed and created his own music to accompany it, clearly responding to the teaching teams challenge of "stepping outside your own disciplinary comfort zone" to produce media that would in many cases be created by music technology students. This student clearly wanted to explore the intermedia aspects of the project but did not adhere to the collaborative element of the project or notions of interdisciplinary work being cohesive. The student may have been able to create an intermedia work as a single artist, but did adhere to the assessment criteria previously mentioned, which requires effective team work. The piece suffered because of lack of uptake of collaborative-learning.

Case Study Three - untitled performance

Another performance that touched on synesthesia in its concept was an untitled performance, which not only featured an innovative approach to choreography, sound design, theatre and mis-en-scene but also incorporated the sense of smell as part of its palette. Essentially the intention of this performance was to create an audio-visual, sensory experience that featured choreographic elements taken from dance styles from different cultures that were to be performed in silhouette as a select audience would be placed in a central tent where silhouettes would be projected onto the tent walls. A 5:1 sound design and soundscape was created by music technology students with an emphasis on evoking a sense of place for each choreographic section. To enhance this further a student had experimented with creating a series of smells that were piped into the performance space that were introduced at key moments in the performance in order to enhance the evocation of sense of place.

While it could be argued that for the most part the students involved in this performance did not stray too far from their own discipline areas, the production was notable for the successful synthesis of the various disciplines involved due to the positive attitudes and open-mindedness of the individual group members who were very positive in embracing new ideas in order to forge an understanding of collaboration with different media areas. Reflecting on their work the student acknowledged that a clear concept was key in the success of their project. "I think it was a performance that came from one simple idea that everyone agreed with... but it just came together as a collaborative piece,

everyone was excited about it... it doesn't feel that it needs to be forced to make it into a good performance because in a way the idea does that for you" (personal communication, 2011).

Unlike some of the projects, this group made firm decisions to start and then let a more exploratory process take place within their set performance framework. This "negotiation and grounding" allowed for space to explore, misunderstand, negotiate and work together creating an end product. Their interactions were based around their initial decisions and allowed for communication to be clear. When discussing their collaborative process the group had an understanding of making their decisions together.

The performance was developed together, we had an idea for the sounds we wanted to use and the spaces that we wanted to bring the audience into... we played [the other students] audio examples that they could choreograph and they showed us examples of choreographic work that we could provide audio for, so it was very much a developmental piece. We came together, shared ideas, went away, developed them and we worked like that for a few weeks (personal communication, 2011).

Another student commented on this process, "we sat in on a lot of their rehearsals so we knew what was going on" (personal communication, 2011). The situation for this collaboration was set in terms of the theme and ideas and the interactions allowed space as well as a process for understanding each other. From this they could establish a performance project which also developed their learning collaboratively.

When creating the final composition of the production, the group relied on each other and there was an element of trust that had evolved. "We were seeing it from a dancer's point of view and we couldn't see it from the outside" (personal communication, 2011). Here Anderson and Kalman's (2010) discussion of peers in different disciplines positively contributing to the learning. Another student also felt that the final composition resulted as a group effort but with some ease. "I'd never been involved in that much collaborative work before and I thought that we'd have to work a lot harder to get the pieces to fit" (personal communication, 2011). Again, this reflects the group's grounding and space for misunderstanding.

However, this performance did have some problems in terms of collaboration with the theatre students involved. Although one of the theatre students was extremely positive about engaging in the creation and eventual performance of the choreographic material the other theatre student seemed much more reticent to engage collaboratively and contributed rather minimally to the overall production. The students commented on this as "one of the theatre students was lucky in that he does martial arts and became very involved with the choreography... the other student was not so he was left with developing the script and even then there was not that much contribution" (personal communication 2011). Collaboration based on an idea can leave some students out who may feel their discipline has less to contribute to the overall production.

Overall this group engaged in a cogent interdisciplinary discourse from the outset, establishing a conceptual basis where all disciplines had some parity and equality. They set clear goals and worked to a theme by interacting in a specific show and tell format that allowed for understandings between disciplines.

Summary

Within the student work there are indications that interdisciplinary and collaborate learning are at the forefront of the student experience. They negotiated multifaceted performance works within groups that were composed of peers working outside of their own discipline. The process needed to be interactive and open to misunderstandings to yield successful results of students working outside of their own discipline yet contributing to a cohesive performative work. The students must be prepared to have presumptions of their own discipline challenged as well as be able to work towards a clear end product or goal. However, this is easier said than done. It is important that students in collaborative projects give themselves the opportunity to translate their misunderstandings so that a consensus can be found and work can be produced in a truly collaborative manner. The groups successful in doing this understand that their individual processes must be shared through viewing other rehearsals or working in an open studio session and that collaborative learning is most beneficial when there is allowance to move from one understanding to another, between disciplines and peers, to create one overall vision. By exploring two of the concepts from Dillenbourg-Pierre's model, including interacting and situation, the experiences of the creation of these performances can be compared to that of collaborative learning. Students learned from each other by creating spaces and communicating as demonstrated in this model.

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