Experimenting with Cooperative learning to enhance non-academic outcomes in Interior Design education

Abstract

Journal articles investigating peer and cooperative learning from1997-2001 are used here to inform an experimental teaching session with undergraduate students from an Interior Design course. The vocational nature of the discipline suggested that more peer interaction could enhance the non-academic aspects of student learning. Emphasis is placed on exploring the benefits to students and considering how a community of practice can be enhanced.

Introduction and Rationale

As the tutor responsible for the second year cohort of the BA Interior Design, I plan and deliver a Personal and Professional Development module, which requires engagement in reflective practice, self development and engagement with the wider design community. The module poses a host of challenges to the students as they become aware of the wider design community and industry contexts that they may encounter as they progress through their careers. Previously this module has been delivered through a series of lectures and self-brand development tutorials where students begin to ascribe a brand to themselves by creating CV's and compiling professional portfolios in preparation for interviews. I have tried various ways to impart information about what it is 'really' like to 'sell yourself' and your project work to a professional and often critical audience, mainly without success. Unless students have a background where they have had the opportunity to actually attend a portfolio led interview or have had a role in the design industry they are not able to make the important distinction between presenting projects in an academic context and 'selling' their abilities, skills and personality through their work.

In my role I also supervise a Managed Work Placement module, where I oversee and engage with students undertaking 48 weeks, of work placement experience. These students return to their final year of studies with enhanced knowledge of interview scenarios and what employers expect from a junior designer within the design industry. Previously these returning students have had only one opportunity to interact with the second year students through a presentation of their placement year at the beginning of term 1. I felt this was not enough and that there were other opportunities for interaction and sharing knowledge. I wanted to explore and investigate how this untapped experience and knowledge could be shared through peer-to-peer activities and encourage an approach that would begin to foster a community of practice within the Interior Design student cohorts.

By applying theories of Social Constructivism and peer learning, I hoped to get the students taking an active role in their own learning development. By

exploring an out-of-classroom experience where peer-to-peer activity took place, that was facilitated rather than delivered, I hoped to find out if student experience, impact on learning, self-confidence and esteem could be enhanced. I also hoped that a session like this could broaden the student outlook towards their own future professionalism and place in the wider design community for both the second and final year groups.

Literature Review and Theoretical Framework

At the start of the Inspire module I had no previous experience or knowledge of educational theoretical approaches and literature although I knew what I wanted to do. I wanted to explore the use of and usefulness of student discussion in the learning process of design students, with particular reference to the personal and professional development process. Following discussions with my subject and teaching and learning mentors I began by searching out literature on Social Constructivist theory and how it had been applied in the context of design education. This was quite unsuccessful and I found it difficult to locate information about this theoretical approach being tested and used specifically in design education. I picked up on the ideas and approaches of Lev Vygotsky and became particularly interested in his theory "zone of proximal development" (ZPD) (Cohen, Duberley & Mallon, 2004)

Once I started my research I began to understand more about my own development as a teacher and how over my career I had been developing sessions that I could now see fitted into this social constructivist theory. According to Warford 2011.

> " A Zone of proximal teacher development (ZPTD) denotes the distance between what teaching candidates can do on their own without assistance and a proximal level they might attain through strategically mediated assistance from more capable others" (Warford, 2011)

Being part of the Inspire module was proving this for me and I felt this was a strategy that could help to inform how I planned the experimental 'speed-dating' session.

Whilst researching I found information that I felt linked the ideas of ZPD and peer-assisted learning in Ning and Dowling's 2010 paper. The paper discusses,

"The effects of supplemental instruction, a peer-assisted learning approach, on students, learning competence and academic performance." (Ning & Downing, 2010)

The study provided a measure proof of its benefits through the Learning and Study Strategies Inventory (LASSI), which measured the effectiveness of supplemental instruction. I was keen to use this information since the study focuses on non-academic outcomes such as study skills, learning behaviors and attitudes, something which for budding professional designers is key to being successful.

" Given the nature of the peer-assisted learning supplemental instruction approach, there are grounds for thinking that supplemental instruction can also influence many of these aspects which are known to influence academic performance" (Ning & Downing, 2010)

I found Topping's 2007 journal article Trends in Peer Learning useful to help me to plan the session and to understand the breadth of peer learning models that were current. In the paper Topping outlines peer-learning clearly:

"Defined as the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions. It involves people from similar social groupings who are not professional teachers helping each other to learn and learning themselves by so doing." (Topping, 2005)

The article also helped me to understand the varying organizational dimensions that should be considered when planning the session and understand better the differences between peer tutoring (PT) and cooperative learning (CL). This led me to decide upon a cooperative learning approach rather than a more structured, curricula led prescriptive approach to the session.
The article also gave me a good idea of the kinds of benefits that students could achieve through taking part in this kind of peer-to-peer session.

"Additionally, both CL and PT can simultaneously yield gains in transferable social and communication skills and in affective functioning (improvements in self-esteem, liking for partner or subject area.

Although these are more elusive to measure and are not found as reliably as academic gains, they represent considerable added value for no more input." (Topping, 2005)

The Experiment

I wanted to plan and facilitate a session where final year students and second year students could participate voluntarily in peer-to-peer learning. Following the organizational checklist suggested by Topping 2005 I worked through the points to define a structure to the experiment.

1.Context – there will be problems and opportunities specific to the local context.

2.Objectives – consider what you hope to achieve, in what domains.

3.Curriculum area.

4.Participants – who will be the helpers, who will be the helped, and how will you match them? There will also have to be trainers and quality assurers.

5.Helping technique – will the method used be packaged or newly designed?

6.Contact – how frequently, for how long, and where will the contact occur?

7.Materials – what resources will be required, and how will they need to be differentiated?

8.Training – this will be needed for staff first, then for helpers and helped.

9.Process monitoring – the quality assurance of the process must be considered.

10.Assessment of students – the product and the process should be assessed; consider whether any of this should be self and/or peer assessment.

11.Evaluation – you will need to find out whether it worked.

12.Feedback – this should be provided to all participants, to improve future efforts.

(Topping, 2005)

The format of the session was defined as portfolio speed-dating and it would take place off campus and outside taught time, this context was chosen to engender a feeling of autonomy and to keep the session informal and relaxed as I felt that the Co-operative Learning that I aimed to encourage would happen more naturally in this environment rather than in the classroom during timetabled sessions. The objective was to achieve an informal session where discussion could naturally take place, an almost fun environment that gave freedom and security for those involved. Monitoring the discussions and gaining feedback on the experience was also important, as I wanted to try to measure the benefits of the session.

Keeping the group fairly small so that I could manage the time effectively was an important consideration in quality assurance; I wanted only willing participants to ensure the quality of the session. I felt that making the session compulsory for all students would have tainted the experimental nature of the session and affected the real focus of the session negating possible gains for the students involved and for my own research.

In considering participants it was the final year students who had experience in placement activity and/or second year study that would take the role of 'mentors' in the experiment. This, I felt would give them the chance to express and reflect upon their own experiences and to gain valuable mentorship experience that they may need when moving into their careers following graduation. Having second year students in the role of 'mentees' receiving mentorship from the final year students would hopefully open-up new relationships and channels of communication between two previously distant year groups giving them access to help and advice outside the staff team that may be more affiliated to their perceived need.

A new session needed new material and I designed a package of promotional flyers and feedback forms that had some graphic appeal and gave a feeling of the fun side of the speed-dating session. (see appendix)

I promoted the session to both student groups by outlining the different types of benefits that each group of students could gain from participating, I asked students to register their interest and await and invite. Whilst promoting the session the experimental nature of it was made clear and the underlying theoretical ideology of ZPD was discussed and with the participants from both groups. Exposing the experimental nature of the session helped me to convince students that this would be an informal session and initiated discussion around the fact that we all have to learn and develop as professionals (even teachers).

In total 12 students agreed to attended the session, 6 final years and 6 second years, although this was only a small number it would give me enough feedback to be able to evaluate the session.

The second year students were asked to bring along a design portfolio, or selected project pages from their portfolios to present to the final years, the choice of what to present was left to the individual students to decide. Some

students brought their current portfolio, some brought just their most up-to-date project work from their current design project and some brought a piece of complete already assessed work.

The session was split into six, six minute sessions of speed presenting with a four minute gap between sessions for mentors to fill out their evaluation and feedback forms, this meant there was an hour to complete the speed dating, with half and hour afterwards for the students to engage in discussion around their thoughts and reflections following the speed-dating session.

Both groups were given feedback forms to fill out. The final years were given 'rate-your-date' forms to allow them to give constructive feedback on the second year presentations and interview tips for the future. The second years were given 'rate-your-experience' forms to fill out the following day once they had had time to reflect on the session.

The timings of the 'dates' worked well, mentees were asked to wait in a separate space whilst the mentors filled out their feedback forms (sweets were used effectively in between the sessions to keep the atmosphere buoyant and fun). These short four-minute, breaks gave mentees a chance to interact and discuss their feelings about how the 'date' had gone and their state of nervousness, which interestingly changed measurably over time as mentees had more 'dates'. During the breaks I observed conversations around several interesting points, mentees seemed to be learning that they should try to focus on presenting one project well, rather than trying to present a whole portfolio of work in the limited time available. Some of the mentees commented that they had, had useful feedback and suggestions for their current design projects, which were 'in-progress' at the time.

During the 'dates' I kept a low profile and observed activity and conversation, I felt that this was an appropriate approach and in line with what I had read in Topping 2007 about people from similar groups helping each other to learn. By staying in the background I hoped that conversations would take a natural course becoming pertinent to the students involved and in line with the non-academic outcomes I was interested in investigating. Whilst observing during the 'dating' periods I saw that some of the conversations were centered on student experience, particularly around placement and final year, this was encouraging and as the session went on students began to direct the focus towards what they found most useful.

Once the 'speed-dating' session was over I gathered both of the groups around one table and encouraged them to discuss their feelings about the session. The overwhelming opinion of both groups was the session should be made compulsory for all students, I found this surprising, as I had encountered some reluctance initially.

Critical Discussion

I encountered reluctance to take part in the experimental session from the second year students'; I found this was due to confidence issues about showing and discussing their work. There was less reluctance from final year students to take part in the 'speed-dating' session and they seemed to perceive the benefits of participation more readily that the second years. Making the session compulsory in for all may have allowed the whole group to receive benefits that they had not previously considered, however I feel it would have created a negative feeling among the students as it was arranged outside taught time and could have excluded those who had jobs.

I feel that with a little more preparation and training the mentors may have gained more from the session, in future this could take the form of more structured questions or specific subject focus. This approach does risk loosing the cooperative learning aspect as mentors move into a more peer tutor position and I feel could hinder the non-academic learning learning that took place.

I found that discussing ZPD and my own peer learning experience gained through Peer observation with the students was useful, students seemed interested in its application to their own learning, this was heartening as I felt that this opened up the idea of peer interaction and made it accessible to them.

In the observed conversations of the mentees during breaks the students showed a marked improvement in the levels of confidence and naturally less nervousness about talking about their own work. I was surprised that this happened so quickly and developed so far over only six 'dates', I feel this demonstrates the idea that even short interludes of interaction create visible impact on development and changes of attitude, that could be read as added value to the student learning experience. The reflective periods between 'dates' could be lengthened in future sessions and a more facilitated approach adopted to allow mentees to develop their awareness of this confidence building in action.

The mentee discussions I observed between sessions around what the mentors had said to them during each 'date' were interesting. I felt the 'dates' helped the second years to understand that discussing their ideas with others could help them to move design work forward in unexpected ways and gave them clues as to how they could improve the look and feel of project presentations. Discussion about in-progress projects later proved to be particularly reassuring to the second year group when they began to attend actual placement interviews. When students go to placement interviews they often have an incomplete project in their portfolio, in this interview scenario students tend to feel that all work should be finalized before discussing with employers and worry about the response they will receive, however feedback from employers tells us that they want to see design ideas and developmental studies, not finished pieces.

I feel that the development of conversations around student experiences that I observed were indicative of non-academic outcomes suggested by Ning and Dowling 2010, such as study skills, learning behaviors and attitudes extending the proximal development of the project beyond what was already known and pushing the boundaries of their own work.

The feedback of the students when concluding the session that this type of speed-dating session should be compulsory, demonstrated that engagement in peer learning had made an impact on the way the students thought about their learning. Having never encountered a lesson outside the confines of a studio or lecture theatre, or engaged in an alien activity like speed dating the group seemed to feel that they had overcome some of their personal boundaries and their perceptions of their own development had changed. (please see appendix for actual feedback forms and actual student comments)

Conclusion

The session impacted on both the mentors and the mentees in different ways.

For the second year students, the impact of becoming more confident about showing and discussing their work and presenting themselves in a professional arena was assessed immediately and through verbal feedback gained in discussions following placement interviews. The student comments (see feedback forms in the appendix) show clearly that the students felt more relaxed and confident about attending interviews and more able to present work and themselves in a confident and knowledgeable manner. Taking part in the experimental session had given them confidence in engaging with senior members of the design community

The final year students felt that the immediate benefits were that they could reflect upon their own work and presentation style through mentoring the second years. The process of mentoring had given them chance to reflect upon their own learning, seeing others in the position they had been in only a year or even two years before helped them to begin to understand how they had developed. Some of the benefits of gained confidence in this have been felt in later tutorial sessions where final year students have used information gained from discussing second year design schemes in some of their decisions. Students felt they had gleaned new techniques or ideas through looking at the work of younger designers that they could apply to their own final major design projects. I feel this allows them to begin to see what young designers bring to the industry, thus affirming their confidence in their own position as graduate designers taking their first step on the career ladder.

In the academic year following the experiment, students that took part (who are now final and placement year students) have since shown their awareness of ZPD and peer interaction, and the benefits of engaging in peer interaction through their own actions. When invited to play the role of mentor in a variety of situations such as CV review sessions and informal peer interaction sessions students have often taken time out of their lives and studies to 'give something back' to other year groups below their own level of

study in the knowledge of the benefits to both themselves and others gained through the experimental session. This engagement has also been seen in the current second year group who were not part of the original experiment but have been part of the developments in the module that have taken place to embed peer learning and have autonomously suggested and actioned peer interaction between themselves and the current 2014-15 first year cohort.

In the context of todays pressures on teaching time and the necessity of student centered time-rich input in design teaching Peer Learning is useful for students as it gives another point of contact and critique with which students can measure their own learning. In line with Toppings' 2007 point I feel that the benefits of Peer Learning are immeasurable and extend beyond the boundaries of this experiment.

"PL enables and facilitates a greater volume of engaged and successful practice, leading to consolidation, fluency, and automaticity of core skills"
Trends in Peer Learning Keith J. Topping 2007

With limited time at my disposal and only a basic knowledge of educational theories I feel I have only uncovered the 'tip of the iceberg' in terms of peer learning, however, I do feel that the experience has opened my eyes to what types of results are possible in terms of integrating facilitated, student centered, cooperative learning, teaching sessions into my delivery. The experiment has also allowed me to explore my own teaching practice and development in a new way using Lev Vygotskys' ZPD theory; this will continue to inform my teaching practice in future.

By taking part in the experiment I am convinced that it is possible and necessary for students to extend their own development and learning by engaging with each other in a meaningful way to create a more meshed community of practice.

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Appendix

1. Advertisement to second year students.
2. Advertisement to final year students
3. Rate your experience sheets filled out after reflecting upon the session by second year students
4. Rate your experience sheets filled out after reflecting upon the session by final year students
5. Examples of Rate Your Date sheets filled out by final year student during the session, copies were given to the second year students shortly after the session.