

Graphic Design Students' Perspectives and Attitudes towards Feedback within Peer Assessment in Design Studio Pedagogy

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Abstract

This paper reports the validity of the hypothesis that giving and receiving peer feedback during studio critique supports the assumption that the nature of feedback affects student learning and student perceptions of the quality of the learning experience. The research question is whether peer feedback operated under studio pedagogy has the potential of enhancing quality learning. The purpose of this study is to examine student perceptions of peer feedback in a studio-based learning environment. This is a case study where data was collected qualitatively. This study clearly demonstrates the positive perceptions of peer feedback held by design students and the influence these perceptions have on students' learning outcomes.

Keywords: Peer feedback; studio pedagogy; graphic design; peer assessment

1. Introduction

Today's classroom is in a state of flux, changing at an alarming speed with more interest in the learner than before. These dynamics call for change in the traditional approach to teaching and learning which breed passive learners, whose primary goal have been to please the teacher often considered the "custodian of knowledge" rather than becoming a socially fit individual with the full potential to contribute meaningfully to the development of the community. Also demands of the 21st century social, political and economic order requires the school and education to adequately prepare its patrons to play roles so require within the space the provided.

2. Literature Review

Traditionally, graphic design education has drawn on the principles of studio-based learning, project-based (problem-based) learning, and studio critique (Davies & Reid, 2000; Hundhausen et al., 2008). Studio-based learning, critique and feedback have their genesis from architectural design education (Lackey, 1999). Lackey (1999) describes the fundamental features of studio-based teaching as setting the

design problem, periodic lectures, critique of student work which has 4 distinct elements - desk critique (desk crit), pin up, interim/midterm critique, and final critique and assessment by final design by jury. In the traditional studio pedagogical model the final design artifact is the primary measure of learning, which has the effect of focusing students on the outcome of the project rather than the process by which that outcome is achieved (Lawson, 2006; Ellmers et al., 2008). It is seldom clear what the student has actually learnt as the new knowledge is bound within the artifact and the context in which it was developed.

To address these limitations, a revised pedagogical approach has been developed that seeks to: support cognitive engagement through reflective practice, encourage abstract levels of cognition, and support articulation of generalizations from the learning experience (Ellmers et al., 2008). Through this process of generalization, the aim is to assist the learner to articulate the knowledge represented in their design experience, establishing a platform to support transfer of knowledge to other situations. Ellmers et al (2008) initiated a model with greater emphasis on the creative process to situate innovative assessment practice whereby the assessment for learning could be used to increase student involvement and deep learning.

2.1 Feedback

The importance of giving and receiving peer feedback during project-based learning continues to attract greater research. As Annie (2011) notes that “feedback has the potential to be an extremely powerful influence on learning”. Drew & Shreeve (2005) assert that peer assessment encourages the development of metacognitive skills. It also encourages the development and refinement of students’ capacity for critical thinking and giving feedback. Keppell and Carless (2006) claimed it causes an increased responsibility for students’ own learning as a result of more opportunities for self-reflection. It is also believed to cause a reduction in disruptive behaviour (Keppell and Carless, 2006).

Although research on giving and receiving feedback in project based learning environment is scanty (Lynch et al., 2010; Taylor & McCormack, 2004), recent studies on higher education learning have shown that feedback is a motivator in student’s learning (Budge & Gopal, 2009; Handley, et al., 2007; Cantillon & Sargeant, 2008). Carless (2006) says it is central to student’s learning and Annie (2011) notes that “feedback has the potential to be an extremely powerful influence on learning”. Xu et al. (2014) underscore the significant role feedback plays in the creative design process. Feedback comes in many forms; formal, informal, written, oral etc. and delivered through different choice of communications media channels (McCormack & Taylor, 2006; Pena-Sanchez & Hicks, 2007; Cantillon & Sargeant, 2008). On the study on students’ perspectives on feedback, Annie’s (2011) study of school-based assessment showed that students have mixed opinions about feedback especially informal feedback. Annie further suggested that feedback alone is not adequate rather it should be provided along detailed brief and assessment criteria as well as the teacher’s expectations. It is best delivered when one-on-one bases (Reid, 2010), constructive, timely (Butcher & Cash, 2007; Willems, 2009) and within the learning experience (Cramp, 2011) and the most preferred is clearly understood written feedback (Annie, 2011; Cramp, 2011) this contradicts the outcome

of Pokorny & Pickford's (2010) study. Carless (2006) alluded to its multiple functions. Although feedback relatively useful, studies have also shown some challenges associated with its delivery, whilst Lynch et al., (2010) noted in their study that quality of feedback is crucial to the development of higher order thinking in learning.

Negative feedback is likely to cause "demotivation and deterioration in performance" (Cantillon & Sargeant, 2008). Carless' (2006) and Reid's (2010) quantitative studies showed the dichotomy of students' and teachers' perceptions about the usefulness of feedback and its impact on the assessment process. Conversely, Rahmat's (2013) study throws more light on the positives of peer feedback and its use in self-regulated learning by students against the challenges. Rahmat concludes by noting that "peer feedback can contribute more effectively towards students' learning".

Two main research questions have been generated after the review of the literature and are presented here, to guide this study:

- "What perceptions do students have of feedback?"
- "What perceptions do students have of peer assessment in the studio-based learning?"

3. Methodology

3.1 Participants

The total sample comprised 72 boys and 61 girls (n= 133) from second year students attending public university in Ghana. The study population was enrolled students offering undergraduate degree in communication design in the Department of Communication Design, Kwame Nkrumah University of Science & Technology, Kumasi. The sample registered for DAD 261 Typography course. There were aged between 19-24 years. The population had heterogeneous educational background. This sample was purposefully chosen due to the nature of study. Students' comments were collected three months after the introduction of assessment for learning in problem-based pedagogy in the 2014-2015 academic year. The response rate was 85.4%. Twelve respondents did not comment in writing. Others were absent from the studio when comments were sought. The sample of this study was further limited to twenty students, who comprised twelve male and eight female for the focus group discussion. In all situations participation was voluntary.

3.1.2 Preparation

A two-hour in-class discussion was held September 16, 2015, to educate students about the study's purpose and methodology. The students were adequately prepared for their involvement in the peer assessment through mock activities using exemplars in the early part of the semester. They became conversant with the assessment rubric and how to use it before actual implementation of peer assessment in the design studio.

Students were tasked to develop creative visual solutions to typographic design problems within their immediate environs and recommend changes (with justification) during the creative design process. This was a second semester typography assignments with 2 progress checkpoints on each cycle of the creative process of a project.

Students also completed for each peer member of the assessment group a standard peer assessment form that had been developed by investigators and pretested on previous design projects. The assessment rubric contained standards related to work quality, communication, design style and work ethic that students used to assess their partner(s). Assessment was conducted using a 5-point Likert scale that ranged from professional to novice. The rubric also asked for students' written feedback with respect to their partner's specific strengths and areas for improvement. Students always received and had time to go over the written feedbacks they received before the next studio session. Finalized design projects and peer assessment forms were due December 13, 2015.

On November 24, 2015, During the last studio session for the semester, the students given the opportunity to write their comments and suggestions on the way forward for assessment strategy introduced especially, factors that might affect their attitudes towards completing and/or receiving peer feedback. Students were assured that participation was voluntary and anonymous. To encourage participation and ensure an adequate response rate, the exercise was conducted before any other studio activity was held in that studio session.

3.2 Data Collection

A qualitative approach was used to investigate two aspects of assessment for learning; the student's learning and assessment experiences and providing feedback. The data was collected in three different ways: first, students' comments which resulted in 120 responses from across the year groups, second was two focus group discussions (each containing ten students). Inputs were recorded and teacher/researcher's observations. Focus groups aimed to establish the main issues students had with peer assessment and feedback in order to focus the research. A third was a semi-structured interview used to solicit students' opinion on the use of peer assessment in the graphic design studio, the learning environment, challenges and recommendations to maximize the benefits of the intervention to all students. Students were allowed to add additional comments about their likes and dislikes of the assessment intervention. Participation in the interviews and writing of comments was voluntary.

3.2.1 Focus group

Two focus groups each with ten students representing approximately fifteen per cent of the sample were interviewed to collect their opinions in details. These opinions helped filled some gaps in the written comments before and after the implementation of the study.

3.2.2 Observation

The teacher/researcher carefully observed students' attitude and performance during studios. He made use of an observation checklist in his journal to record what had happened in the studio that helped him investigate, analyse and conclude his findings when the project came to an end.

3.2.3 Portfolio Examination

Students' weekly submissions regularly monitored for student's progress. In addition mid-semester and end of semester portfolio assessment were used to fully appreciate students' learning patterns and use of the intervention.

3.3 Analysis

The analysis was carried out in three stages: the data was recorded, transcribed then sorted into a range of categories and these were reported. A qualitative thematic method and a grounded approach to seeking meaning from the data. Students' comments were sorted and categorized, observing patterns for developing emergent categories from groups of codes and, finally, using these categories to determine key themes regarding lecturers' perceptions of quality. These themes represent categories which were frequently repeated in the data but are not presented as exclusive or as ultimate 'evidence' of learner standards. In its place, they are rendered in evidence through this methodology as a prompt for further research and debate in the field of graphic design assessment. In order to test these themes as a definitive representation of the data, the researcher returned frequently to the complete individual transcripts to avoid losing sight of these as unique representations of an individual learner. Triangulation (Stake, 2003) was achieved through multiple sources of data including (1) student presentations (2) participants' marks for each stage of a project of the module were compared (3) participants' reflective comments (4) focus groups and (5) the use of researcher's own reflective journal were used to analyze the data.

4. Results

The analysis led to the identification of three interrelated themes relating to conceptions of quality as used by lecturers in judging the outcome of the assessment process. These are:

4.1 Observation

Data has been collected from several sources, and in a number of formats. Taking a discursive approach to the survey results, and taking into consideration that the studio environment was convenient for the surveys to be conducted, I have found a number of underlying themes. The main one is that the students feel that having a number of peers assessed and give feedback would be beneficial. The reasons underlying this have been, the expertise of the various peers, and the relief of the possible monotony of having one peer assess and give feedback and using the same assessor throughout the semester. The students thought that this kept them interested in the content and developed their tolerance for different learning opportunities.

The opportunity to make conversation with peers in a flexible and collaborative way, and make friends in the degree were also high on the list of responses. The survey showed that this informal interaction was

important and gave them opportunity to develop their communication and analytical skills. Contrary to the popular opinion of using more than one assessor, some students however felt that having a number of peers assessors could be detrimental to idea development that is “many cooks spoil the broth”. In addition, the students felt that they often didn't know who to trust for correct opinion. The most overwhelming negative theme was related to the students' perception of bias and incompetence of peers on the subject. Initially, many of the students found it difficult to draw links between the design projects, but between the brainstorming activities and the creative process as well.

4.3 Students' Feedback

Some of the students' perceptions are captured below:

4.3.1 Peer Assessment

“I am in favour of the peer assessment, my reason being that it has helped me to be bold to defend my works and also helped me learn how to use my graphic design terminologies. I have realized that whenever I use the terminology to defend my work, my peer assessor sees me to be serious and know what I am about. Therefore does not give me any marks that I don't deserve.”

“I support the use of peer assessment; it makes me work harder to increase my marks, even though sometimes it seems I'm doing the work just to please my assessor”.

“Yes because it allows scoring of work to involve the teacher, student and the peer so that if there is a situation whereby one party doesn't really understand the concept due to instances such as a generation gap, there is still fairness in awarding marks.”

“I believe that the arrangement and pairing was fair enough and the various criteria used for assessment was good and very adequate. It helped student artist to know their weakness and how to develop ideas in the right order to prepare us for future professional work.”

“I think the class should go on with the peer assessment method. This is mainly because there are several other things we learn from our peers which might not be learnt from the teacher.”

“Peer assessment is interactive; new ideas are learnt from fellow peers; assessors are straight forward and direct in terms of awarding marks; mistakes are well recognized and distribution of marks is fair to both the assessor and the assessee.”

“Yes it should be continued, because it was fun, interactive and a source of more marks.”

“Yes, I think peer assessment should be maintained because it encourages individual students to work hard and effectively meet the requirements of the course. Peer assessment encourages

students to bring out greater parts of their effort into executing the work. This brings out the best in the student to produce excellent works.”

“Peer assessment gives us the professionals way of perceiving our works and talk about them. Self-assessment is good when one is truthful and honest to himself/herself. It makes the executor know and rectify layouts and ideas.”

“I am in favour of peer assessment, because it allows for true and proper self-evaluation as well as be available for criticism from my assessor and peers.”

4.3.2 Experience of anxiety about being assessed

“I reject peer assessment because people have their differences. We all have those we like and those we do not like because we are human beings. If I don’t like someone and I am assessing him/her or I have a ‘beef’ with the person, do you expect me to be fair in assessing the student?”

“Some people get assessed unfairly, sometimes assessors assess works based on the weakness of the work instead of its strength and it brings about resentment and anger when there is an issue of unfair assessment.”

“I think we should stop self-assessment because the individual wants to gain high marks so he/she will give himself/herself high without noticing the mistake in it.”

“Teacher assessment is preferable because the teacher has the expertise to say whether or not a work is good or not.”

“Due to our familiarity and friendship with each other the assessor or assessee, most of the people in the class are compelled to give higher marks. Some assessors might not be good and as such will blindly give bad works high marks or ignorantly give good works low marks. Quarrels are likely to spark up leading to people being at logger-heads. This is when a friend gives low marks to his other friend.”

“Peer assessment technique is one of the best method of assessment. However, in the cause of assessment some assesseees get emotional upon the marks been given.”

“I think it will bring rivalry and enmity.”

“I realized that the one who assessed me was not asking me enough questions she was just manufacturing marks for me. Though I realized other peer assessors were very interactive, and on the whole assessment was interesting and effective.”

“I think my assessor was strict and unfair as well but all in all it was somehow fun because my assessor is a class mate and a friend.”

4.3.3 Engaging with studio feedback

Students’ who have experienced the alternate learning and assessment approaches in my studio have given their feedback and their thoughts are reproduced below:

“The peer assessment enables us - the students to feel free without any tension on us to talk about our works and how we really went through the developing process to the end. Also, it gives way to open criticism and a chance to defend yourself. It’s really a perfect way of handling our assessment.”

“I think this form of assessment is the best because it is very interactive and allows you to be criticized by your own peers but in the end they come with a better way by which you can come out with the work.”

“Peer assessment really made me improve upon my performance. My assessor corrected me all the time when I was wrong and even learnt from how my friends assessed and were assessed.”

“I would be grateful if peer assessment is continued, it gives one the opportunity to evaluate one’s performance and make connection or amendments where necessary.”

“Peer assessment helps us to know our mistakes from our friends and also it helps us to open up to criticism”

“I support the use of peer assessment the reason being that it helps me to know how my fellow mates think a project topic in question. “2 heads are better than 1”, it helps me to gain ideas from my mates so as to better my works and also develop upon my creative thinking.”

“I think it was ok considering the fact that some people will consider their friends and also some will strictly according to the rules. In all I will say it was fun with your course mates assessing you.”

4.3.4 Challenge of giving feedback

“I accept the peer assessment with the reason being that although I am able to communicate my ideas effectively with my peers I am seriously challenged to use professional language.”

“I think the peer assessment and self-assessment were interesting and supportive I seriously wish and hope it continues this semester too. The peer assessment although had some shortcomings but was very good because my assessor tend to show me where I went wrong by providing me with good ideas and how I should have gone with that concept I chose. The self-assessment helped me to know how well am performing in class.”

“I think peer assessment is good and should be continued, because it creates an avenue for us to know our strength and short falls especially giving verbal comments.”

4.3.5 Practical management

This is an area which can probably do with some rationalization of the process. The necessity for feedback involved extra organization in handing out, requesting and collecting of the evaluation sheets during and after each assessment session; for these reasons assessment booklet is highly recommended

The early and regular demonstrations appear to have catered for those who faced assessment challenges, rather than training scheduled midway in the semester. Most students have felt confident enough after completing those exercises to continue on their own assessment thereafter. A check and review have been kept on the progress of each student, and periodic portfolio assessment has been laborious. After successful completion of several trials, the problem of managing large-class size studio-based has ease a bit through prudent management of the process. It has been possible to report on the number of students failing to complete all the scheduled works, hence being in the position to adequately compare progress of the introduction of participative assessment fairly.

5. Discussion

The purpose of this study was to explore students’ perceptions of peer assessment in studio-based learning and giving and receiving feedback. Results were generally supportive of both research questions. The results of this study are similar to other published studies regarding students’ perceptions of and attitudes towards peer assessment and feedback (Wu et al., 2012; De la Harpe et al., 2012)

The use of peer assessment and peer feedback as part of graphic design studio instructions at Department of Communication Design, KNUST was clearly a new teaching and learning pedagogy for the students. There are three notable findings that emerged from this study. Students became more creative. Feedback was enhanced and utilized in the learning process. And students both preferred teacher and peer feedback in combination. The first finding (i.e., peer assessment improves learning) is not unexpected and is consistent with past findings that peer assessment in formative assessment increases students participation, improve cognitive skills and life-long learning experiences (see Black & Wiliam 1998; Boud & Falchikov (2005). Several of my results back the findings of van den Berg, et al’s (2006) survey. Respondents appreciated the usefulness of peer assessment, and both van den Berg, et al., (2006) and this study indicate students were optimistic about the quality of learning that took place during the assessment process. Both van den

Berg et al., (2006) and this study found that student seized every opportunity to explored their shared ideas in their learning and that personal interaction and interpersonal communication are considered as some of the beneficial outcomes.

The second finding (i.e., usefulness of feedback in their learning) corresponds to the general finding that constructive feedback is the bedrock of effective learning and developing critical thinking skills. As Lynch, et al., (2010) have summarized as qualitative feedback has an immediate impact on students thinking skills. This is also consistent with studies by Taylor & McCormack (2004) and Pokorny & Pickford, (2010). Openness and fairness are the preferred attitudes for tasks requiring rich communication, especially confrontation and emotional support, as well as confidentiality, and reaching a consensus in studio critique and professional practice in design. On the other hand, minority of the students considered friendship to be inimical to peer assessment strategy, inconvenient, inefficient and turning serious exercise to something else as corroborated by van den Berg, et al.'s (2006). Meanwhile, a section considered continuous use of strategy to be the panacea for efficiency and effectiveness.

Both Rahmat (2013) and this study found that teacher-centered feedback to be the most preferred, since the teacher is consider to be the master and authorized to assess their creative product. However, students' growing interest in peer feedback is appreciable. Since it provided better platform to deepen self-regulated learning. This observation is also consistent with the study by Pokorny & Pickford (2010). Respondents' comments in this study indicated their satisfaction with many aspects of peer attitude and feedback, including the amount, level of peer support. This observation is consistent with the literature on Lynch, et al., (2010). However, they point to some challenging areas that could managed effectively, for insistence, the majority of those interviewed thought that first year (foundation) students should be initiated into the assessment for learning strategy before second year.

There are quite a few possible interpretations for this result. The unwieldy large-sized class, lack of adequate infrastructure and facility put so much stress on teacher, that he/she could meet the challenge of visiting and commenting on each student's work-in-progress before the final design. The intervention directs students to student-centered learning, making them play active role in their learning. The study shows the rebirth of confidence an assertiveness form the students (Rahmat, 2013).

6. Conclusion

This study which explored peer assessment within the creative process has proven its effectiveness in improving learning especially in design education. However, there is still more empirical work to be done in terms of exploring the use of peer assessment as a strategy for increasing students' achievement, especially within design studio context. Data analysis from this study suggests that the principles of peer assessment are relevant and applicable in the design studio context. My experience thus far with the peer assessment and feedback has been very encouraging. Students' responses are particularly satisfying especially with feedback (Budge & Gopal, 2009; Annie, 2011). They have been quite enthusiastic about the

new assessment strategy as shown by the responses at the end of semester interviews. It has provided the best platform for interaction and giving feedback, in addition as seeing students as learning resources. Nearly twice as many students interviewed agreed that the peer assessment used in the creative process was useful to their learning as compared to the traditionally non-assessed creative process. The preliminary results are so encouraging I am now optimistic of deploying it fully in my other design studios.

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