

Theorising group work as an assessment tool in Higher Education at foundation level

Sweta Rout-Hoolash¹

¹Middlesex University Mauritius, Mauritius

Corresponding Author: s.rout-hoolash@mdx.ac.mu

ABSTRACT

Contemporary higher education study inherently encompasses the concepts of group work or collaborative learning into their curriculum. This is a practice-oriented paper that presents group project work within modern-day teaching, learning and assessment theoretical frameworks. By using anecdotal evidence to establish multi-cultural, assessed group work as ‘troublesome knowledge’ and as ‘threshold concepts’ for many students, this paper serves as a reminder to academic staff of the challenges faced by students as they navigate through this new learning environment. This paper uses the students’ voice as a powerful means of observing students’ perceptions on small group project work through private blogs, assessed within a diverse learning background. As a reflective practitioner, the researcher tries to challenge the assumptions we make about our students’ understanding and familiarity with these fundamental notions. This paper is of significance to university staff as they prepare students for summative group work.

Key Words: Collaborative learning; group project work; threshold concepts; troublesome knowledge; assessment in international higher education.

INTRODUCTION

Contemporary higher education study inherently encompasses the concepts of group work or collaborative learning into their curriculum. The academic experience for the majority of students at Middlesex University Mauritius also includes group project work as an assessment tool, both formative and summative.

This is a practice-oriented paper that presents group project work within modern-day teaching, learning and assessment theoretical frameworks. Anecdotal evidence is used to establish multi-cultural, assessed group work as ‘troublesome knowledge’ (Cousin, 2006) and a ‘threshold concept’ (Meyer & Land, 2005) for many students. This paper serves as a reminder to academic staff of the challenges faced by students as they navigate through this new learning environment.

Literature Review

Collaborative learning is hardly a novel idea. Students in higher education can readily talk through many benefits of small group work. Cottrell (2013) talks about group work exercises strengthening transferable skills including knowledge sharing, communication, interpersonal skills, leadership and management. Many of these skills are considered key graduate attributes. Group work is modelled in Vygotsky’s constructivist model of learning, where knowledge and understanding is achieved through active learning – building upon existing knowledge/skillsets of the group and enabling students to take responsibility for their own learning. As an assessment tool, it allows for the development and measure of higher order thinking skills like application, analysis, synthesis (Bloom’s taxonomy).

However, Gatfield (1999) acknowledged that working collaboratively is a challenge, especially if it is part of a summative assessment. A study conducted at the University of Sydney (White et al., 2005) on small group assessment highlighted disappointingly pessimistic verbal feedback from students

on their group work experience. This does not come as a surprise because group work skills involve thinking about how a student can help others to contribute well, whilst taking on board what others say about their own role. It requires greater self-awareness which can be unsettling. Group work involves a cultural shift amongst the students in terms of working with other students. Additionally this is a new and different approach to studying and learning which comes with a British higher education system. These issues are further exacerbated in the current higher education landscape of internationalisation and cross-border academic mobility. Branch campuses such as Middlesex University, Mauritius, offer students a multi-cultural and diverse environment which may add to the difficulties of group dynamics with cross-cultural collaboration.

If successful, though, Blumenfield *et al.* (1996) talked of how learning with peers can lead to collaborative communities in the university. It has been observed among students at Middlesex University Mauritius that close working relationships are maintained even as they progress through the different stages of their academic study.

Theoretical Framework

This study posits that the development of assessed multi-cultural group working skills falls within the analytical framework of ‘threshold concepts’ (Cousin, 2006; Meyer and Land, 2005) in teaching and learning. In their very influential work, Meyer and Land argued that certain concepts central to a subject area could be described as ‘threshold concepts’ because they have particular characteristics:

- *Transformative* – once these concepts are mastered they have the potential to effect significant learning.
- *Irreversible* – these concepts are unlikely to be unlearned.
- *Integrative* – they can expose the interrelatedness of knowledge
- *Troublesome* – threshold concepts may be troublesome knowledge as they may be counterintuitive, conceptually challenging or they may challenge previously held beliefs.

International Foundation Programme (The Context)

Middlesex University (MU) has been running the International Foundation Programme (IFP) since 2010 in their Hendon and Dubai campuses, and since 2011 in the Mauritius campus. It has helped to increase access to MU undergraduate programmes for international students. On the Mauritius campus, the countries where students originated from, or had previously been educated in, are Mauritius, Seychelles, Madagascar, Nigeria, Zimbabwe, Uganda, Kenya, Tanzania, Ghana, Rwanda, Gambia, Botswana, Namibia, Zambia, Sri Lanka, India, Nepal and Qatar. In a number of countries, particularly from the African continent, compulsory education is complete in year 11 and students from these countries may not be eligible for degree study at Middlesex University or other British Universities unless they complete the IFP.

The IFP is one year long and made up of four modules; Students must pass all four modules to be eligible to join undergraduate degree programmes at MU. The four modules undertaken for study on the IFP are shown in Figure 1.



Figure 1: Integrative or Holistic Nature of the IFP at Middlesex University

The programme incorporates an integrated design whereby transferable academic skills are developed across all four modules. Furthermore, skills specifically taught in one module are also applied, reinforced and assessed in other modules.

Assessed Multi-cultural Group Project Work

The five final learning weeks of the IFP offered at Middlesex University Mauritius sees the students lead an autonomous group assessment exercise in small groups. This is a problem solving project integrating the course concepts and the independent learning skills acquired on the programme. It culminates in two heavily weighted summative assessments, namely a group report (called S7) and an oral group presentation (called S8). Combined, the S7 and the S8 make up more than 30% of the aggregate IFP programme results. The marking criteria for the assessments are given to the students upfront, and also detailed in Table 1.

Table 1: Pass Criteria for the Group Assessments

S7 Group Report – word count 2,200 words (+/- 10%).
To pass this assessment the group should: <ul style="list-style-type: none">• Follow proper report writing structure. Include all sections of a report.• Use primary and secondary sources for the research.• Include graphs/tables/charts.• Demonstrate relevant data analysis skills.• Demonstrate a feasibility analysis. It should include a SWOT analysis.
S8 Group Oral Presentation – 5 minutes per group member.
To pass this assessment the group should: <ul style="list-style-type: none">• Demonstrate good presentation skills, including the ability to respond to questions on the topic.• Visual aids must be clear and engaging.• Incorporate research material into spoken and written academic discourse.

The tutor gives an overall mark to the groups for their S7 and S8 assessments. As part of the submission, members of the group give a peer-reviewed estimate of how each member has contributed or participated to the group effort. However, the tutor agrees the final allocation of each member's participation. Each student's individual mark is then calculated from the overall group mark based on their participation allocation. An example can be seen in Table 2.

Table 2: A template for the Calculation of each group Member's Individual Mark from the Overall Group Grade

	Name	Tasks assigned	Mark reflecting overall participation		
			Group Suggested % Participation	Tutor Agreed Participation %	Final Mark %
<i>Group Leader</i>	<i>Student 1</i>	<i>Tasks 1, 2 and 3</i>	<i>75%</i>	<i>90%</i>	<i>68%</i>
<i>2</i>	<i>Student 2</i>	<i>Tasks 3, 4 and 5</i>	<i>100%</i>	<i>100%</i>	<i>75%</i>
<i>3</i>	<i>Student 3</i>	<i>Tasks 1, 2 and 4</i>	<i>100%</i>	<i>100%</i>	<i>75%</i>
<i>4</i>	<i>Student 4</i>	<i>Tasks 2, 3 and 5</i>	<i>75%</i>	<i>80%</i>	<i>60%</i>
<i>5</i>	<i>Student 5</i>	<i>Tasks 2, 4 and 5</i>	<i>100%</i>	<i>100%</i>	<i>75%</i>

Group Membership

Group sizes are typically four to six members. Stanford University's Center for Teaching and Learning CTL (1999) identified that most faculty members who included collaborative work in courses agreed that group sizes between four and six students seem to work best. On IFP, the groups are previously allocated by tutors and cannot be changed. As far as possible, the tutor additionally ensures a gender balance as well as a balance between local and overseas students. Rienties (2014) supports such a learning environment. Students from different cultural backgrounds might be "compelled" to work together when tutors create the groups in collaborative learning. In their study, after 14 weeks the students developed strong internal group relations and there were "knowledge spillovers" outside the group, which led to positive effects beyond the group. Rout-Hoolash (2014) identified the important role that small group project work plays on the IFP and raised the issues faced among the students in managing group work tasks by using the students' voice through their learning diary (reflective blog) entries. This paper looks at these ideas further and reflects on how important it is for tutors to understand the students' feelings of anxiety as they navigate through this new learning environment.

METHODOLOGY

This is a phenomenographic study, the aim of which is to identify the various ways in which students perceive experience and understand group assessments in order to support learning activities. Phenomenographic research often exposes the different ways in which students understand a particular phenomenon in a learning area (Grix, 2010). Students construct their own meaning in different ways, even in relation to the same phenomenon of group project work in this case. Hence, multiple, valid accounts of the same phenomenon can exist.

The researcher seeks to establish multi-cultural, assessed group work as a 'threshold concept' (Meyer & Land, 2005) for learning in international higher education at the foundation level.

Data collection was by means of analysing existing records. Students maintained a learning diary blog and kept a reflective account of their entire learning experience on the IFP including during the assessed group work phase of the programme. The student voice was used within its own natural setting. This type of naturalistic inquiry develops a body of data that describes individual cases (Gray, 2017). Within these, plausible inferences on events and processes are made. The advantage of this type of data collection method is that it involves unobtrusive measures. This is especially suitable for the particular

context of this study where the researcher is the most senior member of teaching staff on the IFP; and where the students are transitioning from school to university, and also from adolescence to adulthood.

In this study, the student's blogged reflections related to perceptions of group work are analysed qualitatively to gather their individual interpretations. The researcher is looking for individual interpretations of the social life-world, which are derived from cultural experiences and historical situations.

Ethical Considerations

Students were made aware that their reflections may be used for further research and analysis. This is in view to disseminate research into the teaching and learning of MU programmes. Although students may not directly benefit from this research, it may improve the IFP in the future which will help other candidates who enrol on the program. Students' identity was kept confidential and the researcher confirmed that any statements would not be able to be traced back to the student. Moreover, the statements would not have any impact on students' IFP marks. They would not gain extra marks if their views are included, nor would they lose marks if their views were not included.

ANALYSIS

In this Section, the blogged reflections of former students as written down contemporaneously in their learning diary are discussed. It is important to note that these are the reflections recorded by individual students after they engaged in the group work process. By analysing the extracts of these reflections, the researcher could pick up on problems or could appreciate what worked well in the group project phase – and analysed whether these concepts could be characterised as a threshold concept. This anecdotal evidence can therefore go some way to help students and tutors become better aware how to facilitate more effective group work.

Former students' reflections – Student 'A'

“The group work phase was such a slump, it seemed to affect the whole group. It just felt like such a slog. We're not quite at the end of the year, there's a fair way to go, and I just couldn't quite motivate myself. Other housemates had already left for Nigeria – the house was empty and the university also felt nearly deserted.”

This reflection has highlighted how self-motivation is a problem (Gatfield, 1999) in small group work. This particular group went on to achieve only a PASS grade for their group project summative assessment. The question is, as tutors, what can be done to improve practice around facilitating small group project work and try to prevent a similar situation arising again. How can the learning environment be changed and improved given that the students are required to lead this stage of the programme?

Former students' reflections – Student 'B'

“As group leader, I was very worried about one member's attendance record even before group work began. At our first meeting, we were all able to talk openly about our individual strengths and weaknesses. When I brought up this issue, we were able to bounce suggestions around for the most effective working dynamic without needing all members to keep meeting up. This helped that group member who actually travelled 2 hours each way to reach campus.”

This reflection highlights the essential place communication skills hold in effective group work. Communicating well to find solutions, and remaining flexible helped this group achieve a MERIT grade for the summative assessment. Further, this group appears to have adopted a humanist approach to

learning which works well in situations of multicultural collaborative learning. In his 2002 study, De Vita explored assessed multicultural group work in a setting of British HE. This is a new and different approach to studying and learning which comes with a British HE system. Group work is *transformative* for students as it involves a cultural shift in terms of working collaboratively with other students. The students' new knowledge becomes assimilated into their biography, leading to an identity shift.

Former students' reflections – Student 'C'

“Group work was the most interesting and engaging experience for me on the programme. At the beginning I did not have much expectation as I felt very average. At the time of group activities the unsurpassed part was that any members did not have permanent conflicts. It was a fully cooperative work. Overall the most beneficial and the skilful experience I have got through the course was groupwork.”

We can see through this reflection that working tensions may creep into the group project exercise and that is acceptable – as long as any conflicts can be resolved or at least pushed aside. This reflection also indicates that this student approached the group work task in a surface way initially. However, this soon shifted into a deeper approach to the group work exercise and possibly resulted in motivating other members as well to engage at a deeper level – the result was a VERY HIGH MERIT grade for the assessment. Marton and Saljo's seminal work in 1976 explains this shift from surface learners to a deep approach to learning. The group work experience is *irreversible* as once it is experienced and understood, the learner is unlikely to forget it. This poses some difficulty for the teachers who may have forgotten what it was like before they understood the notion they are trying to teach. Academics are encouraged to talk to students often about difficulties they may be facing.

3.4 Former students' reflections – Student 'D'

“I try to lay out the framework and let the team build the parts. Writing the report has actually been lots of fun because of this; I have seen all the sections slowly getting built apart from each other and then during the past week it has all suddenly come together. It looks great, far better than what I would have done alone.”

From this reflection we can see that the group members were able to identify their strengths with regard to the end assessments and take ownership of their individual sections while also keeping in mind the collaborative whole. The group secured a DISTINCTION grade in this summative assignment. This reflection can demonstrate the *integrative* nature of small group project work. When a learner masters a threshold concept, it often allows them to make connections which were earlier hidden from view. The overall learning experience starts to fall into place, like a key to open knowledge.

DISCUSSION AND CONCLUSIONS

This paper focused on the lived experience of students as they negotiated the challenges of small group assessed project work. The student's reflective anecdotes align with the theoretical framework that engaging in group work can be categorised as a threshold concept. When a student can master the skills of group project work at university, one can argue that this is a threshold concept (Cousin, 2006). Getting it right is indeed transformative, irreversible and integrative. Group work can be viewed as 'troublesome knowledge' for students as it challenges previously held beliefs about the nature of learning. Students may find it hard to give up their more traditional, familiar ways of learning and get stuck in a 'liminal state' (Meyer & Land, 2005) as they fluctuate between established and emergent understanding.

Similar to findings in Hassanien (2007) and Gatfield (1999), previous IFP students identified the group project phase as the single most satisfactory experience of the whole programme, despite initially approaching it with mainly negative feelings.

Students who worked successfully in groups learnt so much more than just the assessment content; Cottrell (2013) identifies that they gain important skills including how to collaborate with other members to get tasks done, and how to incorporate differing viewpoints into their thought processes. Past groups which were successful had clearly demonstrated essential study skills at the tertiary level. They had fostered effective group dynamics and ways of working together, especially under an environment of assessed multicultural group work (De Vita, 2002). By offering more and more of these types of opportunities, universities can encourage a much deeper learning experience. A deeper understanding of such interpersonal skills, which are highly transferable (Ettington & Camp, 2002), can arguably help prepare students to be more effective team members in the workplace today.

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