UNIMAS UNDERGRADUATES’ PERCEPTIONS OF GROUP WORK FOR GROUP ASSIGNMENTS

SHIRLEY MICHAEL SLEE

This project is submitted in partial fulfilment of the requirements for a Bachelor of Education with Honours (Teaching English as a Second Language)

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK
(2009)
The project entitled UNIMAS Undergraduates’ Perceptions of Group Work for Group Assignments was prepared by Shirley Michael Slee and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Education with Honours (Teaching English as a Second Language).

Received for examination by:

--------------------------------------------------
(Mdm. Rosnah Mustafa)

Date:

--------------------------------------------------

Gred
ACKNOWLEDGEMENTS

First and foremost, I would like to thank God for giving me strength, passion, and determination throughout the completion of my Final Year Project (FYP).

I would also like to express my sincere thanks and gratitude to my supervisor, Madam Rosnah Mustafa, for her kind guidance, patience, valuable advice and support throughout the completion of the project.

I also would like to thank my family for their constant understanding and supports.

Last but not least, I would like to extend my appreciation to my friends, for their help, warmth and friendship throughout my FYP and for being by my side when I am sad or happy.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td>List of Abbreviations</td>
<td>ix</td>
</tr>
<tr>
<td>Abstract</td>
<td>x</td>
</tr>
<tr>
<td>Abstrak</td>
<td>xi</td>
</tr>
</tbody>
</table>

## CHAPTER ONE - INTRODUCTION

1.0 Chapter overview 1
1.1 Background of the study 1
1.2 Statement of the problem 3
1.3 Aim and objectives of the study 4
1.4 Research questions 5
1.5 Significance of the study 5
1.6 Operational definition of terms 6
  1.6.1 Perception 6
  1.6.2 Group work 6
1.7 Scope of the study 6
1.8 Chapter overview 7

## CHAPTER TWO - LITERATURE REVIEW

2.0 Chapter overview 8
2.1 Group 8
2.2 Collaborative learning 9
2.3 Cooperative learning 11
  2.3.1 Elements of cooperative learning 13
2.4 Group work and types of group work 14
  2.4.1 Group work 14
  2.4.2 Types of group work 17
2.5 Constraints that affect group work to operate 18
  2.5.1 The size of group 18
  2.5.2 The effects of time 20
  2.5.3 The characteristics of members 20
  2.5.4 Collaborative and cooperative 21
2.6 Roles of gender and race in group work 21
  2.6.1 Role of gender in group work 22
  2.6.2 Role of race in group work 23
2.7 Conclusion 24
2.8 Chapter review 25
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>Chapter overview</td>
<td>26</td>
</tr>
<tr>
<td>3.1</td>
<td>Research design</td>
<td>26</td>
</tr>
<tr>
<td>3.2</td>
<td>Participants</td>
<td>27</td>
</tr>
<tr>
<td>3.3</td>
<td>Instruments for data collection</td>
<td>28</td>
</tr>
<tr>
<td>3.4</td>
<td>Data collection procedures</td>
<td>36</td>
</tr>
<tr>
<td>3.5</td>
<td>Data analysis</td>
<td>37</td>
</tr>
<tr>
<td>3.5.1</td>
<td>Data analysis for Section A</td>
<td>37</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Data analysis for Section B, C, D, and E</td>
<td>38</td>
</tr>
<tr>
<td>3.6</td>
<td>Limitations of the study</td>
<td>38</td>
</tr>
<tr>
<td>3.7</td>
<td>Chapter review</td>
<td>39</td>
</tr>
<tr>
<td>4.0</td>
<td>Chapter overview</td>
<td>40</td>
</tr>
<tr>
<td>4.1</td>
<td>Background Information</td>
<td>41</td>
</tr>
<tr>
<td>4.2</td>
<td>Findings of the research</td>
<td>41</td>
</tr>
<tr>
<td>4.2.1</td>
<td>Findings for research objective one</td>
<td>41</td>
</tr>
<tr>
<td>4.2.2</td>
<td>Findings for research objective two</td>
<td>46</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Findings for research objective three</td>
<td>55</td>
</tr>
<tr>
<td>4.2.4</td>
<td>Findings for research objective four</td>
<td>59</td>
</tr>
<tr>
<td>4.3</td>
<td>Discussion</td>
<td>75</td>
</tr>
<tr>
<td>4.4</td>
<td>Summary</td>
<td>79</td>
</tr>
<tr>
<td>4.5</td>
<td>Chapter review</td>
<td>79</td>
</tr>
<tr>
<td>5.0</td>
<td>Chapter overview</td>
<td>80</td>
</tr>
<tr>
<td>5.1</td>
<td>Summary of the study</td>
<td>80</td>
</tr>
<tr>
<td>5.2</td>
<td>Implications of the findings</td>
<td>83</td>
</tr>
<tr>
<td>5.3</td>
<td>Recommendations for future research</td>
<td>83</td>
</tr>
<tr>
<td>5.4</td>
<td>Conclusions</td>
<td>84</td>
</tr>
<tr>
<td>5.5</td>
<td>Chapter review</td>
<td>85</td>
</tr>
<tr>
<td>5.0</td>
<td>REFERENCES</td>
<td>86</td>
</tr>
<tr>
<td>5.0</td>
<td>APPENDIXES</td>
<td>90</td>
</tr>
<tr>
<td>5.0</td>
<td>Appendix A</td>
<td>100</td>
</tr>
<tr>
<td>5.0</td>
<td>Appendix B</td>
<td>101</td>
</tr>
<tr>
<td>5.0</td>
<td>Appendix C</td>
<td>105</td>
</tr>
<tr>
<td>5.0</td>
<td>Appendix D</td>
<td>105</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1
Distribution of Number of Students in Each Programme 28

Table 2
Demographic Data 29

Table 3
Statements on Perceptions of Group Work for Group Assignments 30

Table 4
Statements on Students’ Preference of Group Work in Group Assignments 31

Table 5
Statements on Students’ Non-preference of Group Work in Group Assignments 32

Table 6
Statements on the Role of Instructor or Lecturer in Group Work for Group Assignments 33

Table 7
Example of Open-ended Question 33

Table 8
Likert Scale 34

Table 9
UNIMAS Undergraduates’ Perceptions toward Group Work in Group Assignments 42

Table 9.1
Mean for UNIMAS Undergraduates’ Perceptions of Group Work in Group Assignments 43

Table 10
Factors that affect UNIMAS Undergraduates’ Preference of Group Work in Group Assignments 47

Table 10.1
Mean for Factors that Affect UNIMAS Undergraduates’ Preference of Group Work in Group Assignments 48

Table 11
Factors that Affect UNIMAS Undergraduates’ Non-preference of Group Work in Group Assignments 51
Table 11.1
Mean for Factors that Affect UNIMAS Undergraduates’ Non-preference of Group Work in Group Assignments

Table 12
Role of Instructor or Lecturer that UNIMAS Undergraduates Wish for in Group Work Assignments

Table 12.1
Mean for Role of Instructor or Lecturer that UNIMAS Undergraduates Wish for in Group Work Assignments

Table 13
Mean for Independent T-test Between Males and Females in term of Students’ Perceptions Usefulness in Group Work for Group Assignment

Table 14.1
Mean for One-way Anova Analysis for Perceptions of Retention of Learning Based on Ethnicity

Table 14.2
Mean for One-way Anova Analysis for Perceptions of Organizing and Setting People to Work on Group Task Based on Ethnicity

Table 14.3
Mean for One-way Anova Analysis for Perceptions of Task Completion in Allocated Time Based on Ethnicity

Table 14.4
Mean for One-way Anova Analysis for Perceptions of Task Completion in Allocated Time Based on Ethnicity

Table 14.5
Mean for One-way Anova Analysis for Perceptions of Working in Group of Same Race Based on Ethnicity

Table 14.6
Mean for One-way Anova Analysis for Perceptions of Working with Group of Same Ability Based on Ethnicity

Table 14.7
Mean for One-way Anova Analysis for Perceptions of Completing Task in Longer Time Based on Ethnicity

Table 14.8
Mean for One-way Anova Analysis for Perceptions of Being Left Out of the Group’s Decision Making Based on Ethnicity
Table 14.9
Mean for One-way Anova Analysis for Perceptions of Doing Most of the Work in the Group Assignments Based on Ethnicity

Table 14.10
Mean for One-way Anova Analysis for Perceptions of Difficulty to Meet in Common Time Based on Ethnicity

Table 14.11
Mean for One-way Anova Analysis for Perceptions of Instructor’s Role Having Follow-up Discussion Based on Ethnicity
LIST OF ABBREVIATIONS

ESL  English as Second Language
FSCHD Faculty of Cognitive Sciences and Human Development
HRD  Human Resource and Development
SPSS  Statistical Package for Social Status
TESL  Teaching English as Second Language
UNIMAS Universiti Malaysia Sarawak
ABSTRACT

UNIMAS UNDERGRADUATES’ PERCEPTIONS OF GROUP WORK FOR GROUP ASSIGNMENTS

Shirley Michael Slee

Group work has become one of the important instructional strategies in the higher education. This study aims to examine whether gender and race affect undergraduates’ perceptions of group work for group assignments and the role of instructor that students wish them to fulfill when doing their group assignments. The research objectives for this study are to find out UNIMAS undergraduates’ perceptions of group work for group assignments in terms of 1) their experiences, 2) usefulness, 3) preference of instructor roles, and lastly, 4) the influence of gender and race on their perception of usefulness and preferences instructor roles in doing group assignments. 200 students from five programmes in Faculty of Cognitive Sciences and Human Development participated in a survey questionnaire. The findings show that the majority of the students had positive perceptions towards group work for group assignments in terms of time spent and relationship with other group members. However, some students disliked group work for group assignments because of the difficulty to meet, domination of group members, and slackers. In addition, the results reveal that the students needed instructor’s assistance at the beginning and at the end of the group assignments. The recommendation for the future research is to look in depth the complexities of grouping of race and gender in groups.
ABSTRAK

PERSEPSI MAHASISWA-MAHASISWA UNIMAS TERHADAP KERJA KUMPULAN UNTUK TUGASAN BERKUMPULAN

Shirley Michael Slee

Kerja kumpulan telah menjadi salah satu strategi arahan pada peringkat pengajian tinggi. Kajian ini bertujuan untuk menganalisis sama ada jantina dan bangsa mempengaruhi persepsi mahasiswa-mahasiswa tentang kerja kumpulan untuk tugasan berkumpulan serta peranan pengajar yang diharapkan oleh pelajar-pelajar dapat dipenuhi oleh pengajar ketika mereka melaksanakan tugasan berkumpulan. Objektif-objektif untuk kajian ini adalah untuk mengetahui persepsi mahasiswa-mahasiswa UNIMAS terhadap kerja kumpulan untuk tugasan berkumpulan dari sudut 1) pengalaman mereka, 2) keberkesanan, 3) kecenderungan terhadap peranan pengajar, dan akhir sekali, 4) pengaruh jantina dan bangsa pada persepsi mereka tentang keberkesanan dan kecenderungan peranan pengajar dalam membuat tugasan berkumpulan. 200 pelajar daripada lima program dari Fakulti Kognitif Sains dan Pembangunan Manusia telah menyertai tinjauan borang soal selidik. Kajian menunjukkan kebanyakkan pelajar-pelajar mempunyai persepsi yang positif terhadap kerja kumpulan untuk tugasan berkumpulan dari sudut masa yang perlu diluangkan dan hubungan dengan ahli-ahli kumpulan yang lain. Bagaimanapun, sesetengah pelajar tidak menyukai kerja kumpulan untuk tugasan berkumpulan adalah kerana kepayahan untuk berjumpa, penguasaan oleh ahli kumpulan, dan pemalas. Tambahan pula, keputusan juga menunjukkan bahawa pelajar-pelajar memerlukan bantuan pengajar pada permulaan dan pengakhiran tugasan berkumpulan. Cadangan untuk penyelidikan pada masa akan datang ialah untuk melihat dengan lebih mendalam tentang kerumitan mengumpulkankan bangsa dan jantina dalam kumpulan.
BORANG PENGESAHAN STATUS TESIS

JUDUL : UNIMAS UNDERGRADUATES' PERCEPTIONS OF GROUP WORK FOR GROUP ASSIGNMENTS

SESI PENGAJIAN : 2008/2009

Saya ____________________________

SHIRLEY ANAK MICHAEL SLEE (HURUF BESAR)

mengaku membenarkan tesis * ini disimpan di Pusat Khidmat Maklumat Akademik, Universiti Malaysia Sarawak dengan syarat-syarat kegunaan seperti berikut:

1. Tesis adalah hak milik Universiti Malaysia Sarawak.
2. Pusat Khidmat Maklumat Akademik, Universiti Malaysia Sarawak dibenarkan membuat salinan untuk tujuan pengajian sahaja.
3. Pusat Khidmat Maklumat Akademik, Universiti Malaysia Sarawak dibenarkan membuat pendigitan untuk membangunkan Pangkalan Data Kandungan Tempatan.
4. Pusat Khidmat Maklumat Akademik, Universiti Malaysia Sarawak dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.

** sila tandakan ( √ )

☐ SULIT (Mengandungi maklumat yang berdarjah keselamatan atau kepentingan seperti termaktub di dalam AKTA RAHSIA RASMI 1972)

☐ TERHAD (Mengandungi maklumat Terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

☐ TIDAK TERHAD

___________________________                      _____________________________

(TANDATANGAN PENULIS)                              (TANDATANGAN PENYELIA)

Alamat Tetap:

6C, BLOK B,
JALAN LAI CHEE,
96000 SIBU, SARAWAK.

Tarikh : _______________________          Tarikh: ___________________________

Catatan:

* Tesis dimaksudkan sebagai tesis bagi Ijazah Doktor Falsafah, Sarjana dan Sarjana Muda
* Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh tesis ini perlu dikelaskan sebagai TERHAD.
Statement of Originality

The work described in this Final Year Project, entitled “UNIMAS undergraduates’ perceptions of group work for group assignments” is to the best of the author’s knowledge that of the author except where due reference is made.

__________________    ___________________
(Date submitted)     (Student’s signature)

Shirley anak Michael Slee
15227
1.0 Chapter overview

This chapter included the background of the study, statement of the problem, research objectives, research questions, significance of the study, operational definition of terms, and scope of the study. This study intended to investigate undergraduates’ perceptions of group work for group assignments in UNIMAS.

1.1 Background of the study

Learning is much more than memory. For students to really understand and be able to apply knowledge, they must work to solve problems, to discover things for themselves, to wrestle with ideas. The task of education is not to pour information into students’ heads, but to engage students’ minds with powerful and useful concepts (Slavin, R.E., 2006, p.243).

For many years, teachers have been interested to find out ways to improve the teaching and learning process. Many educators and trainers have realized that there are instructional techniques other than lectures, laboratories, seminars, and
workbooks. Therefore, the delivery of learning is increasing shift to more learner-centred learning, increase in flexibility, recognition of the need of lifelong learning and increased learners autonomy (Reynolds, 1994, p.9).

Teachers can use instructional strategies to guide classroom practice in such a way as to maximize the possibility of enhancing student achievement (Marzano, Pickering, and Pollock, 2001, p.3). According to Marzano et al. (2001, p.7), there are nine categories of instructional strategies that affect student achievement. They are identifying similarities and differences, summarizing and note taking, reinforcing effort and providing recognition, homework and practice, nonlinguistic representations, cooperative learning, setting objectives and providing feedback, generating and testing hypothesis, and questions, cues, and advance organizers. These instructional strategies can be used by teachers to vary their teaching styles in order to make the teaching and learning more effective and meaningful.

Besides, teachers have to bear in minds that students come from different gender, race, culture, social class, and ability. Thus, they have different attitudes, experiences, feelings, and perceptions teaching and learning which they bring into class. These differences may affect the way students perceive of group work. Group work means several students work together to accomplish shared goal (INTIME, 2008).

Thus, teachers need to use a variety of approaches or strategies in the teaching and learning process. They need to be more creative and flexible to use different teaching strategies in order to suit to their students. Besides, teachers also have to make decision on the goal of the language instruction, the most effective methods, and the best way to equip students.
1.2 Statement of the problem

In this study, the researcher had investigated UNIMAS undergraduates’ perceptions of group work in group assignments. This study had looked into how students of different races and gender perceived group work for group assignments. Researcher examined these aspects, which were in terms of gender and race because researcher would like to know whether these aspects influenced the students’ perceptions of group work when they did their assignments as a group.

As stated by Reynolds (1994), group processes are complex and can have a profound influence over the learning and experience of those who engage with them. However, if teachers know which method is suitable for their students to accomplish the aim of working in a group, the appropriate use of group work can help students in their learning. Therefore, it can be said that group work is an instructional strategy that works best when applied systematically.

According to Johnson & Johnson, (as cited in Marzano et al., 2001, pp.89-90), one way to vary the grouping patterns within a class is to use the three types of group work which are informal, formal, and base groups. These grouping patterns are assigned by teacher or instructor. Informal groups are ad hoc groups that last from a few minutes to a class period. They can be used to clarify expectations for tasks, focus students’ attention, allow students time to more deeply process information, or to provide time for closure. Formal groups are designed to ensure that the students have enough time to thoroughly complete an academic assignment. Therefore, they may last for several days or even weeks. Base groups are long-term group created to provide students with support throughout a semester or an academic year.

As for this study, the researcher looked at the context of the second type of group work that is formal group. This is because this study examined UNIMAS
undergraduates’ perceptions of group work when they are asked to do assignments in group.

There are some students who prefer to work alone instead of working in a group. This is due to their preferred learning styles and influences from their teachers since they were in schools. Whereas, some teachers resist using group work as one of the teaching methods because they are concerned with classroom management, classroom control, and classroom discipline. This is because classroom control is the most important part of teaching (Johnson and Johnson, 1991, p.203). This phenomenon occurs especially for beginning teachers as they cannot manage and monitor the students when they ask the students to work into group for certain task.

In addition, differences in age, race and gender also influence students to have different views, assumptions and beliefs about group work (Payne and Monk-Turner, 2006, p.132). Thus, the aim of this study is to find out whether gender and races influenced students’ perceptions of group work for group assignments in UNIMAS.

1.3 Research objectives

The objectives of the study are:

1.) To investigate UNIMAS undergraduates’ perceptions of their experiences participating in group work for doing group assignments.
2.) To examine students’ perceptions of usefulness (advantages and disadvantages) of group work in doing group assignments.
3.) To find out students preference for instructor roles in group work for assignments.
4.) To examine the influence of gender and race on their perception of usefulness and preferences instructor roles in doing group assignments.
1.4 Research questions

The following are the research questions:

1.) What are the students’ perceptions of the usefulness of group work in doing group assignments?

2.) What are the factors which influence students’ preference or non-preference of group work for group assignments?

3.) How do the undergraduates perceive the role of instructor or lecturer in group work for group assignments?

4.) Do gender and race influence students’ perceptions of the usefulness and preferences of instructor roles in doing group assignments?

1.5 Significance of the study

This study informed lecturers about the students’ preference in group work while they do group assignments. Lecturers can develop ways to encourage dynamic in group work.

In addition, this finding also helped the lecturers to realize the problems that the students faced in their group work especially when they are doing group assignments. From this finding, lecturers could find other alternatives or strategies to overcome the problems.

Apart from this, students’ views of the usefulness of group work helped lecturers to consider ways to make group work more effective. This is because there are several methods or strategies that they can use appropriately according to the topic that they teach. Thus, from these varies methods, students would not feel bored or lost their interest in learning.
1.6 Operational definition of terms

1.6.1 Perception

Perception is “influenced by a variety of factors, including the intensity and physical dimensions of the stimulus; such activities of the sense organs as effects of preceding stimulation; the subject’s past experience; attention factors such as readiness to respond to a stimulus; and motivation and emotional state of the subject” (Columbia Encyclopedia, 2008). In this study, perception is refers to students’ experiences, attitudes, and feeling of group work in doing group assignments taking from their practices that they have undergone.

1.6.2 Group work

According to Healey, Matthews, Livingstone, and Foster (1996, in Livingstone and Lynch, 2000, p.332), group work can be defined as consisting of “two or more students working together on a task”. In this study, group work refers to students working together in completing their group assignments.

1.7 Scope of the study

This study was just looking at the used of group work in doing group assignments among undergraduates especially students from Human Resource and Development programme, Education in Mathematics programme, Education in Computer Science programme, Cognitive Science programme, and Counseling programme in FSCHD. This study did not include the students from other faculties in UNIMAS.

This study also did not include other group work such as group work that is done in class as class activity. It only concerned on group work for group assignments.
1.8 Chapter review

This chapter consists of the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, definition of terms, and scope of the study. This chapter is followed by Chapter Two, which discusses critical review of literature reported by other researchers, educational, and professionals.
2.0 Chapter review

In this chapter, it gives a review of the literature from other researchers that related to this study. It presents the related literature reviews on the group, collaborative learning, cooperative learning, group work, constraints that affect group work to operate, role of gender and race in group work, and summary of the whole information of the study. This study intends to investigate on undergraduates’ perceptions of group work in doing group assignments in UNIMAS.

Introduction

2.1 Group

Working in a group to complete a task given is one of the teaching techniques that have been widely used in lecture class. Students are asked to discuss in a small group where they may have two, three, four, or even half class discussion. It is believed that groups can be used to create a more efficient and effective working environment in an organization (Becker, 2005, p.7). This
statement is supported by Hernandez (2002, cited in Kaenzig, Hyatt, and Anderson, 2007) where he stated that employers usually seek employees who can work effectively in teams and analyze, evaluate, and find solutions to problems.

Preston-Shoot (1987, p. 7) defined group as “a collection of people who spend time together, who see themselves as members of a group, who are identified as members by outsiders”. Whereas according to Sidin (1993 as cited in Nor Azmi, n.d.), groups are more than collections of individuals and are formed because members need to get something done or to produce something using knowledge and skills. Some group dynamics theorists argue that a group has to comprise at least three people before significant group behaviour can occur (Jaques, 1995, p. 14).

A group is composed of individual members whether the group is of short or long duration, and whether its membership is static of constantly changing (Douglas, 2000, p.14). This statement is supported by Jaques (1995, p. 37) where he stated that a group is never static: it is a dynamic organism, constantly in motion. Group members may share common interests from which they develop a sense of identity or unity which defines the group to others and legitimates its existence (Preston-Shoot, 1987, pp.8-9). Mutual expectations and agreement on the means of achieving the group’s goals positively influence group functioning and members’ satisfaction and motivation (Maluccion and Marlow, 1974, in Preston-Shoot, 1987, p.8).

2.2 Collaborative Learning

Collaborative learning “refers to a variety of instructional practices that encourage students to work together as they apply course material to answer questions, solve problems or create a project” (Collbeck, Campbell, and Bjorklund, 2000). Hord (1986, in Marlow and Nass-Fukai, 2001/02, p.191) defined collaboration as development of a model of joint planning, joint implementation, and joint evaluation between individual and organizations. Students are actively
engage in the teaching and learning process, to participate in informed and spirited debate, and to negotiate learning on a more platform of disciplined inquiry with the teachers when collaborative learning occur (Hennessy and Evans, 2006).

In addition, Hennessy and Evans (2006) stated that collaborative learning approaches seem appropriate for the community college classroom because they elicit higher order thinking. This is because collaborative learning allows for more natural growth of interdependence, improvements in the ability to work and communicate with others (Hennessy and Evans, 2006). It’s only when all members of the collaboration have found unity in the majority of goals and objectives of the partnership does it function effectively (Harris and Harris, 1992, in Marlow and Nass-Fukai, 2001/02, p.191). Collaborative skills in and of themselves are important instructional outcomes that relate to future career and life success (Johnson and Johnson, 1991, p.146).

Besides, it is believed that students become more effective in working with each other. This idea is supported by Johnson and F. Johnson (1990; 1991, in Johnson and Johnson, 1991, p.146) where they mentioned that all students need to become skillful in communicating, building and maintaining trust, providing leadership, and managing conflicts. In all situations where people come together in groups, it suggests a way of dealing with people which respects and highlights individual group members’ abilities and contributions. There is a sharing of authority and acceptance of responsibility among group members for the groups’ actions (Panitz, 1996).

A study done by Terenzini, Cabrera, Colbeck, Parente, Bjorklund (2001) found out that collaborative methods produce greater gains in student learning than those associated with more traditional instructional methods. The study was done on the campuses of the colleges of engineering in Pennsylvania State University. The objective of their study was to examine the extent to which active and collaborative approaches to teaching engineering design are any more effective than conventional approaches. Their study involved 480 students.
enrolled in 17 active or collaborative learning courses and six traditional courses at six engineering schools. Of the 480 students, 339 (71%) were enrolled in an Engineering Coalition of Schools for Excellence in Education and Leadership (ECSEL) course while 141 (29%) were in non-ECSEL courses. They used questionnaire to collect data from these 480 students. There were 24 items in the questionnaire.

Their findings showed that ECSEL-course students’ means on classroom activities were higher than those of their non-ECSEL peers on 17 of the 18 items. Only on the item dealing with the extent to which students in the course were treated similarly regardless of their gender did non-ECSEL students rate their course significantly higher than the ECSEL-course students. Compared to their non-ECSEL course peers, ECSEL-course students consistently reported more opportunities to work in groups, a greater course emphasis on the design process and activities, more active involvement in their own learning, more course-related (and out-of-class) interactions with other students in the course, more in- and out-of-class interaction with faculty members, more frequent and more detailed feedback on their performance from instructors and peers, and more encouragement from faculty members to challenge the ideas of instructors and other students.

2.3 Cooperative Learning

Cooperative learning approach has been introduced in teacher education programmes but rarely modeled in university classrooms (Johnson and Johnson, 1985, Van Voorhis, 1991, in Watson, 1995, p.209). There are many definitions given to this cooperative learning approach as different researchers had their own definitions. According to Vaughan (2002, p.359), cooperative learning is the instructional use of small heterogeneous groups of students who work together to maximize their own and each other’s learning. While Kenneth, Stedwill, Berrill, and Young (1996, p.177) defined cooperative learning as a group of two or more