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CHAPTER 5

ANALYSING DATA AND REPORTING FINDINGS: STUDENTS' STANCE, PERCEPTIONS, ORIENTATIONS AND MOTIVATION IN THE CONTEXT OF GROUP LEARNING

"There are only a few notes. Just variations on a theme."

— John Lennon

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5.1 Organisation and overview of findings and discussion chapters

5.1.1 Organisation and overview of Chapter 5 to Chapter 8

Chapter 4 has justified the research design and approach used to meet the research objectives. The findings chapters are organised according to the analytical framework (See figure 4.4, Chapter 4). This section provides an overview of the organisation and the relationship of the findings and discussion chapters for this study.

The chapters are organised as follows and they will be explained more fully in the following sections.

1. Findings: Students' stance, perceptions of critical thinking and group learning, orientations to group learning and motivation (Chapter 5);
2. Findings: Students' critical responses (Chapter 6);
3. Analysing and reporting the relationships among the findings (Chapter 7);
4. Discussion and conclusions (Chapter 8).

The sample's detailed demographic data are presented in table 5.1 on page 154 below. The information about the students' background will be useful for later data analysis.

Chapter 5: Findings: Students' stance, perceptions of critical thinking and group learning, orientations to group learning and motivation.

Using the analytical framework for the study in Chapter 4, this chapter considers the *Presage* in the framework, drawing on the significant variations in the ways in which students described their personal stance, perceptions of critical thinking and group learning, orientations to group learning and motivation.

As mentioned earlier in Chapter 4, the interview questions were able to prompt the students' stance in this context. One stance revealed in the study was their stance on conflict during the interaction and discussion in the group, when they

were working together on the FFM assignment. This chapter first identifies and allocates students according to their willingness to engage in conflict during their interaction and discussion process. This allocation will help the analysis at a later stage. Then it presents and reports the findings in relation to the stance, perceptions, orientations and motivation in the context of group learning.

Chapter 6: Findings: Students' Critical responses

This study identified critical responses when students' viewpoints, ideas or perspectives were challenged in the group learning. These responses refer to students' attempts to reach cognitive equilibrium, especially when cognitive conflict occurs (Johnson and Johnson, 2009b). Critical responses were contextually dependent and considered as *Product* in the analytical framework.

Chapter 7 Analysing and reporting the relationships among the findings

The next stage is to consider whether there are potential relationships between these identified findings. Matrices are produced for this purpose and the identified findings drawn from these matrices are considered in Chapter 7.

Table 5.1: Sample: Demography¹

Student Number.	Gender	AGE	MSc Finance	MSc FM	UK students	Int' students	Education Background	CT Module
1	F	?		X	X		D	
2	M	?		X	X		D	
3	F	25		X		X	D	
4	M	21	X		X		D	Y
7	F	30	X			X	D	
8	F	?		X		X	D/P	
10	M	22	X		X		D	
11	M	22	X		X		D	
12	F	22		X		X	D	Y
14	F	21		X	X		D	
15	M	28	X			X	D/P	
17	F	?		X		X	D	
19	M	26	X		X		D	
20	M	26	X			X	D	Y
21	M	24		X		X	D	
22	F	36	X		X		D	
23	F	?	X			X	D	
24	M	27	X			X	D	Y
25	F	?		X		X	D	
27	F	?		X		X	D	
	9M, 11F		7M, 3F	2M, 8F	5M, 3F	4M, 8F		3M, 1F
N=X	20		10	10	8	12		4

¹ Notes for the table:

- a) The students' number were taken according to the numbers assigned to the consent form. As a result, they were not numbered in sequential order.
- b) M = Male, F = Female
- c) UK and Int' (=International) student indicate students' nationality. In other words, international students were overseas students.
- d) Education background: D= with a relevant degree; P = Professional degree
- e) CT (critical thinking) module: Y indicates student has studied a module on CT.

5.2 An overview of findings considered in Chapter 5

Chapter 5 considers the students' stance, perceptions of critical thinking and group learning, their orientations to group learning and their motivation in the context of group learning. Hence, this chapter is organised in the following sections:

1. Allocation of students to personal stance (Section 5.3)
2. Students' perceptions of critical thinking (Sections 5.4)
3. Students' perceptions of group learning (Section 5.5)
4. Students' orientations to group learning (section 5.6)
5. Students' motivation in group learning (section 5.7)

The conventions used when quoting students are:

1. Students' quotations are presented in 'raw' format without any amendments to their grammar or choice of words used during the interviews. This is to keep the meaning as close as possible according to the students.
2. A different font and spacing format is used to differentiate quotes from the normal text in the chapter.
3. *Italics* indicate that the interviewer is being quoted.
4. **Bold** indicates that emphasis has been added for the purposes of the analysis.
5. (*Italic*) indicates that some quotes have been re-interpreted as closely as possible; this is due to the language proficiency level of the students, whose core language (mother tongue) may not be English. Many of them were international students coming from non-English speaking countries. Some terms were used very loosely or incorrectly and required the researcher to reinterpret them.
6. [] indicates that a passage has been removed from the quote.

7. Student numbers (for example, Student 4) have replaced students' names. The number following M (male) and F (female) indicates the starting lines within that interview.

5.3 Allocation of students to personal stance

5.3.1 Identifying the personal stances of open-mindedness, closed-mindedness and avoidance.

One salient aspect that was revealed by students in their interviews and observed during the process of analysing student profiles was their responses during the interaction and discussion with group members. The allocation of students according to personal stance on conflict is informed by the constructive controversy theory discussed in Chapter 3.

In Constructive controversy theory, Johnson and Johnson (2009b) compare the constructive controversy process with concurrence-seeking, debate and individualistic learning processes (See Table 3.1, p.68). The most important differentiating factor is the responses students take to revise their views and conclusions after being challenged by opposing views during interaction and discussion with others. They suggest that students could respond in three different ways when they interact with others. According to Johnson and Johnson (2009b), students could quickly agree and reach a conclusion by compromising on the issues (concurrence-seeking), be an acting judge (who could be a group member or a teacher) who could decide who wins based on the best arguments made when two students are arguing a point (debate), or open-minded and synthesise and integrate new information and new perspectives to revise their conclusion. Finally, students could choose to work independently with their material at their own pace and using their own views.

Drawing from the constructive controversy theory, this study suggests that there are three stances that students could reveal in relation to the cognitive conflict which occurs "when incompatible ideas exist simultaneously in a

person's mind or when information being received does not seem consistent with what one already knows" (Johnson & Johnson, 2009b, p.39). This happened when students' views were challenged or rejected during the interaction and discussion in group learning. Three personal stances were identified:

1. Students being open minded
2. Students being closed minded
3. Students avoid conflict

The identification of these three stances particularly helps to achieve the following points in analysing data and generating findings in later stages:

1. To maintain the individual's unique experience during the cross-cases analysis
2. To provide evidence of 'internal validity', which refers to the consistency in students' accounts (Ashworth & Lucas, 2000).

Students were asked whether they could accept arguments from group members. Their comments revealed their stances and they are discussed in turn below.

a. Open mindedness

Open mindedness is defined as follows:

Open-mindedness is an intellectual virtue that involves a willingness to take relevant evidence and argument into account in forming or revising our beliefs and values, especially when there is some reason why we might resist such evidence and argument, with a view to arriving at true and defensible conclusions. It means being critically receptive to alternative possibilities, being willing to think again despite having formed an opinion, and sincerely trying to avoid those conditions and offset those factors which constrain and distort our

reflections. The attitude of open-mindedness is embedded in the Socratic idea of following the argument where it leads and is a fundamental virtue of inquiry (Hare, 2004, p.39).

Drawing from the definition above, some students commented that they were receptive to alternative ideas despite having different ideas themselves. For example, S3 commented that she was willing to consider arguments so that she could learn more from others.

'Can you accept arguments from your group members? Can you easily accept arguments from your group members?

Yes, yes, because ... yes, yes, um, **because this shows my mistake** I think, so ...

What if it is not your mistake?

No, like not mistake, but **it shows my like differences from my friends**, so I think this part ... differentiates the individual work and group work I think, um, because everyone has different ideas and puts different ideas and you can like ... **you can learn more ... you can think more and you can like ask a lot of questions to yourselves to compare other ideas with your ideas.'** (S3, F, 468)

S7 showed that she was willing to take arguments into account in forming and revising her opinion.

*'Yes. Can you accept arguments from your group members? Sure. Why? If they are able to **convince me** that ... like give me the benefits of that, um, of the ... of the points they are raising, yes, **and I see it's right, why not?'*** (S7, F, 323)

S14 showed that she was trying to be open-minded and "sincerely trying to avoid those conditions and offset those factors which constrain and distort our reflections" (Hare, 2004, p.39).

*'Um, **I would never assume that I'm right**, that's why I like discussion and if someone disagrees with what I've got then **I am open to any sort of feedback, sort of criticism**, because I think that's what ... widens your understanding of why ... like you ... like what ... like why I'm wrong or why I'm right, um, so I would never assume that I'm right. **I'm not the kind of person that would be like "Right, this is the answer" and that's that, because I like to have ... I like to open up questions and that to the group...'*** (S14, F, 587)

b. Closed-mindedness

According to constructive controversy theory, closed-mindedness usually involves debate where two or more individuals argue positions that are incompatible and a judge declares a winner on the basis of who has presented his or her position the best (Johnson & Johnson, 2007). Although the process of debate begins in the same way as the process of controversy, the uncertainty created by being challenged results in a closed-minded, defensive rejection of other points of view and dissonant information (Tjosvold and Johnson, 1978). In other words, this stance describes students who are intolerant of the beliefs and opinions of others and stubbornly unreceptive to new ideas.

This study does not identify any students who revealed any characteristics as defined above; hence there is no allocation of this stance to any students in the study.

c. Avoidance

Lastly, this study also identified the avoidance stance within the constructive controversy theory. The theory recognises that concurrence-seeking occurs when members of a group emphasize agreement, inhibit discussion to avoid any disagreement or argument, and avoid realistic appraisal of alternative ideas and courses of action (Johnson & Johnson, 2007). The process of concurrence-seeking is a combination of cooperation and avoidance of conflict. Johnson and Johnson (2009b) explain that when two members of a group prepare their positions and present the best case possible, they experience uncertainty once they realise there is disagreement. Subsequently, they become apprehensive about the disagreement, and seek to avoid and suppress the conflict by finding a compromise position that ends disagreement immediately.

The case described above can be illustrated by some of the students' comments. For example, S10 would readily compromise with the group decision in order to move on.

'Yes, OK, how do you feel when you have been challenged?'

Um, I felt like I was right, but the group was like, um, denying the point because they had different ideas, they just want to get their point across, **so I thought, um, 'OK, let the group like ... do whatever they want to do', I just want to get the assignment over with** (laugh).' (S10, M, 403)

S8 avoided any conflicts simply because it was a group task.

'Right. So can you tell me if your views have been sort of challenged or rejected in the group how would you feel? Or what would you do? Um ... Um, but I didn't really feel ... how can I say... crossed that my views were rejected or anything. I just thought 'it's a group, I have to compromise with the group view', so that's why.' (S8, F204)

The case of S15 exemplifies the case of concurrence seeking where there is a combination of cooperation and avoidance of conflict.

'OK, can you accept arguments from your group members?'

Oh yes, yes, yes, definitely, not everyone had the same assumptions, but **because this is teamwork, this is group work**, so everyone pulled their ideas together and then **we sorted out** and everyone read the final ... **those final assumptions and we are satisfied and based upon our certification** that's how we came about it and submit it.' (S15, M, 509)

S20 demonstrated the case when students sought to avoid and suppressed the conflict by finding a compromise position that ends disagreement immediately.

'If both of you are not very sure about each other's view or answers ... yes, so how ... how to resolve that?'

If we are not sure ... sometimes **if you are not sure about something better not to use it**, that's usually ... that's the truth, you know, you never ... when you have doubt in something better not to use it **because later you will be questioned and you cannot answer the question.'** (S20, M, 274)

Table 5.2 summarises the allocation of students to the two stances identified in the context of group learning.

Table 5.2: Students' stance to conflict

Open-mindedness	Avoidance
S2	S1
S3	S4
S7	S8
S11	S10
S12	S15
S14	S20
S17	
S19	
S21	
S22	
S23	
S24	
S25	
S27	
N=14	6

5.4 Students' perceptions of critical thinking

The interview generally began with a broad question "What do you understand by critical thinking?" Students were probed and prompted to explain what critical thinking was meant for them. Together with the production of student profiles and analysing the interview transcripts as a whole, the significant variations in the ways students' perceiving critical thinking were identified. Three major perceptions of critical thinking were identified, namely:

1. Critical thinking as to develop a deeper understanding (CT1)
2. Critical thinking as to provide an outcome (CT2)
3. Critical thinking as a mechanistic process (CT3)

Table 5.3: Students' perceptions of critical thinking (CT)

CT1	CT2	CT3
S1	S7	S2
S3	S12	S10
S4	S15	S19
S8	S20	
S11	S21	
S14	S23	
S17		
S22		
S24		
S25		
S27		
N=11	6	3

The following sections consider these variations under each heading in turn.

5.4.1 Findings: CT1 - Critical thinking as to develop a deeper understanding

a. Not accepting matters as given but analyse and evaluate further

Some students commented that one should not accept matters at face value or as they are. To achieve this, S1 shared that one should carefully and critically analyse the matter with evidence.

'But what do you understand by critical thinking yourself?

Um, I would say that it's ... I think I had that question before, I think I'm going to repeat myself. Like, um, **critically evaluating things**, maybe materials or basically anything that is what of interest, critically evaluating it, looking, um, **looking for evidence to see why this person is saying this. You don't have to just ... because the person said this you don't have to agree with the person**, you have to look at, OK, how many people have said things that are the same thing what this person have said and you like ... **you try to analyse it critically, you critically analyse it and like look at it carefully, that is what I think it is.'**
(S1, F, 1079)

Similarly, S22 thought the analysis process would be constructive in relation to any given information.

'I think it's (critical thinking) basically (pause) um, the way that ... to be able to analyse and try to argue on the basis of the information that you are given, **not**

just to accept, but to analyse and argue and give very constructive argument on any information.' (S22, F, 788)

She explained her view above, one should not just accept (any views) before making any analysis and research on the given information, before knowing what he or she was talking about. S22's perception was very close to S1. Both of them pointed out the need to analyse before knowing what to decide.

b. Able to see from many 'parts', 'angles', 'sides' and beyond

Some students felt that critical thinking was about engaging the task appropriately, particularly with the intention to develop a deeper understanding of a subject matter.

S3 mentioned the word 'deeply' in her perception of critical thinking. She described that critical thinking was to 'see' the subject deeply – to see from many parts, from a lot of sides and angles. Critical thinking was about knowing the subject matter in detail and comprehensively, hence developing a deeper understanding of a subject matter.

'What do you understand by critical thinking?

Like, um, for me like to ... to see the ... like subject **deeply** and ... how can I explain? Um, to see from **many parts**, like ... (Pause) *Take your time.*

... um, like first **you have to understand what you are doing really well** and if you ... if you **know a lot** of things about it you can see from **a lot of sides**. *Mmm.* So, um, I think ... all I can say like this. Like you have to **know a lot** and to ... you have to be sure that you like ... you are (pause) like trying to look at this point from **a lot of angles** and ... (pause)...' (S3, F, 501)

This way of perceiving critical thinking was evident subsequently in the interview; when applying to learning, she used the term 'surface' to contrast her notion of 'deep' learning. She reiterated the need to know a lot of things and knowing everything deeply. For S3, critical thinking could help her so.

'I ... I'm like this, I have to ... **I can't see things from the surface**, I have to learn it deeply to ... if I want to satisfy from my work **I have to know a lot of things**. I

have to know deeply everything, so I think critical thinking is really helpful in this situation. (S3, F, 614)

S17 also described a similar way of perceiving critical thinking with S3, but she stressed the necessity to enquire further, reflect deeply and consider alternative and different perspectives.

'Um, what do you understand by critical thinking?

Um, I think it's just about **seeing beyond the face value** of your question, like **thinking deeply into it**, not just accepting what you see, but just thinking ... **what if** it goes **this way**? What if it goes the **other way**? I think there is something I need to do about this, like just **going beyond the face value**.' (S17, F, 375)

c. Able to evaluate others' feedbacks

S14 perceived critical thinking as allowing her to understand a subject matter more deeply by evaluating others' feedback.

'... so I think it(CT) allowed me to **understand it better** and, um, I now know like **how to apply more in depth**, like the ways to sort of go about critical thinking and sort of **evaluating feedback and the usefulness of it**, so I think in ... like **it's definitely developed my understanding** and it was ... critical thinking's now more something that I would think of applying within sort of group work and individually, so ...(S14, F, 918)

d. Able to explain one's ideas

Some students also described critical thinking as an analysis process that enabled one to explain ideas after developing a deeper understand of the subject matter. For example, S25 emphasised the ability to explain a particular message with her own words and understanding after a process of analysis and evaluation.

'It's (CT is) a way of actually analysing something, probably a particular article or a message and **trying to explain to your own words ... in your own, um, understanding**. I don't know ... I don't ... I may not have the actual words to explain it literally, but **I think it's just a way of evaluating**, um, something and

trying to use your own words to explain what you can get ... the pattern, yes.’
(S25, F, 346)

e. Engaging in critical reflection

Some students also shared that critical thinking helped to solve a problem by engaging in reflection. For example, S24 perceived it as a ‘profound’ reflection process to provide refined ideas and answers to problems at hand. In other words, a deeper understanding would be developed before students could provide a ‘refined’ idea.

‘... I define my critical thinking in a very unique way and I’ve always had that definition of, you know, critical thinking from time ... from school, so I refer to it as a process ... **a process that will ensure that you’ll come up with refined ideas**, so a process that would result, you know, with profound depth, I will mention that, you know, when I come up with ideas those ideas are refined and **that is after you must have indulged and (get) yourself in deep profound thinking, meditation, pondering, before you come up that idea, so as to provide answers to problems at hand.**’ (S24, M 338)

f. Able to make sense by questioning self and others

S8 perceived critical thinking as a series of reflective questions to make sense to herself and others whilst developing a deeper understanding.

‘... um, well maybe the idea of critical thinking is not clear in my head, but I guess it’s about **questioning what you’re doing**, so, um, yes, I would just **question** what other people do. **“Does it make sense to myself?”**, **“Does what ... um, does what I’m seeing make sense to other people too?”**, so that’s ... that’s the relationship I think. Make sure that what people are saying **makes sense.**’ (S8, F, 703)

In brief, students depicted a variety ways that critical thinking might develop a deeper understanding. It was interesting to find out that some students emphasised their perceptions that required the involvement with others, i.e. their group members, such as S1 and S14. Both students explained that critical thinking would help them to understand a subject matter more deeply in a social context of learning.

On the other hand, there were students who did not stress so much about the involvement with others. For example, S25 perceived it as an independent thinking process, which did not necessarily require others to enable her to explain her ideas. This observation will be considered more fully in later stage with the production of matrices in Chapter 7.

5.4.2 Findings: CT2 - Critical thinking as to provide an outcome

Paul and Elder (2008) suggest that critical thinking entails problem solving abilities. They suggest that students who think critically are able to solve problems effectively. Many students shared that they perceived critical thinking as activities that helped to solve a problem or to provide a better solution. In brief, their perceptions focused on a particular 'assumed' critical thinking related activity in order to provide an outcome. The outcomes students had in mind were considered below in turn.

a. Deriving a better answer

When asked about critical thinking, S20 summed up his perception of critical thinking was about 'coming up with better answers' in group learning.

'Critical thinking, um, sometimes when you come up with errors and try to find or **tackle a problem with a different way** of ... **different solutions to get to that answer** or maybe trying to **get a better answer** compared to the others, so critical thinking will be useful for us in the ... in the environment of the group, so **to just come up with better answers.**' (S20, M, 671)

Later, S20 reiterated his perception of critical thinking as a generic activity applying in different subjects. However, as an accounting and finance student, he related it with his perception by emphasising that he needed it more to derive better answer than anybody else.

' ... it's nothing different compared to the before, it's not something that you do it for first time, so it's just something that I've done it before with a group, **so it's just the same thing repeating and repeating, but with just a different subject.** Of course finance I think needs ... **finance and IT ... business ... needs more critical thinking than anything else** because you're ... in these fields (finance and IT) you only find about the looking for the different ... better

answers on the ... **so you always need to use critical thinking to find better answers ... a better solution than anybody else.**' (S20, M, 710)

b. Improving on things

S7 referred to the FFM case study and explained a systematic way of solving the issues in the case. In her comments, it could be noticed that she approached the case by examining the right and wrong ways of doing thing in order to suggest better solutions.

'Critical thinking I think is looking at, um, like a case study, looking at the case study, um, **looking at the things** ... the company is **doing right**, looking at the things the company is **doing wrong** and, um, looking for ways in which they could amend and do things better, really, that's my own view of critical thinking ... **being able to suggest ways of doing things ... improving on things.**' (S7, F, 397)

c. Solving problems

For S23 it was an independent reflection process to find the answers to the problem. She explained her way of perceiving critical thinking as follow:

'Maybe you tell me what critical thinking means to you?

Um, I think it's **think independently and think by myself** and then just like that.

OK, can you tell me right now what is critical thinking to you right now?

Um, I think critical thinking is, um, when you have some confused, **you can think by yourself or try the other ways to find the answers, but not ask for others' help.** It's like that (laugh).' (S23, F, 694)

S21 also shared the same view as S23 about engaging in self-reflection. He termed this as 'internal critical thinking' where he implied 'internal' as private reflection in order to have "very good questions that can lead us to our good conclusions that can identify problems on the whole project. " (S21, M, 871)

d. Able to apply critical thinking

For S12, she shared that by understanding the issue more deeply; she would be able to apply it in the future.

'I think critical thinking just, um, you need to find the question or issue more deeply. Try to ask someone why you want to do it, how you do it, and **where you can apply it in the future or in the real life.** Yes.'(S12, F, 818)

It can be concluded, despite the significant variations in the ways students described critical thinking, that they had one thing in mind, i.e. they saw critical thinking as a process or activity for them to solve a problem (S23), in providing a better solution (S20) and improving on things (S7). They also depicted variation in activities such as examination, comparison, analysis and reflection.

It is interesting to observe that the outcome related activities may or may not be concerned with developing better understanding, from a lecturer's point of view hence critical thinking. For example, S7 could be merely looking at what was right or wrong in the case study without engaging further with critical thinking. On the other hand, some students, for example S23, perceived it as a reflective process to generate refined ideas as to provide answers to problems. In this case, the outcome related activities were concerned more with critical thinking. Indeed, this warrants the attention by the second stage of analysis using matrices as mentioned earlier in Chapter 4.

5.4.3 Findings: CT3: Critical thinking as a mechanistic process

Just as there were students who focused on outcome-related activities, some students described a related approach when they were asked about their perceptions of critical thinking. Their comments exemplified the mechanistic process of their perceptions. The significant variations in the ways students perceived critical thinking as a mechanistic process is considered in turn below.

a. Weighing the options

S10 perceived critical thinking as a systematic approach to weight up the options (S10, M, 779), looking for 'two sides of coin' in the process.

'What do you think about critical thinking? Tell me yourself?

I have ... well, I have a mixed idea, what ... *Tell me what it's like?*

Is it like seeing advantages and disadvantages of like, um, judging like your thinking? *Mm-hm*. Saying **what's right and wrong** about it?' (S10, M, 848)

Slightly different from S10, for S19 it was about tackling the problem by investigating the disadvantages or limitations of the subject matter.

'Critical thinking is something like you go to a lesson, you go to work and you look at it like **bringing out the disadvantages, what are the limitations** which that thing has and what are the better things there? You know? You now have to look at it like those **limitations are the main things** you look at the most like this thing ... if people use this thing ... like let's take for example maybe someone produce a product, you look at it like say if people use this thing these are the bad effects that thing is going to have, (*though there are*) bad side effects which you are going to analyse, but at the same time **it's those limitations on it that you talk about** and say "OK, these are the things that have been ... these are the things that we (*have*) if we use this product, these are the things that we (*have*) if you use this product", they tell disadvantage, but **you make the limitations so high than the advantage** which it is going to have.' (S19, M, 485)

This was evident in his comments as he quoted an example of how he would solve the problem in the FFM case study, particularly about the bossy and unfriendly staff in the case. S19 was inclined to look at the 'limitation' as he tackled the issue.

'... like that aspect of the bossy side, the lady which was bossy and too saucy to other people, I look at it like why would she be in the organisation? What benefit has she done to the organisation? So since she hasn't done anything nice, she has been behaving bad, they should just sack her and look for other people to do the work, but they came out and said something like "No, it shouldn't be done like that", they need to talk to her, give her a query, let her realise what she has been doing, appraise her with a (*usually*) look at that (*her actual performance compared with expected performance*) if she's OK with it ...

if it's OK, if it's not look at what kind of correction you can still do, you know? Because to me I then look at it like why is she working in the company? **Sack her and let her go, so that is my own suggestion, that is where I criticise the work, why is she there?** (S19, M, 466)

Like S19, S2 also stressed the need to first look at the 'negative aspects' of issues before discussing with group members (S2, M, 376). These students adopted a mechanistic view of critical thinking in their perception and they were rather dualistic (Perry, 1970) in nature. For example, quotes such as 'right or wrong' (S7), advantages and disadvantages (S10), and strengths and limitations (S19), could be observed in their descriptions as they explained ways of perceiving critical thinking.

This study identified three significant variations in the ways in which students perceived critical thinking. Drawing from the findings above, different individuals perceive critical thinking differently, therefore it is never universal in any individual. Next, as students' perceptions of group learning are equally vital for the study, section 5.5 considers the significant variations in the ways in which students perceive group learning.

5.5 Students' perceptions of Group learning

5.5.1 Identifying members are key in group learning

When asked about their perceptions of group learning, students stressed that members were the important factor for them to 'function' in group learning. To 'function' in group learning in this sense means to learn and work effectively as they described in their interviews. This was an interesting focus because students were generally commenting about their expectations of members, rather than the task they were working on or the social context of learning (i.e. group learning) they were in. It was evident from students' comments that members were playing a key role when they were asked about their perceptions of group learning. Hence, this is also a salient aspect observed in analysing the student profiles, which provides meaningful insights to students'

quotes relating to the perceptions of group learning. The following comments demonstrated some of the variations in the ways in which students perceived that members were key in group learning.

Members that were proactive

S7 highlighted the case for choosing the right mix of members for group learning. They must be like-minded (like her) who were proactive and contributing to group work.

'Can you tell me again what is the right mix of people?

People of like minds (laugh) who can ... who will **contribute, who are proactive** in a group, yes, yes.... *after this experience is there any changes in your view about group learning first of all?*

Yes, the changes is like I told you ... the changes ... **if you pick the right mix of group members you enjoy your group learning**, but if you don't, no.' (S7, F, 475)

Members that worked well together – good relationship

Some students emphasised the requirement of having a good relationship with members in the group. S8's comments particular supported the case. S8 shared her preferences to work with two members in the group, mainly because they were no strangers to her.

'Oh, if I had to choose I would ... I would do the same work with only two other members. Um ...Mmm. Can you explain why?

The relations more than the work. The work was really well done, but the relations ... it was too much tension for me, yes, so I would want to work with people I feel more ... um, I feel closer to, so I found it very difficult to work with strangers ... (S8, F, 338)

The 'right' members with same motivation and goal

Similar to S7 above, many students also mentioned about having the 'right' members in the group. For example, S8 mentioned about having right members in the group. Probing further, for S8, a right member was not only a member who had a good relationship with her and being proactive, S8 also mentioned

about members who had the same motivation as her, who were motivated to get good marks.

'Can you tell me what are the right people?

(Laugh) Um, if for example the choice was given to us to choose anyone I would choose **someone I have good friends ... relationships ...** and someone that I know **can challenge me**, rather than just someone I go and have, um, lunch with every time, no not that kind of person, but **someone that I know there's no clash and that I know can bring more to the table** and people who are **willing to do more research, people who are motivated by the same things as me, such as good marks**, not people who just want to present something, so this is the kind of people, yes.' (S8, F, 424)

This was also evident in S24 comments. S24 described his understanding of a group, and he stressed that everyone must play an active role in order to achieve the common goal.

'I have always hold this, you know, **this belief that organisations are system like**, so by system like I mean **different parts coming together to play a role**, so the same thing applies. If (the group) must move forward the whole members and **must work together in unison to achieve the goals** of that organisation and **therefore you cannot play an active role if you are not a good member...** ' (S24, M, 567)

Indeed, students revealed that members played a key role in this context of group learning. As group members were the main players in this social context of learning, they also played a key role in students' perceptions. This showed the relational aspect of group learning, hence the emphasis of members' roles in group learning. With this expectation in mind, the following sections present and consider the significant variation in the ways in which students perceive group learning. Students reported their perceptions relating to how they shared their work or how they worked as a group through the interaction and discussion in group learning. Such interaction and discussion revealed that group learning could have provided the opportunity for students to: (1) to engage in critical thinking or (2) share the workload, i.e. division of work. Hence, the perceptions of group learning were identified as:

1. Group learning provides an opportunity for critical thinking through members' interaction (GL1);
2. Group learning provides an opportunity for students to share the task (GL2).

Table 5.4: Students' perceptions of group learning (GL)

GL1	GL2
S2	S1
S3	S10
S4	S12
S7	S21
S8	
S11	
S14	
S15	
S17	
S19	
S20	
S22	
S23	
S24	
S25	
S27	
N=16	4

5.5.2 Findings: GL1: Group learning provides an opportunity for CT through members' interaction

Certainly, a 'functioning' group learning such as some of the students described above requires members' interaction. It is argued that group learning provides the social contextual conditions for critical thinking (Chapter 3) during the interaction and discussion. With this in mind, the following significant variations in the ways they perceived group learning were identified, in relation to critical thinking and members' interaction. They are now considered in turn below.

a. Members who share different ideas, experiences and viewpoints

The majority of students acknowledged that group learning was mainly for learning purposes. However, how group learning could meet this objective varied from individual to individual in their perceptions. Drawing from their comments and responses, the majority of them agreed that group learning was

useful (1) to learn from one another, and (2) to get different or new ideas from group members. In other words, students perceived group learning was useful for their learning, especially with others in this social context of learning.

For instance, S27 commented that this group learning for FFM module provided her the opportunity to consider different perspectives from members of the group.

*'What do you think about group learning? Mmm, group learning can give, um, us more ... **give me more point of view** of that case study and let me, um, **grasp the key knowledge** of how to analysis the company's cashflow and, um, something that I never done before and, um, **I think it is very useful** and **the learning process is very useful** for my individual assignments afterwards **because it tell me how to think from different point of view** and how to collect useful information and, um, how to use some technology, for example, spreadsheet that I, um, I cannot know how to use before and, um, group ... a group learning can help me, um, **think the point more ... more ... the whole point of view, not from one aspect.**' (S27, F, 334).*

There was a change of perception of group learning for S27 after this learning experience. She mentioned earlier that her initial perception of group learning was more about job sharing, but now she appreciated that it helped her to think about "more points of views" (S27, F, 380). Group learning helped her to think 'deeply' and learn from others in this case.

'So after the whole learning experience is there any view change about group learning to you?

Yes, previously I just think group learning is, um, is more easily for each group member because, um, more people, um, will be contributing more words for your essays, **it's just simple for one people to write a long essay, we just, um, divide the work for individually**, but now I think group learning is a learning process, um, **it can help me learn more and can help me to think from different views**, it's not just, um, it's not just an assignment to finish ... an assignment for me, it's, um, it's ... **I want to learn something from this group discussion ... from this assignment.**(S27, F, 674)

S14 described that group learning not only help her to get more ideas from others, but she could also learn from them by “comparing, analysing and evaluating” alternative views from others.

‘...Um, yes, no I think it’s (GL) helpful because I think **you can get more ... more ideas** from it, like, um, I’ve done other group learning and it’s been a lot more helpful, so from other experiences of group learning I think we’ve done a lot more, um ... like we’ve ... **you’ve got more ideas coming together**, so instead of just having my own ideal, there’s somebody else’s and it allows me to then think ‘oh, yes, OK, maybe my viewpoint isn’t the only viewpoint’, so you can kind of **compare** and then you can have greater **analysis** and like **evaluation** of things, so I think in that way **two is better than one**, but, um, yes, I think it depends on your group members and how you kind of go with that.’(S14, F, 114)

She then confirmed that group learning allowed her to explore other viewpoints, especially since she could learn from members who had the relevant experience she did not have.

‘So I think it (group learning) just **allowed me to see other viewpoints** and ... whereas to start with I probably wouldn’t have done, I wouldn’t have accepted them as much whereas having like her ... **her experience allowed me** to ... especially within this sort of ... like within FFM I could understand the theory, but the practical side of it I may not have understood, but she was able to explain that to me, **whereas without the group learning I wouldn’t have known the practical side of it.**’(S14, F, 754)

As for S17, she shared that she could learn from the group members who had working experience, especially when they discussed about performance measurement in the FFM case study. She said she had learnt the practical aspect of knowledge from this member.

‘Um, group learning, like I said earlier, it’s very good because we all **share our ideas**. I can remember, um, doing the cash budget, um, we had a problem with, um, OK, um, there was a point of, um, performance evaluation and there was like how can we measure performance? And because some of them had experience, like one girl she had an experience, so she told us how they used to measure their performance in her former workplace, so if it was not a group work I don’t have any serious **working experience** and if it was just an

individual, um, thing I don't know how I would have answered that question.'(S17, F, 204)

Similarly, S2 also shared the same ideas about group learning - he could obtain different ideas from his members especially when he was 'stuck with no idea' (S2, M, 315).

In summary, students with this perception generally saw group learning as a place for them to learn from others in the group. By having this group learning, they could learn the alternative ideas, viewpoints and experiences from others.

b. Members were the push-factor to learn

Group members also provided 'positive pressure', hence became a push-factor for some members to learn and do better. For example, S23 shared that group learning gave her the pressure to work hard, so that she would not be labeled as lazy in her group. She confirmed that this pressure would push her to think more and work better.

'What do you think about group learning?

... it (group learning) can **make you to think more**, um, you know, it's **pressure** because in a group other group members, um, have some ... is working for some outcomes, but if you, um, **you don't work you may feel ... the other people will feel you are so lazy or something, it's a pressure, can make you do better, so I think it's a good way to learning.**' (S23, F, 244)

Similarly, S3 shared that it bothered her when she compared with her group members and found that they had more ideas. Such pressure 'pushed' her wanting to read more and learn more as she shared.

'...some of my group members had more ... especially for like recommendation part. I thought that they like ... they had a more ... how can I say? Um, more ... ideas?... ideas, yes, more ideas, so like this one bothers me because I start to think that's why I don't like ... when I compare with others to myself, um, this makes me read more, so I saw that I need to learn more because I maybe some parts of this and I was weaker than them, so this assignment makes me learn more, read more, so I think this one is ... this one is good for me.' (S3, F, 192)

In this case, members seemed to play a role as motivators who encouraged students to seek more information and learn during their interaction and discussion. Therefore, through members' interaction, group learning provided the opportunity for critical thinking to take place.

c. Members should be positive contributors and active participants

Another common comment made by students in the interview was about members' contributions to the group. Members were not expected to be free riders and their contribution was always welcomed in group learning. For example, S4 highlighted the key for a group to learn effectively was about members' willingness to contribute to the group. He also stressed that members should not be free riders and must be willing to solve problem together.

'Um, learn effectively (in group learning)? Um, I would say that **they've all got to be willing to contribute** to the group, um, **not be willing to free ride on some of the other members**, um, yes, but also be willing when we have problems to be able to confront them and try and sort out the issues we come across.' (S4, M, 88)

S4 reiterated the point when asked about the role of a group member. This time, he explained that members should contribute to the group by debating, commenting and criticising any ideas during discussion.

'Um, **I think they should contribute to the group**. Um, they should, um, do anything which has been assigned to them individually, um, be willing to, um, **debate** with the group, not necessarily agree always with the group, but **be willing to comment and criticise, um, discussions that we have.**' (S4, M, 133)

With this understanding, he expressed dislike about group learning because of free rider issue in his past experience.

'Um, **I find myself quite really dislike it (GL)**, mainly because during my undergrad we were assigned into groups lots and a lot of times **I was put with**

people who did absolutely nothing and that really, really annoyed me. It did really put me off group work, so I'm not a fan of it. (Laugh)' (S4, M, 138)

Similarly, S15 also agreed that members' role was to contribute to the group, because their ideas were important. He stressed that the contribution was the essence of a group. In addition, he also stressed that the contribution had to be positive and made impacts to the group.

'Oh well, um, they ... everyone should be **positively responsible in contribution** because **their role is to contribute**. That's the essence of the group. You go back to the intricacy, but you have to contribute as a group member because your idea matters. *Mmm*.

There is no one single idea that tackles the issues, you have to contribute ... so contribution ... that's a fact, **contribution is the key and not just contribution ... positive contribution, contribution that makes changes, that makes impact**, that the group members see and say "Yes, this is it". There were so many times that when one single idea come out it's like ... but then someone would think about it, "Yes, this is it", so I mean you have to contribute.' (S15, M, 154)

S11 particularly mentioned that everyone should participate and contribute an equal amount of effort.

'So what do you think about group learning? Um, group learning ... I think it's good as long as all the members participate, um, equally or at least all of them participate with the same amount of effort, maybe not time-wise equally, but at least if everyone puts the same amount of effort in I think group learning can definitely enhance ... enhance the experience here ...' (S11, M, 469)

Later, S11 also expressed his view against member who did not participate fully though it was not evident in his group. He said,

'I think the issues come with ... when ... if ... it wasn't in my case, but **if someone ... lack of participation I think that would be a big problem** because in this sort of coursework where **everyone's got to understand** what's going to be said because there's questions, um, **everyone needs to know what's been done** and **when it's been done**, um, but in my group there was no problems with that sort of stuff, so I thought it was pretty good.' (S11, M, 184)

d. Members should be accountable to the group

Some students mentioned that group members should be accountable to the group by bringing in contribution and ideas. For example, S14 described her ideal group learning would be one that consisted of responsible members who would have done their work and be prepared for discussion. S14 valued the time for interaction and discussion.

*'So if you would like to have ideal group learning, what would you like to see? ... like **we'd gone away and done the work and then in our meetings we all discuss them**, whereas we would ... a lot of, um, well two of my group members would turn up to the meeting and they'd have to do the workload in the meeting, so we wouldn't really have anything to discuss, **so it would be nice if like you all went away, done your work and come back and then you could discuss what everyone's got, all the different ideas and like the assumptions and everything that was found**, whereas we felt that they ... it's a lot of people would ... they were turning up and then they were like "Oh I've not got to go and do my work", so that they weren't really bringing anything to the meeting as such.'* (S14, F, 139)

S8 also stressed that members should do research and bring it in for discussion. This would help the group members to learn and 'question' each other's point of views. Like S14 above, S8 also stressed the value of interaction and discussion. In order to facilitate this, members must be accountable and be prepared for group learning.

*'A group learning... Um, **research must be done by each member** and we ... yes, research. I think learning itself is about research. If you don't know about anything you should go, **do your research and come back** with it, then ... so for group learning each person should do that and then bring ... **we should bring it all on the table**, so that's **how we can actually learn** and **question each person's view**, so that's how I think group learning should go.'* (S8, F, 514)

5.5.3 Findings: GL2: Group Learning provides an opportunity for students to share the task

As mentioned earlier, another prominent perception student revealed was that group learning could provide an opportunity for them to share the workload.

When their responses were analysed further, the significant variations of this perception were identified in the following ways below. They liked the fact they could divide the tasks between group members, saving time for a significant piece of work (the FFM assignment) and also providing a 'short cut' to the answer for the assignment.

a. GL reduces workload, efficient and saves time

S1 commented that she wouldn't be able to do it on her own if this FFM assignment was not a group work, because it took her "more time doing it all alone" (S1, F, 489). Later, she explained clearly the way she perceiving group learning was mainly to reduce the work load. She explained,

*'Because it just make it ... you could just **share the work** and **everybody comes back with their own parts of the work** and you have to ... finally you are doing a little bit and somebody else is doing a little bit and somebody else is doing a bit of it, so ... **or like you're writing 3,500 ... 3,000 words as a group is better from when you are writing 3,000 words alone.**' (S1, F, 536)*

Similarly, S12 also shared the same ideas as S1, where group learning was about time saving and efficiency.

*'OK. Um, what do you think about group learning?
It's, um, **efficiency and save time.**' (S12, F 468)*

She explained that working alone would "**waste the time to read the article and think ... think of the problem by yourself** and if you work with a team ... as a team and the **opinion will come out easily and quickly**. It's ... so I think it's **more save time**" (S12, F, 402). In this view, working with others helped her to save time reading articles and getting more ideas easily and quickly.

b. GL allows the division of work

For S10, his prime focus about group learning was just to get the answer quickly.

'Can you tell me what do you understand by group learning?'

Group learning? Only rings a bell in my head. It just ... **people are coming up with new shortcuts to get to the final answer.** (Laugh)' (S10, M, 539)

Probing further, he felt this was a duty rather than a learning opportunity for him. For S10, group learning was just an opportunity for him to share a task with others. This was evident in S10 comment, he said,

'That's it, **it's nothing like learn extra**, it's like a ... how to get to the final answer. I don't know. I look at the group learning **like a duty more than a learning**, you know. **It's more like a task you've got to do** rather than you're supposed to learn from this, but I don't learn from the group learning a lot...'
(S10, M, 546)

Later, S10 related this to his FFM group learning experience. He mentioned group learning was like an 'assembly' of pieces of information they had, therefore he felt he did not learn much from it.

'Because you are right in terms of like you learn from group learning, but it's just like ... **everything to be done is like a reminder ... reminder of what have we done in this year's FFM**, it was like a "OK, do you remember from lesson No 1 about that theory? Do you remember from lesson No 2? Lesson No 3?", it was like ... **all of it is like an assembly** ... we had to dig in the lecture notes ... we had to dig in to like an internal website ... internal resource ... resource programme, get stuff out, so that just made us like realise how much we actually know from the assignment that you've done ...' (S10, M, 705)

By contrast, though S21 thought that group learning was a waste of time and time consuming, but it was not difficult to see his way of perceiving group learning was about job division among members. It was apparent in his comment that it was such organisation took 'a long time' to work together. In this sense, his perception of group learning was related to the division of tasks.

'OK. What do you think about group learning?'

Group learning is a very good way, but if the group members in the group can handle this process very effectively, it's going to be a (messy) job, **because it takes a long time to do group work** ... not individual work, I did it and finished, that's it, so ... **but group work is really, really time consuming**, so, um, so all the group members to deal with the whole process, **how they allocate the jobs within the people and the whole ... they compare and discuss and work** (a lot)

come to the same ... **I do think group work is a waste of time and is very time consuming.**' (S21, M, 559)

Interestingly, students with this perception did not emphasise the value of learning in their comments. It appeared that learning was not the core concern for students. Therefore, it could be suggested that critical thinking had no link with group learning for them.

At the same time, this study also recognised two main preferences students shared about group learning. These preferences toward group learning are termed as orientations to group learning, which is considered in section 5.6.

5.6 Students' orientations to Group Learning

Students' orientations to group learning were identified according to their preference towards group learning. However, the reasons associated with the orientations tend to be very much contextually based. For example, students were relating the orientations to group learning by referring to the FFM assignment.

However, S11 knew that there were many benefits of working with others as highlighted in the quote below, such as checking his answers and being able to interact with others. Nevertheless, he still preferred to work alone.

'... **there's obviously advantages for group work** due to ... probably if I did it individually I would have made more errors because I wouldn't have been ... they weren't ... **the questions wouldn't have been asked of me, I wouldn't ask my same ... same questions**, I would have done a part and been happy with it and moved on, but obviously in a group you can check it with others, um, and see if they've got any differences and the reasons behind it, so individually I like ... **I like working alone, but I think a bit of interaction with members is good**, um, because obviously it aids the answers, you know, you're not going to get it right first time. **It's unlikely you're going to get it right first time on your own**, so ...' (S11, M, 332)

Such observation reinforces the stance one took up for their orientations to group learning. To reiterate, in Chapter 4, students' orientations to group

learning are considered as a stance in this study, because when students were asked to participate in group learning, they have already brought in their stance to this context of learning. Therefore, comments and sharing based on stance and context warrant for consideration. With this in mind, the following sections (5.6.1 & 5.6.2) present and consider students' orientations to group learning below.

Two orientations to group learning were identified from students' comments:

1. Preferred group learning and working with others (OR1)
2. Preferred working alone or individually (OR2)

Table 5.5: Students' Orientations to group Learning

OR1	OR2
S2	S1
S3	S4
S7	S11
S8	S14
S10	
S12	
S15	
S17	
S19	
S20	
S21	
S22	
S23	
S24	
S25	
S27	
N=16	4

5.6.1 Orientation OR1: Prefer group learning and working with others

The majority of students (n=16) said they preferred group learning or working with others in the study. The significant variations of the reasons for this orientation are now considered in turn.

a. Students acknowledge limitations of working alone

S3 shared that she preferred group learning because it allowed her to spot her weaknesses in group learning. Most importantly, she shared that by working alone, she couldn't see her own mistake. As a result, she needed to work with others so that other members could correct her mistake.

'Are you happy to work with others? How ... are you happy to work with others?'

Um, yes, because I like doing group work because like as I told you **I compare myself with people a lot to see my weaknesses**, so with group work ... [] ... **in some points I wasn't sure that like ... I need to ask friends because**, yes, we did individual about ... everyone asked ... everyone were asking questions after class what ... how did you do this part? How did you do this part? So you don't need to do ... while do group work assignments and like when I ... like when I finished maybe while **I was doing individually I can't see my mistakes in the assignments, but while we were doing group work another person can correct you and have maybe different ideas for you...**' (S3, F, 243)

S2 also shared that he preferred group learning because he could get different ideas from others, but more so he was not so confident by working alone because he might be wrong and resulted in a 'useless' assignment in the end.

"Would you do it differently for the assignment if you have a chance?"

If I got another chance I would prefer it in groups. *Why? Can you tell me more?* Because in group we can learn more. Because you know one is one and two makes... So we get different ideas with ... in groups and I feel, um, maybe I will thinking... my thinking will be wrong and whole assignment will be useless for me.' (S2, M, 169).

S21 commented that if he worked alone, he would adhere to his own ideas without being sure his ideas was good enough. Therefore, he preferred to work with others so that he would not miss out any good ideas that others had.

'Can you tell me why you prefer group work?'

Um, because that's the weakness of ourselves for me and **if I find a good idea and I do think it's a good idea, maybe it's not. I will stick to it**, but I will just follow the way, but many times maybe my opinions, my ideas, are not right and you **compare** and **discuss** with other people and **adjust** it. **If I just do myself and go to the same way, I definitely miss some very good points, but**

compare ... and working with others I can effectively reduce on this point.'
(S21, M, 527)

He later also stated that it was important for him to discuss his answers with others, because "no one can do all the work by oneself", and he stressed that he needed to learn from others' ideas and perspectives in group learning.

'I would say it's of wide very importance, because not anyone can ... maybe **no-one can do all the work by oneself, so I need to learn from others** and I need to say that some points ... some cases from **different perspectives** and the group work ... **group work can help a lot on this point and I do think it's very important.'** (S21, M, 554)

Some students acknowledged the limitation of lacking specific knowledge or experience, therefore they preferred to work with others in group. For example, S19 mentioned that he had no finance background for the FFM assignment, so it would be good to work with others that had it.

'Do you enjoy working with others? Mm-hm. Tell me why.

Mmm, concerning about this assignment I would say I would love to do it in group the way it is because normally I ... especially the finance aspect, I'm not ... **I don't have finance background that much**, because what I did in my first degree was business administration, so my finance background wasn't that much in it, **so if I'd done it on my own I might not have got any better answer or better way of doing it, you understand? So by doing it in the group I was able to learn from each member of the group, you know?** I brought my own solution to them, they look at it, fine, some were right, some were wrong, so they have to just show me theirs, so I was able to learn from them, so I would love to do it in a group.' (S19, M, 142)

S20 also shared that he did not have any finance background (S20, M, 108). More so, he also shared that he lacked in the experience others had for the task, and working with others would minimise errors that he thought would be difficult for him to fix.

'Would you do it by yourself if you have a chance? Definitely not. Can you tell me why? Because as I said I don't have that much (working) experience. If I write it myself I would have come up with loads of ... loads of errors which I think ... it would be very hard for me to fix it, but when I do it with the group I

will learn more things from them as well **because of ... their background is much, much greater...**' (S20, M, 153)

b. Students could learn from one another

The focus of this variation was about learning from one another. Students preferred to work in groups agreed with the fact that everyone can learn from one another in group learning. For example, S7 was very positive that she wanted to learn with like-minded members. S7 explained earlier (see section 5.5.1), like-minded members were those who contributed and being proactive in the group that she could work and learn together. Most importantly, she stressed that,

“You don’t know it all, yes, no-one knows it all. You learn from others, so it’s better to work in a group than work alone”(S7, F, 320).

S7 summed it well for this significant variation of this orientation because students with this orientation agreed with the fact that ‘no one knows it all’ in learning.

S24 believed no one had all the knowledge and he would be better off if he could learn from members who were intellectual, sound and experienced. He mentioned he would be encouraged to learn more with members like these.

‘OK, um, would you do it differently with this assignment if you have a chance? Yes, ah, oh, I mean down to it simply, so I would just like working in a group. Why? Why? Well because I believe there is no-one who is (the) embodiment of knowledge, so even working in group with people who are as intellectually sound as I am, if I know more then I think I’ll be better off. In fact I will have to go extra mile ... extra mile, because OK ... and I find, OK, these people now they are very intellectual, they are sound, they are very exposed, more than I am, you know, and therefore if I must at least let to my own little ability ... little level of knowledge then I have to go extra mile to convince them, so I would like to work in a group, but a better group. A group that have members, you know, who are very sound ... very sound.’(S24, M, 440)

S7 quoted that “no one knows it all” and S24 said, “no one is the embodiment of knowledge”. Both of them expressed the eagerness to learn from others. Likewise, S22 also acknowledged that she did not know everything, so working with others would enable a transference of knowledge among the members.

‘Do you enjoy working with others?’

Absolutely. I think it’s, um, the transference of knowledge.

Mmm. here are other things, but ... **well I don’t know everything do I?** So it’s just the **transference of knowledge from one student to another**. Yes, that’s sort of, um ... ‘ (S22, F, 547)

S8 also believed that everyone was limited in knowledge especially when one was dealing with something new in learning.

*‘Would you prefer to do this assignment individually? No. Why? Um, because, um, **one person only cannot see the whole picture**, so, yes, and especially because it’s the first time I do a cashflow. If it’s the second time, yes, I can do it individually, **but the first time like that, no**. I think it’s too much work for one person.’ (S8, F, 539)*

When S8 was asked further on her comment, she explained the case when she learnt about cash flow in a practical way from an ‘experienced’ member for the FFM assignment.

*‘Can you tell me what do you mean by ‘one person cannot see the whole picture’? Um, um, **for example I was talking about the experienced person**, so the experienced person **brought lots to the table that we didn’t know**. **If we didn’t have him, then there are some things that we could not consider in making our cashflow, ... so I think we learnt through each other, yes...**’ (S8, F, 543)*

c. Students could share the task/ work

There were students who preferred to work with others simply because they could share the workload. For example, S12 clearly pointed out that she preferred to work with others mainly because of the job sharing. In her case, the writing (word count) was divided among the members.

'I mean let's say I give another assignment, would you choose to do it individually or group learning? Mmm, I want a group learning because, um, we have ... we also have a group report, um, I have done and I think the group report is good, um, more good for learning ...
... it's better than individual report because, um, if it's 3,000 words and four people together each one just only 700. Um, we can combine the opinion together and then, um, reduce the words.' (S12, F, 557)

Interestingly, when S10 was asked for his preference whether to work alone or with others, he said it would depend on the type of task he had. In his case, it depended on how much research required for the task and he preferred to share the research work with members.

'Which ... if you really put a preference, do you like to work by yourself or with others? Depends. Depends on what's it require. Can you tell me?
Um, (pause) depends how much research in this. If it needs a lot of research I would be massively bored doing research on my own, but if it's a subject that needs a lot of research I would prefer like work with a group.' (S10, M, 521)

Similarly, S27 also shared that if the module required more analysis and work to do, she would prefer group learning, so that different jobs could be allocated to different people. She preferred group learning because she could share the workload.

'OK. So again if you are given a choice will you do it individually or you still prefer group work? Yes, I still prefer group work.' (S27, F, 503)

'OK. So in general yourself you like group learning or individual learning?
Um, I think some ... in some modules I like individually, but in some modules I think group work is more preferred for me because, um, in some, um, in some assignments there need (a lot) analysis and I need to do a lot of work and if we do the group work we can allocate different jobs to different people and, um, but in some, um, modules they just give you the, um, it just ... like more, um, more ... like, um, management it is not so many analysis, so I think I prefer individual work.' (S27, F, 518)

5.6.2 Orientation OR2: Working alone or individually

On the other hand, there was a contrasting orientation to group learning OR1, which students shared that they preferred to work alone. There were only four students who preferred to work on their own. They did not want to work with others even though some of them acknowledged the benefits of working together, like S11 and S14. All of them explicitly expressed that they preferred individual work or individual learning; they preferred to work independently. The significant variations of the reasons they oriented themselves to group learning were identified, which are considered in turn now.

a. Students felt they lost control over their ways of learning

S11 claimed that he was not a “massive fan” of group work (S11, M, 895). He explained his case by pointing out the fact that if he worked on his own, he was happier and had more control over the assignment. In addition, his comments suggested that he was trying to be “happy” and agreed with different views in the group.

‘Do you enjoy working with others?’

Um, **I’d rather work alone to be honest.** Um, but as long as the members all are going to participate fully and there’s no communication barriers I’m happy to work with others, **but in preference I’d rather work individually to be honest.**

Can you tell me why you prefer working alone?’

Um, different people have different methods of working and different ideas on different things, um, and sometimes **it takes a while to agree on** the right ... the right course, I don’t know, the right decision based on ... **you’re trying to be happy with everyone’s different ideas on things,** um, whereas obviously individually you’re happy with your own ideas **and I’m always happier to work on my own because I can put my own time aside, I don’t have to like worry about what other people can do, what times they can fit in, I can fit it around my own schedule, you know? That’s the only reasons really to be honest.’** (S11, M, 895)

When S11 was asked further, he shared that he still preferred to work alone for various reasons. This showed the stance he already had on the orientation to group learning.

Similarly, S14 commented that even though she would get more ideas in group learning, she still preferred to work alone. This was another good illustration of the stance students had for group learning. She explained that there would not be “pointing fingers” and only herself to blame if there was anything wrong.

‘Do you enjoy working with others?’

Um, **yes, when it goes well (laugh)**. I don’t know. I do like ... I feel ... I like **individual work** because if you go wrong then it’s **only yourself to blame**, whereas **within group work if you get it wrong the finger’s always pointed** and it’s always like “Well you did that part and that part was wrong”, so I think it’s very ... especially when you separate it out. ‘ (S14, F, 494)

Just like S11, she wanted more control over her own learning, so that she did not need to worry about others in the group.

‘I do like group work in the sense that it has got ... you can have more ideas than just your own, **but individual’s a lot easier because you don’t have to worry about other people and like other people’s responsibilities...**’ (S14, F, 502)

Similarly, S1 acknowledged that group learning helped her to learn from her members (S1, F, 524) but she still preferred to work alone (S1, F, 501) simply because “I will do it differently because I will be more careful and I will work faster because you just work at your own pace” (S1. F, 471)

b. Students disliked about free-rider and group learning was time consuming

S4 also expressed that he quite disliked group learning due to the free rider issue in his previous group learning experience.

‘Um, **I find myself quite really dislike it**, mainly because during my under-grad we were assigned into groups lots and a lot of times I was put with **people who did absolutely nothing** and that really, really annoyed me. **It did really put me off group work, so I’m not a fan of it.** (Laugh)’ (S4, M, 140)

Even though this time was not as bad as his previous experience in undergraduate study, he felt that, in group learning, it took a lot of time to

chase people up for their work, to make sure they did the work. Otherwise, he had to do it himself.

‘Yes, group work it just ... **I find that it takes a lot more time** as well than ... compared to individual work. Um, and it’s because **you’re having to chase people up, you’re having to make sure they’ve done the work, if not you have to do it yourself**, um, it’s not as bad as it was during my under-grad, people are ... like I said more people wanting to do the work. Um, I’m not really sure really.’ (S4, M, 166)

c. Students felt there was a mismatch between time, effort and marks

At the end of this learning experience, S4 did not change his orientation to group learning at all and he felt that the time taken for group learning was too much for the marks allocated to this FFM assignment.

‘Um, **I’m still ... I would say I’m not really a fan of it to be honest**, it ... I think it (group learning) takes up far too much ... **it takes up too much time for the weighting of the mark** particularly, um, I do other assignments by myself which are worth more in a fraction of the time which is spent on group work.’(S4, M, 469)

Similarly, S1 shared the same response about the mark she got. She expected it to be a better mark since it was a ‘group work’ with many good ideas from members.

‘So how do you prefer to learn? By group or by yourself? I’m OK with both. Which one is your preference ... if you were to choose?’
Um, **I think I would prefer to do it ... to be individually. And explain why?**
Um, because I noticed that ... OK, **I had three coursework and FFM was actually my lowest grade. I had the lowest grade in FFM**, so I was like “Oh we did this work as a group and we had so many nice ideas, but how come we performed poor, we should ...”, **I thought we should do better.** (S1, F, 496)

For S11, when he was asked about choosing a preference between the two, he still preferred to work alone. This time, he felt time was wasted in organising the group meeting. Most of all, he felt that his effort might not be reflected in group learning.

'So if I ask you this question ... assuming everything are perfect between working alone and working in a group ... which is your preference?

Um, I **still rather work alone** because of the ... well **the time it takes to organise meetings**, um, is time that could be taken to be working on the assignment instead of just arranging when to meet and before even starting the assignment and ... obviously you put the effort ... you want to put whatever effort you put in ... **you want it to represent your work, whereas I think in group work sometimes it doesn't represent as much** because you put your effort into your part...' (S11, M, 341)

It was interesting that many of these students acknowledged that group learning would help in their learning, but they preferred to work alone (OR2). This was a stance on their orientation to GL. Many reasons for such orientation were contextually based on FFM assignment, which included member related issues such as free riding; students wanted more control over their learning such as the timing and the working pace they would prefer; and the mismatch issue with their expected mark with group work.

On the other hand, students who preferred to work with others (OR1) seemed to suggest that they looked for opportunities to engage in critical thinking. This was evident in students who acknowledged their own limitations in learning and the motivation to learn from others. However, there were some students who preferred to work in group but seeing it as an avenue to share workload might suggested that they had no intention to relate their orientations with critical thinking.

Similar to the observation in other findings, the orientations to group learning were further analysed by examining the reasons or motives in relation to critical thinking. Students who preferred to work alone seemed to suggest no motivation to engage in critical thinking. This can be explained by their reasons which related to the marks they obtained, time committed and wanting to have own control over their work or learning.

5.7 Students' motivation in group learning

Alongside the identification of the orientations to group learning, this study also found that motivation was evident in group learning. Drawing from students' comments and responses, as considered in Chapter 4, students' motivation leans more toward as a contextual result. This was evident in students' comments about their orientations to group learning. Two key motivation factors were identified in group learning. This study identified the motivation for students to participate in group learning emphasised two main reasons; i.e. to get better grades and better result (M1) and wanting to learn (M2). These two motivation factors were mainly derived from their learning experiences in the context of FFM assignment. Therefore, it was no surprise to see students generally relating assignment grade and marks to their motivation in this context of group learning. Table 5.5 presents students' motivation identified in the study, with M3 denotes students whose motivate was not explicitly clear during the interview.

Table 5.6: Students' motivation

M1	M2	M3
S1	S7	S2
S3	S8	S15
S4	S11	S27
S8	S19	
S10	S20	
S12	S22	
S14	S24	
S17		
S20		
S21		
S23		
S24		
S25		

5.7.1 Motivation as to get better grades and better results (M1)

S3 shared that the assessment mark was the key to get the group to function (S3, F, 35) and she emphasised the main point of working together for this FFM was to get a higher mark. She also thought that her members shared the same motivation factor in this group learning.

‘Um, yes, um, **my main point is getting a higher mark.** I think, yes, that my other friends were thinking about the mark first.’(S3, F, 47)

S14 also determined to get a better grade, as a result she would “work extra” and “make up” the work other members did in the group learning. She couldn’t afford to get a poorer grade.

‘I wasn’t willing to not do the work and receive a poorer grade, so I wanted to get ... to do ... to receive a good grade, so I felt like I had to **put the work in to make up for the work that they weren’t doing,** so I don’t know.’ (S14, F, 314)

S20 thought that working in a group would get him a better result despite the fact that everyone can work individually. Therefore, his motivation to work together was about having more ideas and different perspective, so that he could “combine them” to get better result.

‘Um, actually all the members can work alone or most of ... each person can work alone, **but as ... when you work as a group you get a better result as well.**

Can you tell me what’s a better result to you?

For example ... um, for example, you see, um, as in when you’re doing an ... when you’re doing something you only have one mind, so you only think of it one angle, but four different persons they have four different angles and four different views. When you **combine** them you have a much **greater result** and especially each person with a different knowledge and different background and different education level, so that would make a very good combination.’ (S20, M, 120)

S25 said, “all wanted to pass the assignment very well, so for that goal alone it made everyone work towards it in their own way, yes.” (S25, F, 59). She agreed

that everyone in her group was motivated to pass the assignment, as the result they had their own way working towards this common goal.

Though, some students did not explicitly say that they wanted a higher mark for this assignment, they shared the same motivation of getting better grade or passing this assignment in the end. For example, S21 put it plainly that “it’s a marked assignment, so definitely everyone wants to get a good mark...” (S21, M, 109). On the other hand, S23 said having the same goal with others was a “big deal” in a group (S23, F, 179). Nonetheless, she referred to this same goal as having a “high mark” for this assignment (S23, F, 153).

5.7.2 Motivation as wanting to learn (M2)

Many students commented that they wanted to learn more in group learning. By working with others or participating in group learning, they shared that they would benefit from learning.

S19 related back to the situation when they were discussing the cash flow issues in FFM, and he emphasised he wouldn’t feel bad if he was corrected in the group learning because he came to learn from others and “to be corrected from his mistakes.

‘...we have to talk about it together and discuss it together, you understand? So that we will be **able to know** which one is **right or wrong**, so I don’t feel bad because **we are all also learning** and if they know it all they won’t be in school and if I know it all also I won’t be in school learning about it, **so I came to learn**, so they too came to learn, **so we are all learning together**, so if I’m being corrected that means it’s part of what I’m being here for, **to learn and to be corrected about my mistake.**’ (S19, M, 233)

He later concluded that his motivation was to learn from others because group learning would expand his knowledge, help him to do things better and make him think more. He also highlighted that learning (getting new ideas) had to be happening in the social context of learning like group learning.

'There's nothing much to add than just to say like group work is one thing ... although it is not easy to do, but at the same time is one thing that is good to always have every time, so once you have group work **it won't limit you to your own knowledge alone, it will expand your knowledge and help you to do better things more and make you to think more** because those people make suggestions you'll be able to read what they've made and you go back and do more assignments on it. **For someone to learn ... for someone to have new ideas every day, have to be within people, have to work within group of people,** so as to get things every day.' (S19, M, 867)

S7 mentioned that she had changed her learning group because the group members were not questioning what she did and contributing further, and she said she wanted to learn from others as well. The decision to change her initial group was motivated by her quest to learn from group members.

'Yes, because I was not happy with the first group in that I was ... I was contributing and, um, **nobody was questioning what I was doing,** like I needed someone who would **challenge or make further contribution,** um, there is no point bringing an idea and nobody saying what ... this is a disadvantage to you adopting this and that sort of thing ... but subsequently I had to change because **I needed, um, to learn from others as well.'** (S7, F, 32)

S7 wanted to learn from the group and she confirmed this motivation again, she said, "You don't know it all, yes, no-one knows it all. **You learn from others, so it's better to work in a group than work alone**"(S7, F, 320).

Students' motivation was emphasising on getting good grade and wanting to learn. This is not something unexpected in HE, as most students who choose to pursue further study in any HEI are aiming to get a good degree for future employment besides developing knowledge and skills. It was no surprise to see that students relating to their motivation in this group learning was to get a better grade for FFM assignment. In addition, students' motivation was rather closely linked with the orientations. Such link will be considered later with the production of matrices.in Chapter 7.

5.8 Summary of Chapter 5

This chapter presents the findings with regard to students' stance in relation to their responses to conflict, their perceptions of critical thinking and group learning, their orientations to group learning and their motivation. Under each heading, the study identifies the significant variations of the ways in which students commented or described in relation to each finding.

To sum up, figure 5.1 presents the summary of findings in this chapter.

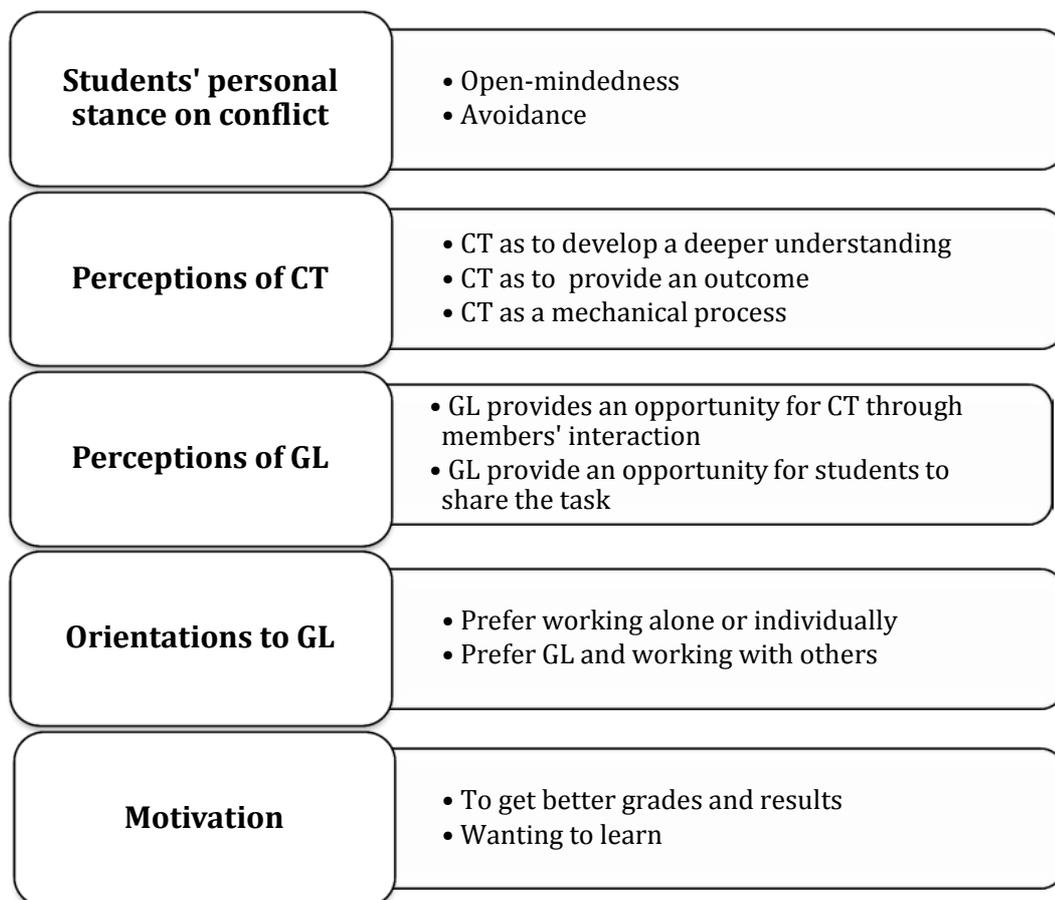


Figure 5.1: Summary of findings of Chapter 5

Referring to the analytical framework, this chapter covers the *Presage* in the analytical framework, and Chapter 6 moves on to consider the *Product*: Critical responses.