CHAPTER 4

FINDINGS

The first section of this chapter will look at the first research question on the types of questions which were employed by the teacher and students to enhance students’ ability to comprehend and obtain information from two passages. Specifically, attention will focus on the use of Wh-questions, Yes-No questions and Alternative questions.

The second section of this chapter will focus on the second research question. It will examine the effects of teacher-led and student-student discussions on students’ performance.

4.1 USE OF QUESTIONS TO ENHANCE COMPREHENSION OF PASSAGES

This section is divided into two parts. The first part will look at the types of questions employed by the teacher and students to enhance comprehension of two passages, “The Jury” (appendix A) and “Pharmaceutical Products” (appendix B). Attention will focus on the different forms of Wh-questions, Yes-No questions and Alternative questions, their frequency of use and when and how they are used by both teacher and students.

The second part will examine whether the questions used by the teacher and students enabled students to elicit relevant information from two passages, “The Jury” (appendix A) and “Pharmaceutical Products” (appendix B). It will
examine whether the questions guided, or failed to guide students to elicit main points or ideas and supporting points or sub-ideas from the passages.

4.1.1 Use of Different Question Forms by Teacher & Students

In the teacher-led discussion of the passage, "The Jury" (see transcript, appendix E), the teacher employed a total of 102 questions. A table showing the frequency of the different forms of questions is seen in Table 4.1

<table>
<thead>
<tr>
<th>Forms of Wh-questions</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>What</td>
<td>42</td>
</tr>
<tr>
<td>How</td>
<td>10</td>
</tr>
<tr>
<td>Where</td>
<td>1</td>
</tr>
<tr>
<td>Who</td>
<td>4</td>
</tr>
<tr>
<td>Why</td>
<td>12</td>
</tr>
<tr>
<td>Which</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
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<table>
<thead>
<tr>
<th>Yes-No questions</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declarative Questions</td>
<td>9</td>
</tr>
<tr>
<td>Tag questions</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
</tr>
</tbody>
</table>

| Alternative questions| 6         |

In the student-student discussion, however, students used a total of thirty-one questions. In attempting to keep the students asking and answering
questions, the teacher used a total of fifteen questions. The types of question forms used in the student-student discussion are shown in Table 4.2

Table 4.2

Forms & Frequency of Questions in Student-Student Discussion

<table>
<thead>
<tr>
<th>Frequency of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms of Questions</strong></td>
</tr>
<tr>
<td>Teacher</td>
</tr>
<tr>
<td>Student</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

There is a difference in the questioning pattern used by the teacher and the students. Ignoring the questions used by the teacher in the student-student discussion, we find that while in the teacher-led discussion, the teacher used a total of seventy Wh-questions (Table 4.1), in the student-student discussion, students used twenty-six Wh-questions (Table 4.2). The teacher also used twenty-six Yes-No questions (Table 4.1) while students used five Yes-No questions (Table 4.2). In addition, the teacher used six Alternative questions compared to students who did not use any Alternative questions.

One may notice from Table 4.1, the Wh-questions most frequently used by the teacher were What (42 times), Why (12), How (10), Who (4) and Where (1). The teacher also used sixteen Yes-No questions, nine declarative questions and one tag question. On the other hand, from Table 4.2, the Wh-question most
questions, the teacher used a total of fifteen questions. The types of question forms used in the student-student discussion are shown in Table 4.2

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<table>
<thead>
<tr>
<th>Forms of Questions</th>
<th>What</th>
<th>Why</th>
<th>How</th>
<th>Who</th>
<th>Yes-No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td></td>
<td></td>
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<tr>
<td>Student</td>
<td>8</td>
<td>16</td>
<td>2</td>
<td>5</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>16</td>
<td>2</td>
<td>18</td>
<td></td>
<td>46</td>
</tr>
</tbody>
</table>

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frequently used by the students were Why (16 times), What (8) and How (2). The teacher used one each of the Wh-questions, What and Who, and thirteen Yes-No questions.

In the use of Wh-question, it is interesting to note that students used more Why questions (16) than What questions (8) (Table 4.2) compared to the teacher who used twelve Why questions and forty-two What questions (Table 4.1). In both teacher-led and student-student discussions, the Wh-question, What, was used to focus attention on the topic of discussion or main point (appendix E: turns 1, 51, 53; appendix F: turns 2, 25, 50, 53, 97) and to stimulate students to probe and evaluate a point further for more detailed information or supporting points (appendix E: turns 8, 11, 18, 36, 41, 81, 83, 92, 96, 109, 111, 124, 129, 168; appendix F: 4, 7, 28, 38, 85).

The Wh-question, Why, was used to provoke students to examine and assess the different possibilities or reasons for an occurrence (appendix E: turns 34, 62, 81, 85, 195; appendix F: turns 10, 34, 47, 56, 109, 112) while the Wh-question, How, caused students to evaluate the ways a measure is employed or the extent of an occurrence or to examine a point in detail (appendix E: turns 14, 153, 154, 166, 179; appendix F: turns 41, 44). The Wh-question, Who, served to identify particular individuals or a class of people (appendix E: turns 23, 66, 73, 188; appendix F: turn 20); the Wh-question, Where, identified the background or origin of the individual or groups (appendix E: turn 16) and the Wh-question, Which, identified the appropriate reference or section of the passage (appendix E: turn 147).
The detailed illustration of how the Wh-questions were used to guide students to comprehend the passages and obtain relevant information for the task set for them will be discussed in the second part of this section (4.1.2).

In the student-student discussion (Table 4.2), the teacher intervened twice with one each of the Wh-questions, What and Who.

Appendix F: T 20 Teacher - Who do you want to direct the question to?
T 85 Teacher - What do you have in mind?

The first Wh-question was used to invite the student to direct the question at someone while the second Wh-question was used to get the student to clarify his ideas since the many responses prior to turn 85 failed to satisfy him. The teacher intervened to force the student to focus in greater depth.

In the use of Yes-No questions in the teacher-led discussion (appendix E), the teacher employed sixteen Yes-No questions to check the validity of a response (appendix E: turns 26, 135), stimulate thought on a point of discussion (appendix E: turns 30, 55, 60, 75, 87, 90, 98, 107, 114, 117, 142, 146, 177, 186) and encourage contribution of ideas (turn 200). Nine declarative questions were used to prompt students to evaluate a response and consider other options (appendix E: turns 32, 79, 94, 119, 162, 181) or to invite students to respond (turn 63) and the only tag question (turn 89) was used to affirm the limitation of the computer in the selection of jurors.

In the student-student discussion (appendix F), the thirteen Yes-No questions initiated by the teacher were employed to check the validity of an answer (appendix F: turns 12, 16, 23, 30, 58, 63, 72,); clarify a question further (appendix F: turns 81, 96) and invite students to initiate questions (appendix F: 45
turns 77, 99, 114). However, the five Yes-No questions employed by the students were used to request a student to repeat a question (appendix F: turns 60, 75), check the effectiveness of pharmaceutical products as a form of medication (appendix F: turns 90, 106) and probe for alternative means to better health (turn 102). An interesting point to note is that out of the five Yes-No questions, only three of the questions (appendix F: turns 90, 106, 102) were used to guide the students to probe and evaluate an issue and to stimulate thought. The teacher refrained from asking any probing questions in the student-student discussion so as to allow students to discuss the passage in greater depth among themselves. She intervened mostly to keep the discussion going.

Another interesting point to note is the use of Yes-No questions by teacher and students in both discussions (Table 4.1 & 4.2). There is little variation in the Yes-No questions used by students. Students used only one form of Yes-No questions (Table 4.2) compared to the teacher who also used nine declarative questions and one tag question (Table 4.1). There is, thus, a wider range of Yes-No questions used by the teacher.

Finally, in the teacher-led discussion, the teacher used six Alternative questions (e.g. "Is that good or bad?") to guide students to consider contrasting viewpoints (appendix E: turns 43, 46, 48, 137, 139, 156)
4.1.2 Use of Questions to Elicit Information in Teacher-Led Discussion

This section will look at how the teacher used questions to guide students to obtain information from the passage, "The Jury". Attention will focus on whether the use of Wh-questions, Yes-No questions and Alternative questions enabled students to obtain information to answer the questions set as a task. For the passage, "The Jury", two questions were set. They were:

1. "In what ways does the jury system protect innocent people?"
2. "What are some of the limitations?"

These two questions will be referred to as the task questions for purpose of easy reference in the discussion.

In turn 1, the Wh-question, "What does the article tell us about the jury system?" was very general. Although the intention was to enable students to elicit the first main point on how the jury protects people, Student 1 responded by stating that the jury was 800 years old instead. Even though the answer was relevant to the question in turn 1, it was not relevant to the task questions. The Wh-questions that followed in turn 3, "What is the implication if it's 800 years old?", and in turn 5, "What else does it imply?", were therefore irrelevant as they failed to guide students to obtain the necessary points to answer the task questions.

In turn 8, another Wh-question, "What is the jury system?", was posed to elicit the answer to the task questions. Again, the Wh-question was not explicit enough to guide students to obtain the relevant point. The answer in turn
9, “It consist of ordinary men and women who decide if the accused is guilty”, did not match the question. The teacher wanted an explanation of how the jury protected the innocent. Instead, Student 2 identified the group of people who made up the jury. Again, in turn 11, the teacher tried to guide students by asking, “What else are we told about the jury system?”. This time, Student 3 (turn 12) responded with the correct answer, “It enables the community to retain power over the law.” However, the process of obtaining the first main point was unnecessarily prolonged owing to general as well as irrelevant questions in turns 1, 3, 5, and 8.

The teacher then proceeded to guide the students to obtain supporting points or sub-ideas for the main point on how the community retained power over the law. The discussion involved turns 14 - 35. In turn 14, the Wh-question, “How does it intend to do this?” was specific enough to enable Student 4 in turn 15 to explain that the community decided whether the accused was guilty or not. However, the Wh-question in turn 16, “Where do they come from?”, which was aimed at determining the composition of the jurors was vague and too general. The result was a general response in turn 17, “From society”. A better question would be: “What group or class of people made up the jury?”. Since the question failed to achieve its purpose, in turns 18 and 23 more specific questions were posed: “What class or group of society? and Who else can sit as jury members?”. These questions successfully elicited the appropriate answers from turns 19 - 22 and 24.
19 S6 - Working class.
20 S7 - Middle class
21 S8 - Males
22 S9 - Ordinary citizens
24 S10 - Women
25 S11 - Immigrants

However, the response of immigrants being jurors in turn 25 was questionable. Hence, in turn 26, a Yes-No question, “Can immigrants sit as jurors?”, was posed to provoke thought. The answer, “Not just immigrants”, in turn 27 was ambiguous and so in turn 28, a Wh-question, “Why not?”, was posed to determine why immigrants could not be jurors. Again the answer in turn 29, “Because they have more than one opinion”, failed to explain why immigrants could not be jurors. Hence, in turn 30, a more specific rephrased Yes-No question was used:

“But would you get them to sit as jurors?”.

The result was a well-considered response:

“If they are citizens” (turn 31).

To double check the answer, a declarative question,

“If they are not citizens?”,

was posed in turn 32 to determine the position of immigrant jurors who were not citizens. In turn 33, Student 12 gave an emphatic “No”. When queried, “Why not?”, in turn 34, the student explained that immigrants do not have the power to do so (turn 35).

In turn 36, the Wh-question, “What happen if the jury consist of only the males or females or from the working class or well-to-do?”[sic.], focused students’ attention on another issue, that is, the implication of a jury consisting
of only one gender or class of society. The aim was to provoke thought on the effect of under-representation in the jury. In turn 37, Student 13 correctly explained that under-representation would lead to prejudice. The Wh-question in turn 38, “In what sense?”, was posed to get the student to clarify his answer. In turn 41, the Wh-question, “What else would happen if they are only of their own class?”, was rephrased from the question in turn 36. The aim was probably to stimulate further evaluation of under-representation. However, the response in turn 42:

“Different beliefs..... They have different opinion of people .......
What people do or think”,

was vague. The teacher intervened with an alternative Yes-No question, “Is that good or bad?”, in turn 43 to check what the student had in mind. In turn 44, Student 15 explained that a jury consisting of only one particular class would have fixed opinions about people. This was agreed to by the teacher in turn 45. The teacher then posed the alternative questions in turn 46,

“Anybody else think that having only one class of people is good or bad?”,

and again in turn 48,

“Should the jury consist of people from different class, sex, racial group or should it consist of only one class or racial group?”. These questions were redundant since they had already been answered previously. Thus, the discussion on the first main point could have been reduced by about 15 turns to 35 turns instead of 50 turns if the questions had been more explicit!
In the discussion from turns 51 - 59, the teacher again initiated an open and general Wh-question in turn 51,

"What issue is brought up here regarding the jury system?".

The lack of focus caused Student 16 in turn 52 to highlight the limitations of the jury instead of discussing other ways the jury protected the innocent. Despite the deviation, the response on the limitations of the jury was relevant to the second part of the task questions, "What are some of the limitations (of the jury)?". Thus, in turn 53, the teacher proceeded with the discussion on the limitation of the jury by initiating a Wh-question,

"Ah... we are told about some of the limitations. What are some of the limitations?".

In turn 54, Student 17 was able to identify the first limitation which was that the jury lacked educational qualifications. This was followed by two repetitive Yes-No questions and a Wh-question in turn 55,

"Anything else? .....No proper educational qualification .....because of that no proper understanding of crime ...Anything else about the jurors? What else are some jurors like here?"

to encourage students to probe for other relevant points. In turn 56, Student 17 pointed out the limitation of irresponsibility and inefficiency. In turn 57, another Wh-question,

"What is the implication here if the jurors are irresponsible.... Uneducated?"

prompted Student 18 in turn 58 to respond that the innocent might be convicted. Thus, when specific questions were posed, the number of turns was reduced, the points quickly established and the discussion shorter.
The second limitation of the jury was discussed from turns 60 - 89. In turn 60, the Yes-No question, "Any other limitations?"[sic], elicited the limitation of under-representation for women and immigrants in turn 61. This response was followed by a Wh-question,

"Why does that happen?",
in turn 62 to determine the reason for under-representation. It was immediately followed by a declarative question in turn 63, "Student 20?". The declarative question was an afterthought and could have been incorporated in the Wh-question in turn 62. The question could have been rephrased, "Why does that happen, student 20?" In turn 65, student 21 volunteered the answer,

"Because they are bias"

but the student did not identify whether the women and immigrants or those who selected them were biased. Thus, in turn 66, a Wh-question, "Who is biased?", was posed to clear the ambiguity. The student was asked to identify the people who were biased. When there was no response in turn 67, the question as to why women and immigrants were left out, was repeated three times in turns 68, 70 and 72 but was not rephrased substantially to make the question clearer or easier. As a result, the answer offered in turn 69,

"Because the defence is allowed to question jurors about their beliefs."

was wrong and the answer in turn 71,

"Discrimination",

was inadequate. The repeated failure to obtain the correct response reflects the
difficulty of the question for the students. In turn 73, the teacher restructured the question to

"Who or what leaves them out?"

Again, in turn 74, Student 24 missed the point because of the assumption that women were left out because the selection of jurors in the past were based on status and gender. Thus, in turn 75, a Yes-No question,

"In the past, jurors were chosen from the wealthy or middle class or consist of only males. Do you think that still happen today?"[sic]

was posed to encourage students to examine if similar selection still occurs in the present. This was followed by a definite, "No", in turn 76 and the generalisation, "Women are emotional......." in turn 78. The declarative question which followed in turn 79,

"So you don’t allow them to sit as jurors?",

questioned the justification of excluding female jurors. It was only in turns 81, 83 and 85 when the Wh-questions were followed by more specific pointers:

T81 - But why are they under-represented? What factors cause under-representation?......Look at the paragraph ..... The answer is there.
T 83 - Why were they not selected? .....What is it that select them now?
T 85 - Why is it that the computer didn’t select them?

that the students finally elicited the answer in turns 82, 84 and 86.

82 S26 - They were not selected.
84 S27 - The computer.
86 S27 - Select at random.

The question in turn 85 was poorly structured. It should be rephrased to "Why didn’t the computer select them?" The above discussion revealed that if more specific questions and prompts were given earlier, turns 63 - 80 would have
been unnecessary. The teacher’s failure to restructure and modify the questions to the students’ level earlier led to an unnecessarily lengthy discussion.

In turn 87, a Yes-No question, “But, today, selection is by computer but is the computer totally faultless?” was posed to check the accuracy of the computer. The tag question in turn 89, “It’s not totally faultless, isn’t it?” was another way to affirm the shortcoming of the computer. To be noted was the wrong use of the tag question. If the main clause of a tag question is negative, the tag question should be positive. In turn 89, the negative main clause was followed by a negative tag question. It should read, “It’s not totally faultless, is it?”

The third limitation of the jury was discussed from turns 90 - 106. In turn 90, the Yes-No question, “Any other limitation?”, provoked further evaluation of other limitations of the jury. In turn 92, the Wh-question, “What about jury vetting?”, which was meant to build upon the response, “Jury vetting”, in turn 91 was a poorly structured question. It should have been rephrased to “What is jury vetting?” since the aim was to obtain the definition. Again, the declarative question, “So?”, in turn 94 was inappropriate. A better structure would be “What is the implication if the prosecutor were to obtain information against the jurors?” This question was only structured in turn 96. In turn 97, the student’s answer, “Easier for the prosecution to influence jurors because they know about jurors belief. So at the trial I say certain things to win the jurors over.............”,

54
was interrupted probably because the teacher feared that the student was deviating from the point. A Yes-No question,

"Hmm... I obtain info against her. Is it good for her?",

was posed in turn 98 to get the student back on track. This was followed by two Wh-questions,

"What is the implication? What can happen in court?",

in turn 100 to provoke students to consider how information obtained against jurors would affect the jurors. Further prompting and probing with a Wh-question,

"I can influence the juror to favour me or ....what else can I do with the information against her?",

in turn 102 finally enabled Student 30 in turn 103 to respond correctly,

"Blackmail her."

A further limitation was discussed from turns 107 - 114. In turn 107, the Yes-No question, "Any other limitation?", caused the student to examine other limitations in the passage. This led to the response: "... majority verdict" in turn 108. The Wh-question, "What about accepting majority verdict?", in turn 109 was poorly phrased. It was ambiguous and not grammatical. A better structure would be "In what way is a majority verdict a limitation?" The illustration and Wh-question in turn 111,

111 T- If majority verdict is accepted, this means the accused can be convicted easily.... second last paragraph .... If say out of thirteen, ten say guilty, three not guilty, then based on majority decision, that means that the person is guilty. But what is the implication if three say he is not guilty?[sic]
suggested the possibility that the minority could be right and that the innocent might be convicted because there was a shadow of doubt in the decision.

The next Yes-No question, “Any other limitation?” in turn 114 was posed to check for other limitations that might have been inadvertently left out. Since the limitations were all discussed, the teacher returned to the discussion on how the jury protected the innocent which was left off after turn 50.

In turns 117 - 141, the discussion focused on the benefits of the jury. The Yes-No question,

“Any benefits in the system?”[sic.],

in turn 117 directed students onto a totally different issue of the jury. Student 15 answered,

“They deliberate in secret”,

in turn 118. The declarative question, “Yes... so ...?” in turn 119 was meant to provoke the student to evaluate the response further. However, a better question would be “What is the advantage of secret deliberation?” or “How is secret deliberation a benefit?” In turn 121, the Wh-question,

“Yes, no outside influence. What is the implication?”,

provoked students to consider further the implication of the lack of external influence. In turn 124, the Wh-question,

“Also when deliberate in secret what else is told about the verdict arrived at?”[sic],

stimulated thought on the outcome of the verdict. The inadequate response,

“They aren’t allowed to tell anyone else about the decision”
in turn 125 prompted a declarative question, "So?", in turn 126. Despite the lack of leads in the question, it elicited a well-considered response,

"So the jurors' safety is assured because nobody can visit or influence them",

in turn 127. In turns 129, 131 and 133, the same Wh-question,

"Although it's secret, what does the result show?"

was posed thrice. In turn 129, it was aimed at provoking thought; in turn 131, the teacher was too impatient and so interrupted the response,

"Interesting comparison have been made....."

in turn 30; and, in turn 133, the answer,

"Compare verdict of jury and judge and court officials"

in turn 132 was inadequate and incomplete. The answer,

"Show disagreement",

in turn 134 prompted a Yes-No question,

"Are you sure it shows disagreement?"

in turn 135 because of the need to check the accuracy of the response. Student 12 responded correctly in turn 136,

"Usually they agree, but there is a small percentage of disagreement",

and so the additional Wh-questions, Alternative questions and Declarative question in turns 137 and 139 were redundant.

137 T - When comparison is made of the decision by the jury, judge and court official, it usually shows what? ... What does it show ...? Does it show they agree or disagree? Usually? [sic]
139 T - Yes, usually they agree. Is that good or bad?
They only prolonged the discussion as well as confused students! In fact, the lengthy discussion could have been reduced by about 9 - 10 turns!

The third benefit of the jury was discussed from turns 142 - 176. Again, a Yes-No question, “Any other benefits?”[sic.], in turn 142 focused attention on further benefits of the jury. In turn 143, Student 12 responded that the

“verdict is decided by a group of people not just one person.”

In turn 144, the Wh-Question,

“So, what is the implication?”

built upon the response in turn 143 by encouraging further evaluation of the implication of majority verdict. The Yes-No question,

“Any other examples to show that the decision is fair or impartial?”[sic]

in turn 146 again built on the response of impartial decision in turn 145. However, the teacher did not wait for an answer! She posed another Wh-question instead in turn 147,

“Which paragraph are you looking at?”.

This question had no logical link to the preceding question in turn 146! There was no proper order in the discussion here! However, student 10 in turn 148 apparently understood the question and cited the relevant paragraph, “Column 1, paragraph 1”! It was probable that the question in turn 147 was linked to the response in turn 145.

In turn 151, the Wh-question, “If it is a group who decide compared to one person, what is the implication?”[sic], encouraged further evaluation of the
implication of majority verdict. This question was rephrased from the question in
turn 144. Why was it rephrased? Could the teacher be asking the students to
compare majority verdict versus individual decision as indicated in the response
in turn 152,

"the individual can be easily threatened / nobbled by the criminal, so
.....therefore they can't do that to a group"?

If so, the question could be better structured to "What is the advantage of
majority verdict over individual decision?" In turn 153, the Wh-question was not
meant as a question but as a statement of fact to emphasise the difficulty of
threatening every member of the jury.

153 T - Yes, if it's an individual, I can threaten him with injury,
so, he will be influenced. But if it is a group how many
can I threaten or buy or bribed? If it's individual, I can
threaten her .... I know your son goes to this school .... so
if anything happen .... whereas if it's a jury system, how
many can I threaten?[sic]

In turn 154 another Wh-question, on the advantage of majority verdict
was posed.

154 T - "Back to the fact that many people make the decision,
community decide over the case .... how is that an
advantage?"[sic]

This could probably be further attempt to encourage students to probe all
aspects of the issue of majority verdict as reflected in the discussion from turns
155 -176. In turn 155, the response,

"Easier to convict",

was wrong and so a Yes-No question,

"Is that an advantage or limitation?"
was posed in turn 156 to check the validity of the response. Again, in turn 158, the same Wh-question on the advantage of majority verdict was posed. The next Wh-question, “In what way?”, in turn 160 encouraged Student 28 to clarify how the jury’s wide understanding of the trial can be an advantage (turn 159). In turn 162, the declarative question,

“Yes, more people think about the case. There will be more views. If it’s just one person?”,

provoked students to consider the effects of individual opinion in contrast to the views of majority opinion. Further probing with Wh-questions in turns 164, 166, 168, 170, 172, 174

164 T - Yes, it’s a narrow perspective. Only one individual is thinking over the case so it’s a narrow view compared to when many decide on the case. How else is it an advantage?
166 T - How?
168 T - Yes, how else? ..... What does it show about authority here?
170 T - Yes, what else? ....Only one person has the sole authority. What does it show?
172 T - Yes, too much power invested in one person. One person makes all the decision whereas jury .... group makes the decision. When a group makes the decision, what do you prevent here?
174 T - What else? The fact that authority is vested in one person. He has all the power.

elicited different aspects of the advantage of majority verdict over individual verdict. Thus, the advantages of majority verdict are impartiality (turn 145), protection of jurors from threats and injury (t 152), broad viewpoints (t 162), and prevention of corruption (t 165) compared to individual verdict which is autocratic (t 171), prejudiced (t 173) and the possibility of abuse of power (t
175). The different questions enabled students to examine the benefits of majority verdict from all perspectives.

The discussion from turns 177 -185 focused on another benefit of the jury, that is, impartiality. In turn 177, the Yes-No question, “Any other benefits mentioned about the jury system?” directed attention to other benefits about the jury. The Wh-question,

“How is that a benefit?”

in turn 179 sought clarification of the response on the benefit of defence questioning jurors (t 178). In turn 180, Student 12 responded that the defence will “know whether they have any prejudice or not.” In turn 181, the declarative question, “If they have?”, encouraged students to examine a contrasting viewpoint to the response in turn 180. The Wh-question,

“Yes, which paragraph?”

in turn 183 was an attempt to elicit support from the passage to reinforce the response in turn 182,

“Then, can know if they have fixed opinion about the accused. If they have, it is taken into consideration before accepting the verdict”

Finally, the discussion from turns 186 - 200 focused on the final benefit of the jury. In turn 186, the Yes-No question, “Any other parts to show jury is impartial?”[sic] again encouraged students to identify other points which reflect that the jury is impartial. The response,

“Law and order campaigners will consider challenges to rid anyone who is ‘respectable’ in cases involving blacks, working class”,

61
in turn 187 prompted two Wh-questions in turn 188. The first question,

“What does that mean?”

was probably posed to get the student to clarify the answer in turn 187 and to check if the student understood the meaning of the sentence. The second question,

“Who is the anyone who is respectable whom they will get rid of?”

was an attempt to guide students by breaking down the complex sentence and interpret its meaning in parts. In turn 188, students were asked to identify people who seemed ‘respectable’. This was followed by two more Wh-questions in turns 190 and 193 to elicit further examples of ‘respectable’ jurors.

190  T  - What else? Notice ‘respectable’ is in quote. Seem respectable. What else do you understand by respectable?
191  S8  - High status
193  T  - What else?
194  S12 - Highly educated.

In turn 195, a Wh-question was posed to determine the reason for the removal

195  T  - Yes, doctor degree. Highly educated but may be narrow-minded. Highly opinionated. Seem respectable or well-dressed. May be a manager but could be actually mafia boss. So these people seem respectable but law and order campaigner will get rid of these people. Why do law and order campaigners get rid of them?[sic]

of ‘respectable’ jurors and in turn 196, Student 12 responded that they may convict innocent people. In turn 197, the Wh-question,

“Why would they convict an innocent person?”

elicited the answer in turn 198:

“because they have prejudiced opinion.”
Thus, students were able to elicit the correct answer because they were guided by the specific questions.

Finally, in turn 199, a final Yes-No question was posed to check for

199 T - Yes, outwardly they seem respectable but may already have fixed opinion. May think all working class people can't be trusted. Come from slum so always tell lies. Or if have black on trial .... that all blacks can't be trusted. Any one wants to add anything else?[sic]

200 Class - Silence.

additional contribution to the discussion. The silence which followed ended the discussion on "The Jury".

4.1.3. Use of Questions to Elicit Information in Student-Student Discussion

This section will look at how students used questions to help one another to obtain information from the passage, "Pharmaceutical Products". Attention will again focus on whether the use of Wh-questions, Yes-No questions and Alternative questions enabled students to help one another to obtain information to answer the question set as a task. For the passage, "Pharmaceutical Products", the question is, "How important have pharmaceutical products been in improving our lives, and can they be a guarantee of good health?" This question that the students have to answer will be called the task question for purpose of easy reference in the discussion.

In the discussion from turns 1 - 8, the teacher initiated the discussion by asking Student 1 to pose a question. In turn 2, the Wh-question,
“What is the most important cause of ill-health?”,
caused Student 2 to examine the cause of ill-health which is poverty (turn 3). The next Wh-question,

“What does poverty leads to?”,
in turn 4 built on the response in turn 3. It caused Student 2 to examine the outcome of poverty on health which is malnutrition and death (turn 5). In turn 6, the teacher intervened the discussion,

“Student 3, ask Student 4 a question based on Student 2’s answer”
so as to ensure that students discussed every aspect of an issue thoroughly before moving on to the next main point. The Wh-question,

“What is the percentage of contribution to children’s death?”,
in turn 7 effectively built on the response in turn 5. Student 4 provided the data on the percentage of children’s death in turn 8. Thus, all the supporting points were tightly developed around the main point.

In turn 2, the question, “What is the most important cause of ill-health?”, was asked even though it did not relate to the task question. Perhaps a better question would be, “Can pharmaceutical products ensure good health?” This question would be linked to the second part of the task question, that is, “Can pharmaceutical products guarantee good health?” Based on the passage, the answer to the question would be “No” because there are other alternatives to good health. Moreover, the cause of ill-health is poverty. Despite the fact that turn 2 was not an appropriate question, the discussion served to establish the
point that since poverty is the root factor of poor health, medicine cannot guarantee good health.

The discussion from turns 10 - 24 focused on the first part of the task question, “How important have pharmaceutical products been in improving lives?” In turn 10, the Wh-question,

“Why does the poor believe in medical cure?”,
caused students to examine the reason the poor placed their trust in medicine. Instead of asking “Who has benefited from pharmaceutical products?” or “Whose lives have been improved by pharmaceutical products?”, Student 5 had already concluded that medicine could help the poor. If Student 5 had asked “Who has benefited from pharmaceutical products?”, followed by “Why do the poor believe in pharmaceutical products?”, he would have systematically developed and tightly integrated his points together. However, the answer,

“Because they can change their living condition”
in turn 11 prompted the teacher to intervene with a Yes-No question,

“Are you happy with the answer?”,
in turn 12 to check the validity of the response. Perhaps the teacher should have waited to see if the students could detect the error themselves before intervening.

In turn 15, the answer, “Because of poverty, childhood diseases become fatal” was a further detour from the question and so, in turn 16, there was another intervention and check: “Are you happy?”. In turn 19, Student 5 attempted to modify the question,
“Medicine can’t guarantee good health, but why the poor believe in medical cure?”

but the structure was still the same. The additional phrase about the ineffectiveness of medicine in ensuring good health did not help much because in turn 22, Student 9’s response,

“The poor live in poor social condition. That’s why they can’t change their living conditions”

did not explain why poor social condition led to the inability of the poor to change their living conditions. If a Wh-question, “Why could not the poor change their living conditions?”, had been posed it would have provoked thought and there might have been an explanation that the poor did not have the money since changing their social condition would involve high expenses compared to medicine which was relatively cheaper. Despite the check, “O.K.?”, in turn 23, Student 8 was satisfied with the answer in turn 24. Thus, the discussion shifted onto another aspect in the passage.

In turns 25 - 36, the discussion focused on the breakthrough in the medical field. In turn 25, the Wh-question,

“What was discovered in the late 19 century that was used to manufacture medicine?”

elicited the response:

“……by-products of petroleum refinement…..”

in turn 26. In turn 28, the question,

“What happen to the discovery of the by-products of petroleum in the late 19 century?”,

was not appropriately phrased because the answer,
“It was discovered that the Rockefeller Foundation which stemmed from Standard Oil donated massive sums of money to guide medical education”,

in turn 29 did not match the question. A better structure would be, “What was the outcome of the discovery of the by-products of petroleum?” However, the student did not detect the error because the answer was probably quoted from the passage which was probably what he had in mind when he structured the question. In turn 34, Student 15 posed another Wh-question,

“Why did the Rockefeller Foundation donate money?”,

elicited more than what was required by the question. The answer,

“They donated the money to guide medical education and pharmacology became integral to curriculum and medicine an indispensable tool to the doctor”,

in turn 35 also stated the outcome of the donation on the medical field. The additional information could probably be due to the fact that the student was quoting from the passage rather than addressing the answer to the question. Perhaps Student 15 should have also posed the question, “What was the outcome of the donation on medical education?”

The discussion on the medical breakthrough from turns 25 - 36 was not connected to the preceding discussion on the reason the poor believed in medicine from turns 10 - 24. If students had asked the implication of the discovery and the large donation made in the medical field, they might have discovered that the donation helped subsidise the cost of medicine and thus made it within reach of the poor who could not afford to change their living conditions. This would not only explain why the poor believed in medicine as
discussed from turns 10 - 24 but also tightly integrate the discussion from turns 25 - 36 with turns 10 - 24.

The lack of appropriate questions by students to guide one another is seen again from turns 38 - 51. Instead of focusing attention on the main point first and then developing the supporting points around the main point, students posed a question that focused on supporting points first. This will result in a loosely structured paragraph without the main point to integrate the supporting ideas.

In turn 38, the Wh-question, “What are the social improvement to social condition?”, caused Student 17 to quote all the improvements made to social conditions in turn 39.

39 S 17- Water-related infections were decreased by better sewage disposal, clean water and safe milk, air-borne infections were decreased by better housing and underpinning all this was a better supply of food.

Student 16 in turn 38 did not first orientate her peers to the factor that caused social improvement which is, better living condition, the main point. Thus, in turn 40, when the teacher invited Student 18 to pose a question based on the response of Student 17 (turn 39), Student 18 posed a Wh-question,

“How could airborne infection like tuberculosis be reduced?”,
in turn 41 even though the response,

“Could be reduced by better living condition”,
in turn 42 had already been mentioned in turn 39. Posing a question that elicits supporting points first limits the scope of a discussion while a question that orientates students to the main point encourage further exploration of the topic.
In turn 43, the teacher again attempted to direct discussion that orientated attention to the main point by inviting Student 20 to build on the response in turn 42. In turn 44, the Wh-question, “How does this improvement to better condition lead to good health?”, elicited the response of decreased infection and better health in turn 45. The answer was still similar to the answer in turn 39. Thus, in turn 46, the teacher, instead of inviting students to build on the question and response of one another, encouraged Student 22 to pose a question based on the same paragraph. This approach, hopefully, will expand the scope of discussion and enable students to ask more varied questions of one another.

In turn 47, Student 22 directed his peer to examine the reason for the important role of medicine in enhancing health despite better living condition. In turn 48, Student 1 responded that the cost of medicine was negligible compared to the cost of a change in living condition. The response threw the students further away from the topic of discussion in turn 38 (improved social condition)! This response would have been more appropriate for the question in turn 19!

19 S 5 - Medicine can’t guarantee good health, but why the poor believe in medical cure?

The questions in turns 41, 44, 47 thus reflected students’ lack of skill in employing appropriate questions to conduct effective discussion.

41 S 18 - How could airborne infection like tuberculosis be reduced?
44 S 20 - How does this improvement to better condition lead to good health?
47 S 22 - Even though a better standard of living decrease death, it is still undeniable medicine play a part. Why?
In turn 49, the teacher probably gave up the attempt to direct the discussion to the main point on the cause of social improvement (turn 38). This time, the teacher invited Student 17 to pose any question,

"Student 17, ask Student 8 a question",

and coincidentally, in turn 50, Student 17 posed the right question,

"What is the basis of western health?",

which summarised the discussion from turn 38 - 45! Thus, Student 8’s response in turn 51 summed up the discussion with the appropriate main point of better living condition being the basis of western health.

The lack of skills in students’ ability to employ appropriate questions to conduct a discussion is again seen in the discussion on the alternative to good health from turns 53 - 68 and turns 78 -88. In turn 53, the Wh-question,

"What are the other alternative beside drugs that can cure diseases like diarrhoea?",

focused attention on another main point, that is, the alternative treatment of ailments. In turn 54, Student 24 responded with the answer oral rehydration salt (ORS). The next question,

"Why are doctors reluctant to use ORS?",

in turn 56 caused the student to examine the reason for the insufficient use of ORS. The question built on the response in turn 54. However, the answer,

"Because it is cheaper"

in turn 57 was wrong. The teacher checked the validity of the response with a Yes-No question,
“Happy with the answer?”

in turn 58. After repeating the question,

“Why are doctors reluctant to use ORS?”

in turn 61, Student 13 was able to provide the correct answer in turn 62.

“Because they didn’t have lectures on the appropriate non-pharmaceutical products”

Despite asking the same question twice (turns 56 and 61) two other students repeated similar questions in turns 66, 78, 82 and 84 thus prolonging the discussion unnecessarily.

66 S 12 - Although every year 5 million children die of diarrhoea, why the doctors are reluctant to use ORS?
78 S 1 - Why are Bangladeshi doctors not equipped with adequate knowledge to treat diarrhoea?
82 S 1 - Why are doctors reluctant to use ORS although it is a cheap non-pharmaceutical products?
84 S 1 - Although it is cheap it can prevent 3.5m death but medicine couldn’t do that. Why doctors reluctant to use ORS although it can cure 3.5m death? Although doctors use medicine, if they use ORS it can cure 3.5m death. If use medicine, the amount of death caused by diarrhoea is still very high.

A question on the consequences of not using ORS would have concluded the discussion. Instead the attempt to further explore the issue only met with the same responses in turns 67, 79 and 83.

67 S 25- It is because the doctors don’t have lecture on non-pharmaceutical products so they don’t know if it can cure or not.
79 S 2 - The doctors are reluctant to use non-pharmaceutical products because they believe diarrhoea can be cured only with medicine. Therefore, ORS is rejected among Bangladeshi doctors.
83 S 1 - Doctors believe in medicine to cure diseases not ORS.
Only after the teacher intervened in turn 85 and asked Student 1 to clarify his question and what he had in mind, did he explain that doctors preferred medicine because they were motivated by profit. Student 1’s answer was not supported by information in the passage but was based on his own idea! This was pointed out by Student 2 in turn 87 that Bangladesh being a poor country would not enable doctors to make a profit!

There was a slight deviation in the discussion on ORS as an alternative to good health from turns 69 - 77. In turn 70, Student 26 posed a Wh-question on the reasons drugs were ‘a blessing in modern country’ but, in turn 71, Student 27 refuted the claim,

“Drugs are not a blessing in Western world but better standard of living is”.

In turn 72, the teacher intervened with a Yes-No question, “Happy with the answer?”, to check if Student 26 would accept the answer but, in turn 73, Student 26 would not. In turn 75, Student 26 posed a Yes-No question,

“Do you want me to repeat?”

probably because she thought her question was not properly understood. However, in turn 76, Student 1 maintained and supported his stand by referring to the passage.

76 S 1 - Drugs are not a blessing for industrialised country. This is what industry and many doctors say but at the end of the paragraph, it is stated that reality is different. This means drugs are not a blessing.

The above discussion was not connected to the preceding discussion on ORS as an alternative to good health (turns 53 - 68). However, if the students
had linked the discussion from turns 69 - 77 to the second part of the task question, "Can pharmaceutical products guarantee good health?" as well as the discussion on better living conditions as the basis of good health from turns 38 - 51, then the information from turns 70 - 76 would be more tightly connected to the discussion that medicine could not be a guarantee of good health.

In turn 89 onwards, the teacher directed students' attention to the task question. The discussion from turns 90 - 100 focused on the first part of the task question, "How important have pharmaceutical products been in improving lives?". In turn 90, a Yes-No question,

"Is pharmaceutical product important in improving our lives?",
caused Student 27 in turn 91, to affirm that medicine can cure infection to some extent but that poor living condition is the cause of ill-health. In turn 93, Student 28 again posed a similar Wh-question,

"Why pharmaceutical product can improve our lives?",
with the question in turn 90. It was not clear what he had in mind because the answer,

"They help cure diseases and reduce death",
in turn 94 was already partly answered in turn 91. Student 28 posed another Wh-question,

"Why is it limited?",
in turn 95. The question was vague and so in turn 96, he was asked to rephrase which he did in turn 97.

"What are the limitations of pharmaceutical products?"
The answer,

"They are expensive and there are better ways to prevent diseases" in turn 98, was not quite correct because medicine was not expensive since it was within the means of the poor as stated in the passage. Although it was true that there were better ways to prevent diseases, a better response to the limitation of pharmaceutical products was that they cannot guarantee good health or that they were not the basis of good health but that there were other alternatives instead. The answer revealed a lack of thorough understanding of the passage. Nevertheless, the student’s question is a well-considered question and reflected the student’s maturity and comprehension of the passage. The discussion on the first part of the task question ended in turn 100.

The discussion from turns 102 - 113 focused on the second part of the task question, “Can pharmaceutical products guarantee good health?” In turn 102, a Yes-No question,

"If pharmaceutical products are not important in improving our lives are there any other alternatives?”,

elicited the answer,

"Improved living and social condition such as better sewage disposal, clean tap water, safe milk and a better supply of good food”,

in turn 103. In turn 105, when the teacher invited Student 5 to pose a question based on the task question, the teacher probably expected Student 5 to ask for another alternative. Instead, in turn 106, Student 5 repeated the same question, “Are pharmaceutical products important in improving our lives and why?” as turns 90 and 93. In turn 107, Student 7’s answer was a repetition but
incorporated into the response were the alternatives to good health, that is, better living condition and ORS (in the treatment of diarrhoea).

In turn 109, the Wh-question, "Why can’t good health be guaranteed by pharmaceutical products?", should have been posed before turn 102 as a logical build up to turn 102. There was thus a lack of logical development in the order of questions posed. Moreover, the answer,

"Ill-health is caused by poverty. Most people can’t afford to get pharmaceutical products so can’t guarantee good health",
in turn 110 was only partially correct. Most people could not afford to change their living conditions (and so could not have good health) as opposed to the answer by Student 7 (turn 110) that people could not afford to get pharmaceutical products which is not true as the poor depended on pharmaceutical products to improve their lives. Again, the answer revealed that students probably lacked thorough understanding of the passage. However, the error was probably spotted by Student 2 in turn 112 because she posed a Wh-question to determine why the poor believed in medicine. In turn 113, a student gave the correct answer.

113 S - Though pharmaceutical products can’t guarantee good health the poor believe they can cure them because they can’t afford to change their living conditions but they can afford to buy medicine at a pinch.

The final Yes-No question, "Anybody has any more question to ask?", in turn 114 was meant to check for any other query or contribution from the class. The negative response in turn 115 ended the discussion on the passage, "Pharmaceutical Products".
4.2 EFFECTS OF CLASS DISCUSSION ON STUDENTS' PERFORMANCE

This section will study the effects of both teacher-led and student-student discussions on learning outcomes. In both types of class discussion, the learning outcomes of students before the discussion are compared with the learning outcomes of students after the class discussion. This is ascertained by counting the number of main ideas and sub-ideas the students obtained in their detailed outline before and after discussion. In addition, the performance of high, average and low proficiency students before and after discussion will also be compared. The data on the detailed outline which the students had written were used to study the students' performance.

4.2.1. Effects of Teacher-led Discussion on Learning Outcomes

The effects of teacher-led discussion on learning outcomes in terms of the number of main and sub-ideas before discussion was studied first. The results were compared with the results of the learning outcomes after discussion. A comparative study was also made on the learning outcomes among different proficiency students.
4.2.1.1. Comparative Study of Learning Outcomes Before and After Discussion

The data before the class discussion revealed that the mean score for the number of main ideas or topic statements was 1.8 out of a total of six main ideas. (Table 4.3). About 41.6% of the students had only one main point while only 16.6% of the students had only four main points out of a maximum of six main points. In contrast, the mean score for the number of main ideas after discussion was 3.7, twice the mean score before discussion. In addition, 29% of the students obtained five main points compared to before discussion where the maximum number of main ideas was only four. Overall, a total of 66.6% of the students had four to five main ideas after discussion compared to only 16.6% before discussion. The results showed that the discussion played a significant role in enhancing students’ performance.

In terms of supporting or sub-ideas the mean score (out of a total of fifteen sub-ideas) was 5.75 before discussion (Table 4.3). In addition, only 29.2% of the students managed to elicit between eight to eleven supporting ideas while 70.8% had below six supporting ideas. On the other hand, the mean score for sub-ideas after discussion was 12.25 which is 2.1 times higher than the mean before discussion. Even more significant is that 79% of the students elicited eleven to fifteen sub-ideas after the discussion compared to only 4.2% of the students who elicited only a maximum of eleven sub-ideas before the discussion. To be noted is that after the discussion no student had less than seven sub-ideas. This means that the students who only elicited less than six sub-ideas before the discussion were able to elicit far more ideas after the discussion.
About 70.8% of the students who had performed badly before the discussion improved in their performance significantly after the discussion. Thus, teacher-led discussion play an important role in enabling students to elicit relevant information and in enhancing their performance.

Table 4.3

Ideas Generated from The Passage, “The Jury”

Students’ Performance Before and After Discussion

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<th>Percent</th>
<th>After Discussion</th>
<th>Percent</th>
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4.2.1.2 Comparative Study of Learning Outcomes Among Different Proficiency Students

This section will look at the learning outcomes of high, average and low proficiency students before and after class discussion (Table 4.4).

In terms of main ideas, the high proficiency students had a mean score of 3.16 before the discussion compared to a mean score of 4.0 after the discussion. This shows that discussion did not make much difference to high proficiency students who could independently elicit appropriate main ideas. However, discussion had significant effect on average and low proficiency students. Before the discussion, the mean scores for average and low proficiency students were 1.87 and 1.0 respectively. However, after the discussion, the average and low proficiency students had mean scores of 4.6 and 2.9 respectively which were 2.5 and 2.9 times higher than the mean scores before discussion. However, a closer examination of the main ideas obtained by average proficiency students revealed that 62.5% of the students had five correct main ideas (maximum six) after discussion compared to 16.6% of the high proficiency students and 10% of the low proficiency students. This shows that discussion greatly enhanced the performance of average proficiency students more than high and low proficiency students.

In terms of sub-ideas, discussion had a great difference on all high, average and low proficiency students. Before discussion, the mean scores of high, average and low proficiency students were 8.33, 6 and 4.0 respectively but after discussion, the mean scores were 13.6, 13.8 and 10.1 respectively. Again
the discussion had a greater effect on average proficiency students than on low proficiency students. About 87.5% average proficiency students elicited 13 - 15 sub-ideas after the discussion compared to 30% low proficiency students who elicited only 13 - 14 micro-ideas after the discussion. Discussion apparently benefited average proficiency students more than low proficiency students.
Table 4.4

Ideas Generated from The Passage, “The Jury”

Performance Among Different Proficiency Students

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<td>Mean</td>
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<td>1.87</td>
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Sub Ideas

| 0 | 1 | 1 12.5 |
| 1 | 16.6 | 1 16.6 |
| 2 | 33.3 | 3 37.5 |
| 3 | 1 12.5 |
| 4 | 2 25  |
| 5 | 1 12.5 |
| 6 | 3 30  |
| 7 | 1 10  |
| 8 | 2 20  |
| 9 | 1 10  |
| 10 | 1 10 |
| 11 | 1 12.5 |
| 12 | 2 25  |
| 13 | 3 37.5 |
| 14 | 1 10  |
| 15 | 3 37.5 |

Total | 6 99.9 | 6 99.8 | 8 100 | 8 100 | 10 100 | 10 100 |
Mean  | 8.33   | 13.6   | 6     | 13.87 | 4      | 10.1   |
4.2.2. Effects of Student-Student Discussion on Learning Outcomes

This section studied the effects of a student-student discussion on learning outcomes in relation to the number of main and sub-ideas before discussion and after discussion. A comparative study was also made on the learning outcomes among different proficiency students.

4.2.2.1 Comparative Study of Learning Outcomes Before and After Discussion

Table 4.5 revealed that the mean score in terms of the number of main-ideas before discussion was 1.33 (maximum five main-ideas). However, after discussion, the mean score was 2.62 which was twice that before discussion. About 44% of the students had three to four correct main ideas after the discussion compared to 20.7% before discussion. This again showed that student-student discussion helped students to obtain appropriate main ideas, thus enhancing students’ performance.

In terms of sub-ideas, the mean score before discussion was 4.2. Only about 20.8% of the students elicited about seven to ten sub-ideas (maximum fourteen ideas) and 16.6% of the students failed to elicit any supporting ideas. In contrast, the mean score after discussion was 8.08, twice the mean before discussion. Moreover, 41.5% of the students obtained ten to thirteen sub-ideas after discussion compared to 4.16% of the students who elicited only a
maximum of ten sub-ideas before discussion. Again this showed that peer discussion benefited students and helped improve their performance.

**Table 4.5**

**Ideas Generated from The Passage, “Pharmaceutical Products”**

Students’ Performance Before and After Discussion

<table>
<thead>
<tr>
<th>Main Ideas</th>
<th>Before Discussion</th>
<th>After Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>0</td>
<td>7</td>
<td>29.16</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>33.33</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>16.66</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>16.66</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>4.16</td>
</tr>
</tbody>
</table>

| Total | 24 | 99.8 | 32 | 24 | 99.9 | 63 |

Mean Score: 1.33 2.62

<table>
<thead>
<tr>
<th>Sub-Ideas</th>
<th></th>
<th></th>
<th>After Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Score</td>
</tr>
<tr>
<td>0</td>
<td>4</td>
<td>16.66</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>12.5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>12.5</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>4.16</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>20.8</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>12.5</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>12.5</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>4.16</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>4.16</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>12.5</td>
<td>33</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>8.33</td>
<td>26</td>
</tr>
</tbody>
</table>

| Total | 24 | 99.9 | 101 | 24 | 99.95 | 194 |

Mean: 4.2 8.08
4.2.2.2 Comparative Study of Learning Outcomes Among Different Proficiency Students

The learning outcomes of high, average and low proficiency students before and after discussion will be discussed here (Table 4.6). In terms of main ideas, the mean score for high proficiency students before discussion was 3.0 but after discussion, the mean score was 3.66. Discussion seemed to have an insignificant effect on high proficiency students. On the other hand, discussion appeared to have a significant impact on both the average and low proficiency students. Before discussion, the average and low proficiency students had a mean score of 0.75 and 0.8 respectively, but after the discussion, the mean scores were 3.37 and 1.6 respectively which were 4.5 times and twice higher than the respective mean before discussion. A more significant point was that discussion benefited the average proficiency students more than the low proficiency students since the mean for average students (3.37) was twice higher than the mean of low proficiency students (1.6).

In terms of sub-ideas, discussion again benefited all categories of students (high, average, low) as the mean score after discussion was higher (12, 10.4 and 5.2 respectively) than before discussion (7.16, 3.12 and 3.3). However, an interesting point was that discussion enabled average proficiency students (Mean difference = 3.3) to perform twice better than even high (Mean difference = 1.65) and low proficiency students (Mean difference = 1.5). Thus, peer discussion again increased performance of average students than the performance of high and low proficiency students.
## Table 4.6

Ideas Generated from The Passage, “Pharmaceutical Products”

Performance Among Different Proficiency Students

<table>
<thead>
<tr>
<th>Main Ideas</th>
<th>High Proficiency</th>
<th>Average Proficiency</th>
<th>Low proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Discussion</td>
<td>After Discussion</td>
<td>Before Discussion</td>
</tr>
<tr>
<td>0</td>
<td>No. 1</td>
<td>% 16.6</td>
<td>No. 3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>16.6</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>66.6</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>16.6</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>83.3</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>99.8</td>
<td>8</td>
</tr>
<tr>
<td>Mean</td>
<td>3</td>
<td>3.66</td>
<td>0.75</td>
</tr>
</tbody>
</table>

### Sub Ideas

<table>
<thead>
<tr>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>1</td>
<td>12.5</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>2</td>
<td>16.6</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>2</td>
<td>16.6</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>33.3</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>16.6</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>16.6</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>16.6</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>16.6</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>12</td>
<td>16.6</td>
<td>1</td>
<td>16.6</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>16.6</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>16.6</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>99.8</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>7.16</td>
<td>12</td>
<td>3.12</td>
</tr>
</tbody>
</table>

85
For both main and sub-ideas, Table 4.7 showed that the mean scores for teacher-led discussion were 1.5 times higher than student-student discussion.

**Table 4.7**

<table>
<thead>
<tr>
<th></th>
<th>Teacher-led Discussion</th>
<th>Student-student Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main ideas</td>
<td>3.7</td>
<td>2.62</td>
</tr>
<tr>
<td>Sub-ideas</td>
<td>12.25</td>
<td>8.08</td>
</tr>
</tbody>
</table>

This showed that teacher-led discussion was more effective than student-student discussion in enabling students to obtain relevant information.

**Table 4.8**

<table>
<thead>
<tr>
<th></th>
<th>Teacher-led Discussion</th>
<th>Student-student Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Average</td>
</tr>
<tr>
<td><strong>Main Ideas</strong></td>
<td>4</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Sub-Ideas</strong></td>
<td>13.6</td>
<td>13.87</td>
</tr>
</tbody>
</table>

In terms of the effects of class discussion on different proficiency students, Table 4.8 again showed that the overall mean scores for teacher-led discussion was higher than the overall mean scores for student-student discussion. Students, therefore, benefited more from teacher-led discussion than from peer discussion. However, when comparing the effects of teacher-led versus peer discussion on the three categories of students, teacher-led discussion had almost twice the
impact on low proficiency students overall. This means that the performance of low proficiency students was better enhanced by teacher-led than peer discussion. Although students may comprehend the passage in peer discussion, the discussion did not enrich students’ perspective and general knowledge.

4.4 SUMMARY

This section deals with two research questions:

1. What types of questions are used to increase students’ ability to elicit information? and

2. What are the effects of class discussion on students’ performance?

For the first research question, Wh-questions, Yes-No questions and Alternative questions were studied. In the teacher-led discussion, the findings revealed that the discussion was unnecessarily long. This was because some of the questions were so general that they led to ambiguous answers. They failed to guide students to obtain the required information because general questions could be answered from different perspectives. This led the teacher to repeat the questions thus prolonging the discussion. Some of the questions were also repetitive and, therefore, redundant. They had the effect of making the discussion convoluted. In addition, some questions lack sufficient leads to guide students. Again, they prevented students from eliciting all the relevant points quickly. However, when the questions were specific and explicit enough, the
discussion involved less turns and were thus shorter because the relevant points were obtained quickly.

In the student-student discussion, some of the questions were not appropriate. Some of the questions caused students to elicit supporting points first instead of guiding students to identify the main point first. This led to a shallow discussion which lacks depth. In addition, students did not often listen carefully to the questions before answering. Students often quoted answers from the passage irrespective of whether they were relevant or addressed to the question. Often the responses were accepted because they were the answers expected by those who asked the questions. Finally, some of the discussions had no logical development or connection with other discussions. This was because students asked questions at random rather than built upon each other's questions. Overall, the student-student discussion revealed a lack of questioning skill among students.

The findings for the second research question revealed three important points. Firstly, discussion, whether it was teacher-led or peer-centred, played a significant role in improving the overall performance of the students. In terms of high proficiency students, discussion had only marginal effects on performance. However, the discussion had a greater effect on average proficiency students than on low proficiency students. Average proficiency students performed better than low proficiency students after a discussion.

The second point was that teacher-led discussion played a more important role in enhancing performance than peer discussion. This was
reflected in the higher overall mean score for teacher-led discussion than peer discussion.

Finally, a comparative study of the effects of teacher-led discussion versus peer discussion on high, average, and low proficiency students revealed that the overall mean score for low proficiency students was about twice higher in teacher-led discussion than the overall mean score for low proficiency students in peer discussion. This means that low proficiency students gained more and performed better in teacher-led discussion than in peer discussion.
CHAPTER 5

DISCUSSION

This concluding chapter will include a summary of the findings, pedagogical implications, limitations of the study and directions for further research. The findings and implications of the present study must be viewed with the limitations of the study in mind.

5.1. SUMMARY OF FINDINGS

The aim of this study was to examine the use of questions to improve students' ability to elicit information and the effects of class discussion on students' performance.

The findings revealed that both teacher-led and peer discussion enhanced students' ability to elicit information to answer the task question. Although the teacher-led discussion was 1.5 times more effective than student-student discussion, peer tutoring was found to be equally as effective in facilitating exchange of knowledge and learning. This was reflected in the higher mean scores of 3.66, 3.37 and 1.6 respectively for high, average and low proficiency students after peer discussion, compared to the mean scores of 3.0, 0.75 and 0.8 respectively before discussion. This clearly suggests that value and emphasis should be placed on peer tutoring in enhancing the learning process and in
involving students as participants in their own learning. This finding corroborated the work of Trimbur (1985) who found that peer tutoring was able to tap the potential of peer group influence.

In terms of the different forms of questions used to elicit information, it was found that when the teacher employed questions that were too general and repetitive, the discussion tended to be long and convoluted. However, when the questions were more specific, the discussion tended to be shorter and the relevant points were obtained quickly. In addition, the wide range of questions used by the teacher enabled students to explore, discuss and comprehend issues in greater depth. However, students were not so adept in tapping and using the different forms of questions employed by the teacher as the range of questions forms students used were limited. Moreover, students often asked questions that orientated fellow students to obtain supporting points first rather than the main points. At times, the answers were quoted from the passage rather than being a genuine attempt to answer a question. Students did not seem to be able to assimilate the questioning skills and, hence, were not able to assist one another to explore issues, probe and clarify ideas, engage in in-depth discussions and systematically integrate supporting points around appropriate main points.

It appeared that the strategy employed by the students was still at the embryonic stage. In other words, the skill has yet to mature and develop. This phenomenon seems to support and extend Vygotsky’s (1978) ideas concerning the ‘zone of proximal development’ where the mental abilities of the students are still in the process of maturation. The students have yet to learn to independently