An Analysis of Problems and Behaviours in Identifying Complicated Sentences in order to Enhance Medical Residents’ Reading Comprehension of English Journal Articles

การวิเคราะห์ปัญหำและพฤติกรรมของแพทย์ประจำบ้านในการเข้าใจแยกแยะและบ่งบอกประโยคความซ้อนเพื่อเพิ่มความสามารถในการอ่านเพื่อความเข้าใจบทความภาษาอังกฤษในวารสารการแพทย์

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Abstract

To be able to read the articles in medical journals in English efficiently is one of the most crucial language skills for medical residents in this modern world who want to catch up with the latest information, including technology and advances in medical field. Thus, a number of research have been undertaken to find out how to improve their reading ability. Some major factors involving in comprehending such articles as shown in many studies are related to genre analysis, vocabulary recognition and sentence structures. However, medical residents who are familiar with the genre of medical articles and current medical terms are still struggling to comprehend their medical journals due to the complicated sentences i.e. a main clause modified by different subordinate clauses causing misunderstandings. In response, this study focused on how to improve their ability to read
English medical journal articles successfully through analyzing their problems and behaviours in depth. The problems had been solved through addressing the causes of their problems throughout the course. The findings yielded a satisfactory outcome – that is, most of the target learners could gain more comprehension with more confidence and motivation from reading medical journal articles in English.

**Keywords**: identifying, complicated sentences, medical residents, reading comprehension, English medical journal articles
เป็นที่น่าพอใจที่ส่วนใหญ่ของผู้เรียนที่เป็นเป้าหมายมีความเข้าใจมากขึ้นในการอ่านบทความในวารสารทางการแพทย์ที่เป็นภาษาอังกฤษพร้อมทั้งมีความมั่นใจและแรงจูงใจในการอ่านมากขึ้นเช่นกัน

คำสำคัญ : การเข้าใจที่จะแยกแยะและบ่งบอกประโยคความซ้อน แพทย์ประจำบ้าน ความสามารถในการอ่านเพื่อความเข้าใจ บทความทางการแพทย์ ภาษาอังกฤษ

Introduction

In reading for specific purposes like the one in this target situation i.e. Technical English for Medical Residents is under English for Specific Purposes (ESP) which has responded to the needs of the readers to become effective readers in their own fields. That is why many researchers have been attempting to help them develop their reading skills to be proficient readers. Starting from needs analysis in order to directly cater the specific needs of the learners to successfully read journal articles in pharmaceutical sciences, the work of Holmes and Chalauisaeng (2006) has clearly shown how to respond to the changing needs to read journal articles effectively as well as advance their independence in the EAP classroom.

Background of the study

A number of researches have been conducted to improve reading ability of learners with English for specific purposes. For example, a research aiming to enhance the language skills of medical residents through meeting their needs was the research studying about medical discourse and ESP courses for international medical graduates (IMGs) by Hoekje (2007: 327) who stated that “Despite entry screening for educational credentials and spoken English proficiency, research shows that language and cultural issues can still persist for IMGs during and after their residency training. This paper describes the process of our university language centre
in developing ESP courses to meet the needs of IMGs with respect to acculturation, the language and culture of the patient community, the language of the hospital, and intelligibility in performing key medical texts.” Similar problems in terms of language development are being addressed in the target situation i.e. Technical English for medical residents at Khon Kean University.

Also, in terms of genre analysis of the medical research paper to help readers to read with specific purposes for better understanding, one selected study is Nwogu (1997) who analyzed medical research papers focusing on structure and functions, using Swales’ (1981, 1990) genre–analysis model. The finding identified an eleven-move schema with nine normally required and two optional ones. Their constituent elements with distinct linguistic features were presented with the insights into the nature of discourse organization of medical research paper.

Moreover, in forms of vocabulary recognition in ESP, Williams (1985) studied teaching vocabulary recognition strategies in ESP reading. After separating vocabulary recognition strategies from vocabulary development exercises, he came up with suitable kinds of exercises and how to teach them appropriately, covering five necessary vocabulary recognition strategies. They were inferring from context, identifying lexical familiarization, unchaining nominal compounds, synonym search, and word analysis.

In addition, another factor which is known to be one of the major barriers in understanding academic texts such as medical journal articles is their complicated sentence. As mentioned earlier, in spite of trying to meet the learners’ needs in terms of appropriate materials and learning activities and equipping them with the skills in forms of genre analysis of medical articles and some vocabulary skills, they still have difficulties in understanding the texts. Sometimes readers know the meanings of all of the words especially with easy access to an electronic dictionary but they cannot understand the text. In other words, it does not guarantee that readers can
completely understand what they are reading even though they know the meanings of every word. This is because they cannot identify the complicated sentences i.e. a main clause with different subordinate clauses as modifiers either in a complete form as a noun, adjectival or adverbial clauses or in a deleted forms as a different forms of phrases .(See an example in table 1.)

This can be strongly supported Blanton (1984) stating that “ESL students’ difficulties in learning to read academic expository prose often stem from their failure to perceive shifts back and forth between textual subordination and coordination. By failing to perceive the shifts, they miss notional clues that could allow them to construct a conceptual scheme of textual information. A hierarchical model for teaching advanced ESL reading is suggested as linguistically appropriate for enabling students to conceptualize the multi-dimensional relationships that constitute the structure of an academic text.” (Blanton; 1984:37).

Rational of the study

The specific problems mention above actually exist in the real situation with the target groups of learners i.e. the medical residents who aim to master the reading skills in order to comprehend the medical journal articles effectively. Many of them have experienced difficulties in thoroughly understanding the authentic articles full of complicated sentences. This problem with the target group of learners has never been seriously taken to identify its root cause in order to thoroughly understand, measure and manage it effectively. This gives rise to this present research to study their problems and behaviours in dealing with complicated sentences with the aim to solve the problems in order to enhance their reading comprehension. This is because most of the learners have misunderstood or misinterpreted the texts which can cause other related problems in a medical field. For example, Smith (1984:25) researching about medical discourse in terms of author’s comment stated that “one of the major problems for students reading articles in medical journals is
distinguishing objective statements of accepted fact from author-marked observations of opinion, hypothesis, or recommendation”. If this problem has not been solved effectively, what will happen to the medical personnel competence and performance? Another example which reflects the importance and the needs for reading comprehension is there are many frauds in research articles published even in distinguished international medical journals at the present. For instance, Abraham (2006) revealed that many medical studies commercially funded were more likely to be biased. Therefore they could mislead some doctors who might not be able to completely understand all the information or who might take for granted information published in a highly respected journal. This could lead to a wrong choice of treatment with ‘infomercial’ rather than ‘evidence-based medicine’. Similarly, Abraham has implied that readers reading journals in medical fields had to improve their reading ability be able to thoroughly comprehend the articles as some of them have been fabricated even in venerated scientific journals like the one published in Science about a cloned human embryo whose findings were falsified. Thus, to improve their reading comprehension based on their identified problems and behaviours, this study focused on helping learners to identify complicated sentences as part of reading strategies for learning to read medical journal articles.

Specific context of the study

The expectation of the Faculty of Medicines is quite ambitious as they expect medical residents to improve their four main language skills within one course i.e. the Technical English for Medical Residents which is a compulsory course for medical residents as graduate students at Khon Kaen University. Thus, the course consists of two parts i.e. reading & writing and listening & speaking to allow learners to acquire all skills within 22.5 hours for each part out of total forty-five hours. The researcher taught the reading and writing. The listening & speaking part is taught by native speakers while the other half is taught by the researcher focusing on
reading medical journal articles and writing a summary. The materials were chosen based on the needs analysis before the study as this course has been taught by the researcher for almost three years after the former teacher retired. It has been adjusted to suit the learners’ needs. All of the reading materials were authentic types of texts ranging from short and simple ones to full journal papers. If they are news or short articles from newspapers or journals, they are regularly changed to keep up with the latest information. However, sometimes journal articles with up to date information and with a good model for studying language are reused. Generally, the reading materials are newly selected each semester to interest learners and motivate them.

Also, the medical residents need to be motivated to learn how to read medical journal because all of them have to study while working hard. As they have been granted scholarships from different medical departments to study in that specific department in the university hospital namely Srinakarin Hospital, they have to work full time for those departments as one of the conditions of their scholarship. That meant they could come to study only in the evening generally from five to seven twice per week for reading &writing and listening & speaking. The whole course lasts about two and a half months. During that time, some of them might be called away to emergencies or they might not be able to come due to their patient’s critical condition. This means they had to work hard the whole day including on night shift sometimes while studying their subject matters and English. Hence, after completing their daily duty, they were tired or even exhausted from their duties while trying to concentrate on English lesson. Moreover, many had to go straight back to work on night shift right after finishing English class. They, however, have to complete this English course with many limitations due to the university requirement.

In particular to this study, the participants were medical residents in their first year of three–year training program. Twelve out of eighty–eight learners were purposively selected (3 from each class from four classes). As the student aimed to
improve learners’ reading comprehension so only the ones whose pre-test scores were lower than 50 out of 100 were chosen. However, they were received the same treatment as the other students taking the same course.

**Research method and instruments**

The reading passage in the study was selected from the standardized tests i.e. IELTS (Cambridge IELTS, 2000). The reading passage “Changing understanding of health” (See Appendix1) was chosen because it is similarly to an article in a medical journal in terms of topic, language points as well as level of difficulty. Nevertheless, some of test questions were adjusted to suit the purpose of the study. That was the study attempted to analyze problems and behaviours of medical residents’ in identifying complicated sentences in order to enhance their reading comprehension in reading English journal articles. As a result, some extra questions were added to the test, adjusted to suit the purpose of the study. In other words, both types of questions were used for checking learners’ comprehension of the text in terms of identifying main ideas and supporting details as well as asking them to identify both main clauses and subordinate clauses of the complicated sentences.

A part of pre and post test to check their reading comprehension, there was still another test adapted from a grammar part of TOEFL test (Lougheed, 1995) to check their ability to understand complicated sentences focusing on subordinations in terms of subordinate noun, adjective and adverb clauses. (See appendix.2)

All the learners in the four classes had taken both tests at the beginning of the course. Then the twelve learners whose scores were lower than 50% were interviewed in the first week of the study. The ‘think aloud procedure’ is a ‘technique used in investigating learner strategies, in which learners think aloud as they are completing tasks, in order that researcher can discover what kinds of thinking processes or strategies they are making use of.’ (Richards, J.C and et
The outcomes of the participants’ think aloud procedures were tape recorded and transcribed later. Similarly, their behaviours when dealing with how to identify the complicated sentences were recorded manually. In addition, after they had completed their think aloud protocol, they were interviewed semi-informally with the researcher asking why they thought or believed what they had said. The data were also noted down for each participant. Then all of them were analyzed and presented in terms of percentage. It could be concluded that three main kinds of research instruments for data collections were employed such as pre and post tests, think aloud protocol method as a retrospective type expressing what strategies they actually used to identify the complicated sentences (Charters, E; 2003) and semi-conversational interviews what their problems in reading for comprehension for reading academic texts parallel to medical journal articles and in identifying complicated sentences including their suggestions and their needs to help enhance their reading ability in order to comprehend their medical journal articles effectively. All of the findings collected at the beginning of the course were immediately implemented throughout the course directly addressing their needs and problems in reading medical journals.

Results

The results of the study were presented in response to each research objective as stated in the abstract.

Problems in reading medical journals

After the tests, the problems of the learners in dealing with the reading comprehension were reflected through their pre-test scores and think-aloud procedures as well as semi-conversational interviews. The results in terms of their problems in dealing with subordination were analyzed. It was found that all of the samples (12) had had great difficulties in identifying and interpreting the
complicated sentences or complex sentences comprising of a main clause and subordinate clauses, either noun, adjective or adverb clauses both in forms of completed or deleted types. None of them was confident about identifying the core of sentence (subject verb object) with many modifiers either in forms of completed or deleted/shorten subordinate clauses such as adjective and adverb clauses before the study. However, after the study, ten out of twelve (83.3%) become more confident to do it efficiently.

In addition, at first, eleven of them (91.6%) found it very difficult to identify the main subject of the core sentence especially the one with various kinds of modifiers such as prepositional phrase or adjective clauses. Nevertheless, at the end of the course, nine out of twelve (75%) could adequately identify it. Also, eight (66.6%) were scarcely able to identify the main verb of complicated sentences at the start of the study. On the other hand, by the end of the study, almost all of them (eleven out of twelve or 91.6%) could successfully manage this. (See table 1 below.)

**Table 1** An example of a complicated sentence and learners’ problems

<table>
<thead>
<tr>
<th>An example of complicated sentences</th>
<th>Before the treatment</th>
<th>After the treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>While this individualistic healthy lifestyles approach to health worked for some (the wealthy members of society), people experiencing poverty, unemployment, underemployment or little control over the conditions of their daily lives benefited little from this approach.</td>
<td>All the samples (12) had a lot of difficulty to find a core of the main sentence i.e. subject, verb and (object or adverb) (They are underlined as an example here.)</td>
<td>At the end of the study, most of the samples were more confident and able to identifying and interpret complicated sentences more effectively. They were able to identify the core of the sentence i.e. “people benefited little.”</td>
</tr>
</tbody>
</table>
Behaviour Patterns

Together with the problems, the samples’ behaviour in identifying and interpreting the complicated sentences were studied and analyzed and then classified within three main categories. Firstly, eleven (91.6%) generally tended to translate word for word. This meant they did not fully understand what they were reading, so they became even more confused in spite of knowing the meaning of almost every individual word. In fact they could not distinguish between the core of the sentence and the modifiers in the forms of subordinate clauses or phrases. Nevertheless, after being shown how to identify the main clause from the subordinate clauses or phrases, nine out of twelve (75%) could effectively differentiate between the core of the sentence and the modifiers by the end of the course.

Furthermore, ten out of twelve (83.3%) had mistaken modifiers in forms of present or past participles in a deleted adjective and adverb clause as the main verb. In other words, if the main verb of a complex or complicated sentence – which could sometimes be as long as a paragraph – was very far removed from the subject due to many modifiers they were unable to identify it. On the other hand, after the study, eight out of twelve samples (66.6%) were able to effectively identify it with more confidence.

Also, at the beginning of the course, nine out of twelve (75%) frequently misunderstand that a noun which can be used as a verb was the main verb of a complicated sentence. In other words, words with dual roles or functions which can sometimes be used as a noun and at other times as a verb) like the word ‘lives’ in the sample sentence in table one. On the other hand, almost all of them (11 out of 12 or 91.6%) were eventually able to identify the main verb of the complicated sentence.
**Table 2.** An example of complicated sentences and learners’ behaviours while trying to identify their cores

<table>
<thead>
<tr>
<th>Selected examples of complicated sentences</th>
<th>Before the treatment (Behaviours in identifying complicated sentences)</th>
<th>After the treatment (Behaviours in identifying complicated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. While this individualistic healthy lifestyles approach to health worked for some (the wealthy members of society), people experiencing poverty, unemployment, underemployment or little control over the conditions of their daily lives benefited little from this approach.</td>
<td>At first, most of the samples had mistaken the italicized words (which were deleted from subordinate clauses in active form i.e. who experienced, and subordinate clause in passive form i.e. which is known) as the main verbs of these sample sentences. Similarly, they also misunderstood that the verbs of the subordinate mainly adjective clauses were the main verbs of the whole sentence like the italicized words in sentences 3, 4 and 5. Generally, their most frequent reasons given were these words were next to or nearer to subjects.</td>
<td>After being taught about three kinds of subordinate clauses i.e. noun, adjective and adverb clauses, most of the samples could identify the subject, verb (object) of the main clause successfully. Their behaviours had changed from jumping to conclusion that the nearest word to the subject (which sometimes was mistaken either) was the main verb. Instead they have learnt how to overlook the subordinate clauses (a completed one with the markers such as which, who and etc. and a deleted one with present participle or past participle) to find the</td>
</tr>
<tr>
<td>Selected examples of complicated sentences</td>
<td>Before the treatment (Behaviours in identifying complicated sentences)</td>
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<tr>
<td>4. The social, economic and environmental contexts which contribute to the creation of health do not operate separately or independently of each other.</td>
<td>main verb which is far away from the main subject like the underlined ones in the samples sentences.</td>
<td></td>
</tr>
<tr>
<td>5. The overall philosophy of health promotion which guides these fundamental strategies and approaches is one of ‘enabling people to increase control over and to improve their health’.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Solutions for the problems**

The solutions for these problems were derived from both their suggestions and needs as a result from an analysis of their problems. These were directly and promptly implemented in the teaching and learning process. They were summarized as follows:

All samples (100%) required the revision of reading strategies before starting reading authentic medical journal articles starting from word skills. The necessary strategies ranged from word skills to sentence, paragraph and passage reading. At the word skill level, they had learnt how to find the right meaning of the word according to its context by using mono-lingual dictionary with more definitions than their bilingual (English-Thai) dictionary. For example, they
acquired different meanings of the same word from their different contexts between “He resigned on medical grounds” and “He fell on the ground.” This enhanced their reading for better comprehension. Next, without any dictionary, they had learnt how to guess the meanings of unknown words in different contexts with a wider range of reading strategies. These varied from guessing meanings from prefix/root/suffix/contextual clues as well as identifying references. At the sentence level, the tenses were reviewed focusing on both active and passive forms in different kinds of sentences before focusing on complicated sentences with noun, adjective and adverb clause. Then at the paragraph level, they were trained to identify main ideas with supporting details. In addition, at the passage level, they had learnt how to read authentic medical journals, putting all the acquired knowledge and skills about reading strategies into practice. The summary writing was integrated in the paragraph and passage levels. In this way, their reading comprehension was reflected through their summary of what they had read which contained main ideas and some major supporting details. In other words, their reading comprehension was directly shown through their summary writing after reading.

Reading skill improvement

The quantitative findings as a result of the pre-test and the qualitative ones from the think aloud process and semi-conversational interviews, showed that all of the participants stated that they have gained improved knowledge and ability in identifying the core of complicated sentences. This resulted in enhancing their reading ability to comprehend medical journal articles better. All of them could get higher scores than 50 after the study. To clarify the point, nine out of twelve (75%) could get between 65 to 70 scores while the other three (25%) could gain between 50 to 60 scores. This could confirm their better reading comprehension.
Discussion

Generally, after their reading problems and behaviours closely related to the ability to identify complicated sentences had been analysed and found out at the beginning of the course, the needed reading strategies to help solve the learners’ reading problems were implemented throughout the course. Gradually, their reading ability had been improved and modes of dealing with their reading medical journal articles had changed favourably to enable them to read their articles more successfully. That was they did not struggle as much with a lot of mistakes and confusion as they did at the beginning of the course. This was the result of their gained knowledge and skills in forms of techniques to identify complicated sentences enabling them to correctly interpret the meanings efficiently as shown in the results. In general, these authentic medical journal articles drastically challenged these readers as they were to some extent difficult for them. However, it is believed that in this way they can acquire the language to learn how to read according to Krashen’s Comprehension Hypothesis, focusing on Comprehensible Input. This Input Hypothesis states “that in second or foreign language learning, for language acquisition to occur, it is necessary for the learner to understand input language which contains linguistic items that are slightly beyond the learners’ present linguistic competence.” (Richards, J.C and et al. (1992:183). To overcome this challenge, they were supported to comprehend the texts by different reading strategies in addition to how to identify the complicated sentence. Thus, it was assumed that the more skilful they could apply needed reading strategies, the better they could understand what they have read. This directly led to their reading development. This finding was in accordance with the result of K.-S. Cho, and Kim. H. (2004) and Witton-Davies, G. (2006) whose work clearly showed that learners with more Comprehensible Input gained greater reading improvement.
especially through extensive reading which they were also assigned to read on their own outside the class as a self-directed study.

Noticeably, the higher pre-test results agreed with more positive motivation and confidence in reading medical journal articles based on their own perception. Still, these selected samples accepted that they did need more reading practice to become better efficient readers. This implied that one effect of this study was it has raised their awareness of developing their reading on their own through self-directed study. In particular, the course covered only twenty two hours and a half within two months and two weeks. Therefore, the participants all realized that the most possible way to improve their reading skills within this limited time was through intensive reading on their own.

In sum, the participants clearly stated that with more knowledge & skills as well as higher confidence & motivation to read their medical journal articles, they could further improve their reading ability through extensive reading by self-study with the right quantity, quality and frequency. This strongly agrees with what Krashen (2008:180) had cited from Reading Hypothesis proposed by Smith, F. (2004) and Goodman, K (2003) hypothesizing that “We learn to read by reading, by understanding what is on the page.” This strongly confirmed this study finding.

Conclusion

After finding the participants’ specific reading problems and their behaviours causing those problems, the problems have been solved focusing based on their specific problems i.e. how to identifying complicated sentences. The study treatment in dealing with the problems directly entailed their reading comprehension improvement as well as the participants’ higher confidence and motivation for reading medical journal articles. This also increased their awareness of enhancing own reading comprehension through extensive reading by self-study. This was in according with the Reading Hypothesis cited by Krashen (ibid.)
claiming “Reading is the source of much our vocabulary and spelling competence, our ability to hand complex grammatical structures, and to write with an acceptable writing.” This is especially true for the target learners as non-native speakers of English who need to read as much and as often as possible to improve their language skills. In sum, this study has achieved not only the stated objectives but also the ultimate goal of education i.e. to raise the awareness of learners and enable learners to become more self-autonomous learners.

References


Appendix 1

Changing our Understanding of Health

A
The concept of health holds different meanings for different people and groups. These meanings of health have also changed over time. This change is no more evident than in Western society today, when notions of health and health promotion are being challenged and expanded in new ways.

B
For much of recent Western history, health has been viewed in the physical sense only. That is, good health has been connected to the smooth mechanical operation of the body, while ill health has been attributed to a breakdown in this machine. Health in this sense has been defined as the absence of disease or illness and is seen in medical terms. According to this view, creating health for people means providing medical care to treat or prevent disease and illness. During this period, there was an emphasis on providing clean water, improved sanitation and housing.

C
In the late 1940s the World Health Organisation challenged this physically and medically oriented view of health. They stated that ‘health is a complete state of physical, mental and social well-being and is not merely the absence of disease’ (WHO, 1946). Health and the person were seen more holistically (mind/body/spirit) and not just in physical terms.

D
The 1970s was a time of focusing on the prevention of disease and illness by emphasising the importance of the lifestyle and behaviour of the individual. Specific behaviours which were seen to increase risk of disease, such as smoking, lack of fitness and unhealthy eating habits, were targeted. Creating health meant providing not only medical health care, but health promotion programs and policies which would help people maintain healthy behaviours and lifestyles. While this individualistic healthy lifestyles approach to health worked for some (the wealthy members of society), people experiencing poverty, unemployment, underemployment or little control over the conditions of their daily lives benefited little from this approach. This was largely because both the healthy lifestyles approach and the medical approach to health largely ignored the social and environmental conditions affecting the health of people.
E

During the 1980s and 1990s there has been a growing swing away from seeing lifestyle risks as the root cause of poor health. While lifestyle factors still remain important, health is being viewed also in terms of the social, economic and environmental contexts in which people live. This broad approach to health is called the socio-ecological view of health. The broad socio-ecological view of health was endorsed at the first International Conference of Health Promotion held in 1986, Ottawa, Canada, where people from 38 countries agreed and declared that:

The fundamental conditions and resources for health are peace, shelter, education, food, a viable income, a stable eco-system, sustainable resources, social justice and equity. Improvement in health requires a secure foundation in these basic requirements. (WHO, 1986)

It is clear from this statement that the creation of health is about much more than encouraging healthy individual behaviours and lifestyles and providing appropriate medical care. Therefore, the creation of health must include addressing issues such as poverty, pollution, urbanisation, natural resource depletion, social alienation and poor working conditions. The social, economic and environmental contexts which contribute to the creation of health do not operate separately or independently of each other. Rather, they are interacting and interdependent, and it is the complex interrelationships between them which determine the conditions that promote health. A broad socio-ecological view of health suggests that the promotion of health must include a strong social, economic and environmental focus.

F

At the Ottawa Conference in 1986, a charter was developed which outlined new directions for health promotion based on the socio-ecological view of health. This charter, known as the Ottawa Charter for Health Promotion, remains as the backbone of health action today. In exploring the scope of health promotion it states that:

Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. (WHO, 1986)

The Ottawa Charter brings practical meaning and action to this broad notion of health promotion. It presents fundamental strategies and approaches in achieving health for all. The overall philosophy of health promotion which guides these fundamental strategies and approaches is one of ‘enabling people to increase control over and to improve their health’ (WHO, 1986).
Instructions 1. You should spend only one hour for this whole test.

Read the passage and choose the most suitable headings for paragraph B–F from the list of headings below.

Write the appropriate numbers (i–ix) on the blank after each list of a paragraph.

NB There are more headings than paragraphs, so you will not use them all.

<table>
<thead>
<tr>
<th>List of Headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>i  Ottawa International Conference on Health Promotion</td>
</tr>
<tr>
<td>ii Holistic approach to health</td>
</tr>
<tr>
<td>iii The primary importance of environmental factors</td>
</tr>
<tr>
<td>iv Health lifestyles approach to health</td>
</tr>
<tr>
<td>v Changes in concepts of health in Western society</td>
</tr>
<tr>
<td>vi Prevention of disease and illness</td>
</tr>
<tr>
<td>vii Ottawa Charter for Health Promotion</td>
</tr>
<tr>
<td>viii Definition of health in medical terms</td>
</tr>
<tr>
<td>ix Socio-ecological view of health</td>
</tr>
</tbody>
</table>

Example                         Answer
Paragraph A                     V
1. Paragraph B     _____
2. Paragraph C     _____
3. Paragraph D     _____
4. Paragraph E     _____
5. Paragraph F     _____

Instructions 2. Using no more than three words from the passage, answer the following questions. Write you answer on the blank provided.

6. In which year did the World Health Organization define health in terms of mental physical and social well-being? ..............................
7. Which members of society benefited most from the health lifestyles approach to health? 

8. Name three broad areas which relate to people’s health, according to the socio-ecological view of health.

9. During which decade were lifestyle risks seen as the major contribution to poor health?

Instructions 3. Do the following statement agree with the information in reading passage 2?

On each blank of the tests no. 10 to 14 write

Yes if the statement agrees with the information

No if the statement contradicts the information

Not Given if there is no information on this in the passage

10. Doctors have been instrumental improving living standards in Western society.

11. The socio-ecological view of health recognizes that lifestyles habits and the provision of adequate health care are critical factors governing health.

12. The principles of the Ottawa Charter are considered to be out of date in the 1990s.

13. In recent years a number of additional countries have subscribed to the Ottawa Charter.
Instructions 4. Underline the core (Subject Verb Object (optional) Or Complement of each italicized sentence with the letters as in the example.

An example: The most frequent reason stated for absence of the doctors was minor illness
to self.

(S) (V) (C)

1. While this individualistic healthy lifestyles approach to health worked for some (the wealthy members of society), people experiencing poverty, unemployment, underemployment or little control over the conditions of their daily lives benefited little from this approach.

2. This charter, known as the Ottawa Charter of Health Promotion, remains as the backbone of health action today.

3. Specific behaviours which were seen to increase risk of disease, such as smoking, lack of fitness and unhealthy eating habits, were targeted.

4. The social, economic and environmental contexts which contribute to the creation of health do not operate separately or independently of each other.

5. The overall philosophy of health promotion which guides these fundamental strategies and approaches is one of ‘enabling people to increase control over and to improve their health’.
Appendix 2

**Instructions** : Circle around the best answer for each statement.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
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<tbody>
<tr>
<td>1. The patient accepted the result of the operation ______.</td>
<td>(A) which the committee proposed</td>
</tr>
<tr>
<td></td>
<td>(B) proposed the committee</td>
</tr>
<tr>
<td></td>
<td>(C) which proposed the committee</td>
</tr>
<tr>
<td></td>
<td>(D) who the committee proposed</td>
</tr>
<tr>
<td>2. Hospital buildings _______ of brick last longer than those made of mud.</td>
<td>(A) which</td>
</tr>
<tr>
<td></td>
<td>(B) which they are made</td>
</tr>
<tr>
<td></td>
<td>(C) which are made</td>
</tr>
<tr>
<td></td>
<td>(D) are made</td>
</tr>
<tr>
<td>3. The corporation whose ____ first will host the delegation for lunch.</td>
<td>(A) plant we visited</td>
</tr>
<tr>
<td></td>
<td>(B) visited plant we</td>
</tr>
<tr>
<td></td>
<td>(C) visited we plant</td>
</tr>
<tr>
<td></td>
<td>(D) we plant visited</td>
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<td>4. The letter _______ our guests’ intention to visit came after their arrival.</td>
<td>(A) it announcing</td>
</tr>
<tr>
<td></td>
<td>(B) announcing</td>
</tr>
<tr>
<td></td>
<td>(C) had announced</td>
</tr>
<tr>
<td></td>
<td>(D) that announcing</td>
</tr>
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<td>5. The noise of the ambulance ______ into the hospital was deafening.</td>
<td>(A) that come</td>
</tr>
<tr>
<td></td>
<td>(B) which were coming</td>
</tr>
<tr>
<td></td>
<td>(C) coming</td>
</tr>
<tr>
<td></td>
<td>(D) that coming</td>
</tr>
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<td>6. The man _______ the patient bed ignored our calls.</td>
<td>(A) who pushing</td>
</tr>
<tr>
<td></td>
<td>(B) pushing</td>
</tr>
<tr>
<td></td>
<td>(C) was pushing</td>
</tr>
<tr>
<td></td>
<td>(D) pushed</td>
</tr>
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<td>7. A health promotion campaign _____ will be costly.</td>
<td>(A) which for months last</td>
</tr>
<tr>
<td></td>
<td>(B) lasts for months</td>
</tr>
<tr>
<td></td>
<td>(C) lasting for months</td>
</tr>
<tr>
<td></td>
<td>(D) will last for months</td>
</tr>
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<td>8. The phone ____ started ringing.</td>
<td>(A) which next door</td>
</tr>
<tr>
<td></td>
<td>(B) is next door</td>
</tr>
<tr>
<td></td>
<td>(C) as next door</td>
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<tr>
<td></td>
<td>(D) next door</td>
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</table>
9. The chessmen, _______, are displayed in a glass case.
   (A) which from ivory
   (B) which carved from ivory
   (C) carved from ivory
   (D) carving from ivory

10. _____ my consultant, I don’t need to believe in everything he has said. A second opinion is still needed.
   (A) Even though he is
   (B) So he is
   (C) As
   (D) Where he is

11. The meeting was postponed ______.
    (A) although no reason was given
    (B) no reason given
    (C) why no reason was given
    (D) although given no reason

12. While tomatoes are in season, _______.
    (A) are inexpensive
    (B) they are inexpensive
    (C) inexpensive
    (D) besides inexpensive

13. The applicant was turned down by the college _____ were too low.
    (A) his test scores
    (B) because
    (C) because his test scores
    (D) if

14. _____, the nurse checked the patient’s temperature.
    (A) Called the doctor
    (B) Before calling the doctor
    (C) The doctor calling
    (D) Before the doctor calling

15. ______, the mind lets suppressed thoughts surface.
    (A) While dream
    (B) While dreaming
    (C) While our dream
    (D) While the mind dreaming

16. _______, the patients like to take a walk,
    (A) After they eating
    (B) They after eating
    (C) After eating
    (D) After to be eaten
<table>
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<tr>
<th>Question</th>
<th>Answer</th>
<th>Correct Answer</th>
</tr>
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<tbody>
<tr>
<td>17. Pedestrians should look to the left and right _______ the street.</td>
<td>(A) when crossing</td>
<td>(A) when crossing</td>
</tr>
<tr>
<td>18. ______ as sleep, the young child was listening.</td>
<td>(A) Although pretended to be</td>
<td>(A) Although pretended to be</td>
</tr>
<tr>
<td>19. After______, the insurance policy covers illness on the company grounds, where most accidents are likely to occur.</td>
<td>(A) being signing</td>
<td>(A) being signing</td>
</tr>
<tr>
<td>20. _____ by his illness, he quitted his job.</td>
<td>(A) When forced</td>
<td>(A) When forced</td>
</tr>
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