Appendix A

Lessons Plans of the Trialling Tasks

Task 1: Network topology

Content objectives: Students should be able to analyze components of at least two types of network topology.

Language objectives: Students should be able to talk about at least one type of network topology.

Time allotted: 120 minutes

Preparation:
1. Reading passage on the network topology
2. Pictures of network topology
3. Laptops with Internet connectivity

Online sources:

Procedure:
1. Show some pictures of computer network: LAN, MAN and WAN. Elicit students’ background knowledge about computer network. Show some pictures of network topology and lead the students in a short pre-reading discussion to find out how much they know about a computer network and network topology. If laptops are available, a teacher may display the given pictures for discussion. Here are some possible leading questions.

   - What do you see in this picture?
   - What kind of network is it?
   - Is it LAN/MAN/WAN?
   - Have you ever seen this picture?
   - How many types of computer network are there?
2. Write down on the board any key points they mention. This discussion is not intended to be a thorough explanation of the reading. Its purpose is to briefly introduce the topic and activate students’ prior knowledge of the topic, if they have any.

3. Divide students into six groups. In jigsaw reading technique, each member of a ‘home’ group will get six different topics. If laptops/computers with Internet connectivity are available, it is more interesting to read online texts.

4. Students move to the ‘expert’ group where group members work on the same topic. In ‘expert’ group, they have to ensure that each member clearly comprehend the passage as well as vocabulary. Additionally, they try to reach consensus within the group on the point for discussion. *Here, it should be noted that prior to shifting to the ‘home’ group, the students should be given some time to practice articulating their knowledge.

5. Students return to their ‘home’ teams and take turns explaining their own part. Then they work on Exercise A: ‘True or False’. Later they join a class discussion on all topics.

6. Students choose a pair of the topologies and carefully analyze them in terms of type and number of equipment, configuration, cost, break in connection or failure of system.
**Picture 1:** WAN

**Picture 2:** Bus Topology

**Picture 3:** Ring Topology

**Picture 4:** Star Topology

**Picture 5:** Tree Topology

**Picture 6:** Mesh Topology
Bus Topology uses a common bus or backbone (a single cable) to connect all devices with terminators at both the ends. The backbone acts as a shared communication medium and each node (file server, workstations, and peripherals) is attached to it with an interface connector. Whenever a message is to be transmitted on the network, it is passed back and forth along the cable, past the stations (computers) and between the two terminators, from one end of the network to the other. As the message passes each station, the station checks the message’s destination address. If the address in the message matches the station’s address, the station receives the message. If the addresses do not match, the bus carries the message to the next station, and so on.

Point for discussion: What will happen if there is a failure in the backbone?
In Ring Topology, computers are placed on a circle of cable without any terminated ends since there are no unconnected ends. Every node has exactly two neighbors connected to form a ring for communication purposes. All messages travel through a ring in the same direction (clockwise or counter-clockwise) until it reaches its destination. Each node in the ring incorporates a repeater. When a node receives a signal intended for another device, its repeater regenerates the bits and passes them along the wire.

**Note:** A repeater is a regenerating signal device. It is used to clean and free the signal from any background noise happening while travelling down the wire, then send the refreshed signal to the link.

**Point for discussion:** What will happen if there is a failure in any nodes?
In **Star Topology**, devices are not directly linked to each other but are connected via a centralized network component known as a hub or concentrator forming the shape of a star. The hub acts as a central controller and if a node wants to send data to another node, it boosts up the message and sends the message to the intended node. This topology commonly uses twisted pair cable, however, coaxial cable or fiber optic cable can also be used.

**Point for discussion:** What will happen if a node/or a hub is removed from the network?

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**Exercise A:** Match each word with its definition.

<table>
<thead>
<tr>
<th>1. to centralize</th>
<th>a. an object or a piece of equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. a controller</td>
<td>b. one of several parts of which something is made</td>
</tr>
<tr>
<td>3. a device</td>
<td>c. a device that controls a machine or part of a machine</td>
</tr>
<tr>
<td>4. a component</td>
<td>d. to give the control of something</td>
</tr>
</tbody>
</table>

---
**Tree Topology** combines characteristics of linear bus and star topologies. It consists of groups of star workstations connected to a bus backbone cable. Not every node plugs directly to the central hub. The majority of nodes connect to a secondary hub that, in turn, is connected to the central hub. Each secondary hub in this topology functions as the originating point of a branch to which other nodes connect.

**Point for discussion:** What will happen if there is a failure in the backbone or in a single hub?
In **Mesh Topology**, every node has a point-to-point link to every other node. Messages sent on a mesh network can take any of several possible paths from source to destination. A fully connected mesh network has $n(n-1)/2$ physical links to link $n$ devices. For example, if an organization has 5 nodes and wants to use a mesh topology, $5(5-1)/2$, that is, 10 links are needed. In addition, to accommodate that many links, every device on the network must have $n-1$ communication (input/output) ports.

**Point for discussion:** What will happen if one link becomes unusable?


<table>
<thead>
<tr>
<th>Exercise A:</th>
<th>Match each word with its definition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. to accommodate</td>
<td>a. low quality that cannot be used</td>
</tr>
<tr>
<td>2. unusable</td>
<td>b. methods of sending information, especially telephones, radio, computers</td>
</tr>
<tr>
<td>3. a mesh</td>
<td>c. a material made of threads of plastic rope or wire that are twisted together like a net: web</td>
</tr>
<tr>
<td>4. communication</td>
<td>d. to help someone doing what they want</td>
</tr>
</tbody>
</table>
**State True or False and correct the statement if it is false.**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T</td>
<td>The entire network shuts down if there is a failure in the backbone.</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>Bus topology needs less cable length than Mesh topology.</td>
</tr>
<tr>
<td>3</td>
<td>T</td>
<td>Every computer in Ring has equal neighbor to form a ring.</td>
</tr>
<tr>
<td>4</td>
<td>F</td>
<td>One node in Ring serves as a terminated end.</td>
</tr>
<tr>
<td>5</td>
<td>F</td>
<td>The network topology in which devices are not linked to each other and where hub acts as a central controller is bus.</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>A Hub is also called a signal regenerator.</td>
</tr>
<tr>
<td>7</td>
<td>F</td>
<td>Tree topology is the combination of Ring and Star topologies.</td>
</tr>
<tr>
<td>8</td>
<td>T</td>
<td>Tree topology allows the expansion of the existing network to arrange the network to meet organization needs.</td>
</tr>
<tr>
<td>9</td>
<td>T</td>
<td>Mesh topology involves minimum cabling.</td>
</tr>
<tr>
<td>10</td>
<td>T</td>
<td>If one computer in mesh topology faces a problem, the network still works.</td>
</tr>
</tbody>
</table>
Worksheet no. 1: Distinguishing features between Star and Ring Topologies

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Star Topology</th>
<th>Ring Topology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of device</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break in connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure of System</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Distinguishing features between Star and Ring Topologies

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Star Topology</th>
<th>Ring Topology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>In Star network, all the nodes are connected to a central computer/hub.</td>
<td>In this network, all the nodes are connected in a circular chain</td>
</tr>
<tr>
<td>Communication</td>
<td>Communication takes place between the nodes only through the hub or computer only.</td>
<td>Communication takes place by each node to receive and check for the message.</td>
</tr>
<tr>
<td>Break in connection</td>
<td>A broken connection in a hub or central computer and node does not affect the rest of the network.</td>
<td>A broken connection between nodes leads to failure of entire network.</td>
</tr>
<tr>
<td>Failure of System</td>
<td>Failure of the hub or central computer leads to communication failure in all nodes connected to that hub.</td>
<td>Failure in one node does not affect the communication in all the nodes.</td>
</tr>
</tbody>
</table>
**Task 2: Surfing the Net**

**Content objectives:** Students should be able to perform some new IT skills.

**Language objectives:** Students should be able to comprehend and clearly explain the reading text.

**Time allotted:** 120 minutes

**Preparation:**
1. Laptops with Internet connectivity
2. IT manuals, pamphlets or magazines

**Online sources:** http://www.computeractive.co.uk/step-by-step-guides

**Procedure:**
1. In class, students and teacher discuss IT instructions and then match them with the appropriate topics.

2. In pairs, students work with authentic materials like IT manuals, pamphlets or magazines. However, it is much more interesting for IT students to visit the sites dedicated to IT instructions. They may log on to http://www.computeractive.co.uk/step-by-step-guides. They can go through the topics available in the site. Then choose one of the topics they prefer to work on.

3. Students need to visualize each step and practice it. In case, they find any difficulty with IT terminology. ‘Jargon buster’ is also available in the sites. The teacher may bring the whole class together to deal with any other language problems.
Exercise A: Read quickly through the IT instructions below, then match them with the appropriate topics.

1. How to copy text from the web
2. How to search information with a directory
3. How to arrange pictures and text side by side
4. How to copy pictures from the web

A. Type the address of the directory you want to use in your browser’s address box. Then press enter.
   Type keywords into the white box next to the search button.
   Choose your keywords carefully to make your search much more efficient.
   Click on the Search Button to send in your query.

B. Highlight the text you want to copy.
   Select Copy from the browser menu.
   Go to our word processing document. Place the cursor in the position you want the text. Select Paste from the menu.
   The text will appear automatically in your document. Remove any unwanted spaces or line breaks.

C. Insert a table with two columns.
   In one column you can paste a picture.
   In the other column you can paste the text you want to appear next to the picture.
   After you paste picture from the web, you can change the size of the picture by clicking on it and dragging its corners or sides.

D. Put the cursor on the picture.
   Click the button on your mouse and keep pressing for 1-2 seconds until a window comes on the screen. Select Copy this Image from the window.
   Go to your word processor file. Place the cursor in the position you want the picture. Select Paste from the menu.
   The picture will appear automatically in your document.
Screen shot showing the site containing IT guides

Source: [http://www.computeractive.co.uk/](http://www.computeractive.co.uk/)
Appendix B

A Brief Description of Constructed Materials

Unit 1: Network topology

This unit aims to help students to learn about the network topology, which is usually included in the IT introductory course. The tasks begin with helping students practise pronouncing commonly used words in IT content-course. Students gradually build up specialized vocabulary through an enjoyable activity—Pelmanism. In addition to increasing knowledge of IT content, it also aims to develop students’ critical thinking skills through activities that employ techniques such as making inferences, comparing information, debating and judgment skills.

Content objectives: Students should be able (1) to give the definition of some IT terminologies; (2) to talk about network topology and its type; and (3) to analyze critically the advantages between two types of topology.

Task 1.1: Phonetic symbols: single-syllable word

Language objectives: Students should be able to recognize sound symbols and correctly pronounce some frequently used words.

Task activity: Students are exposed to the phonetics chart of IPA online to practice single-syllable words. They practise articulating a sample word of each symbol after which they are expect to be able to recognize some of the symbols. They are then required to apply what they have learned from the chart to match ten words commonly used in IT texts to their sound. They also learn how to use CD-ROM dictionary to get the accurate pronunciation. Then a list of ten words is given for them to practice searching for its respective sound and pronunciation and matching them. Additionally, the sounds of ten words are also given. They should be able to pronoun the word. This make them more familiar to symbols.
Task 1.2: Phonetic symbols: two or more-syllable words

Language objectives: Students should be able to identify syllable break and word stress correctly.

Task activity: Here, some of the two-or more syllable words commonly used in IT texts are given. Initially, students are asked to pronounce the words and then check the way it should be actually pronounced from the CD-Rom dictionary. Students have to notice the primary and secondary stress marks ( /ˈ / and /, /) which always appear before the stressed syllable. A stressed syllable is longer, louder and has a change in pitch. To have a clear picture, a stress pattern of the two words like ‘browser’ and ‘domain’ are presented in the form of a big and a small circle as

\[ \bigcirc \bigcirc \quad \bigcirc \bigcirc \]

\[ /ˈ b r a u z ə / \quad /d əˈ m e n / \]

To ensure that the students have a clear idea of a stressed syllable, more stress patterns are given. With the help of a dictionary, students have to put a list of given words in the right pattern. This is followed by an activity ‘Tic Tac Toe’. It is a nine-square game in which the students are divided into two teams; X and O. Each team chooses a square in turn. They read aloud a phonetic symbol. If they pronounce the chosen word correctly, put an ‘X’ or an ‘O’ in the square. The first team to get three in a row is the winner.

Task 1.3: IT terminology (Pelmanism)

Language objectives: Students should be able to give definition of some IT terminologies in English.

Task activity: This activity provides an enjoyable way for building up vocabulary. Students work in groups of four to six and produce a self-made card game. Each group will get twenty pieces of colored card, an IT glossary and a list of vocabulary necessary for the next reading task. Students choose five words from the
glossary and five words from the given list to write a word on one card. They may look up the words in the dictionary and/or the glossary. They then write a short definition on another, using one side of the card only. When the teacher is satisfied with the definitions, they play a game called ‘Pelmanism’ in which the students have to match a word with its definition. They are allowed to exchange a set of cards with the others to play more games and to build up more vocabularies whenever possible.

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**Task 1.4:** Network topology

**Language objectives:** Students should be able to discuss the functioning of the network topology and its type.

**Task activity:** Students are involved in a discussion on the differences between the computer network and the network topology. Subsequently, they are assigned to read about five types of the network topology that involves a type of jigsaw reading technique. Students are assigned to so-called ‘expert’ groups in which each group is given one part of the text to work independently. Here, they have to ensure that each member of the group clearly comprehends his/her part in terms of both vocabulary and content. More importantly, s/he should be able to explain it to others. Then they are reassigned to ‘home’ groups. In each of these groups, there will be at least one representative from the ‘expert’ group. Each member of a ‘home group now teaches the rest of the group about what s/he just read. Finally, they involve themselves in the discussion and answer True or False statements.

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**Task 1.5:** Advantages of the network topology

**Language objectives:** Students should be able to compare the differences between two types of the network topology and critically judge its advantages/disadvantages.

**Task activity:** In this task, students are exposed to more varieties of online sources dedicated to network topology. As a group, they have to decide which two types of topology they would prefer to work on. They need to critically assess their choice and compare them in terms of types of its device, the minimum number
of devices needed, its cost and configuration with the other kind of topology. They hold a debate within their group and make a judgment on which type is more appropriate for their own college. They then write a short summary of their preferred choice along with the reasons for selection.

**Task 1.6:** opinion formation task …

**Language objectives:** Students should be able to seek an opinion using the linguistic expression ‘Do you think…?’ and answer the corresponding question.

**Task activity:** Students recall language expression that has been used for asking people’s opinion and answering the question. Here, there are three types of language activities: gap filling, unscrambling sentences and questionning are employed for language drill. Additionally, they have to rearrange three sets of jumbled conversation and create their own dialogue for a role-play.

**Unit 2: An IT specialist**

The primary focus of this unit is to develop students’ new IT skills. Here, students are exposed to more online authentic materials and allowed to choose topics based on their interest. Once they master the topic they work on, they are encouraged to share/exchange those skills with their friends. This helps them learn some new IT skills and ideas. Additionally, they also learn functional grammar through an enjoyable and slightly competitive game.

**Content objectives:** Students should be able (1) to perform some new IT tasks; and (2) to clearly explain the tasks.

**Task 2.1:** Surfing the net

**Language objectives:** Students should be able to (1) comprehend IT instructions and (2) to perform IT tasks accordingly.

**Task activity:** Students are required to gain access to either the websites dedicated to IT instructions or any other sources of authentic materials such as IT
manuals, books, pamphlets or magazines. They may visit http://www.computeractive.co.uk/workshops/, a site that offers a large number of step-by-step guides. In pairs, they can choose any topic they prefer to work on. The students need to visualize each step and be about to perform the instruction. In case, they find any difficulty with IT terminology they can refer to ‘Jargon buster’ to solve their problems.

**Task 2.2:** Surfing the net (continuation)

**Language objectives:** Students should be able to write IT instructions.

**Task activity:** Here, students perform an exercise in which they read four IT instructions and match them with their corresponding topics. This exercise aims to elicit students’ prior knowledge on the pattern of technical instructions writing. With reference to the previous reading activity, the students are required to translate information from paragraphs to step-by-step instructions using imperative sentence structure.

**Task 2.3:** Surfing the net (continuation)

**Language objectives:** Students should be able to give and follow IT instructions.

**Task activity:** Prior to sharing IT skills with others, students are once again given some time to practice an IT task with their partner. This practice ensures that students are able to talk about it comfortably. Each student is allowed to exchange their partner at least once or twice in order to get chance to practice more, giving instructions and learning new IT skills. Finally, with one particular instruction, which can be performed in two different ways, students justify which way is less complicated to perform.
**Task 2.4:** Instruction giving skills; ‘You need to/should…’.

**Language objectives:** Students should be able to give advice by using a sentence structure of ‘You need to/should…’.

**Task activity:** Students practice a sentence structure using ‘You need to/should…’ through a fun and slightly competitive activity, that is modeled after the ‘Snake and Ladder’ game. Students are assigned to two groups. Each team has to throw a dice to determine which team will start the game. The team that gets the highest number will start the game. Here, twenty situation-based statements are prepared. The teacher gives a situation and students have to respond to the sentence. If the teacher is satisfied with the answer, they are allowed to throw the dice and move the walker according to the number they have scored. With the completion of all the prepared sentences, the team that either reaches or moves as close to the ‘100’ slot is declared the winner. As a follow up activity, students are assigned to compose sentences using the pattern of ‘You need to/should+v1’ and they are required to employ this pattern to their IT instructional function they did in Task 2.2.

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**Unit 3: Troubleshooting**

This unit enables students to learn more information on the virus programme: *worm, a logic bomb* and *Trojan horse*. The primary aim is to encourage critical thinking and discussion on the computer malfunctions through a problem-solving activity. They also get a chance to practice speaking in a role-play activity and write a short mail to the webmaster inquiring about the solution to the network malfunctioning. Additionally, pronunciation practice and usage of linguistic pattern in the passive voice are also included.

**Content objectives:** Students should be able to evaluate the impacts caused by three types of the computer virus: *worm, a logic bomb* and *Trojan horse*. They should share their prior experience about computer malfunctions and its solutions as well as learn more ideas from others on how to solve the problem.
Task 3.1: A computer virus

Language objectives: Students should be able to explain about the computer virus ‘Trojan horse’.

Task activity: A picture of ‘Trojan horse’ in the ancient Greek mythology is showed to lead students in the discussion. Students relate their prior knowledge about the trick of using a large wooden horse, known as the ‘Trojan horse’ where the Greeks hid their soldiers to enter Troy during the war between Greeks and Troy. Following which, students are able to make a connection between the Greek mythology ‘Trojan horse’ and the computer virus ‘Trojan horse’. Then they are required to predict what they are going to read. Some key words that might be difficult for them are discussed. Students are assigned to groups of six to work on three topics: worm, a logic bomb and Trojan horse (two students a topic). Students try to comprehend the given topic and perform two types of exercise in which they have to employ skills such as making inferences and referencing. Within a group, they share information and discuss the given questions.

Task 3.2: Sentence Formation Task; passive form (be+v3)

Language objectives: Students should be able to make sentences using the pattern of passive form (be+v3)

Task activity: Here, students practice pronunciation with a list of twelve irregular verbs frequently used in daily life. Then students focus on another set of verbs ending with ‘-ed’. Next, they listen to tape recordings and determine whether the ending sound of each verb is /t/, /d/ or /id/. With the help of some sample sentences, they analyze the differences between active and passive form sentences. To have some more ideas about sentence with passive voice structure, three paper-based exercises are given. Students are exposed to websites dedicated to grammar practice to do additional online exercises.
Task 3.3: Computer malfunctions

Language objectives: Students should be able to discuss computer malfunctions and its solutions.

Task activity: Students are asked to focus on some of the computer problems they have experienced. Then, they are required to listen to two dialogues and identify the computer problems and the way the speakers solve the problem. As part of their class discussion, they brainstorm on as many problems as possible and then identify the technical way of fixing these problems. Next, they write a dialogue and act in a role-play activity. Additionally, in case, they could not find the solutions, they are assigned to write a short e-mail to the webmaster for consultation on how to solve the problems.
Appendix C

Questionnaire for Needs and Interests Assessment

Dear Students,

This questionnaire is designed to obtain information relating to your educational background, exposure to English, self-perception of language skills, motivation, needs and interests and prior background of IT content. Your sincere answers will contribute to the development of content-based language materials for Information Technology students. Thank you for your cooperation.

Thamonwan Poramathikun
1. **Personal Details**: Please provide the following details.

Name: ____________________________________________________________

Age: ______________________ Gender: □ male □ female

Course of study: ____________________________________________________

Year of study: □ 1st year □ 2nd year

College: ___________________________________________________________

Province: _________________________________________________________

2. **Educational background**

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Private</th>
<th>Government</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school (Class I-VI)</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Primary school (Class I-IX)</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Lower secondary school (Class VII-IX)</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Upper secondary school (Class X-XII)</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Vocational college (Class X-XII)</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

- Please specify course of study: ______________________________________

3. **Exposure to English**

1. When did you start studying English as a subject in school?

   Class: __________________________ Year: ____________________________

2. For the past three year, how many English courses in school did you attend?

   Please specify ________________________________

3. Do you have a private language tutor? □ Yes □ No

   If yes, when and how long? ________________________________
4. Have you ever studied English with native speakers?  □ Yes  □ No
   If yes, for how long? ______________________________________________

5. What outside classroom activities do you use to engage in with English?
   _______________________________________________________________
   _______________________________________________________________

6. How often do you have opportunities to use English through any of the following activities?  
   \begin{center}
   \begin{tabular}{lccc}
   \textbf{Never} & \textbf{Occasionally} & \textbf{Frequently} \\
   Listening to English songs/radio & □ & □ & □ \\
   Watching English soundtrack films & □ & □ & □ \\
   Focusing on Thai subtitle & □ & □ & □ \\
   Interacting in English with others & □ & □ & □ \\
   Writing for social purposes & □ & □ & □ \\
   \end{tabular}
   \end{center}

4. **Self-perception on language skills/functions**

Please rate your language abilities by ticking in the table given below

<table>
<thead>
<tr>
<th>Skills</th>
<th>Very well</th>
<th>Not very well</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>writing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Do you think you can do the following tasks?  

<table>
<thead>
<tr>
<th>Task</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have sound pronunciation</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Understand IT guidebooks in English</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Follow IT instructions given in English</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Give IT instructions in English</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Make academic presentations in English</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Write technical reports in English</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

5. **Motivation to language learning**

If you had a choice, would you like to study English?  

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

Why? ____________________________________________________________

_______________________________________________________________

Listed below are some of the reasons people want to learn English. Please put a tick in the appropriate column (if you agree with them).

<table>
<thead>
<tr>
<th>Purposes</th>
<th>important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>To achieve academic purposes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To get a good job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To achieve a career success</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To understand foreigners and their way of life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To interact with foreigners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To get good friends</td>
<td></td>
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</tbody>
</table>
What is the most important reason for you to learn English?

________________________________________________________________________

________________________________________________________________________

6. Identification of topics of interest

Please identify topics of interest in IT area, which you wish the language teacher to bring to the language class.

- Computer networks
- Internet tools
- Applications of Internet
- Computer security
- Other (specify) __________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

7. Background of content area

1. Have you ever read any IT guidebooks in English?

☐ Yes ☐ No

If yes, to what extent do you understand it? Rate it accordingly.

Least 1 2 3 4 5 6 7 8 9 10 Most

2. Do you have any IT background knowledge prior to joining this programme?

☐ Yes ☐ No if yes, please specify ___________________________
Appendix D

Language Proficiency Test

Dear Students,

The language proficiency test has been specially designed to examine students’ level of English proficiency and that of IT content simultaneously. The test comprises four sections:

**Section A:** Read the text ‘A Logic Bomb’ and answer the questions (30 minutes)

**Section B:** Write a 50-word paragraph about any topic related to the computer network or network topology. (30 minutes)

**Section C:** Grammar: Circle a, b or c that best fits in each sentence. (20 minutes)

**Section D:** Explain any basic IT instructions or talk about any topics related to IT content area.
Section A: Reading “A Logic Bomb” (30 minutes)

Read following passage and then answer the questions that follow it.

A logic bomb is a programme, or portion of a programme, which lies dormant until a specific piece of programme logic is activated. The most common activator for a logic bomb is a date. The logic bomb checks the computer system date and does nothing until a pre-programmed date and time is reached. It could also be programmed to wait for certain message from the programmer. When logic bomb sees the message, it gets activated and executes the code. A logic bomb can also be programmed to activate a wide variety of other variables, such as when a database grows past a certain size or a user home directory is deleted. For example, the well-known logic bomb is a Michelangelo, which has a trigger set for Michelangelo’s birthday. On the given birth date, it causes system crash or data loss or other unexpected interactions with an existing code.

State True or False.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It does no harm to have a logic bomb.</td>
<td></td>
</tr>
<tr>
<td>2. The logic bomb would be activated when a pre-programmed date and time is reached.</td>
<td></td>
</tr>
<tr>
<td>3. A date and certain message are the only two activators for a logic bomb.</td>
<td></td>
</tr>
<tr>
<td>4. With a logic bomb “Michelangelo”, files can be lost on Michelangelo’s birthday.</td>
<td></td>
</tr>
</tbody>
</table>

Use the line reference given and find the reference for the words in italics.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5. The word “which” in line 1 refers to</td>
<td></td>
</tr>
<tr>
<td>6. The word “It” in line 4 refers to</td>
<td></td>
</tr>
<tr>
<td>7. The word “which” in line 8 refers to</td>
<td></td>
</tr>
</tbody>
</table>

Use the line reference given and find a word that has similar meaning to

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8. inactive (line 1-3)</td>
<td></td>
</tr>
<tr>
<td>9. stimulate (line 4-7)</td>
<td></td>
</tr>
<tr>
<td>10. stop working suddenly (line 8-10)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Introduction to Information Technology p. 474 by ITL Education Solutions Limited
Section B: Writing (30 minutes, 50-60 words)

Imagine that you are going to apply for the position of an IT technician in a world leading company of computer network system. The HRD department organizes a written test for all candidates in order to examine to what extent the candidates know about the computer network or network topology. You can choose one of the given pictures as a guide for writing. You may explain any other relevant topic related to the computer network.

A Computer Network  Bus Topology  Ring Topology
Section C: Grammar (20 minutes)

Circle a, b or c that best fits in each sentence.

1. Do you think it’s _________ to save the money or to spend it?
   a. easy       b. easier       c. easiest
2. Do you think it’s _________ to have a credit card?
   a. good       b. better       c. best
3. It is _________ to study more about computer network.
   a. important   b. more important   c. the most important
4. It is _________ to spend time with friends than to stay home alone.
   a. interesting   b. more interesting   c. the most interesting
5. Here _________ my address in Australia.
   a. is       b. are       c. be
6. Here _________ some of the books I bought at the Book Fair.
   a. be       b. was       c. are
7. There _________ many web browsers, but the two most popular are Netscape Navigator and Microsoft Internet Explorer.
   a. are       b. be       c. was
8. There _________ only one laptop available in the IT center.
   a. is       b. were       c. be
9. Most Internet Service Providers _________ you several-mail accounts.
   a. offering   b. offers       c. offer
10. A modem _________ the digital language your computer speaks into the analogue language.
    a. translate   b. translates       c. translating
11. Microsoft word _________ two rulers: horizontal and vertical.
    a. have       b. having       c. has
12. These pages _________ been created since 1999.
    a. has       b. have       c. having
13. These rulers _________ to change the format of a document by adjusting the indents, margins, tab stops and table columns.
   a. are using   b. are used   c. is used
14. The status bar __________ at the bottom of the Word window.
   a. is located   b. are located   c. is locating
15. There must be something wrong. The document cannot __________.
   a. is displayed   b. be displayed   c. are displayed

Section D: Speaking

Your sister is working on her writing assignment. She would like to include some illustration in her report and has already found some suitable pictures from the Internet. She does not know how to import them to her document file so she asks you to explain one of the following instructions.

- How to copy pictures from the web
- How to arrange a picture to the left side of the text
- How to arrange pictures side by side

Note: You have two minutes to prepare for the explanation. You can give any other familiar instructions because the aim of this speaking test is to see to what extent you can use English to talk about the topic related to your own area of study.
Appendix E

Task Evaluation Form

Dear Sir/Madam,

This task evaluation form is designed to obtain the following information

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Question no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>Methodology</td>
<td>5, 6, 7, 8, 9, 10</td>
</tr>
<tr>
<td>Content authenticity</td>
<td>11, 12, 13</td>
</tr>
<tr>
<td>Language Content</td>
<td>14, 15, 16, 17, 18</td>
</tr>
<tr>
<td>Task sequencing</td>
<td>19</td>
</tr>
<tr>
<td>Coherence</td>
<td>20</td>
</tr>
<tr>
<td>Strong/weak points</td>
<td>21, 22</td>
</tr>
</tbody>
</table>

Your sincere answers will contribute to the development of content-based language materials for Information Technology students. Thank you for your suggestions.

Thamonwan Poramathikun
Unit 1 Network Topology

<table>
<thead>
<tr>
<th>Evaluator:</th>
<th>College:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Date:</th>
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</tbody>
</table>

1. Clearly state the learning objectives, target audience, topic and learning outcomes.  
   **Suggest:**

2. Clear state performance based objectives in terms of what students will know or be able to do.  
   **Suggest:**

3. Goals and objectives are appropriate for the students’ ability.  
   **Suggest:**

4. Tasks lead to the accomplishment of the stated learning objectives.  
   **Suggest:**

5. Focus on learner-centered activities.  
   **Suggest:**

6. Tasks are content-based language type.  
   **Suggest:**

7. Tasks encourage students to think critically during the class.  
   **Suggest:**
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 8. | The focus of activities is on meaning rather than on form  
Suggest: |
| 9. | Tasks are likely to be retained/remembered by the students.  
Suggest: |
| 10. | Various activities are provided to incorporate multiple learning styles.  
Suggest: |
| 11. | Content is relevant to the real-life needs of the students. (i.e., the reasons that they are studying English?  
Suggest: |
| 12. | Subject- matter content is appropriate to students’ grade level  
Suggest: |
| 13. | Content is drawn from a variety of sources which expose students to different text types.  
Suggest: |
| 14. | Content adheres to spelling and language rules.  
Suggest: |
| 15. | Content suits students’ language ability  
Suggest: |
16. Content offers a rich source to the language learning.
   **Suggest:**

17. Content provides opportunities to practice study skills viz. giving instructions or making academic presentation typically required in content disciplines.
   **Suggest:**

18. Content lends itself to the integration of language skills
   **Suggest:**

19. Tasks are appropriately sequenced from simple to complex.
   **Suggest:**

20. Tasks demonstrate internal coherence within the unit.
   **Suggest:**

21. What are the strong points of the activities?
   **Suggest:**

22. Do the tasks need any changes? If yes, please specify.
   **Suggest:**

**Note:**

3 = Very effective
2 = average
1 = less effective

Signature __________________________

Evaluator
Appendix F

Classroom Observation Sheet

Please note that the information will be used as data. Your sincere answers will contribute to the development of content-based language materials for Information Technology students. Thank you for your suggestions.

1. What do you think about students’ participation during class? (Are they always on-task? Can you rate the extent to which they are interested in the task?)

_________________________________________________________________
_________________________________________________________________

2. Can students do the task easily?

_________________________________________________________________
_________________________________________________________________

3. Do you think the task can facilitate students’ content learning? Please specify.

_________________________________________________________________
_________________________________________________________________

4. Do you think the task can facilitate the students’ language learning? Please specify.

_________________________________________________________________
_________________________________________________________________

5. Do you think the task was successful? Please describe how.

_________________________________________________________________
_________________________________________________________________

6. What do you like /dislike about the task?

_________________________________________________________________
_________________________________________________________________

7. Which part of the task do you want to modify? How?

_________________________________________________________________
### Students’ Reflection Sheet

<table>
<thead>
<tr>
<th>Unit:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task:</td>
<td>College: CMTC</td>
</tr>
</tbody>
</table>

1. How easily could I do the task?
   - Easily
   - With some difficulty
   - With great difficulty

2. How interesting was this task?
   - Very interesting
   - Interesting
   - Not interesting

3. How much did this task help you to learn English?
   - Very much
   - Much
   - Not very much

4. What did I learn?

5. Can you write one thing you liked about this task?

6. Can you write one thing you did not like about this task?

7. Which part of the task do you want to make a change? What would you recommend?
Appendix H

A List of the External Evaluators and
the Classroom Observer

Kittiya Jekapo (Evaluator I)

She holds a Master in TEFL from Naresuan University, Thailand. She was an AusAid scholarship winner to pursue a Postgraduate Certificate in TESOL at University of Sydney, Australia. She has taught English in colleges affiliated to the Office of the Vocational Education Commission (OVEC) for almost thirty years. She was a member of the OVEC working committee for revision of 2003 Curriculum for Diploma of Vocational Education as well as for materials development. She coordinated teacher-training programmes between Chiangmai Technical College (CMTC) and foreign institutions.

Currently, she teaches English and is Head of the Curriculum and Instruction Section, CMTC. She is also a permanent member of the OVEC Evaluator Board for Professional Upgrade.

Yothin Sommanonont (Evaluator II)

He holds a Master in Science in Vocation Education from the Department of Education, Dresden University of Technology, Germany and a Bachelor in Teaching English from Rajabhat University (Chiangmai). He is a Robinson Foundation scholarship winner to pursue a Doctorate in Education, Free University of Berlin. Prior to joining CMTC, he was with OVEC where he worked as a coordinator of teacher-training programmes between OVEC and foreign Universities.

He has taught English in a secondary school and colleges affiliated to OVEC for over eight years. He currently teaches English and is Head of Special Activity Section at CMTC.
Sulaganya Punyayodhin (Evaluator III)

She holds a Master in TEFL from Chiangmai University, Thailand and an M. Phil in Linguistics from Jawaharlal Nehru University (JNU), India. She had taught English in some secondary schools affiliated to the Office of the Basic Education Commission (OBEC) for almost twenty years.

She has taught English at the Rajamangala University of Technology, Thanyaburi Pathumthani for ten years. She is now an Indian Council of Cultural Relations scholar pursuing Doctorate in Linguistics, JNU.

Classroom observer

Waraluck Prabpairee

She holds a Master in Applied Linguistics from King Mongkut University of Technology, Thailand. She was an American Field Service Foundation scholarship winner in the Teacher Exchange Programme to work in technical colleges in Australia. She has taught English in colleges affiliated to OVEC for over twenty years.

Currently, she teaches English and is Head of General Subject Department, CMTC.