# Developing an e-Learning Competency-Based English Course Module for Chief Flight Attendants

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*Abstract-* The issue of competition in airlines industry business and the image of the organizations have an extraordinary effect on the competencies of the employees. This article proposes the use of a competency-based approach, and an instructional design for developing an e-Learning English course module for chief flight attendants (CFAs) to enhance their English oral communication. The study was descriptive and experimental research. The objectives of the study were, firstly, to investigate the English language needs of the CFAs, to develop an e-Learning competency-based English course module for CFAs, to evaluate the effectiveness of the developed course and, lastly, to examine the opinions of learners toward the course module. The study consisted of two phases: course development and course evaluation. First, needs analysis was conducted by interviewing 35 key informants, a questionnaire survey with 266 CFAs, and site observations on nine different flights. The results disclosed the five competencies needed for CFAs which became the objectives of the developed course. The e-Learning course module was validated by the experts and was piloted with a group of learners having the similar characteristics as the subjects in the main study. The course evaluation was conducted based on both quantitative and qualitative data. The instruments of the experiment included the oral/speaking pretest and posttest and the end-of-course evaluation form. The instrument for collecting qualitative data was the end-of-course semi-structured interviews.

The findings revealed that the mean scores of the posttest of the learners were significant higher than those of the pretest scores (p<.05). The overall learners had positive opinions toward the course module.

*Index Terms*- Chief flight attendants, Competency-based approach, e-Learning, English for Specific Purposes

## I. INTRODUCTION

English plays an important role in global communication, serving the purpose of being "language of the world', a "lingua franca" or a "common language". World's economics, culture, as well as travel and tourism have an effect on the current spread of English. In Thailand, apart from tourism, airline or aviation industry is considered the most leading and fastest growing businesses which have tremendously contributed to the growth of the country's income (Manoharn, 2007). The issue of competition in airline industry business and the image of the organizations have an extraordinary effect on a high demand of employees, especially those who are non-native speakers, with the competencies of good English communication skills.

In airline industry, flight crew members are divided into two groups; those who work on the flight deck and fly the aircraft -'the cockpit crew', and those who offer services to the passengers in the cabin - 'the flight service crew' or 'the cabin crew'. Pan Am, which was once considered one of the largest international airlines, first hired its cabin crew in 1928 with the introduction of passenger flights (Akiyama, 1980). A chief purser (CP), in-flight service manager (ISM), cabin service manager/director (CSM, CSD), chief flight attendant (CFA) – the title associated with this crew member differs from airline to airline - acts as a team leader of a flight. CFAs and their flight attendant team ensure the emergency and safety of the aircraft, as well as the in-flight service delivery to their passengers. Studies have concluded that the assertive flight attendants are essential for the rapid evacuation of aircraft. In U.S.A., the National Transportation Safety Board (NTSB) and other aviation authorities view flight attendants are essential for passenger's safety. (English for Crew, 2011). A CFA's duties are based on manual and instructions given by the airline's Safety Training Department and Service Training Department, under the supervision of ICAO (International Civil Aviation Organization), a specialized agency of the United Nations. The main duty of a CFA is responsible for resolving any problems as and when they occur. CFAs do not only get the information through or deliver the message across, but they should also be able to show politeness, professionalism, respectfulness, and leadership, able to communicate with excellent listening and problem solving skills, to understand and to deal with customers/situations diplomatically, equipped with a high level of service orientation, strong communicative skills, autonomy, flexibility and dedication (Beech, 1990; Aviation Jobs, 2009; Lufthansa Jobs for Pursers, 2009). As a crucial part of the organization employees, it is essential that a special English course be designed to serve their needs so that they will be able to efficiently perform their duties. A good command of English language will enable them to communicate with their counterparts around the world and serve their customers better on work-related issues (Aiguo, 2007). This concept also supports the NTSB vision which requires CFAs and flight attendants to have knowledge of standard phrases and emphasize English as a common working language (English for Crew, 2011).

From the interviews with the management personnel, training personnel and staff at some international airlines based in Bangkok, it is found that there are no specific English courses provided that is truthfully designed to meet the particular English language needs of the CFAs. Yet, very little literature

could be found on English tailored for CFAs. Based on the job characteristics of CFAs whose work is not on a regular office hour basis, an online course would be a great benefit for the learners due to its "anytime-anywhere" concept. It provides a self-pace learning. In addition, use of various computer-based technologies increases new learning opportunities and make learning more interesting (Meksophawannagul & Hiranburana & 2005). Therefore, to better serve the needs of English language use of CFAs and their performance at work, a more specially designed English course module should be developed to enhance their English oral proficiency. Hence, this research study aims to firstly, investigate the English language needs of the CFAs, to develop an e-Learning competency-based English course module for CFAs to enhance their performance at work, to evaluate the effectiveness of the developed course and, lastly, to examine the opinions of the learners toward the course module.

## II.   RESEARCH ELABORATIONS

### 2.1 Literature review
### 2.1.1 English for Specific Purposes (ESP)

English for Specific Purposes (ESP) can be defined in different aspects. Munby (1978: 2) proposes that ESP courses definitely put an emphasize on the syllabi and materials which are determined by the prior analysis of communication needs of the learners, rather than by non learner-centered criteria such as the teachers or institutions. Another definition of ESP derives from identifying its absolute and variable characteristics (Strevens, 1988: 1-2). The three similar absolute characteristics of ESP are as follows; first, ESP is designed to meet specific needs of the learners; second, ESP is related in content to the particular disciplines, occupations and activities it serves; third, ESP focuses on the linguistic descriptions (grammar, lexis, register), skills, discourse and genres analysis which are appropriate to those activities. The revised variable characteristic is that ESP is not completely in contrast with General English (Dudley-Evans and St. John, 1998: 4-5). Besides, what has been added to ESP variable characteristics is the level of learners. ESP can be designed for beginners, intermediate or advanced learners, or adult learners in a professional work situation. Notably, Hutchinson and Waters (1987: 19) propose a broader definition of ESP; "ESP is an approach rather than a product. ESP is not a particular kind of language or a language methodology, or does it consists of a particular type of teaching material. ESP is an approach to language teaching in which all decisions as to the content and method are based on the learner's reason for learning". Based on the characteristics of ESP mentioned above, the key element in designing language teaching programs in ESP contexts is to base on the 'learners' and their 'needs' for learning English. ESP courses aim to equip the learners with a certain English proficiency level for a situation where the language is going to be used, i.e., target needs (Robinson, 1991; Dudley-Evans and St. John, 1998; Strevens, 1998; Sujana, 2005). Thus, it is vital for teachers of ESP to know the nature of the learners and their needs. Furthermore, the teachers have to know the demands of the target situation such as jobs descriptions, tasks/activities, and study situations, etc. What is also important is they need to understand the nature of language/register, nature of communication, as well as nature of

learning. In this study, specific needs of CFAs will be explored to develop a course for these job-experienced learners in the area of airlines service.

### 2.1.2 Needs analysis

Needs analysis has been defined as a process of determining the language use in terms of abilities required by the learners. Different approaches have been introduced to needs analysis in language learning with an attempt of meeting the needs of the learners in the process of learning a second language. Needs analysis combines target situation analysis (TSA) – what learners are expected to learn at the end of the language course with present situation analysis (PSA) – what learners knows already at the beginning of the course. Between the gap of PSA and PSA is 'lacks' - a starting point of 'what' and 'how' to learn (Chambers, 1980; Robinson, 1991; West, 1994; Dudley-Evans and St. John, 1998). In this study, they are needs or necessities of English language required by CFAs as language uses; what they need to do, and how to perform to achieve a set of competencies in order to function effectively in the target situation. These needs will be transferred to tasks of language learners in English course module. Needs analysis procedure can be conducted in two main categories occupying different approaches; inductive and deductive methods. Inductive methods include observations and case studies while deductive methods comprise questionnaires, surveys, interviews, diaries, previous research, pre-course placement/diagnostic tests, and final evaluation or course feedback (West, 1994). Several researches in different disciplines of ESP courses have been studies and needs analysis was conducted prior to course development, for example, developing intensive English course for Buddhist missionary monks on oversea missions (Chimroylarb, 2007), and English for airport ground staff (Cutting, 2012, ), assessing the needs of maids in hotel service (Jasso-Aguilar, 1999), and needs of immigrant students working in health-care environment (Bosher and Smalkoski, 2002). To design a course for engineering, Suphathkulrat and Wasanasomsithi (2005) conducted a needs analysis of engineers in Saraburi Province, Thailand, and Rungnirundorn and Rongsa-ard 2005) conducted a needs analysis of learners with job experience in designing English business communication. In this research study, needs analysis to outline the English language needs of CFAs was conducted using document reviews, semi-structured interviews, a questionnaire survey and site observations.

### 2.1.3 Competency and Competency-based approach

'Competency' or 'competencies' have a similar meaning with the terms 'student learning outcomes', 'objectives', or 'skills'. U.S. Department of Education defines 'competency' as "a combination of skills, abilities, and knowledge needed to perform a specific task" (U.S. Department of Education, 2001, p.1 cited in Voorhees, 2001). Norton (1987) proposed that 'competency' is a skill performed to a specific standard under specific conditions. Competency-based approach focuses on the outcomes of learning as the starting point of the course design by identifying the tasks a learner will need to perform within a specific setting. The competencies needed for a successful task performance are identified and used as the basis of course planning (Richard, 2001).
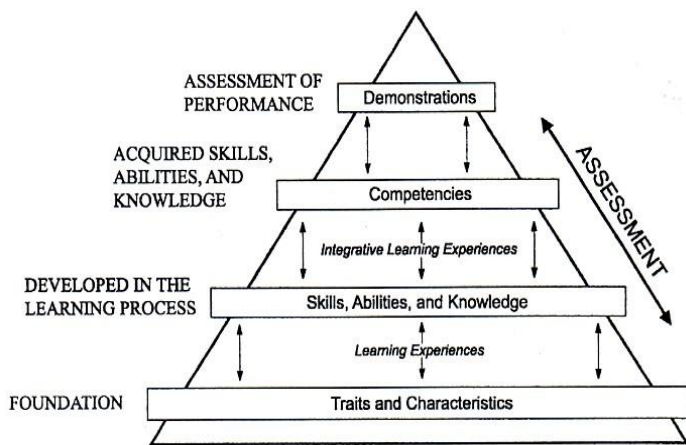
**Figure 1:** A Conceptual Learning Model
*Source: U.S. Department of Education, 2001 (Voorhees, 2001: 9)*

A conceptual learning model in the competency-based approach can be illustrated as the pyramid consisting of four rungs of the ladder. The first rung consists of traits and characteristics of an individual learner. The second rung consists of skills, abilities and knowledge which are developed through learning, work experience, or participation. The third rung represents the sub-competencies which are the result of integrative learning experience forming bundles that are related to a task a learner is to perform. The last rung is the level of demonstrations which require applying competencies. This is the stage that competency-based learning is assessed. Competency-based is largely adopted for vocational and technical education, including work-related language program for adults (Voorhes, 2001). Basic characteristics which distinguish between a competency-based program/training (CBT) and a traditional program are summarized as follows; 1) A CBT includes a set of learning objectives which students' outcomes (usually called 'competencies' or 'tasks') can be observed in a form of behavior or knowledge upon completing the training program. In a traditional program, what a learner learns is based on textbooks or materials which have little meaning within the occupation. 2) A CBT emphasizes on learner-centered learning. Materials are organized to assist each learner in acquiring minimal levels of competency. Learners can revise as needed to learn effectively while a traditional program focuses on the instructor-centered with little feedback on progress is given. 3) A CBT provides a self-pace learning. It allows learners to learn at their own paces to master one task before being allowed or forced to move on to the next. A traditional program requires a group of students to spend the same amount of time on each unit which may be not suitable for an individual learner. 4) A CBT requires learners to perform each task in job-like setting. The performance is compared to an explicit criterion. A traditional program compares each learner performance to the group norm and mostly relies on paper and pencil tests (Blank, 1982 cited in Langenbach, 1988: 38).

Several research studies in competency-based programs have been conducted. For examples, Brown (2009) launched a project of establishing the Competency Standards for competency quality learning package of hotels and restaurants in Jakarta. Its learning outcome is broad enough to encompass many workplace scenarios. Flanagan (2010) developed a competency-based proficiency framework for secondary school in Japan integrating extensive reading and pen pals in the curriculum to support students' second language acquisition which was proved to be successful. A study of business and industry introduced a training involved learner-centered using print, instructional technology and simulations as the best approach for training (Delker, 1990). In Thailand, Vasavakul (2006) designed a business English oral communication for customer services staff at in international banks applying a competency-based instruction. The findings revealed that learners gained higher levels of English oral proficiency as well as increased confidence in speaking English.

### 2.1.4 e-Learning and instructional design

Online learning refers to teaching and learning, mediated by a computer connected to the Internet. Many terms such as web-based training, internet-based training, e-Learning, advanced distributed learning, and distance education are used to describe online learning (Gagne, Wager, Golas & Keller, 2005). E-Learning is an effective process since it promotes student-centered or active learning. It also facilitates anytime-anyplace learning which is of special benefit to adult learners and nontraditional learners, including workplace learning. Students have more interaction with course content. Furthermore, teacher can track students' time on task. E-Learning can reduce the cost of delivering instruction and it adds a worldwide dimension to courses (Waterhouse, 2005). Gagne (1985) proposes that the process of instruction helps people learn faster comparing to the incidental learning which did not require any instructions. Instructional Design (ID) is defined as a technique which reveals appropriate instructional events in a systematic process for specific learners in a given context in an attempt to achieve needed learning outcomes. ID also involves analysis of learning needs and goals. The incorporation of technology and multimedia tools in the ID is an effective way to enhance and facilitate learning (Waterhouse,2005; Clem, 2002; Alessi and Trollip, 2001). Notably, Instructional Design is situation-specific and not universal. Different types of learning outcomes depend on different types of instruction. There is no best way to teach everything. The theories provide guidelines for designing and they also identify how the end product should be (Gagne, Wager, Golas, and Keller, 2005).

Gagne's Nine Principles of Instructional Design has played an important role in designing the instructional for e-Learning environment. The Nine Principles provide the necessity conditions for learning and become the framework for the lesson plan or steps of instruction. The nine Events of Instruction are 1) Gaining attention   2) Informing the learners of the objectives 3) Stimulating recall of prerequisite learning     4). Present stimulus material      5) Providing a learning guidance     6) Eliciting performance       7) Providing feedback about performance correctness     8) Assessing the performance        9) Enhancing retention and transfer (Gagne, Wager, Golas, and Keller, 2005). In this study, Gagne's Nine Principles of Instructional Design are used as a guideline in designing the e-Learning courseware according to its practicality and explicit concepts which are easy to follow. It attempts to allow the learners to achieve the competencies needed at workplace.

## 2.2 Materials and Methods

### 2.2.1 Scope of the Study

An e-Learning competency-based English course module for CFAs was implemented with non-native CFAs who work for international airlines and based in Bangkok, Thailand.

### 2.2.2 Assumptions of the Study

The researcher makes an assumption that all participants give the honest answers to the questions both in the interviews and in the questionnaires.

### 2.2.3 Data collection

This research is a descriptive and experimental study. The study is conducted in three main phases; 1) Phase I- Conduct needs analysis to investigate the English language needs of the CFA participants    2) Phase II - Translate the information obtained from the needs analysis into a course module development    3) Phase III - Implement the course and evaluate the effectiveness of the course module

**Phase I**    Needs analysis was conducted to gather information about the needs or necessities (Hutchinson & Waters, 1987) of the CFAs using interviews, a questionnaire survey and site observations. Data were gathered through:

1) semi-structured interviews with 35 key informants to gather information about the competencies or tasks the CFAs need to perform at their workplace, as well as to find out the opinions and expectations from the managements and the customers regarding the CFAs competencies.   The key informants consisted of 20 multi-nationalities CFAs to obtain common facts or practice across the airlines, ten management personnel (five airline management personnel, five in-flight service training personnel), and five airline customers.   They were selected by voluntary basis.   The criteria for selecting the key informants were as follows; CFAs - perform duty on inter-continental or regional routes, have been in the current position for at least three years; the management and in-flight service training  personnel - have been working  in the current position for at least three years; airline customers - traveled at least three flights regardless of destination. The instruments used in this procedure were three sets of semi-structured interview questions for each particular key informant group.

2) a questionnaire survey conducted with CFA respondents. The population of the study were 650 CFAs working at six international airlines and were based in Bangkok. Cluster random sampling was employed to obtain 313 CFA samples. The instrument used at this stage was a questionnaire including two parts; the first part of the questionnaire intended to gather demographic data of the respondents while the second part

covered the overviews of the participants' English skills, difficulties in using English to perform their tasks, and their necessities in English language training in performing those competencies/tasks.   The respondents were asked to rate the items in the questionnaire on a 5-Likert's rating scale (1-5).   The items in this part dealt with the competencies obtained from the former interviews with the key informants.   After data collecting, there were a total of 266 respondents consisting of 140 males (53%) and 126 female (47%).

3) site observations which were carried out on nine different flights on "A Air" to regional and inter-continental routes to gather additional  information for triangulation purposes. These participatory site observations provided the researcher the authentic English used by CFAs as well as the task types and technique used when communicating with passengers. The data were noted.

**Phase II:** Translate the information obtained from the needs analysis into a course module development. Steps to be taken were 1) Explore theoretical frameworks for course development. In this study the basic principles underlying the course development are ESP approach, competency-based, and Gagne's Nine Principles for instructional design. 2) Map the result of data from needs analysis with the steps of competency-based approach (Sujana, 2005)

**Phase III**    Implement the course and evaluate the effectiveness of the course module.   The course module was implemented via the internet access with 30 CFA learners registered to the course by a voluntary basis.   The course consisted of three unit lessons and the time frame to complete the course was five weeks with the total class time of 50 hours.   The learners were given an oral/speaking pretest to measure their level of English oral proficiency.   The test was role-play type with three tasks.   After completing the course, each of the CFA learner would make an appointment for a posttest.   Both pretest and posttest were video-recorded.    The effectiveness of the course module was evaluated  by 1) Comparing the learners' gained scores of the English oral test before and  after the implementation of the course against a scoring rubrics – the scale of English oral communication for CFAs which was adapted from  the ICAO rating scales. 2) Examining the opinions of the learners  toward the course module using the end-of-course evaluation form and semi-structured interviews. The instruments used for data collection and the time of distribution are presented in Table 1.

**Table 1**:  Instruments used for data   collection

| Instrument | Purpose | Time of distribution |
|---|---|---|
| **For needs analysis** | | |
| Semi-structured interview questions for key informants | To obtain in-depth information regarding the competencies/tasks of CFAs, language needs, expectations toward CFAs competencies | Initial stage/before the course |
| Participatory site observations | To gather additional information regarding CFA steps of working routine, task types/language functions, techniques used in handling task types | Initial stage/before the course |

| | | |
|---|---|---|
| Questionnaire | To obtain information about CFA participants' background, skills needed and difficulties of language use, English oral proficiency in performing competencies and necessity of English training in performing those competencies | Initial stage/before the course |
| **For course module evaluation** | | |
| Pretest | To measure learners' English oral proficiency against a scale of English oral communication for CFAs before taking the course | Before the course |
| Posttest | To measure learners' English oral proficiency after completing the course | After the course |
| End-of-course evaluation form | To gather information about learners' opinions regarding design, content, satisfactory usage of the course module | After the course |
| Follow-up Semi-structure interview | To gather additional opinions regarding the lessons taught, feedbacks and comments | After the course |

**2.3 Data analysis**

The qualitative data from the interview were analyzed by content analysis while the quantitative data from the questionnaire survey were analyzed using descriptive statistics (mean, percentage, and standard deviation). For course evaluation, the pretest and posttest score were analyzed by comparing the mean scores of the pretest and posttest using *t*-test, and by finding the effect-size using Cohen's *d*. The values of the effect-size are a measure of strength of the relationship between two variables. The values are used for the interpretation of the correlation between an effect (in this study – the e-Learning competency-based English course module) and the dependent variable (in this study – the learners' improvements in English oral proficiency).

### III. FINDINGS

**3.1 Phase I:** According to the first objective, "To investigate the English language needs of the CFAs", the needs analysis was conducted. Steps to define the competencies needed by CFAs were;

1) Compare and match the duties/tasks, personal attributions needed by CFAs from the interviews with the CFAs with the duties/tasks obtained from the interviews with the management personnel and the customers. The results reported "15 tentative lists of need duties/tasks of CFAs" which were matched among the three key informant groups. The example duties/tasks were; to ensure cabin safety and emergency equipment readiness, to respond to compliments and complaints, to check passengers' feedbacks, to explain rules and regulations to passengers to comply with, to maintain positive attitudes toward passengers and jobs, to be friendly, to be attentive to passenger's needs, etc.

2) Map the "15 tentative lists of need duties/tasks of CFAs" with the competency model of "A Air" to triangulate the data. After consultations with three experts in the field, a mapping chart of the validated lists of competencies of CFAs was finalized. The eight competencies of CFAs were listed as follows: 1) Explain bulletins, service and safety manuals, work-related and company documents and follow the company's policy   2) Conduct fluent and appropriate conversation with passengers and foreign staff   3) Respond to enquiries and give information about airline products, services and special promotions   4) Make decisions and solve dynamic problems (which included four duties/tasks recommended by the experts; handle passengers' health problems, handle passengers' complaints, deal with difficult/unruly passengers, handle unanticipated technical and emergency situations  5) Familiarize with cultural differences and cross cultural communication

3) The total of eight validated competencies (four competencies obtained from the mapping plus other four essential tasks under the competencies "make decisions and solve dynamic problems" suggested by the experts as above) were then included in the questionnaire survey questions for the CFAs to examine their needed competencies, as well as to investigate the language aspects needed to include in the e-Learning course. The result of the survey reported that the CFAs rated the mean of necessity of English language training of each competencies higher than 3.80. This revealed that the CFA needed English course to include these competencies.. The highest rated competency/task was "Dealing with difficult/unruly passengers (mean =4.43), followed closely by "Handling unanticipated and emergency situations" (mean =4.40) and "Handling passengers' health problems" (mean=4.33). The lowest rated

competency/task was "Familiarize with cultural differences and cross cultural" (mean =3.83).

**3. 2 Phase II** According to the second objective "To develop an e-Learning competency-based English course module

for CFAs to enhance their performance at work" the information obtained from the needs analysis was translated into a course module development. The steps taken are presented in Table 2.

**Table 2:** Identification of English competencies for CFAs: An attempt to map the results of defining a list of competencies needed for CFAs with the principles based on the steps suggested in Sujana's (2005)

| Step | Main aspects to be explored | Specific descriptions in the study |
|---|---|---|
| 1.Identification of target group | Who are the participants of the particular course under the development? | Chief flight attendants of international airlines in Bangkok, Thailand |
| 2.Identification of duties of professional workers | What are the responsibilities of the professional workers in the target situation (in terms of the use of language) | Main responsibilities of CFAs: 1.Conducting and maintaining fluent and appropriate conversations with passengers and foreign staff 2.Responding and giving information to passengers' enquiries about general information and airline products 3.Handling complaints 4.Make decision and solve problems i.e. sick passengers, difficult passengers, technical and emergency |
| 3. Assessment of communicative needs | What kinds of communicative needs do professional worker need to be able to handle those responsibilities? | In order to satisfactorily handle the responsibilities no.1-4,which derived from the results of defining a list of competencies needed for CFAs, that English is required in dealing with passengers, CFAs should possess language ability on: 1. How to conduct and maintain fluent and appropriate conversations with passengers and foreign staff 2. How to respond and give information to passengers' enquiries about general information and airline products 3. How to handle complaints 4. How to deal with problem solving concerning sick passengers, difficult passengers, technical and emergency |

**3.2.1 Course design**

The purpose of the e-Learning competency-based English course module is to enhance the CFAs' English oral communication skills in performing their duties according to the competencies required. There are three learning units which provide a context of delicate situations concerning service-related matters or people during flights. It is an interactive

module which integrated Gagne's Nine Principles to the instructional design of the e-Learning courseware to accommodate the learning process. The module provided texts with listening scripts, pictures, animation and activities. The time frame to complete the course module is five weeks, with a total of 50 learning hours to complete the course (for each unit; study the content 5 hours, activities 4 hours, revise the lessons 8 hours

= 17 hours).   The assessment is conducted by means of self-assessment and end-of-the-course test.

**3.2.2 Objectives of the course:** By the end of the course, the learners will be able to   1**)** Handle greetings, introductions, small talks and other courtesy situations    2) Ask for and give basic information (geography, weather, food, etc.)    3) Demonstrate positive, assertive communication  4) Explain basic rules and regulations of air travel 5) Ask questions to gather the information about the symptoms of sick passengers   6) Order a command in case of safety and security concerned; 7) Understand the role of nonverbal communication;    and  8) Demonstrate appropriate gesture, facial expressions, and eye contact, and appropriate tone, and volume of speech    9) Reassure the flight condition.

The lesson outline based on the competencies needed is presented in Table 3.

**Table 3**:  Outline of the e-Learning course module

| Unit | Topics | Competencies/task |
|------|--------|-------------------|
| 1 | Welcome aboard | 1.Reading about welcome etiquette and listening to dialogues<br>2.Welcoming and greeting passengers<br>3.Offering help<br>4.Answering and giving information to enquiries about airline products and promotions<br>5.Making polite refuses<br>6.Use of appropriate tone of voice, body language, positive attitude, cross cultural |
| 2 | Handle passengers' dissatisfaction /complaints | 1.Listening to dialogues about complaints on board<br>2.Making  polite responses to the passengers<br>3.Verifying the case and asking for details<br>4.Making an apology and finding an alternative<br>5.Use of appropriate tone of voice, body language, positive attitude, cross cultural |
| 3 | Make decision and solve dynamic problems | 1.Reading about health problem, technical problem, difficult passenger on board<br>2.Listening to instructions or questions and responding properly<br>3.Practicing expressions for investigating the incidents<br>4.Exercising rules and regulations<br>5. Use of appropriate tone of voice, body language, positive attitude, cross cultural |

The competency-based course for CFAs was developed integrating Gagne's Nine Principles to the instructional design (Gagne, Wager, Golas, and Keller, 2005) to accommodate learning process.  The table is shown below.

**Table 4**:  Gagne's Nine Principles of Instructional Design and Lesson Design

| Events of Instruction | Learning Process |
|------------------------|------------------|
| 1.Gaining attention | 1. Attention |
| 2. Informing the learner of the objectives | 2. Expectancy |
| 3. Stimulating recall for requisite learned capabilities | 3. Retrieval to working memory |
| 4. Present stimulus material | 4.  Pattern  recognition,  selective perception |
| 5. Providing a learning guidance | 5. Chunking, rehearsal, encoding |
| 6. Eliciting performance | 6. Retrieval, responding |
| 7. Providing feedback about performance correctness | 7. Reinforcement, error correction |

| 8. Assessing the performance | 8. Responding, retention |
|---|---|
| 9. Enhancing retention and transfer | 9. Retention, retrieval, generalization |

**3. 3 Phase III**: According to the third objective "To evaluate the effectiveness of the developed course" the effectiveness of the course module was evaluated by comparing the participants' gained scores of the English oral test before and after the implementation of the course module, and by investigating the magnitude of the effect. The CFA participants were pre-and post-tested their English oral proficiency. Two raters rated each participant using the scoring rubrics of English oral communication for CFAs. This scoring rubrics was adapted from ICAO (International Civic Aviation Organization) language proficiency scale highlighting six features of language skills as the criteria as follows; comprehension, interaction and personal

attributions, vocabulary and expressions, structure, pronunciation and fluency. There are five level descriptor for each of the six criteria; Level 5 - Proficient, Level 4 - Advanced, Level 3 - Intermediate, Level 2 - Elementary, and Level 1- Pre-elementary. In this study, an inter-rater reliability analysis using the Kappa statistic was performed to determine consistency among raters. Cohen's Kappa index generally ranges from   -1.0 - 1.0 (Landis and Koch, 1997). The inter-rater reliability for the raters was found to be Kappa = 0.62 which was considered at the substantial level (0.62-0.80) (Landis and Koch, 1997).

The results of frequency of each score level of the learners in pretest and posttest are presented in Table 5 and Table 6.

**Table 5:** Frequency of each score level of the learners at pretest

|  |  | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | 2.30 | 2 | 6.70 | 6.70 | 6.70 |
|  | 3.00 | 17 | 56.70 | 56.70 | 63.30 |
|  | 3.30 | 2 | 6.70 | 6.70 | 70.00 |
|  | 3.60 | 3 | 10.00 | 10.00 | 80.00 |
|  | 4.00 | 6 | 20.00 | 20.00 | 100.00 |

**Table 6:** Frequency of each score level of the learners at posttest

|  |  | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | 3.00 | 1 | 3.30 | 3.30 | 3.30 |
|  | 3.60 | 2 | 6.70 | 6.70 | 10.00 |
|  | 4.00 | 15 | 50.00 | 50.00 | 60.00 |
|  | 4.20 | 1 | 3.30 | 3.30 | 63.30 |
|  | 4.30 | 5 | 16.70 | 16.70 | 80.00 |
|  | 4.60 | 5 | 16.70 | 16.70 | 96.70 |
|  | 5.00 | 1 | 3.30 | 3.30 | 100.00 |

The result from the pretest scores in Table 5 shows that the majority of the participants (73.4%) were rated their scale between 3.0-3.60 (between Intermediate and Advance level). When comparing with the posttest scores in Table 6, it reveals remarkable results. None of the participants was rated at the scale of Elementary level on the posttest. Only 10% of the

participants were rated at the scale between 3.0-3.60 (Intermediate level). The majority of the CFA participants (86.7%) were rated at the interval scale of 4 (Advance level). The highest scale from the oral posttest was 5 and 3.3% were rated at this level. The descriptive statistics and the results from $t$-test are presented in Table 7 and Table 8 accordingly.

**Table 7:** Means of Pretest and Posttest score

|  | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| Pretest | 30 | 2.30 | 4.00 | 3.23 | .47 |
| Posttest | 30 | 3.00 | 5.00 | 4.13 | .37 |

**Table 8:** The Oral/speaking test – Paired Sample Test ($t$-test)

|  | Mean | S.D. | Std. Error Mean | t | df | Sig.2-tailed |
|---|---|---|---|---|---|---|
| Pretest-Posttest | -.89 | .32 | .05 | -15.09 | 24 | 0.000 |

The results of $t = -15.09$ indicated that the participants in the study had higher scores in their oral posttest than in the pretest at a significant level (p< .05). In terms of the effect-size, the data from Table 8 was calculated for Cohen's *d* effect-size. It revealed that there was a significant improvement of the participants' performances of the competencies needed in English oral communication (pretest mean score = 3.23, posttest mean score = 4.13) with the effect size at 2.13, which is considered a large effect. In conclusion, it is found that there was a significant improvement of the participants' performances of the competencies needed in English oral communication with a large effect size.

Regarding to the fourth objective "To examine the opinions of the learners toward the course module" the data obtained from the end-of-course were analyzed. The learners would answer the questions in the evaluation form which was a 5-Likert' scale type. The questions included the opinions of the learners toward the course in the area of content, i.e. contents and exercises are interesting, contents are authentic, content are executed in appropriate sequences; design i.e. the program can be controlled easily, the screen design is interesting, the sound is clear; utilization i.e. the lessons can be applied to use in real-life situation at workplace, the feedback is immediate and appropriate, the program enhance English oral communication in competencies needed. The results showed the positive opinions of the learners toward the course module. Every criterion was rated above 3.5. The lowest mean score is about timing (mean = 3.63) and the highest mean scores are in the area of usefulness (mean =4.20), immediate feedback (mean =4.26), authenticity (mean =4.36), self-pace study (mean=4.26), and enhancement (mean=4.36). Every criterion was rated above 3.5. The lowest mean score is about timing (mean = 3.63) and the highest mean scores are in the area of usefulness (mean =4.20), immediate feedback (mean =4.26), authenticity (mean =4.36), self-pace study (mean=4.26), and enhancement (mean=4.36). As for the opinion on the overall course, the mean scores of 4.22 indicated that the participants liked the course module in terms of content, the design, and its utilization of e-learning courseware.

As all of the criteria of the questionnaire were rated above 3.5, it can be concluded that the participants had positive opinions toward the overall course. All of the standard deviation of each criteria (SD <1) represents consistency of the participants' opinions signifying that the participants' response varied little.

## IV.  CONCLUSIONS

This study emphasizes on the competency-based approach. As stated in the findings that there was an improvement in the gained scores of the participants after completing the course, some features will be discussed. As described by Richards (2001), the competency-based approach focuses on the outcomes of learning as the starting point of course design by identifying the tasks a learner need to perform within a specific setting. The course was designed based on the competencies found from needs analysis which CFAs must be able to perform at the end of the course. Some of the essential elements of competency-based system proposed by Foyster (1990), Delker (1990), and Norton

(1987) are; participants progress through the instructional program at their own rate by demonstrating the attainment of the specified competencies; learning must be self-paced; flexible training with a large group or individual study; supporting material including print, audiovisual and simulations (models) are used. Notably, these practices are relevant to the e-Learning applied to this study, except for one aspect, the real models are not provided for CFAs to practice. In addition, e-Learning offers an opportunity to learners of different learning styles to utilize the lessons.

According to the interviews with the CFA participants, they revealed that they were happy to take the e-Learning course because of its practicality, authenticity. The course module allowed the learners to access the lessons at their convenient time. Due to the tight schedule of the CFAs, they prefer taking an e-Learning course. This will notably promote English language training at workplace because the CFAs prefer the alternative mode of learning.

Regarding the posttest which was a performance test of acting in role-play situation, role-plays help determine the level of their communication skills. The participants could perform well with the new vocabulary and expressions introduced in the lessons. All the participants showed appropriate attitude/personal attribution in each test. They could master the competencies. To get the most benefit from the course, it is interesting to combine the e-Learning mode and face-to-face classroom in one training course. Even the participants can practice their English in a real-life situation when they work; a discussion and simulation in classroom will reinforce them to learn from peer-learning.

As from the results showing that the mean scores of the participants increased, there are some interesting points to discuss. It was found that the score of the participants in the feature of structure increased. This could be the effect from the lessons and the practice in real situation. But the score in the feature of interactions and personal attribution was at the same level. The reason might be that they are aware of their language use and ignore the soft skills which are the expectation from the management. For some participants, their score in this feature remain unchanged. It can mean that they always emphasize on the soft skills and try to maintain. In the other way around, it is also found that some participants who have lower overall scores are rated higher in the feature of interaction and personal attribution because they show their interest in the customers and attentive. But they need improvement in the area of the linguistic knowledge. It is also interesting to find that some of the participants have sense of humor but they tend to laugh in a serious situation. Even they are attentive, or they have service-mind but their inappropriate manners can cause a misunderstanding situation as well. Thus, it is necessary that the test result should be examined in every aspects based on each criterion. Only putting an emphasize on the overall score may lead to a gap of achieving a competency.

According to the research study, an e-Learning competency-based English course module can serve the needs of chief flight attendants in terms of the ESP course which has conceptualized the content around the competencies needed for their job. Its effectiveness of the course is confirmed by the increasing of the posttest scores, the positive toward attitudes toward the course. The course is useful in the eyes of the

participants. Still, there are some recommendations for further study of a development of an English training course in workplace which combines classroom basis and e-Learning basis to have a benefit of both sides. In addition, the impact that this study has on the community of the CFAs is that it creates a positive learning atmosphere for the staff members.  The course module supports the life-long learning and the on-the-job training of the organization.

## V.   APPENDICES

### 1. The results from the end-of-course evaluation form

| Criteria for evaluating the course | Min | Max | Mean | SD | df | t |
|---|---|---|---|---|---|---|
| **Design** | | | | | | |
| 1.The program is easy to access | 3 | 5 | 3.93 | .58 | 24 | 36.93 |
| 2.The program can be controlled easily | 3 | 5 | 4.03 | .55 | 24 | 39.72 |
| 3.The screen design is interesting | 3 | 5 | 3.80 | .55 | 24 | 37.78 |
| 4.The sound is clear | 3 | 5 | 4.33 | .66 | 24 | 35.91 |
| 5.The format is interactive | 3 | 5 | 3.66 | .60 | 24 | 33.11 |
| 6.The font, graphics are appropriate and attractive | 3 | 5 | 3.73 | .63 | 24 | 31.96 |
| **Content** | | | | | | |
| 7.The contents and exercises are interesting | 3 | 5 | 3.66 | .60 | 24 | 33.11 |
| 8.The contents are authentic | 3 | 5 | 4.36 | .62 | 24 | 38.83 |
| 9.The content are executed in appropriate sequences | 3 | 5 | 3.66 | .60 | 24 | 33.11 |
| 10.The contents are appropriated to time | 3 | 4 | 3.63 | .49 | 24 | 40.60 |
| 11.The scores generate positive reinforcement | 3 | 5 | 4.03 | .61 | 24 | 35.90 |
| 12.The contents maintain high level of Interest | 3 | 5 | 3.93 | .63 | 24 | 33.60 |

**2. An example of lesson unit**

| | | | | | |
|---|---|---|---|---|---|
| 3.1. Making decision and solving problems | 1. Learners will be able to acknowledge and verify the problems on board<br><br>2. Learners will be able to recognize and use vocabulary and appropriate expressions to solve problems<br><br>3. Learners will be able to reassure passengers' comfort | This unit is designed to enhance the knowledge, skills and attitudes/personal attribution in solving problems. It covers the ability to analyze problem, to identify fundamental cause of problem, and to determine possible solution regarding the situations concerned. | "Solving Dynamic Problems" | -Approach the passenger<br>- Acknowledge and respond to the problem<br>- Verify the problem<br>- Ask for detail<br>- Investigate the case / symptoms<br>- Offer help<br>- Call for doctor/assistance<br>- Acknowledge the witness<br>- Negotiate<br>- Exercise rules and regulations<br>- Explain the fact | - Read the passage about health problems on board and answer the questions<br>- Match the organ of the body with the vocabulary<br>Match the passengers' health complaints with the symptoms<br>- Practice the language of investigating<br>- Match the health and medical vocabulary with the meanings<br>- Read a passage on intoxicated passengers and answer questions<br>- Match the vocabulary with the meanings<br>- Read a passage on technical and emergency problems<br>- Match the vocabulary with the meanings<br>- Fill in the dialogue with the appropriate expressions about rules and regulation |

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