Aviation English Training Project for Pilots in China Southern Airlines

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The airlines in China are facing the same problem: how to enable their pilots, whose first language is not English, to meet the ICAO requirements in language proficiency in 2008. ICAO has stipulated that as by 5 March 2008, airplane and helicopter pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications to ICAO level 4 proficiency level. The language proficiency requirements are applicable to the use of both phraseologies and plain English (ICAO, 2004). It is a major challenge for airlines in China, especially for the ones that have bigger population.

Introduction

This paper introduces the aviation English training project for pilots in China Southern Airlines in the following 4 aspects: Training Needs Analysis; Planning of the Training; Training Implementation and Training Evaluation and Test.

Figure 1: The Way to Reach the Training Targets

Training Needs Analysis

It is rare for China Southern Airlines (CSN) to launch such a big training program, so the pre-training analysis becomes crucial. Pre-training analysis is a systematic exploration to clarify the problem and find out the possible solutions. CSN contacted RMIT in June of 2005, showing the opportunity of cooperation in aviation English program. At the same time, the group for this program carried out the analysis before training in the following aspects.

What is the gap? That is the first question the group wants to know. So they made a survey to determine the current situation by the January of 2006. There were nearly 2600 pilots distributing in 18 places. To get a true picture of pilots of CSN was our first step. We got information with different methods: records studies, sending questionnaires, and phone-call interviews.

Pilots' Age Structure Analysis

Why the analysis of the pilots' age is needed? In China, people used to learn different foreign languages in different ages. For example, people in 1950s learned Russian, people in 1980s preferred to learn Japanese. Now, English is the most popular foreign language in China. So the age of a pilot is the main factor that determines his English level. On the other hand, pilots that will retire before (in) 2008 will not be considered in training. Table 1 shows the age structure of pilots in CSN.

Age Phase	60－57	57－51	50－45	45－40	40－35	35-
Branch 1	19	118	14	88	57	407
Branch 2	0	2	5	39	13	86
Branch 3	3	16	1	18	2	35
…	…	…	…	…	…	…
Branch 18	…	…	…	…	…	…
Total Number	30	349	97	383	219	1512
Percentage	1%	13%	3%	15%	9%	58%

Table 1: The Age Structure of pilots in CSN (by the end of 2005)

Current English Level Analysis

The purpose of the Current English Level Analysis is to clarify the distribution of pilots with different English levels. With the help of the language expert from RMIT, 63 pilots were randomly selected from different ages as samples. The language expert from RMIT interviewed samples separately and evaluate their English level. Table 2 shows the results of interview.

Level	Training weeks needed	Sample quantities	Pilots quantities evaluated	Percentage
Z	0	15	600	24%
Y	10	7	250	11%
X	15	7	250	11%
W	25	34	1399	54%
		63	2500	100%

Table 2: The Results of the Interview

In the proposal provided by RMIT, levels mentioned above are explained clearly:

Level Z: Pilots with level Z can take part in RELTA directly without training, and they have the opportunities to reach the English proficiency level 4 established by ICAO.

Level Y: Pilots with level Y need to take 250 hours of aviation English training prior to the RELTA.   It would take nearly 10 weeks.

Level X: Pilots with level X need to take 375 hours of aviation English training prior to the RELTA.   It would take nearly 15 weeks.

Level W: Pilots with level W need to take 625 hours of aviation English training prior to the RELTA.   It would take nearly 20 weeks.

According to the data from table 1 and 2, we got the following results:
a)   Considering the percentages of the candidates and the data from table 1, the quantities of different levels can be estimated.
b)   Considering the learning period and the quantities of different level, the quantities and types of courses we need to develop can be estimated.
c)   Considering the distribution of pilots of different levels, the number of instructors can be decided.

Planning of the Training

Program Team established

CSN established the program team at the end of 2006, to ensure the implementation of the training program. Team members are from Training Department, Human Resource Department, Flight Technology Management Department, IT department of CSN and the program manager sent by RMIT.

Training Progress

The program team made program objects that need to be fulfilled: By the end of Feb 2008, 1000 pilots (37%) reach the ICAO level 4 to maintain International operations and another 450 pilots reach the ICAO level 3 to maintain domestic operations. By the end of year 2008, another 1000 pilots reach the ICAO level 4 to maintain International operations.

Training Centers Established

Pilots of CSN are distributed in 18 places throughout China, so the team urged each branch to get well preparation for aviation English training. At last, 18 Local Centers (LC) were set up. The preparations for aviation English training included:
a) Management setup: Each branch set up a management for this program. They are in charge of the implementation of the training in LCs and they report to the team in Guangzhou (GZ).
b) Classrooms (CBT room and normal classroom): At least one CBT room with at least 30 seats is recommended. The number of normal classrooms differed according to the number of pilots of each LC.
c) Training facilities: CBT hardware, CD players, computer projectors, copy machines.
d) Teaching tools and other materials: whiteboards, whiteboard pens, paper.
e) CBT software installation and QPT software installation

Teacher Training

The team managed to train the teachers for this program. The selection of candidates referred to the following Criteria. The candidates should:
– Have English teaching experience
– Be major in English (or with aviation background)
– Take the oral and written exam which was conducted by RMIT English experts

By the end of August of 2006, 69 trainees were selected in CSN. The team organized a teacher training course in GZ in September, 2006. It took 4 weeks for the trainees to learn teaching skills and got familiar with the RMIT English Language Test (RELTA). 3 teachers sent by RMIT along with the program manager divided the trainees into four groups for teaching observation exercises. Finally, 60 trainees got the certificates. Among them, there were 13 with grade A, 35 with grade B and 12 with grade C. 17 of them have the competency to teach Radiotelephony.

Training Implementation

Pilots Quick Placement Test (QPT)

The English competence of pilots varies in person. To make a workable course, teachers need more accurate data. Pilots were asked to attend QPT before attend any courses. QPT is an English level placement test provided by RMIT which is installed in the CBT room. Pilots were asked to finish the QPT in 30 minutes.

After Feb, 2006, LCs finished their QPT tests and sent the results to the GZ. Totally, there were 1588 pilots enrolled the QPT test before they entered the real courses. Teachers classified those pilots into 6 levels according to the results of QPT (refer to table 3). Pilots, who didn't show in QPT, would be placed in a level.

LEVEL	A	B	C	D	E	F
SCORE	0~29	30~49	50~55	56~65	66~70	>71

Table 3: Scores and Levels of QPT

Training Plans of each Branches

The team in GZ asked each LC to make the whole training plan and report it to GZ. The training plan should include following information:
- Types and quantities of courses
- The arrangement of teachers, classrooms and facilities
- Time limit of each course

When making plans, each LC faced the same problem: the conflict between learning and flying. The pilots cannot stop flying for learning. Learning cannot affect flying. That is the basic rule in training. In the branches that have fewer pilots, the conflict becomes more seriously. How to solve this problem and make balance between flying and learning is the key point to be successful in training. The management had to discuss with the flight department frequently when determining the plan, so that the impact on flying could be minimized.

Limitation Factors That Affect Planning

Training in Airlines is always limited by the actual work. We should consider the factors below when making training plans:
a) Numbers of trainees
   Not all the pilots in CSN should take the training. Pilots that will retire before 2008 will definitely not be included in the trainee list. Actually, pilots over 55 years old may not be considered.
b) Time limit of training
   Breakdowns of the target can help us fulfill the plan in time limit.
c) The actual English level of pilots
   Clarify the English level of pilots determine the classification and priorities of courses.
d) Density of the routine flights in CSN
   It determines the attendance of courses.
e) Midseason of CSN
   Normally, there are three golden weeks in China. Besides, there are touring holidays, big business fairs. Those are the busiest periods for Airlines. In those periods, pilots are busy flying and they have no time to stay in the classroom.
f) Density, distribution and the annual progress of international flights of CSN
   According to the data, we got the total flight hours of annual international flights and the international flight hours per pilot per month. Then we can get the number of the minimum pilot requirement of the

international flights.
g) The requirement and competency of instructors
   Most of the factors mentioned above are dynamic; all of these should be considered to make a workable plan.

Courses Delivery

There were 6 types of courses in this program which were named with A, B, C, D, E, and F differently in equivalent with the classification of English level:

Course	Textbook	Learning Time Needed
A	English Pre-Intermediate Units1-5	125 hours
B	English Pre-Intermediate Units 6-10	125 hours
C	General English for Aviation Units 1-5	125 hours
D	General English for Aviation Units 6-10	125 hours
E	Radiotelephony workbook	125 hours
F	Preparation for RELTA Exam	5 hours

Table 4: Types of Courses

Contents of Courses
-   General English Pre Intermediate : Listening and speaking, reading vocabulary and grammar
-   General English-Aviation: Listening and speaking, aviation-related vocabulary
-   Radiotelephony English: Communication in phraseology and plain English in radiotelephony - routine and non-routine situations
-   Preparation for RELTA Exam: Test structure and test-taking strategies

Models of Courses

At first, the team determined a standard model for course delivery: For each course, each candidate should spend at least 10 hours per week in learning. Then each course would take 3 months. In fact, because of different situations, different LCs have different models of courses.

Example model 1: Walk-in classes
-   Classes repeated during the week
-   Several instructors teach in parallel
-   Advantage: Allows flight rosters to be flexible
-   Disadvantage: Learning less effective

Mon	Tues	Wed	Thur	Fri
Instructor A (Unit 2a)	Instructor A (Unit 2a)	Instructor A (Unit 2a)	Instructor A (Unit 2a)	Instructor A (Unit 2a)
Instructor B (Unit2b)	Instructor B (Unit2b)	Instructor B (Unit2b)	Instructor B (Unit2b)	Instructor B (Unit2b)
Instructor C (Unit1d)	Instructor C (Unit1d)	Instructor C (Unit1d)	Instructor C (Unit1d)	Instructor C (Unit1d)
CBT (Unit 1)	CBT (Unit 1)	CBT (Unit 1)	CBT (Unit 1)	CBT (Unit 1)
CBT (Unit 2)	CBT (Unit 2)	CBT (Unit 2)	CBT (Unit 2)	CBT (Unit 2)

Table 5: Course Model 1

Example model 2: Timetabled classes
-   Pilots have home classes
-   Flight schedules and language training scheduled in advance

– Advantage: Learning more effective

Mon	Tues	Wed	Thur	Fri
Instructor A (Unit 1d)	Instructor A (Unit 1d)	Instructor A (Unit 2a)	Instructor A (Unit 2a)	Instructor A (Unit 2a)
Instructor B (Unit2b)	Instructor B (Unit 2b)	Instructor B (Unit 2c)	Instructor B (Unit 2c)	Instructor B (Unit 2d)
Instructor C (Unit 2d)	Instructor C (Unit 2d)	Instructor C (Unit 3a)	Instructor C (Unit 3a)	Instructor C (Unit 3b)
CBT (Unit 1)	CBT (Unit 1)	CBT (Unit 1)	CBT (Unit 1)	CBT (Unit 1)
CBT (Unit 2)	CBT (Unit 2)	CBT (Unit 2)	CBT (Unit 2)	CBT (Unit 2)

Table 6: Course Model 2

Although there are different models, all courses include the elements below:
– In-classroom teaching and practice
– CBT learning and practice

Responsibilities in Course Delivery

	Responsibilities
Instructors	– Raise pilots' level of English – Record candidates' areas of language weakness. Mid-course progress check. Recommend and implement appropriate action – Keep a twice-daily record of attendance and reasons for absence – Recommend pilots as 'ready' or 'not ready 'for the next stage
Program Support Teachers	– As head teachers in each LC (achieved Level A in teacher training), provide guidance to the other instructors – Provide feedback from pilots and teachers to the PM and Training Dept in Guangzhou – Supervise mid-course progress checks – Conduct occasional observation of other teachers
Program Manager	– Ensure compliance with the Program Delivery Manual – Provide leadership and guidance to instructors and admin staff – Provide academic support to instructors – Visit LCs to ensure that requirements are met – Initiate and manage admin processes to ensure high standards
Pilots	– Attend all lessons scheduled – Be active in class, participate fully in activities designed to practice listening and speaking skills – Notify the teacher in advance if unable to attend a lesson and do extra work to catch up – Do extra review, homework, or CBT time required by the teacher and the course

Table 7: Responsibilities in Course Delivery

Problems in Training

During the implementation of training, some problems occurred that caused by unexpected reasons. And some are the ones that every Airline has to face. There always are some pilots who have been scheduled in classes never attend the course. The attendance of courses maintains low. It may be caused by the individual reasons: The pilot has no interest in English, or he cannot catch up with his classmates. Mostly, it is caused by the conflict between learning and flying that has been mentioned above. It must be the

biggest problem that each Airlines in China has to face.

Training Evaluation

Random audit of Classroom teaching for teachers
The program manager or the head teacher of each branch would observe teachers' courses randomly and fill in the observation form. After class, the program manager or the head teacher would discuss with the teacher who is observed about the good points and unfavorable points in teaching.

Students feedback questionnaire for course material and teachers
The team will regularly send questionnaires to pilots that involved in learning to get information of course delivery, materials and teachers.

Mid-course progress checks
Teachers will conduct mid-course progress checks according to the Course Delivery Manual.

RMIT English Language Test (RELTA) test
Pilots that complete training can be recommended by the program manager to attend RELTA test.   Now, RELTA is delivered at least 1 time per week, 20 pilots maximum per time. The results will be sent to CSN and CAAC by RMIT.

Summary

The 4 steps of Aviation English Training Program in CSN are Needs Analysis, Planning, Implementation and Evaluation. Now, CSN works with RMIT to fulfill the training target. RMIT provides training materials and audit the training quality during the cooperation period. Today, the aviation English training system is implementing effectively, trying its best to adapt to the flight operation of CSN.

References

ICAO (2004) *Manual on the implementation of ICAO Language Proficiency Requirements* (Doc 9835), International Civil Aviation Organization: Montreal.

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