

Research on the Cultivation of Communication Ability of Civil Aviation Students Based on SPOC Mode

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Abstract: Based on the analysis of the structural elements of the communication ability of civil aviation practitioners, a questionnaire of the communication ability of civil aviation students was constructed. The current situation and problems of the communication ability of civil aviation students were obtained by SPSS software analysis, that is, the ability of empathy is strong, the professional cognition is reasonable, and the application ability is insufficient. Good communication attitude, obvious communication anxiety, lack of communication confidence; Listening ability is fair, expression ability is poor, oral English needs to be strengthened. Finally, based on the teaching environment and mode of SPOC, it proposes to strengthen theoretical knowledge, increase practical application, and improve communication cognition, increase communication frequency, relieve communication anxiety, improve communication confidence, create communication situation, provide communication guidance, improve the ability of expression and other strategies.

1. Introduction

In recent years, with the rapid development of China's civil aviation industry, the rapid expansion of airline network and the continuous growth of air traffic, China's total scheduled flight turnover has risen from the 20th place in 1989 to the second place in 2006 among the States parties of the International Civil Aviation Organization. With the growth of the total transportation, the size of the aircraft fleet is constantly expanded, and the number of newly built airports, reconstruction and expansion airports is rapidly increasing. Studies show that a 5 percent increase in the value of the aviation industry creates 10 million jobs[1]. Civil aviation transport enterprises are labor-intensive enterprises, employees not only have to face a large number of passengers and cargo owners, but also have to face the internal civil aviation institutions, departments of the communication and coordination of many issues[2]. Therefore, the requirements for employees in aviation enterprises are not only to have the corresponding professional knowledge and skills, but also to have good communication ability.

2. Structural elements of communication ability of civil aviation practitioners

Communication is a process in which different actors realize the two-way flow of information through various carriers, form the perception of the actors, and achieve specific goals. In a complete

communication process, the behavior subject, information carrier and communication environment will affect the success or failure of communication. Therefore, individual communication ability will be affected by a series of internal and external compound factors, and the structural elements of communication ability of practitioners in different industries are also complex and diverse. Practitioners in the civil aviation industry mainly communicate with passengers, cargo owners, staff in parallel departments and the upper and lower levels, so their attitudes, methods, contents and skills in the process of communication are different[3]. Combining the characteristics of civil aviation industry and referring to previous research results, this paper divides the communication ability of civil aviation industry practitioners into the following three elements: communication cognition, communication Awareness and communication skills[4].

Communication cognition includes communication subject's cognition of self, cognition of others and cognition of communication situation. Self-cognition includes the cognition of one's current professional knowledge and the ability to control communication behavior; The cognition of others includes empathy and recognition, namely the sensitivity and understanding ability to the behaviors and emotions of others; Situational cognition refers to the cognition of the temporal and spatial effectiveness of the communication process.

Communication Awareness includes communication tendency and communication attitude. Communication inclination refers to the internal motivation of preference in the process of communication. The communication attitude of civil aviation industry practitioners mainly refers to sincerity, respect, patience and other aspects.

Communication skills include the ability to express information, receive information and process information. Expressive ability includes verbal and non-verbal expressive ability; Receptivity mainly refers to listening and sensing; Processing capability includes constructive feedback to information and interactive management of information[5].

3. Current situation and problems of communication ability of Civil aviation students

3.1 Questionnaire design

Table 1: Reliability of the communication ability questionnaire of civil aviation students

Dimension	factor	item	Cronbach α coefficient
Communication cognition	Professional cognition, empathize	C1,C2,C3,C4,C5,C6,C13 C10,C11,C12	0.873
communication Awareness	communication tendency, communication attitude	A7,A8,A14,A15,A16 A17,A18,A19,A20,A21,A25	0.709
communication Skills	express information, receive information	T9,T22,T23,T24,T29 T26,T27,T28,T30	0.919
total		30	0.973

Based on the above analysis of the dimensions and elements of the communication ability of civil aviation professionals, the communication ability questionnaire of civil aviation students is constructed. The questionnaire compiled 30 questions around the three dimensions and six elements of communication ability. The cognitive dimension of communication included professional cognition and empathy factor, totaling 10 questions; the awareness dimension of communication included communication tendency and communication attitude factor, totaling 11 questions; the communication skill dimension included information expression and receiving factor, totaling 9 questions. The questionnaire adopted Likert five-level scale method, with 5 points for complete conformity, 4 points for basic conformity, 3 points for general conformity, 2 points for

non-conformity, and 1 point for complete inconsistency. The questionnaire was issued to 81 students from two classes of 2019 majoring in transportation (civil aviation transportation) in A College of Haikou, and 80 valid questionnaires were collected.

After SPSS data analysis, The results are shown in Table 1, the reliability coefficient value of the questionnaire was 0.973, indicating that the reliability quality of the data in this study was high, and the CITC value of the analysis items were all greater than 0.4, indicating that there was a good correlation between the analysis items.

3.2 Sorting out the current situation and problems of communication ability of civil aviation students

The analysis of data results is mainly based on the mean and standard deviation of each factor and question item. The higher the score, the stronger the communication ability. The reference mean is 3.949, indicating that the comprehensive communication ability of civil aviation students is in a relatively ideal state, but the score of some factors is low, and there are obvious shortcomings, The survey results are shown in Table 2.

Table 2: Current situation of communication ability of civil aviation students

Dimension	factor	Average value	Standard deviation
Communication cognition	Professional cognition	3.759	0.687
	empathize	4.191	0.684
communication Awareness	communication tendency	3.522	0.538
	communication attitude	4.213	0.723
communication Skills	express information,	3.976	0.425
	receive information	4.213	0.569

3.2.1 Strong empathic ability, reasonable professional cognition, but insufficient application ability

The mean value of professional cognition factor was 3.759, and the score of C1 was 3.871, indicating that the surveyed students had a fair grasp of professional knowledge. However, the scores of C2, C3 and C13 were 3.741, 3.759 and 3.685 respectively, indicating that students were weak in applying professional problems to solve problems in civil aviation and popularizing professional knowledge to others. The mean value of empathy factor is 4.191, indicating that most students are able to worry about others' feelings, timely detect the changes of others' emotions, understand others' emotions and positions, and have strong empathy ability.

3.2.2 Good communication attitude, obvious communication anxiety and lack of communication confidence

A17-A21 and A25 are respectively sharing, trust, fairness and justice, and respect in the process of communication, with an average result of 4.213, indicating that students generally have a good communication attitude. However, the average score of communication intention was only 3.522, 31.59% of the students said they were not good at communication, 42.59% of the students said they lacked confidence in communication, 38.89% of the students lacked initiative in communication, and 35.18% of the students had obvious communication anxiety, whose score was only 3.185.

3.2.3 Good Listening ability, poor expression ability, spoken language needs to be strengthened

T26 and T27 refer to the content and effect of listening in the information receiving ability, and the scores are 4.111 and 3.963 respectively, indicating that the students' listening ability is not bad. T28 and T30 reflect students' interactive feedback in the process of communication, with scores of 4.074 and 4.259 respectively, indicating that students are willing to listen to feedback and opinions. T22, T23 and T24 reflect spoken expression ability, written language expression ability and body language expression ability respectively, and the scores are 3.870, 3.981 and 3.81, indicating that students' written expression ability and body language expression ability are superior to spoken expression ability. Generally speaking, students' ability of receiving information is superior to their ability of expressing information.

4. Improving the communication ability of Civil aviation students in the mixed teaching mode of Online and Offline SPOC

SPOC stands for Small Private Online Course, a concept developed by the University of California, Armand. It was first proposed by Professor Fox. Based on previous practice and research, this paper defines SPOC as a new teaching model combining online learning and face-to-face teaching. "Small" refers to dozens or hundreds of people, and "private" refers to only those who meet the restrictive admission requirements can apply to join the course. SPOC solves the shortcomings of MOOCs such as monotonous presentation, lack of targeted guidance, and low participation. It integrates high-quality teaching resources both offline and online. Teachers act as class guides and facilitators, organize student group discussions, provide targeted guidance, At the same time, teachers will be liberated from repetitive low-value work (such as attendance, grading) to solve difficult problems. SPOC provides students with a more complete learning process, from the preview of assigned content before class to the consolidation of review materials after class, which can enhance the participation of students and improve the learning effect. SPOC has unique advantages for communication courses[6].

4.1 The construction of SPOC blended teaching environment

4.1.1 Design of teaching resources

The SPOC mixed teaching mode includes online and offline teaching resources. Online teaching takes learning as the main platform, while offline teaching takes classroom, campus, airport, airline and other environments as the place for communication skills training and improvement. The online platform arranges teaching resources according to the teaching process before, during and after class. Pre-class teaching resources include case guidance, learning objectives, situational activities, and key and difficult points. The teaching resources include teaching plans, courseware and core content explanation videos based on knowledge points. After-school resources include chapter summary, knowledge training, ability training and knowledge expansion. All teaching resources are embedded synchronously by chapter to ensure logical communication of theoretical knowledge in the process of independent learning.

4.1.2 Design of learning activities

The existing learning activities of the platform include candidate selection, in-class exercises, thematic discussion, quick answer, questionnaire, group task, voting, examination, homework, grading, etc. Among them, candidate selection, quick answer, voting and questionnaire activities

can effectively increase the interest and competitiveness of the class, so as to enhance students' enthusiasm and confidence in communication and learning. Thematic discussion and group tasks can be carried out throughout the teaching. Group tasks are assigned before class, discussion, presentation and acting are completed in class, and mutual evaluation is consolidated in the group after class. Examinations and homework activities can not only find out the effect of students' preview before class, but also test the effect of students' learning after class and consolidate the knowledge learned in class.

4.2 Establishment of SPOC blended teaching model

Teaching mode refers to the framework and procedure of teaching activities established under the guidance of certain teaching ideas or theories. SPOC, as an emerging online-offline hybrid teaching model, has a distinct learning process from traditional classroom learning and pure online learning. SPOC teaching mode takes online platform learning resources as the main line for preliminary learning, takes offline classroom explanation practice as the core for in-depth learning, and deeply integrates online and offline to consolidate application innovation. Through continuous online and offline interaction, mutual promotion, independent learning, teacher teaching, teacher-student interaction and student-student collaboration, the learning effect is effectively improved.

4.2.1 Preliminary learning stage

In the preliminary learning stage, students should first learn related pre-class materials on the SPOC platform, have a preliminary understanding of the learning content of this chapter through the introduction of cases, and know the knowledge objectives, ability objectives and main contents of this chapter. Secondly, They will Watch key and difficult learning videos to learn and try to understand the core knowledge, then try to set up discussion groups and cooperate to deal with situational activities preset by teachers; Since civil aviation communication often involves professional knowledge in many fields, such as aviation meteorology, dangerous goods, flight principles, etc., it is necessary to consolidate relevant knowledge in the pilot course and complete a few targeted tests. In case of difficulties, students can use the platform to consult their peers or platform assistants. Teachers evaluate and guide students according to the relevant data feedbacks from the platform, find out the learning difficulties, deficiencies in teaching content and mistakes of students in time, and adjust the teaching content and teaching methods of offline teaching accordingly.

4.2.2 In-depth learning phase

The in-depth learning phase mainly relies on offline classroom, which is the main channel for students to acquire knowledge and internalize knowledge. The teacher determines the core teaching content according to the platform data of the preliminary learning stage and the state of the students, designs teaching activities according to different teaching contents, and carries out on-site discussion, case analysis, viewpoint debate, project presentation, scenario simulation, role play, etc. in small groups. The teacher designs, guides, answers questions, summarizes to comprehensively improve the class participation of students, strengthen teacher-student interaction and student-student interaction, create more communication opportunities, improve the communication ability of students.

4.2.3 Application innovation stage

In the application innovation stage, on the one hand, it is necessary to consolidate and improve the learned knowledge in time with the help of chapter summaries, exercises and tests and other evaluation systems, and at the same time to reflect and summarize it, so as to build a perfect knowledge framework system. On the other hand, we should keep pace with The Times, revise and improve our core knowledge network according to different environments and needs, and apply it to complex communication situations.

4.3 Ways to improve the communication ability of civil aviation students

4.3.1 Strengthen theoretical knowledge, increase practical application, and improve communication cognition

First, We should strengthen the construction of online teaching platform resources. Professional theoretical knowledge is an important part of self-cognition and a prerequisite for improving communication ability. Civil aviation communication learning involves a large amount of professional knowledge, such as service psychology, organizational behavior, customer relationship management, service etiquette, etc. Online teaching platform can provide a large amount of cross-disciplinary knowledge, improve the efficiency of students' access to professional theoretical resources, enhance professional cognition and break the time and space limits of classroom teaching; Secondly, the frequency of online and offline reporting and display, results analysis and other activities should be strengthened. The report, presentation and result analysis provide students with a virtual communication time scene, which can effectively improve their communication and control ability, and objectively and accurately understand the gap between themselves and others in communication. Finally, they can consolidate and reflect timely through intra-group and inter-group mutual evaluation and teacher evaluation, so as to effectively improve their communication cognition.

4.3.2 Increase communication frequency, relieve communication anxiety and improve communication confidence

Communication consciousness includes communication tendency and communication attitude. For civil aviation students, the stimulation and cultivation of communication awareness is mainly reflected in increasing communication opportunities and frequency, enabling students to actively participate in communication activities, experience the fun of communication and overcome communication anxiety.

The communication and interaction in SPOC teaching mode are mainly embodied in two aspects: teacher-student interaction and student-student interaction. The interaction between teachers and students is mainly achieved through online and online channels. Before class, teachers arouse students' interest by discussing hot topics in the industry, asking questions, connecting knowledge and answering quickly. In class, students are encouraged to actively participate in classroom teaching activities such as debate, discussion and case analysis, and timely feedback and necessary affirmation are given to students to enhance their communication confidence. The interaction between students and students mainly refers to the communication and cooperation among group members as well as the communication and coordination between groups. Intra-group communication mainly includes the formulation of group learning plans, sharing of professional knowledge and experience, mutual assistance among group members and mutual evaluation.

4.3.3 Create communication situation, provide communication guidance and improve expression ability

Creating communication situation is the most effective way to improve communication ability. First of all, through the design of learning activities such as role play, create an immersive workplace situation, improve students' listening ability and empathic ability by exchanging positions, and improve their oral language and body language expression ability through simulated communication. Secondly, professional critical thinking situations are created through learning activities such as debate and discussion. The core of discussion and debate is to refine and apply professional knowledge to express self-views, which can not only improve students' expressive ability and critical thinking ability, but also improve their cooperation ability and strain ability. Finally, a management situation is created through reporting, sharing and achievement presentation. Teachers act as consultants and coaches throughout the process to provide necessary guidance and feedback to students and effectively improve their communication skills.

5. Conclusion

Good communication skills are essential skills for civil aviation practitioners. In order to seamlessly align with the talent needs of civil aviation enterprises, civil aviation majors must attach importance to cultivating students' communication skills. During the training process, it is necessary to fully utilize online and offline platforms to build a comprehensive communication environment and create a communication mode throughout the entire process. Starting from three aspects: communication foundation, communication frequency, and communication context, it is necessary to enhance students' communication cognition, confidence, and expression ability, and cultivate composite civil aviation practitioners with a solid foundation and high quality.

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