Thoughts on Online Teaching of Employment Guidance Course for Civil Aviation Majors under the COVID-19 Epidemic--Based on the teaching practice of college students enrolled in 2018 in the Civil Aviation Management Institute of China

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Abstract: The employment situation in civil aviation has become more severe this year due to the adverse effects of the COVID-19 epidemic. The online teaching of employment guidance courses can promote high-quality employment for graduates, but also poses new challenges for teachers and students. For college students enrolled in 2018 majoring in civil aviation, the teachers in the Civil Aviation Management Institute of China accomplished the employment guidance course, adopting a teaching method combining online teaching with offline guidance, and applying the Deming cycle to continuously improve the course quality. To facilitate better employment of civil aviation graduates under the epidemic, this paper suggests that it is necessary to establish an employment guidance and service system, improve the comprehensive quality of graduates, promote cooperation and mutual assistance between schools and employers, and guide graduates to start their businesses or further study rationally.

1. Introduction
The sudden appearance of the COVID-19 epidemic has brought global economic impact. As a service industry closely related to the flow of people, the civil aviation industry bears the brunt of the heavy losses. A large number of travel plans have been cancelled, aviation demand has plummeted, and domestic backbone routes and international routes have drastically cut capacity delivery. The global air cargo volume dropped by 14.5% year-on-year, in the first half of 2020. According to the Civil
Aviation Administration of China, the industry endured a total loss of 39.82 billion yuan (US$5.63 billion) in Q1, of which airline companies lost 33.62 billion yuan. Airplanes are parked, and front-line personnel such as pilots, flight attendants, and ground crews are more than actual needs. Some domestic airlines have developed a rotation plan during the epidemic, and there is no pay during the rest period. The employment situation in the civil aviation industry seems to be even more severe this year.

The Civil Aviation Management Institute of China (CAMIC) is the only adult higher education institution directly under the Civil Aviation Administration of China, which undertakes academic education and vocational education. The CAMIC actively deals with the difficulties and challenges that the epidemic has brought, and takes corresponding measures to make every effort on promoting the employment of college students. Among them, the establishment of employment guidance courses is an important means to promote high-quality employment of college students. This study took the online teaching practice of college students enrolled in 2018 majoring in civil aviation as an example to explore the strategies of online teaching of employment guidance courses, and consider how to do a good job in promoting the employment of civil aviation graduates under the epidemic situation.

2. Survey of students' career planning and employment options based on a questionnaire

In order to understand students' understanding of career planning and graduation development direction objectively and comprehensively [1], a questionnaire was designed at the beginning of the course. There were 390 students enrolled in 2018 in 9 classes participating in the questionnaire survey, covering civil aviation transportation, flight service, civil aviation safety technology management, applied English, and other majors.

Through the questionnaire survey, we found that the college students in the civil aviation majors have the following characteristics:

(1) With more self-exploration and clear career development direction. About 73.59% of the students had a clear understanding of their own personalities, 54.62% of the students had a clear understanding of their interests, and 48.21% of the students had a clear understanding of their abilities, strengths, and weaknesses. Students' weaknesses mainly include the ability of written and verbal expression in Chinese and English (50.26%), the ability to learn new skills and solve new problems (45.13%), the ability of self-time management, energy management, emotional management (44.62%). 41.03% of the students were very clear about the direction of their career development. In case of the students' graduation, 69.74% of them intended to work directly, 12.56% planned to pursue further study, and 11.79% intended to start their own businesses. Most graduates who intended to work directly were willing to engage in civil aviation-related work after graduation, such as flight attendants, ground crews, etc. which is inseparable from the college's clear orientation of civil aviation professional training.

(2) Be confused about employment prospects, and with a great demand for professional employment guidance. Facing the job search situation this year, the students expressed greater anxiety. 73.85% of students felt more pressure in work and life, and 60.77% of students worried that they could not find a job they want, in contrast, only 13.59% had the confidence to find a suitable job. When asked what kind of career guidance is needed, about 93.08% of the students hoped to get guidance on job search, interview skills, and speaking art, followed by guidance on professional etiquette and image. There was also demand for the principles in the workplace, ranking third. The questionnaire shows that the
biggest influence on students' employment concept was by parents and relatives, followed by their own choice, and by successful people. The influence of school teachers and classmates accounted for about 11.79%; when students faced a career choice or career confusion, the top three channels were parents, teachers, and themselves. As the most important learning and living place for students before entering the society, schools should play a greater role in shaping students' employment concepts and providing employment guidance while imparting professional knowledge.

(3) Be aware of the importance of career planning, but lack of practices in setting career goals and training vocational skills. 83.08% of students accepted that career planning is very important, but only 36.92% of students knew about career planning before class, and the rest knew little or nothing. Only 24.62% were able to clarify their career goals, while 15.38% did not know their career goals. Few students consciously set career goals, even 54.62% of students had no clear development plans for the next three to five years. Besides, the students surveyed reported a lack of necessary vocational skills. The college students had common difficulties in job hunting, such as ① without work experience (about 80.51%), ② with insufficient job hunting skills (about 79.74%), and ③ with insufficient understanding of the requirements of the company (about 67.18%).

3. Practice of career guidance courses for civil aviation majors
There might be some problems in the course of employment guidance, such as lack of professionalism and guidance for civil aviation posts, lack of on-site teaching links, and lack of effective feedback so that the teaching quality can not be improved [2, 3]. The CAMIC selects qualified teachers, combines online teaching with offline guidance, and continuously improves the teaching methods and contents by applying the Deming cycle, to enhance the employability of graduates.

3.1. Choose teachers with rich work experience, invite outstanding graduates and successful professionals to participate in online teaching
The teachers, who have both theoretical knowledge and practical experience, and are willing to serve students, were selected to teach employment guidance. These teachers generally have a doctoral degree, as well as work experience in civil aviation companies. The teaching can be rich in content, well-documented and well-founded, and can quickly and accurately solve the problems encountered by students in job hunting.

At the same time, some outstanding graduates were invited to participate in experience sharing. Through the growth experience of alumni in various front-line technical positions, the students will have a clearer understanding of career promotion in various companies and positions, to make a highly workable career plan. In the 2020 spring semester, we invited an outstanding student enrolled in 2013 who completed the college upgrade and the master's degree study to share her learning experience. After listening to the alumni's sharing, the students greatly enhanced the confidence to participate in the college entrance or postgraduate entrance examination.

Given the advantages of online teaching, many successful professionals on the Internet are directly "invited" to participate in the lectures. There were not only the entrepreneurial experiences of Ma Yun, Yu Minhong, etc. but also the glorious deeds of Sichuan Airlines' hero crews embodying extraordinary heroic spirit in ordinary jobs. There were not only the notes on airline written examinations and interviews on the Bilibili.com, but also the resume writing skills and career growth sharing in
Zhihu.com. These selfless knowledge sharers were also lecturers of career guidance courses to a certain extent.

3.2. Combination of online teaching and offline guidance

During the epidemic, classes are not suspended, and it is the only way that students use mobile phones, computers, and other terminals for online learning [4]. Online teaching has obvious advantages. It can break the time and space boundaries between teachers and students, mobilize various resources, especially audiovisual and text resources on the Internet, in the flexible and changeable teaching methods. On the other hand, the limitations of online teaching are also obvious. Teachers cannot observe the performance and feedback of students in real-time. Online classrooms can easily become one-man shows by teachers alone, with one-way indoctrination and lack of interaction, which affects the teaching result. Students lack self-discipline and supervision in a network environment where the teaching management not on the spot is weakened, and they are vulnerable to external influences, so their attention cannot reach the level of a face-to-face teaching environment in a class. It is just a challenge in network teaching when teachers and students are in different places, students lack learning initiative, and teaching effects are difficult to guarantee.

The employment guidance teachers in the CAMIC are fully aware of the differences between online teaching and school class teaching. Flexible and changeable methods were adopted in the course design stage, instead of the duck-filling teaching methods, such as scenario simulation and case analysis, to mobilize students' self-learning ability. Flexible use of online platforms such as Tencent Meeting, DingTalk, WeChat, etc., and combined use the video and audio materials on airline applications, and interview skills on websites such as MOOC and Bilibili.com aim to mobilize students' attention in the online classroom. SOJUMP and other tools on the Internet were used to finish surveys and online examinations.

Career guidance courses are different from other professional courses in that they keep pace with the times and are highly practical. Following the syllabus, we streamlined the exam-oriented content and added guidance for commitment to the world. When instructing the latest employment situation and employment policies, we added more lectures on the contemporary spirit of civil aviation practitioners in the fight against the epidemic, which enhanced the pride and professional identity of civil aviation majors. In addition to theoretical lectures, we focused on applying the methods of career planning, job interview skills, and precautions for workplace adaptation. In response to the online interview that is often used during the epidemic, we specially arranged a lesson for simulation, teaching skills and giving advice, and helping students make more targeted preparations. Assigned homework, such as career planning, cover letter and resume writing, etc., had practical help for students' study and employment. We found that some students are unskilled in computer operations, have not yet mastered the basic skills of Office or even e-mail, lack business etiquette in email exchanges, so we organized special lectures on email etiquette and precautions. Students were required to submit every assignment via email, especially cover letters and resume assignments, in a full simulation of actual resume delivery process, so as to train students to properly master e-mail etiquette.

However, online teaching is not enough. Teachers offered their contact information and provided personalized counseling services for some students in need after class, including psychological counseling and career counseling, provided one-to-one or one-to-many personalized guidance to help
students solve difficult employment problems, such as resume production, job security, rights protection, etc.

Besides, teachers also share extended knowledge related to the course, such as the latest released "The People's Republic of China Occupation Classification Dictionary" (2015), "National Vocational Skills Standard-Civil Aviation Flight Attendants" (2019), etc., which will be reserved for students' off-class learning, to enhance the depth of knowledge, and also to cultivate students' independent learning ability.

3.3. Apply Deming Circle to continuously improve the quality of courses

Teachers applying Deminghuan, adhered to the cycle of Plan, Do, Check, and Action, understood the needs before class, taught carefully in class, collected feedback after class, in order to continuously improve the quality of the course.

Before the introduction in the first class, we designed a questionnaire by SOJUMP to learn more about the actual situation of the students and investigate the needs of the students for the course. In class, for the key issues that students pay attention to, such as career choices, we not only conducted theoretical teaching, but also let students participate in the Holland career interest test, MBTI personality type test, and provided SWOT, 5W1H, career decision balance sheet and other practical tools to help students to better understand themselves and determine career goals.

Teachers would summarize and analyze promptly after class based on the performance and feedback of students in the class, and make dynamic improvements if any adjustments are found. Take live broadcast and recorded broadcast as examples. In the first few lessons of the course, live broadcast is used, but some students replied that the live broadcast might be delayed due to network latency or other things that need to be dealt with, they cannot catch up once missed. So we changed to the tape format. According to the survey, the teaching effect of tape form is worse than that of live form. Students' concentration and interaction are weaker in tape form. Combining the two teaching methods, the final choice was based on tapes as the main one and live as the supplement. The class teacher recorded the course content that can be independently formed into modules in advance and shared it with students for learning; between different course modules, the class teacher commented, asked and answered questions on the spot, and actively interacted with students. Even for the content taped, we should also try to change the form so that students would like to participate in learning. All raise higher demands on the teachers. Teachers are not only hosts or main actors of online classes, but also directors, editors, and DJs. Through collecting, sorting, and tailoring of self-made audio-visual and teaching materials on the Internet, teachers mobilized students' learning initiative to complete teaching tasks with high quality.

4. Suggestions on better employment of civil aviation graduates under the epidemic

Facing the severe employment situation under the COVID-19 epidemic, employment guidance courses not only aim to complete teaching tasks, but also to improve the quality of employment of graduates. As a part of employment guidance services for college students, course teaching is neither the beginning nor the end of employment. To improve the employment of civil aviation graduates under the epidemic, the following points should also be highlighted.
4.1. Establish employment guidance and service system with industrialization and professionalization characteristics

Systematic and professional employment guidance training should be carried out, according to the physical and mental characteristics and main tasks of civil aviation majors at different stages. Starting from freshmen, students should understand the characteristics of the civil aviation industry, working environment and job requirements, etc., combine theoretical study with practice, make career planning, and establish life goals; strengthen employment and vocational training to improve overall quality; grasp job search skills and carry out job search in practice.

Colleges and universities should set up special employment work leadership groups to share the responsibilities and tasks of employment work at all levels. Department leaders, headteachers, counselors, employment guidance teachers, employment management and other administrative teachers, parents, and alumni resources should be linked together to provide effective services for the employment of graduates. The graduates should be instructed on how to collect employment information, know well the employment legal system and employment policies, and understand the handling of employment procedures. Colleges and universities could organize supply and demand meetings, and build an interactive platform for graduates and employers. Employment consulting, psychological counseling, and other services for graduates also should be provided.

4.2. Improve the overall quality of graduates and enhance their employment competitiveness

Efforts should be made to carry out the "1+X" certificate system, and lay equal emphasis on academic certificates and professional qualification certificates; Adjust the teaching content and curriculum system, include vocational qualification certificate courses related to civil aviation majors into the training program, link the certificate course examination syllabus with the professional syllabus, strengthen student skills training, and enable students to gain the academic certificate and the corresponding professional qualification certificate at the same time.

Enhance the training of general skills and professional expertise of civil aviation majors in the workplace. Improve students' English and computer application skills. Carry out the cultivation of students' professional interest in a targeted manner, highlighting the advantages of differentiation.

4.3. Schools and the employers cooperate for win-win and overcome difficulties together

Colleges and universities should strengthen contacts and cooperation with airlines, airports, and other employers. In-depth integration with related companies through order-based training, modern apprenticeship, etc., should be conducted to keep abreast of the company's employment needs, environment, and latest developments, and recommend qualified graduates for employers. In particular, under the current epidemic, schools and employers can take some temporary measures, such as "take the post first and then get the certificate" to help civil aviation-related employers resume production and work, jointly maintain social stability and boost domestic demand.

4.4. Guide college students to start their own business rationally and pursue further study

More efforts are to be made to cultivate the risk awareness of dual entrepreneurship among college students, explore entrepreneurial opportunities under the global anti-epidemic, and provide professional guidance for students who intend to start their own business [5].
Further studies are also a solution to alleviate the employment pressure under the epidemic. It’s reported that in 2020, the enrollment of postgraduate students will increase by 189,000 year-on-year, and the number of junior college students will increase by 322,000. This will relieve part of the employment pressure while increasing the training of high-quality talents.

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