Analysis and Research on navigation Support online learning System

Xu Jiazheng and Liu Fengyuan

(East China Sea Navigation Support Center, Ministry of Transport, Lianyungang 222042)

Abstract

Online learning system for sailing is committed to research a set of "professional knowledge, skills, training, cultural creation" as one of the navigation security study and communication platform, for the general provide navigation to protect worker including text, pictures, video, interactive, and other forms of more active online learning system, enhance the worker's interest in learning, stimulate the worker's study enthusiasm, Thus maximally improve the comprehensive quality of the majority of workers.

Key words: Aviation insurance personnel training online learning system analysis system research

1. An overview

In the current information trend of society, network education has become more and more popular, is playing a more and more important role. The training of maritime support personnel can also be carried out through network education. Network education compared with the traditional education with flexible and convenient, easy to manage and resource sharing and many other irreplaceable advantage, can satisfy the navigation protect worker especially young worker urgent desire of learning, to improve the worker's navigation knowledge reserves and professional and technical level, to provide a steady stream of personnel for the development of intelligent navigation security efforts, Therefore, it is in line with the development needs of the aviation and insurance industry to build a maritime protection learning and exchange platform integrating "professional knowledge, skill training and cultural creation".

2. System feasibility analysis

Feasibility analysis can be generally defined as: Feasibility analysis is a kind of investigation and appraisal of the engineering project in the early stage of construction, and carries out a comprehensive and comprehensive investigation of the proposed project in terms of technology, economy and management to judge whether it is feasible.

Technical feasibility analysis is based on the goal of the new system to measure whether it has the required technology, including the number and level of system developers, hardware, software and other application technology. The hardware equipment required by the system is multiple PCS, which are sold in the current market and the price is low, and the original equipment can even be used. Software, whether using PHP technology, JSP technology, or. NET technology can be perfect to achieve the compilation of online learning system, and the existing various network terminal servers can be used in the system, such as the use of the current popular website architecture Tomcat+mysql+JSP, Tomcat as a Web server, mysql as a database, JSP acts as the server-side script interpreter. So it's technically possible.

Economic feasibility analysis From the perspective of costs and benefits, the cost of initial

investment is mainly the cost of software development, which can be purchased through service outsourcing. After the software runs normally, each department is responsible for the input of learning materials and information update and maintenance in the later period. The benefits of this system is mainly manifested in two aspects, on the one hand is to save offline training of education funds investment, the department can learn online training content published to the maritime security training on online learning system, on the other hand, can make learning break the time limit of the space, improve the quality of education and training, stimulate the staff's interest in learning. In general, the long-term benefits of Marine assurance online learning systems outweigh the short-term costs. So it's economically viable.

Management feasibility analysis is mainly to analyze the current management system of enterprises and institutions and whether the leaders of enterprises and institutions have modern management consciousness and management level. As more and more enterprises training, offline training materials, record, query and release of heavy work, we actively support the development of line online learning system. So it's administratively feasible.

Operation feasibility analysis mainly analyzes whether the operator can easily accept the system operation. The system is simple in operation. Only allow to enter the operator name and password can enter the main interface, and then according to the customer's own requirements to carry out the corresponding operation of the system can be, the operation is very simple. Therefore, the system is feasible in operation.

To sum up, the navigation support online learning system is feasible technically, economically, administratively and operationally.

3. System requirement analysis

3.1 System background management

In the system background management module, mainly including authority management, user management, article information management, student management, teacher management, curriculum management, question and answer management and other functions.

The rights management function allows you to add rights. After the rights are added, you can configure the rights of different roles. In role management, you can add and delete roles, and add, modify, and delete roles' permissions. Users perform different operations for different permissions to avoid misoperations.

In the user management function, users refer to administrators rather than trainees, which facilitates system management. The general administrator of the system can add, modify and freeze the administrator through the background management system of "Learning navigation protection". You can set different permissions for different users.

Article information management can add, modify, delete the information of the article operation, in the background to add a successful article consultation in the front page display.

In the student management, students register in the front page, and the backstage administrator can view in the list of students, and can modify the password of the students who forget the password, and can also freeze the account operation of the students, the students who have been frozen account can not log in. Administrator in batch open students to download the template first.

Curriculum management can be divided into professional management and curriculum management. Professional management can manage courses by professional classification. Courses can

be sorted by classification. The higher the operation number, the more advanced the navigation of courses. Course management can add, modify, delete courses, etc. Courses can be presented in various forms such as video, text, pictures, etc. Administrators can recommend popular courses in the background. Popular courses set by the administrator are displayed in the front end of the recommended courses.

Add a question label in QUESTION and Answer management. You can view the questions related to the question according to the question label. Questions posed by participants on the front page are shown in the Q&A list. Background system administrator can modify the questions raised by students. Students can answer the questions. For the best answers, the administrator can set the best comment.

3.2 System Foreground

Students should register their account according to their email and mobile phone number, set a password, and then enter the front page of the system according to their email and password. Students can directly study courses on the home page and participate in interactive comments on courses. They can also click the "Courses" link to enter the course page and study classified courses through text, pictures, videos and other forms, and give praise and comments on the course content. Students can click the "Famous teacher" link to see the list of teachers, click into the teacher's profile; Click the "Article" link to see the list of articles, click the title of an article to enter the specific content of the article, you can comment on the article, like; Click the "Q&A" link, you can see the existing q&A list, click the "I want to ask" link in the upper right corner, you can ask questions that you don't understand, teachers or students can answer them.

3.3 Learning Content

The Maritime Support online learning system creates and maintains a repository of knowledge within a domain, allowing the entire domain to share this valuable stream of knowledge. The learning content mainly covers navigation marks, communication and other business sections, with expansion modules reserved. The platform adopts various forms such as text, pictures, video, examination and interaction to accumulate knowledge of aviation insurance business, temper and cultivate aviation insurance craftsmen, and condense and inherit aviation insurance culture.

Knowledge base (aviation insurance knowledge precipitation and sharing platform; Docking knowledge-based organization construction). Navigational markers are divided into comprehensive domain, support domain, business domain, job manual, toolbox and symposium collection, etc.

Skill base (skills training, upgrading and sharing platform; Docking of skilled organization construction). The navigation plate is divided into skills class, navigation craftsman, skills competition, theory test, etc.

Cultural park (Platform for the accumulation and inheritance of aviation insurance culture; Docking cultural organization construction). The navigation plate is divided into the history of navigation, navigation story, navigation library, physical archives and honor list.

4. System application prospect

4.1 Learning platform for employees

In the construction process of the staff home and small staff home, the online learning system of navigation security can serve as an important medium for staff education, encourage staff to help each other, constantly sharpen their skills in work practice, consolidate the comprehensive basis of business, and improve the overall operation ability. Integrate the resources of various departments and provide corresponding business management guidance in some daily navigation operations, safety management and branch construction. For example, the grass-roots navigation station can provide business management guidance to ships, and ships can provide relevant technical and professional help to the station. Through the combination of ships and stations, on the one hand, the ship management can be standardized, the organizational discipline can be enhanced, and the business integration can be promoted. On the other hand, it brings rich technical and professional interpretation to promote the construction of work in the station.

4.2 Construction of service intelligent navigation protection

Talent, as the first resource, is an indispensable core force in the development of aviation and insurance industry. At present, there are still faults in aviation insurance talent team, such as insufficient number and structural imbalance of high-end talents, low quality of grassroots talents and slow quality improvement. It is urgent to cultivate a multi-level talent team that meets the development needs of intelligent aviation insurance and is equipped with knowledge structure and skill standard of intelligent aviation insurance. The navigation support online learning system is conducive to the cultivation of expert, technical and innovative personnel, and provides talent support for the construction of intelligent navigation and protection. Moreover, with the continuous improvement of the navigation support online learning system, the data information is gradually enriched, which will generate a large amount of navigation support related data, providing some data support for the intelligent navigation support data service center.

4.3 Strengthen internal management and integrate learning resources

At present, the aviation protection knowledge and skills involved in various departments exist in isolation in the department, and it is difficult for the personnel of different departments to cross these internal boundaries and make full use of unit resources. The lack of horizontal information sharing and communication and cooperation slows down organizational metabolism, resulting in poor innovation mechanism and insufficient capacity, forming the "island effect". Therefore, to break the "island effect", departments should strengthen cooperation and unit cooperation. First of all, maritime security online learning system will effectively integrate existing navigation insurance business quality management system, internal control system, and gradually form elements based on the management of business process management system, break the "island effect", between departments make navigation business knowledge and skills to precipitation and accumulation, enhance the level of fine management. Secondly, the integrated business management platform, telemetry and remote control, video monitoring, ship management, archives management and other systems that have been built or newly built by various departments and the organizational knowledge and skills of various departments shall be organically integrated into each process node of the online learning system of maritime support, so as to realize the interconnection and common information system, consistent standards and data sharing. Through the navigation support online learning system, data resources can be classified, summarized, counted and analyzed to achieve standardization, process, informatization and intensification of internal management, and to promote the modernization of navigation support management capacity and management system.

4.4 System big data analysis and application

Through the data fusion of maritime security online learning system, realize data sharing, promote the learning resources of sinking, reduce the cost of education and training, through the analysis of the large data better precision docking the learning needs of students, in order to better arrange the content of the study, more targeted education training plan, improve the quality of education and training. By analyzing and processing the big data and master data of the system, the quality of data management is improved and the data governance efficiency is fully improved. It not only realizes the integration of business processes and promotes service orientation, but also realizes the symmetry of information resources and strengthens the management of the whole process and life cycle of learning.

5. Target motivation and quantitative assessment

In order to better improve the learning effect of navigation support online learning system and effectively solve the problems of lazy and inactive cadres and staff in learning, relevant functional departments should formulate corresponding implementation methods and implementation measures. How to establish the target incentive mechanism, the target incentive as an effective measure to stimulate cadres and workers to study hard, I think we should from the assessment of target setting, methods, results using three aspects, the implementation of the correct target incentive, so that the individual behavior of cadres and organizational requirements of unity, coordination.

Focus on setting goals scientifically. According to the actual position of cadres at different levels and the division of responsibilities, the scientific setting of learning objectives and tasks in line with the characteristics of the position, the development of scientific, reasonable and specific assessment index system, the distribution of weight coefficient, quantitative assessment, the formation of a complete target chain system. Coordinate appraisal projects, evaluate item by item, streamline appraisal activities.

Adopt learning points system, pay attention to the usual assessment. Similar to "Learning Power APP", the navigation support online learning system adopts the learning points system. When students complete the learning of articles, videos, audio and answers, they can get corresponding points, which will be saved in the system for reference in future assessment. Related functional departments to standardize the inspection process, simplify the inspection method, combination of evaluation and mass organization recognized, qualitative assessment and quantitative assessment, comprehensive assessment of target and individual performance, effective use of shift type assessment, review type, extended type of examination form, such as early to set goals and years progress, test to carry out the way to the end of the year, Strengthen the daily assessment and understanding of cadres.

Focus on results. We will strengthen the analysis, evaluation and comprehensive application of assessment results, and link assessment results with cadres' selection and appointment, training and education, rewards and punishment. Moderately increase the difference of equal order, and reward those who make important contributions and breakthroughs, not only to provide promotion space for their career development, but also to reward them spiritually and materially, so as to ensure that the assessment plays a practical incentive role. We will explore ways to establish a system of comprehensive evaluation and scoring for officials, so that evaluation results will be used in a systematic way instead of once and only once, so as to ensure that evaluation and incentives are more lasting. At the same time, pay attention to the assessment results of timely communication with cadres, enhance mutual understanding, help analyze the cause, formulate corrective measures.

Author's Biograthy

Xu Jiazheng, assistant engineer, is working in Lianyungang Navigation Beacon Office, East China Sea Navigation Support Center, Ministry of Transport, engaged in navigation beacon management

Liu Fengyuan, assistant engineer, is working in Lianyungang Navigation Beacon Office, East China Sea Navigation Support Center, Ministry of Transport, engaged in navigation beacon management