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Logistics Mode Innovation of Circulation Enterprises Based on Supply Chain Coordination

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Abstract: ***Logistics enterprises are emerging industries in the era of network information. In recent years, logistics enterprises have developed rapidly, which has promoted the national financial level and stimulated consumption, which has positive significance for the national and social economic development. However, with the increase of the scale of logistics enterprises, many products make up for the number, and the supply exceeds the demand, resulting in extravagance and waste of products and sharp consumption of social resources. Therefore, it is necessary to innovate the supply chain collaborative logistics mode based on information technology. Jigsaw method attaches great importance to the students' cooperative learning and the teacher's effective guidance in class. The introduction of jigsaw method into listening class is a new attempt for listening course. Therefore, the paper centers on the teaching procedure in a jigsaw classroom and the beneficial effects it produces. After one-year practice, it is found that the students' desire to learn, effective cultivation of students' awareness of responsibility, subjectivity and innovation were greatly improved. Hopefully, based on the students' actual performance and aspirations, jigsaw method will be promoted in other courses in the future.***

Keywords: Informatization; Enterprise supply chain coordination; Collaborative logistics management.

1. INTRODUCTION

Collaborative logistics management refers to a kind of macro operation concept, which is separated from the traditional logistics scattered area, and turns to the collaborative cooperation of logistics enterprises to carry out the work of supply chain integration and popularization, to realize the all-round function shaping of logistics. In economics, it refers to 1+1>2, which integrates all logistics resources, to optimize industrial structure and integrate services. In this mode, it can not only bring a variety of accurate services to consumers, to enhance the brand influence of logistics, but also apply other logistics management resources to improve the work efficiency of the logistics. Not only collaborative cooperation, driven by this theory, we can also establish the coordination mechanism of competition and cooperation, seek common ground while reserving differences, and carry out logistics efficiency competition through learning excellent service, to realize mode transformation. In the development mode of traditional logistics enterprises, the competition is the quality of service, which leads to the uneven quality of the whole industry and damages the interests of consumers. In this supply chain collaboration mode, the competition is to complete the service speed and attitude, the logistics service results and their own value closely linked, so that logistics enterprises have a greater driving force. In the context of information technology, enterprises can set up their own logistics networks and search for various logistics entities that can adapt to the development of logistics. These logistics entities may come from their own logistics enterprises or from the whole logistics industry. These entities can be formed into an organization system with internal operation capability, and then supervised and utilized by special personnel. In this way, we can adjust the role of logistics entities and make them play a consistent role. For example, the transportation technology of the logistics enterprise will be integrated with the packaging technology of other logistics, so that it has the effect of collaborative development. Through this consistent effect, logistics enterprises can be promoted to play an effective role and achieve development goals. [1] The application of information technology is to provide the basis and technical support for the construction of this system. Only by improving the information technology, can we search for the logistics entity information of all logistics enterprises, and then complete the information coordination and sharing. We can also seek the cooperation of enterprises according to the information, establish good relations, to improve the overall value and achieve win-win situation. Listening comes first among English learning skills. Listening course is compulsive for English majors in the fundamental stage. According to the course syllabus, listening skills should be effectively trained so that the students may lay a solid foundation for language skills and their competence to analyze and solve practical problems. Consequently, the improvement of their English thinking ability and the level of free expression of their ideas facilitates the achievement of effective communication. Unfortunately, students often find difficulties in listening. Although the teachers already give them some practices

before giving the students a listening test, they often fail. Perhaps the failure is caused by the students' strategy in listening. It is stated that "it is important to build up their confidence by making sure that they are armed with strategies which are likely to lead to success". (Burgess et.al 2005:79) [1].

2. ORIGIN OF JIGSAW METHOD

Jigsaw method originates from jigsaw puzzle. In the 1970s, despite the desegregation in America, the Home Group and Task Division: Home group is set up based on heterogeneous grouping, each of which includes 4-6 students. The number of the students is the same as that of the teaching material parts. One student interracial hostility, prejudice, and deep-seated distrust in the school system made normal teaching fall into disorder. In such a situation, the American social psychologist Elliot Aronson, and his colleague-initiated jigsaw teaching model, put it into practice in the classroom, and achieved an interdependent, coadjutant and harmonious atmosphere. The introduction of its rules into teaching field produces a new interactive teaching method --- Jigsaw Cooperative Learning. With the rapid development of China's economy, the scale of enterprises is increasing. With the popularization of network, logistics enterprises emerge as the times require. In order to expand the operation direction of logistics enterprises and achieve better logistics services, in the information age, we should use the advantages of information technology to innovate the logistics mode of supply chain coordination. Based on the analysis of the background of informatization, this paper puts forward the specific strategy of logistics enterprise supply chain model innovation. According to Annex III, Banks do not lend to enterprises with credit rating D. In order to better study the relationship between annual interest rate and customer churn rate and to optimize the accuracy and error of the study, this paper USES the least square approximation [2] to fit the relationship between customer churn rate and annual loan interest rate for enterprises with different credit rating.

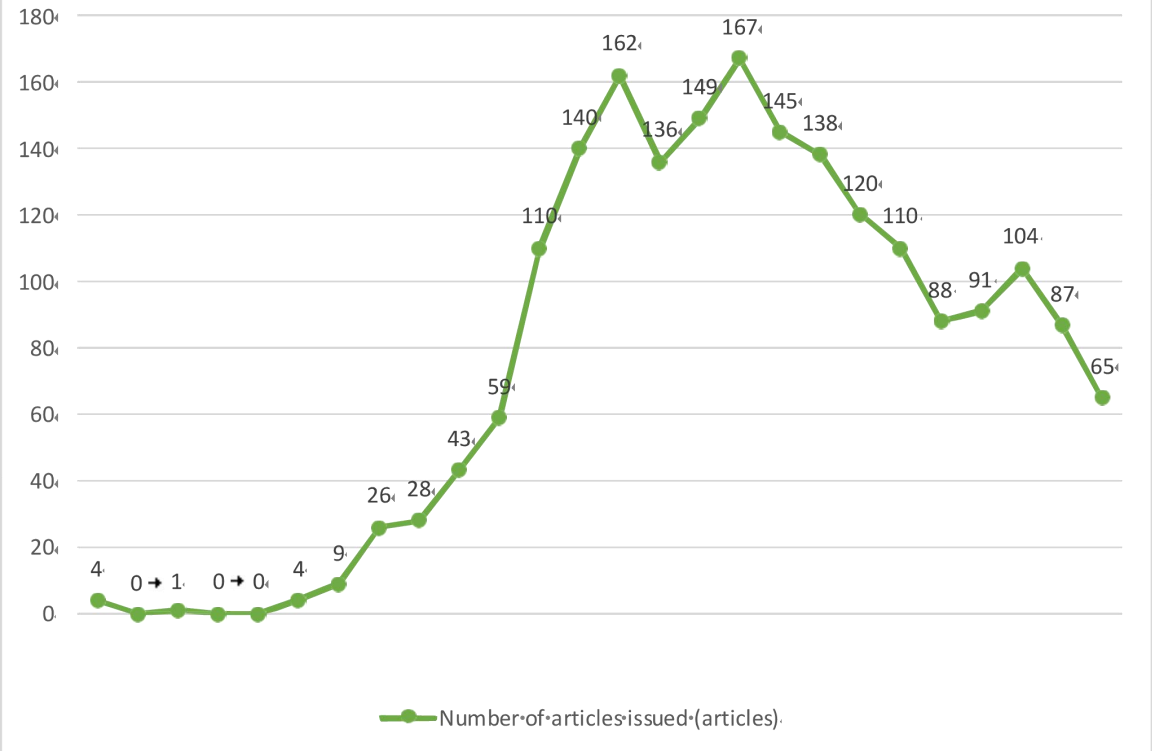

Figure 1: Line graph of the distribution of annual issue data

In this paper, five risk indicators are extracted from two aspects of enterprise's comprehensive strength and reputation to establish a risk assessment system. Among them, the total input price and tax, total output price and tax, and profit rate are the assessment standards of enterprise's comprehensive strength, and the failure rate of input and sales transaction is the assessment standard of enterprise's reputation. The standardized index data were evaluated by Logistic regression analysis model to obtain the probability of corporate default risk. In order to give the optimal credit policy, we from the perspective of the bank, application of least square method, the fitting of the annual interest rate and turnover rate equation of the premise, established the model of credit strategy based on bank profits maximum, determine the constraint condition, and apply genetic algorithm for each enterprise loan

amount and the bank loan interest rate.

3. TEACHING PROCEDURE IN LISTENING CLASS

Jigsaw method is a teaching technique which makes it possible for the students to work by making discussion and studying in a group. It requires the student to exchange information with the other group to compose the complete task. Its procedure is as follows: The effective application of discussion teaching method has essentially changed the traditional teaching concept and mode, enabling students to actively recognize and master knowledge theory, and can play their own creativity and imagination, and improve their language expression ability, to improve the overall quality and ability of students. Therefore, the effective application of discussion teaching method needs teachers' deep attention, and when designing problems, teachers should make full use of the requirements of the syllabus and the actual situation of students. Such targeted problems can effectively improve the students' learning enthusiasm and quality. Therefore, scientific and reasonable application of advanced teaching mode plays an important role in the development and implementation of teaching work, and has an important significance for teachers' teaching and students' learning. with good comprehensive abilities is designated as the group leader, responsible for study, discussion, and coordination within the group. In this way, the students may easily grasp the learning tasks and teaching objectives. A five-person group is like the below patterns.

Expert Group and Task Research: The members responsible for the same task in home groups make up. When designing problems, teachers should be able to carry out specific work according to the requirements of the syllabus and teaching task objectives as the main considerations, implement teaching work according to the important knowledge points in the teaching content, and meet the specific needs of students. If the design of the problem is more complex, then students will have conflict psychology, if the problem is designed relatively simple and superficial, it is not conducive to the further development of teaching work, but also affect the cultivation and improvement of students' quality and ability. And in the design of problems, students should be able to fully refer to the relevant factors in daily learning, so that students can more visually grasp the content of toxicology knowledge, to solve the problem. Therefore, teachers should be able to design problems to meet the requirements of the syllabus, in order to meet the needs of teaching work.

As shown in Figure 2, which reflects the trend in effective irrigated area. Effective irrigated area refers to the combined area of paddy fields and drylands that can be irrigated under normal conditions in a given year. This area serves as an indicator of both the hydration level and the stability of agricultural production units and regions. Conversely, it can indirectly influence fluctuations in food production. Additionally, it supplements the limitations of the sown area indicator.

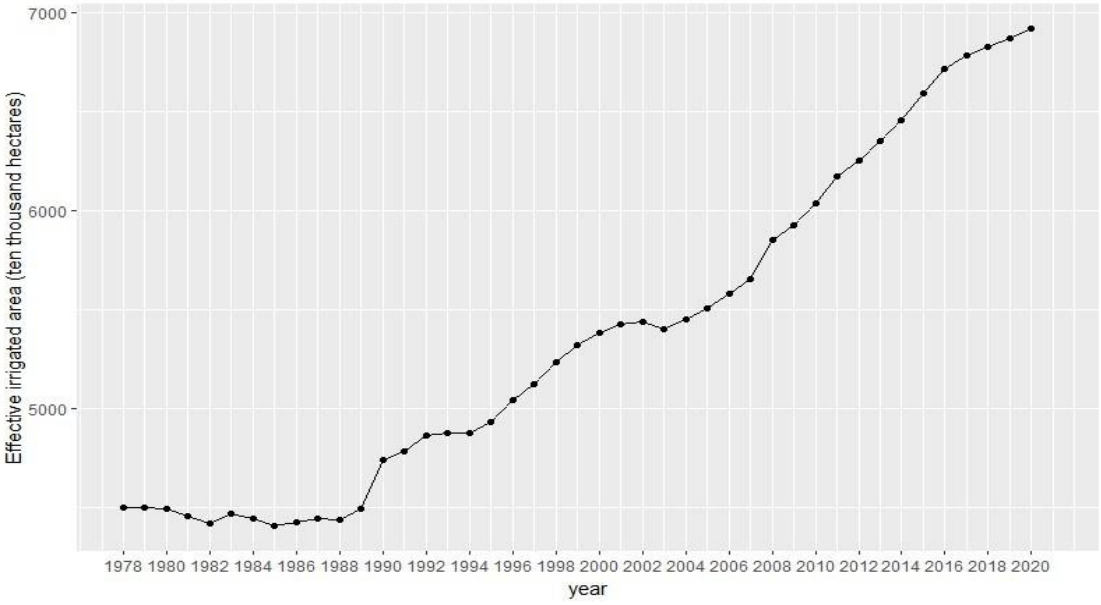

Figure 2: Changes in the national area sown with grain

Collaborative Learning: After spending ten or fifteen minutes in their expert groups, the students go back to their

home groups, where they are informed that they have a certain amount of time to share their information to each other. It is advised that if a class is to use jigsaw an hour a day, 20 minutes of the hour should be spent in expert groups and the remaining 40 minutes in the home group. The popularization of information technology represents the gradual popularity of modern scientific concept. The main purpose of an enterprise is to make profits, and enterprises can not sell products or provide services without targeted groups, and understanding and completing the needs of these groups is the driving force of enterprise development. In the logistics industry, many logistics transportation products emerge.

Teacher's Feedback: During the process of discussion and research, the jigsaw teacher moves about the classroom from group to group, checking how each group is progressing on its task, keeping eyes and ears open for any problems that may be developing (Aronson, 1997:51). After the discussion, the teacher centers on these problems, analyzes relevant knowledge and explains important and difficult points to ensure the students have a better understanding of the listening materials [2-5].Performance Evaluation: Success is measured through individual quizzes. The prepared quiz paper is given to each student, who is required to finish it independently within limited time. The test should cover each task module and the score of each group is the average score of the members in the same home group.

As each student's learning situation is different, and students' knowledge and understanding of knowledge are also different, so teachers should pay full attention to this difference of students. Because the students' cognitive level of the problem is different, the final discussion results will be different, so the teacher should accept different discussion results and give different students the opportunity to express their views. The diversification of the results can not only improve students' self-confidence, but also help to create a good classroom teaching atmosphere, so that students can be more recognized and affirms the application effect of discussion teaching method. The discussion in class mainly depends on whether the teacher can design meaningful questions to attract students' attention and interest. This will help students to participate in the process of analyzing and discussing problems, and stimulate students' enthusiasm to think and discuss problems, to let students express their views and opinions [8].

4. ADVANTAGES OF JIGSAW METHOD

Jigsaw method is a kind of group cooperative learning. It attaches great importance to the teacher's active and effective guidance in class. Its advantages are mainly embodied in the following aspects. For example, in the teaching process of air pollution in toxicology, the main reason is that chemical production and exhaust emissions have caused environmental pollution, which will seriously affect human life and health. Therefore, for this problem, teachers should assign the current environmental problems as teaching discussion problems to students, so that students can comment on current affairs and discuss solutions and measures.

Change of Learning Resource. Jigsaw method changes the basic structure of one expert (the teacher) and listeners (the students) in the classroom. The teacher is no longer the sole resource for the learning groups. Instead, he acts as a backstage designer and the students regard each other as resources. In the group, students pay attention to their peers, asking good questions and helping each other while teachers help students learn more effectively and develop an efficient, comfortable, and cooperative process.

Change from Passive Learning to Active Learning. Students become experts on one aspect of the lesson, meet in expert groups and help others in their group to learn the material. In a jigsaw classroom, interdependence is required which encourages students to actively get involved in the activities. Students' participation in jigsaw classroom activities is much better than that in traditional classrooms. Improvement of Students' Emotional Quotient. In a jigsaw classroom, students' mutual help deepens their temporary expert groups, in which they focus on the given listening materials and have a discussion and intensive study.

Understanding of the relevant materials. Their language competence and communicative skills are greatly enhanced, which is quite important for the cultivation and improvement of individual emotional quotient. That is exactly what is lacking in current teaching mode. Cultivation of Awareness of Responsibility, Subjectivity, and Innovation. The 2017 classes were divided into ordinary classes and experimental class in their freshman year. Jigsaw method was adopted in experimental class. At the end of the semester, a questionnaire survey and a listening test were conducted. In terms of the mastery of the listening material, students in the jigsaw classroom outperformed students in traditional classroom. That shows jigsaw method worked to produce beneficial effects, such as the improvement of the students' desire to learn, effective cultivation of students' awareness of

responsibility, subjectivity, and innovation. Jigsaw method is a fine combination of teaching and evaluation, facilitating the construction of personal significance.

4.1 Promoting Technological Innovation and Knowledge Transfer

MThere is a close interaction between foreign direct investment (FDI) and trade, providing important opportunities for promoting technological innovation and knowledge transfer. Direct investment can foster the development of technological innovation and provide resource support, while trade serves as a channel and platform for the transfer of technology and knowledge. The following will discuss the opportunities for promoting technological innovation and knowledge transfer between direct investment and trade from these two aspects. Firstly, direct investment provides crucial resource support and impetus for technological innovation. Multinational corporations bring capital, technology, and talent into target countries through direct investment, providing strong support for local technological innovation and research and development. Multinational corporations typically possess rich R&D capabilities and innovation practices, enabling them to introduce the latest technology and management concepts to investment destinations, thereby promoting technological advancement in target countries. In addition, direct investment facilitates the flow of technology and knowledge, fostering the sharing and collaborative development of technological innovation through cooperation with local enterprises and research institutions. For example, a multinational manufacturer establishes a research and development center in a foreign country and collaborates with local universities and research institutions, jointly conducting innovative research and technological development. This kind of cooperation promotes multinational collaboration in technological innovation and knowledge transfer, driving the upgrading of local industries and enhancing competitiveness. Secondly, trade provides channels and platforms for the transfer of technology and knowledge. Through trade channels, technology and knowledge can flow across borders in the form of products and services, promoting global technological cooperation and experience sharing. The rapid development of the internet and digital technology further accelerates the dissemination and transfer of knowledge. Some countries or regions possess advanced technology and knowledge in specific fields, exporting them to other countries through trade channels, providing opportunities for target countries to introduce advanced technology and knowledge. This transfer of knowledge can help enhance the industrial competitiveness, optimize production processes, improve product quality, and boost innovation capabilities in target countries. Lastly, multinational corporations promote technological innovation and knowledge transfer through collaboration and exchange with local enterprises. They can establish cooperative relationships with local companies to engage in research and development collaboration, technology training, and technology transfer activities. Through collaboration with local enterprises, multinational corporations can understand local market demands and improve their products and services, while providing technical support and professional training to local companies, helping them enhance their innovation and competitiveness. Such collaboration and exchange facilitate the sharing of technology and knowledge, enabling multinational collaboration and knowledge transfer in technological innovation, and bringing about shared development opportunities for all parties involved.

4.2 Strengthening International Cooperation for Win-Win Development

There are important opportunities for strengthening international cooperation and achieving win-win development between foreign direct investment (FDI) and trade. By establishing close connections and partnerships through collaboration, economic development can be promoted, and more mutual benefits can be realized. Firstly, direct investment and trade achieve resource and complementary advantages through the establishment of supply chain and value chain cooperation. Multinational corporations can establish production bases and supply chains in target countries through direct investment, thereby fully utilizing local resources and labor force. At the same time, through trade activities, companies can acquire the required raw materials, components, and technologies. This collaboration in the supply chain and value chain enables parties to form interdependent cooperative relationships on a global scale, achieving efficient resource allocation and complementary advantages, thereby promoting economic development and growth. Secondly, direct investment and trade can promote technological innovation and knowledge sharing. Multinational corporations bring advanced technology and management experience into target regions through direct investment, aiding local companies in upgrading their technological capabilities and innovation levels. Meanwhile, trade activities provide a platform for the transfer and sharing of knowledge, facilitating experience exchange and technological cooperation among different parties. This collaborative mechanism of technological innovation and knowledge sharing contributes to accelerated technological progress and economic growth, enhancing overall innovation capabilities and competitiveness. Furthermore, direct investment and trade cooperation helps enhance a company's international competitiveness and market expansion capabilities. When companies enter the international market through direct investment and trade cooperation, they

can leverage the resources and market advantages of all parties involved, expand sales and business channels, and strengthen their international competitiveness. Simultaneously, collaboration with local companies allows for a better understanding of the local market and consumer demands, enabling the customization of products and services that cater to the market, thus improving the success rate and effectiveness of market expansion. Lastly, direct investment and trade cooperation also provide opportunities for promoting international cooperation and building an open world economy. By strengthening international cooperation and addressing disputes and barriers in trade and investment, a stable, fair, and sustainable global economic system can be constructed. International cooperation can be achieved through the formulation and promotion of trade rules and multilateral agreements, strengthening cooperation in aspects such as intellectual property protection, creating an environment of fair competition, and promoting the free flow of global goods and capital [5].

5. CONCLUSION

Jigsaw method is a combination of students' self- learning and teacher's guidance, individual learning, and cooperative learning. In a jigsaw classroom, each student has a unique and essential contribution to make. By studying in jigsaw groups, the students learn that cooperative learning develops their motivation, performance, and positive feelings in school. It is certain that jigsaw method is only a new attempt for listening class and there still exist some problems with this method. Hopefully, based on the students' actual performance and aspirations, jigsaw method will be improved and promoted in other courses in the future. The main purpose of induction and summary is to deepen the problems that have been discussed, and teachers should give relevant comments according to the problems to be discussed, point out the wrong understanding and guide students to explore solutions. According to the actual investigation and analysis, it can be learned that the discussion method in the toxicology teaching process can cultivate and enhance students' interest and enthusiasm in learning, which can enable students to play a subjective initiative in the specific learning process, actively absorb and apply knowledge, and ultimately achieve the teaching purpose. In the process of application and improvement, students have a deep understanding of the discussion learning method, and can pay attention to its role and significance. Therefore, the discussion learning method has been recognized and affirmed by students and teachers. According to the survey of students and teachers, more than 50% of the students will recognize the role of the discussion teaching method, and more than 60% of the students think that the discussion- based learning method is very effective in improving their self-confidence and team spirit, and plays an effective role in improving the learning atmosphere [6]

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