

Effective Utilization of Generative Resources in Mathematics Classrooms

Xiuhui Zhu

Qinhuangdao Vocational and Technical College, Qinhuangdao, China

Abstract: *In the process of economic and social development, there are still many problems and shortcomings in the construction of the school enterprise collaborative education mechanism based on the integration of industry and education. Among them, the relevant policies and regulations in the school enterprise collaborative education are not yet perfect. Although in the context of the integration of industry and education, the government has issued many policy contents to encourage joint education and collaborative education between schools and enterprises, the operability of relevant policies is not strong in the process of integrating industry with education and teaching, and the details of relevant work and specific implementation rules in the process of collaborative education between schools and enterprises are not clear enough, ultimately leading to the problem of insufficient execution in the construction of the collaborative education mechanism between schools and enterprises. At the same time, in the process of formulating relevant policies and regulations by the state, many laws and regulations encourage and guide the integration of industry and education, and the implementation of school enterprise collaborative education.*

Keywords: Generative Resources, Mathematics Classrooms, Classroom.

1. INTRODUCTION

In the perspective of industry education integration, there are still many problems and shortcomings in the collaborative education between schools and enterprises, such as a single teaching concept and method, and low enthusiasm for enterprise cooperation. To solve this problem and current situation, it is necessary to strengthen the innovation and reform of the collaborative education mechanism between schools and enterprises in the context of industry education integration. Guide students to learn and practice experimental skills, maximize the comprehensive improvement of students' overall quality and literacy, effectively compensate for the lack of practical teaching experience in the school's teaching staff, and thus achieve the rationalization of teacher allocation and resource allocation in the school's education and teaching process.

Isolation of *Aeromonas hydrophila* from different water sources was reported continuously and considered a major water born microorganism. Attention has been focused on *A. hydrophila* as a cause of severe enteritis with diarrhea in human being since 1995. Recently, it was recovered from diarrheic animals and our results goes in parallel with that cited. Our results showed that the recovery of *A. hydrophila* with an incidence of (19.6%) agreed with that of water samples which ranged from 15.4% to 25.7% (57) and in (13.9%) human. (Sahar et al. 2001). In this study, incidence of *Pseudomonas aeruginosa* was in water, animal and human (17.4, 10.7 and 11.1% respectively) which agreed with that previously recorded (Branhama, et al. 2005). Dealing with *Pseudomonas aeruginosa* seasonal variation in its abundance in the samples of surface water in Europe was reported (Pragsam et al. 2016) Gibotti et al.2000). Amplification of *stx2* and *aeaA* genes resulted in a single amplicon with a size of approximately 779 and 248 bp, respectively for *E. coli* strains indicating these genes as in photo (1,2) El-Seedy et al. (2016) *E. coli* strains recovered from subclinical mastitic cases were found invasive with incidence of 50 % carrying (*aeaA*) gene. This result is not corresponding with that by Islam et al. (2015) who found that none of isolated *E. coli* strains was invasive. In this study 16.66 % of isolated *E. coli* carried *stx2* gene as one of the most important virulence factors. A similar prevalence of 23.8% is reported by (Momtaz, 2010). In other study, 30.8% of udders were *E. coli*-positive for this gene (Cobbold and Desmarchelier, 2000). Our finding show ever differed from those recorded by Dogan et al., (2006) and Bean et al., (2004) who have not established *stx* genes in their studies.

2. PROBLEMS IN THE CONSTRUCTION OF COLLABORATIVE EDUCATION MECHANISM BETWEEN SCHOOLS AND ENTERPRISES FROM THE PERSPECTIVE OF INDUSTRY EDUCATION INTEGRATION

Water pollution by enteric organisms particularly true fecal type *E. coli* is a problem facing owners in animal farms. Infected animal by various species of G-ve enteric bacteria is the main source for water supplies pollution and also contact the human in the appreciate farm. *E. coli*, *Salmonella*, *A. hydrophila* and *Pseudomonas* are major enteric pathogens infected animals and consequently polluted water supplies and transmitted to human being, this strict hygienic measures should be applied in animal farms and small pasture to prevent water pollution, human infection from infected animal and control this cycle. *Salmonella* microorganisms constituted the second important isolated enteric bacteria. The highest incidence (18.6%) of *salmonella* spp. was recovered from diarrheic animals and followed by diarrheic human (13.9%) and the lowest incidence in water (10.9%). Serotyping of the isolated 26 strains revealed that 12, 9, 4 and 1 were identified as *S. Typhimurium*, *S. Enteritidis*, *S. Anatum* and *S. Typhi* J: respectively. *S. Typhimurium* proved to constitute the most prevalent serovar.

2.1 Incomplete policies and regulations related to collaborative education

They fail to effectively clarify the rights, responsibilities, and obligations of all stakeholders through sound policies and regulations. In this situation, the construction of school enterprise collaborative education mechanism cannot be effectively protected at the legal level, ultimately leading to the cooperation between relevant enterprises and schools, The initiative and enthusiasm are not high, and at the same time, there may be problems such as increased investment costs and excessive consumption time in school enterprise collaborative education. At the same time, due to the lack of relevant policies and laws and regulations, enterprises have to bear huge investment risks in the process of joint education with schools. As a result, in the process of building a collaborative education mechanism between schools and enterprises, there are often problems and phenomena of "school hot enterprise cold", which to some extent affects the cooperation and collaborative development between enterprises and schools. The results showed that a total of 106 different pathogenic microorganisms were recovered from the 168 examined samples. Out of 46 water samples, 32 were positive. Similarly 37,17, and 20 samples were positive from the 58,28, and 36 faecal samples examined from diarrheic calves, goats and human respectively. Ecoli, salmonella spp., Aeromonas hydrophila and Pseudomonas aerogenosa were recovered in a numbers of 36,26,23, and 21 with a total incidence of 33.9,24.5,21.7, and 19.8% respectively.

2.2 Lack of innovation and soundness in the collaborative education mechanism

In the process of collaborative education between schools and enterprises, there is still a lack of innovation and insufficient soundness in the mechanism of collaborative education between schools and enterprises. The main reason is that due to the lack of relevant laws, regulations, and policies, many enterprises rely solely on a contract paper as a voucher to determine the cooperative relationship between the two in the process of cooperating with schools or schools to educate students. In addition, in the construction of collaborative education mechanisms between schools and enterprises, There is no specific management department or institution responsible for managing, coordinating, and supervising the collaborative education of schools and enterprises, which is based on the actual development needs of the enterprise and the educational needs of the school. At the same time, in the process of collaborative education between schools and enterprises, the distribution of power and rights is not clear enough, and there is a lack of sound guidance manuals and guidelines for collaborative education between schools and enterprises. Meanwhile, in the process of collaborative education between schools and enterprises, schools have not actively hired relevant experts from enterprises to provide guidance and assistance in education and teaching. In terms of imparting relevant skills and experiences, due to the imperfect mechanism of school enterprise cooperation in education, enterprises often lack enthusiasm and initiative in the process of school enterprise cooperation in education. Unable to better cooperate and coordinate with the school, both the school and the enterprise are moving forward through exploration, which leads to unsatisfactory results in the cooperation and education work between the school and the enterprise.

2.3 The hierarchy of collaborative education between schools and enterprises is not strong enough

In the context of the new era, there are still many problems and shortcomings in the process of cooperation between relevant industries and education departments, among which the lack of strong hierarchical cooperation between schools and enterprises is one of the main problems. In the process of cooperation with the school, the enterprise did not actively follow the relevant requirements of industry education integration to jointly develop talent cultivation plans and related curriculum settings with the enterprise. At the same time, in the process of formulating talent cultivation plans, relevant enterprises lack the enthusiasm and initiative to participate in the joint formulation, and have not actively and effectively communicated and interacted with the school in terms of occupational positions, employee competency requirements, and other aspects of the enterprise. At the same time, the school has not effectively established and improved practical training bases with enterprises in terms of curriculum design. Moreover, there is still a problem of inadequate implementation of practical teaching in the curriculum design, with an excessive emphasis on imparting theoretical knowledge to students and curriculum construction, and a lack of cultivation of students' skills and professional interests in the process of school enterprise collaborative education. In addition, schools and enterprises cooperate in educating people. They lack hierarchical design and improvement in class hour design, education and teaching methods, and do not combine students' learning needs and actual conditions to carry out hierarchical teaching for students. Traditional indoctrination teaching methods are generally used to carry out the work of school enterprise cooperation in educating people, The lack of comprehensive cultivation of students' individual and practical abilities ultimately leads to a lack of hierarchy in education, teaching, and curriculum construction in the process of school enterprise collaborative education.

2.4 The degree of integration of school enterprise collaborative education is not deep

In the context of the integration of industry and education, the construction of the school enterprise collaborative education mechanism still faces the problem of insufficient integration of school enterprise collaborative education. In the process of building the school enterprise collaborative education mechanism, excessive emphasis is placed on the construction of student courses, practical bases, and reform of education and teaching methods, without fully considering students' actual learning needs to construct a student assessment and evaluation system that integrates school enterprise collaboration, In terms of assessing the proficiency level of students' professional theoretical knowledge and professional skills, there is an excessive emphasis on the assessment of students' results, and there is a phenomenon and problem of neglecting process assessment. Many students' learning situation is mainly evaluated through internship reports or written reports, and the corresponding evaluation standards

and scales are also varied. In this situation, not only is it not conducive to better understanding the actual learning situation and professional skill proficiency of students in the collaborative education process between schools and enterprises, but it also leads to this single and future evaluation method being too arbitrary and unreasonable.

3. MECHANISM INNOVATION STRATEGIES FOR COLLABORATIVE EDUCATION BETWEEN SCHOOLS AND ENTERPRISES BASED ON THE PERSPECTIVE OF INDUSTRY EDUCATION INTEGRATION

A complex, variety of factors considered as a life threatening causes for both animals and human. Environment, habits, immunity and microbial contamination play an important role in disease condition such as diarrhea. Generally water-borne disease constitutes a major hazard for animals and human. During our study four pathogenic enteric bacteria were recovered, namely: *Escherichia coli*, *Salmonella* spp., *Aeromonas hydrophila* and *Pseudomonas aerogenosa*. *Escherichia coli* diarrhoea was studied by many authors (Gharieb et al.2015). *E coli* showed to be predominant bacterial cause. It considered one of the major problems all over the world (Badouei et al. 2010). The results showed that *E.coli* was recovered from diarrheic cases with incidence ranged from 16.7% in human to 23.3 in animals. This incidence goes in parallel with that previously reported which reached 17%, in human (El shaboury et al.,1999). In animals, our results agreed with that reported by (Tanios et al.,2000). Also in Water our results (21.7 %) agreed with that previously reported (Ali,2002). Serologically the 36 isolated *E.coli* strains from different sources viz. water, calves, goats and human, 6 strains were serotyped as O119,4 as O111,4 as O55 and 3 as O86. The rest 19 strains were untyped with the available diagnostic sera in agreement with that previously isolated from water. In human, and animals the most prevalent *Ecoli* serotype was O119 which agreed with the published data. (Rivas et al.2015).

3.1 Effectively improving policies for collaborative education between schools and enterprises

In the context of the new era, in order to better achieve the coordinated development of industry and education, it is necessary to effectively improve the relevant policies and regulations for school enterprise collaborative education. In the context of the integration of industry and education, the state and government should actively introduce relevant macro policies. For example, based on the actual development of relevant enterprises and schools, local level bank interest free policies should be introduced. In terms of bank interest free policies, good bank loan interest free protection should be provided for school enterprise collaborative education, fully mobilizing the enthusiasm and initiative of school enterprise collaborative education, It is also beneficial to alleviate the credit pressure on enterprises and schools through good bank interest free policies. At the same time, in order to better achieve the innovative development of the school enterprise collaborative education mechanism, relevant governments need to provide certain funds as rewards for relevant enterprises or schools in the process of creating the school enterprise collaborative education mechanism, and introduce corresponding funding policies to provide a good financial subsidy environment for the innovation of the school enterprise collaborative education mechanism. In addition, in the process of creating the foundation of school enterprise collaborative education, the government also needs to develop a more detailed system of school enterprise collaborative education based on the actual development of local enterprises and schools. It is strictly required that the promotion of school enterprise collaborative education work be carried out in accordance with relevant education systems. In this situation, it is conducive to promoting the stable and innovative development of collaborative education between schools and enterprises.

3.2 Establishing a sound mechanism for school enterprise cooperation in education

It is necessary to establish a sound school enterprise cooperative education mechanism in the context of industry education integration. Only by continuously improving and perfecting the school enterprise collaborative education mechanism can the quality and effectiveness of school enterprise collaborative education be maximized. Firstly, schools and enterprises actively promote the construction of a deep integration of industry and education, as well as a collaborative education system between schools and enterprises, in the context of the integration of industry and education. When creating a sound mechanism for school enterprise cooperation in education, it is necessary to actively collaborate to develop a curriculum system. Schools should work together with enterprises to develop a curriculum system that meets the requirements of talent cultivation based on their own educational and development needs, actively construct sound teaching content, dynamically adjust the mechanism, and integrate the latest knowledge related to industrial development needs in the process of economic and social development into the classroom, We also need to ensure the construction of relevant curriculum systems and educational content, fully connecting with enterprise production, in order to better achieve talent cultivation. Secondly, in the context of the integration of industry and education, the innovation of the collaborative education mechanism between schools and enterprises needs to start from actively building a teaching team, and carry out collaborative teaching through the teaching team. For example, in the process of collaborative education, schools can hire experts from enterprises to come to the school for courses, explanations, and experience sharing, effectively improving the situation of a single teacher structure in the school. Schools can also adopt the concept of integrating industry and education, guiding relevant teachers to conduct on-site learning in enterprises. In this process, it is beneficial to promote the innovation and soundness of the education and teaching team in universities, and further lay a solid foundation for talent cultivation. Finally, in the process of collaborative education between schools and enterprises, the two should collaborate to build practical training bases. Through a good practical training base, school education and teaching can be combined with relevant projects of the enterprise, providing students with more practical environments. Advanced technology

and management concepts of the enterprise should be actively integrated into school practical teaching, continuously enriching students' knowledge structure and abilities.

3.3 Building a government led education platform

In the context of the integration of industry and education, the innovation of the collaborative education mechanism between schools and enterprises requires the active construction of a government led education platform, with the goal of promoting the integration of industry and education, combined with the actual needs and characteristics of the school, to create an education park that integrates industry and education. The government should play a leading and coordinating role in the process of creating the education park, actively building the government, enterprises A campus integrated "vocational education park, industrial park, and innovation and entrepreneurship park" can better achieve the cultivation and education of talents. At the same time, in the process of collaborative education between schools and enterprises, the government should take the lead and create a win-win mechanism for school enterprise cooperation. When schools and enterprises create a win-win mechanism, the government can provide corresponding policies and systems, and actively attract high-tech enterprises to integrate into the school enterprise cooperation park and Taichung through capital, knowledge, and methods. Maximize the enthusiasm and initiative of enterprises and schools in joint education, better achieve talent cultivation and education, further promote the improvement of the school enterprise collaborative education mechanism from the perspective of industry education integration, and continuously improve the social service ability and talent training quality in the process of school enterprise collaborative education.

3.4 Strengthening effective governance of the internal structure of schools

In the context of the integration of industry and education, the establishment of a collaborative education mechanism between schools and enterprises requires strengthening the effective governance of the internal structure of the school, and actively promoting new teaching characteristics and methods. Attract the enthusiasm and initiative of relevant enterprises and schools to cooperate with their own teaching characteristics and new teaching methods and concepts. At the same time, in the process of adjusting its internal structure, schools can also adopt the method of jointly building industry education alliances, actively promoting cooperation and communication between the school and multiple enterprises in the industry education integration area. In order to effectively promote the reasonable flow and integration of resources in the process of school enterprise cooperation in education, and in the process of reasonable flow and effective integration of resources, the school, in accordance with the needs of industrial transformation and upgrading, jointly formulates talent training goals and upgrades them with enterprises to achieve comprehensive development of school education and teaching in the process of school enterprise collaborative education as much as possible.

3.5 Cultural integration in collaborative education between schools and enterprises

In the innovative development process of the school enterprise collaborative education mechanism, schools can work together with enterprises to create a good cultural atmosphere for school enterprise collaborative education. Through a good cultural atmosphere and environment, we can promote the organic integration and in-depth development of culture in the process of school enterprise collaborative education. In the process of creating a collaborative education mechanism between schools and enterprises, enterprises can bring their own corporate culture, vitality, and vitality into the construction of campus culture, guiding students to fully understand the culture and cutting-edge concepts of the enterprise, thereby effectively achieving the sharing of advantageous resources between enterprises and schools in culture. At the same time, in order to better meet the learning needs of students, it is necessary to fully integrate school culture and corporate culture in the process of school enterprise collaborative education work, subtly penetrate the spiritual essence of industrial culture into students, and then cultivate students' correct work quality and professional values. In addition, in achieving the cultural integration of collaborative education between schools and enterprises, in order to further expand the social influence of enterprises, the management spirit and cultural concepts in the process of enterprise operation and development can be integrated into it, continuously enhancing students' understanding and understanding of enterprise culture. Effectively expanding the influence of enterprises in schools can also expand their social influence while also expanding their influence. In addition, in the cultural integration of collaborative education between schools and enterprises, it is necessary to build an integrated assessment system and standards that meet the needs of students' development and school assessment, based on the characteristics of culture, to maximize the cultivation of students' comprehensive abilities and effectiveness. This is also conducive to achieving students' procedural assessment goals in a sound assessment system and standards.

4. CONCLUSION

In summary, in order to promote the comprehensive development and innovation of school enterprise collaborative education work, it is necessary to innovate and reform the school enterprise collaborative education mechanism in the context of industry education integration, effectively improve the laws and regulations of the school enterprise collaborative education mechanism, build a government led education platform, establish a sound school enterprise collaborative education mechanism, strengthen the governance and innovation of the school's internal structure, and achieve cultural exchange in school enterprise collaborative education, Furthermore, we aim to cultivate applied talents with new teaching concepts and methods.

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