ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

A Study on the Strategies and Practices of Promoting Intelligence in Primary and Secondary Schools Based on Stem--Take the Science and Technology Games of Primary and Secondary Schools in Quannan County as an Example

Zhong Qi[1], Tang Yao[1], Xiang Yuling[1], Zeng Xiangzhi[2]

1 School of Mathematics and Computer Science, Gannan Normal University, Ganzhou 341000, China
2 School of Physics and Electronic Information, Gannan Normal University, Ganzhou 341000, China

ABSTRACT. *The 13th Five-year Plan for Education Informatization in China clearly points out that new educational models such as STEM education and maker education should be explored. STEM, as an organizational course to cultivate students' innovation ability and computational thinking in the 21st century, is in a stage of vigorous development in China. The uneven development of primary and secondary education in China is caused by the differences in economic level, geographical location and population distribution in different regions. From the perspective of STEM education, this paper analyzes the difficulties faced by Primary and Secondary Education Reform in underdeveloped areas in China and it proposes strategies of promoting intelligence in Primary and Secondary Schools based on STEM education model -- Science and Technology Games in Primary and Secondary Schools, whose content, goals, teaching process and competition rules are carefully planned and designed. The first Junior Science and Technology Games was successfully held in Quannan County, Jiangxi Province. The empirical studies show that holding Science and Technology Games for Primary and Secondary Schools in underdeveloped areas is a new attempt to explore the strategy of promoting intelligence in Primary and Secondary Schools, which provides a strong practical basis for the development of primary and secondary education in underdeveloped areas and plays a very positive role in vigorously promoting the development of primary and secondary education in underdeveloped areas, stimulating and improving the innovation and creation ability of primary and secondary students, and cultivating their computational thinking.*

KEYWORDS: *Stem education, Strategy of promoting intelligence, Science and technology games*

1. Introduction

As General Secretary Xi Jinping pointed out in his report to the 19th CPC National Congress, “Building a strong country in education is the foundation of the great rejuvenation of the Chinese nation.” At the National Education Conference, General Secretary Xi further proposed the new requirement of “speeding up the modernization of education and building a strong country of education”. The strong country of education is an important part of the new era of education, new ideas, new thoughts and new viewpoints, and is the guide of action for building a strong country of education in the new era [1]. General Secretary Xi's speech pointed out the importance of education to the nation and the country, and education is the foundation of the country.

Education is a country's soft power, hard indicator. Reform is the fundamental driving force for the development of education. Only by vigorously promoting the reform and innovation of education system can China's education become better and stronger [2]. To promote the development of education, we should have the courage to reform, to abandon old ideas behind The Times, have the courage to break, and a series of institutional obstacles restricting the development of education undertakings, deepen the reform of education and management system, in line with The Times to continuously explore characteristic way of education and teaching methods, promoting education equalization, diversification, and increase the intensity of underdeveloped regions in primary and middle school education reform, to promote education fair, enhance national soft power.

STEM education aims to break the discipline boundary, provoking students to a variety of subject knowledge, improve the inquisition ability and the ability to solve practical problems, because of its interdisciplinary characteristics of training innovative talents, has become a hot and education to encourage and support the government, both at home and abroad for primary and secondary schools in STEM education mode of

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

exploration and practice are increasing, in recent years has been paid attention to by the national education.

2. The Reform Direction Based on Stem Education

"STEM", which is an Acronym for the English spelling of Science, Technology, Engineering and Mathematics, is originally a national education strategy proposed by the United States to improve national competitiveness and labor innovation ability [3]. STEM is not a simple superposition of science, technology, engineering and mathematics knowledge, but an integration of subject knowledge and methods based on life experience and social practice. It has natural interdisciplinary, situational, practical, collaborative and empirical characteristics [4]. As a "bridge" connecting knowledge of science, mathematics and technology, "engineering (E)" in STEM helps students design and optimize project solutions and complete engineering works with scientific, mathematical and technical tools in specific engineering situations, so as to improve students' comprehensive application and innovation ability [5].

At present, China's education still exists the problem of unbalanced development. The quality of education especially the talent training quality is relatively lagging behind the expansion of the scale of education. The education system and personnel training system is not perfect. Education structure does not fully meet the needs of economic and social development. There are some institutional obstacles that are not conducive to the development of education. The level of education opening to the outside world and cooperation in running schools needs to be improved. Quality education resources are insufficient. The educational gap among regions, urban and rural areas, schools and different groups is quite obvious. The construction of high-level teachers is relatively backward and so on.

3. The Dilemma of Stem Education in Elementary and Secondary Schools in Underdeveloped Areas of China

STEM education is well carried out in primary and secondary schools in economically developed regions of China. STEM education is usually carried out in daily teaching or extracurricular associations and regarded as one of the important measures to promote educational innovation and reform [6]. In the underdeveloped regions such as the central and western regions with relatively backward economy and relatively poor educational resources, STEM education is faced with many difficulties due to factors such as weak teachers, high pressure for further study and unstable enrollment, which are specifically reflected in the following aspects.

3.1 Limited Teacher Development and Lack of Stem Teachers

STEM education has stricter requirements on teachers, requiring them to improve their comprehensive qualities in science and culture, learn while teaching, and constantly supplement and update the repository. Teaching conditions in less developed areas are relatively difficult, which is difficult to attract and retain high levels of teachers. The number and level of teachers are not as good as those in developed areas. It is not uncommon for teachers to teach more than one subject at a time. For example, the Chinese teacher also teaches art; the English teacher teaches geography. In this way, teachers' teaching and students' learning are not good, leading to teachers' low enthusiasm for teaching, students' low motivation to learn, which brings about negative effect and vicious circle.

3.2 Single Teaching Mode and Lack of Stem Education Awareness

After the government issued a series of guidelines and policies on targeted poverty alleviation through education, primary and secondary schools in underdeveloped areas have received precise support from the government in terms of teaching materials, resources and economy. Full-time teachers also have opportunities to participate in educational training to improve their information literacy and teaching abilities, however, the teaching mode has not changed fundamentally, and teachers lack the awareness of using high-quality educational resources to carry out personalized teaching [7]. Schools and teachers generally lack the consciousness of reform and innovation, traditional education mode is deeply rooted, along with the lack of teachers, material resources, financial resources and other factors, it is difficult to achieve in-depth reform of education mode in a short time.

3.3 Heavy Burden of Further Study, Lack of Stem Education Environment

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

At present, primary and secondary schools and students are under great pressure to enter higher education. The schools have rigid administrative assessment indicators for admission. Less developed areas of primary and secondary education resources are relatively scarce. The class hours of non-required courses, such as information technology and other courses, are often occupied by other subjects, and the class hours are severely shortened. The heavy burden of education goes against the concept of quality-oriented education, which is not conducive to the all-round development of students' morality, intelligence, physique, aesthetics and labor, and is not conducive to the implementation and promotion of STEM education model.

4. The Strategy of Accurate Intellectual Support for Primary and Secondary Schools in Underdeveloped Areas

Conquer poverty first, cultivate wisdom first. Education plays a fundamental, guiding and sustainable role in targeted poverty alleviation [8]. Limited educational and teaching resources and uneven distribution are common problems in primary and secondary schools in underdeveloped areas. In the reform of primary and secondary school education, it cannot copy the successful cases of primary and secondary school education in other developed regions, but to form its own characteristic.

Primary and secondary education should not only focus on teaching activities in class, but also strengthen the comprehensive cultivation of students' computing thinking, innovation and creativity. For example, for some abstract knowledge or concepts, a series of teaching practice projects based on STEM can be designed to guide students to follow the path of “think > exploration > practice > verification” to internalize knowledge in practice, make students' thinking move and classroom teaching vivid.

Primary and secondary schools in underdeveloped areas have limited resources in terms of teachers, students, venues and funds, etc. It will take some time for STEM based courses to be popularized in all primary and secondary schools. In order to solve the contradiction between the cultivation of students and the current situation of resources in underdeveloped areas, the author combined with the successful cases of Junior Science and Technology Games held by Guangxi Normal University for many years which achieved good results, and put forward a strategy of accurate mental support for primary and secondary schools in underdeveloped areas -- holding Science and Technology Games for Primary and Secondary schools.

Relying on the local Education Bureau, the games can be held in all primary and secondary schools within the city, county or district, with unified planning and project design. The specific process is as follows: 1) Discuss and formulate complete rules of the competition, demonstrate and screen suitable entries, and require all primary and secondary schools in the city, county or district to participate. Encourage students and teachers to take part in the competition, set up different awards and the number of awards, and the winners and instructors for performance recognition according to the characteristics of the project. 2) Each school shall send teachers to receive professional training and assessment. After passing the assessment, they can be competition instructors. 3) Students can apply for optional projects. Teachers of the school will conduct intensive training and guide the whole process. Excellent players will be selected by each school according to the number of students to form teams for the competition. 4) Organize and hold sports meetings at the same time and place, and employ a team of professional teachers as referees and volunteers. In the process of competition in different events, the thinking ability, practical ability, innovation ability and cooperation and communication ability are all trained. 5) Insist on holding it each academic year (or each semester), summarize to improve the level of competition and the quality of science and technology games.

The scientific and technological games are held in primary and secondary schools

in the district, county or city, which can not only arouse teachers' teaching enthusiasm, but also stimulate students' learning enthusiasm and effectively explore and cultivate students' “wisdom”, which is of great significance in primary and secondary education. Holding science and technology Games can promote the education reform of primary and secondary school students based on STEM in underdeveloped areas, which is the embodiment of innovative thinking. It is conducive to narrowing the gap between the education level of underdeveloped regions and developed regions, promoting balanced development and educational equity, and promoting targeted poverty alleviation, so as to bring more development opportunities to underdeveloped regions.

5. The Empirical Analysis of the Junior Science and Technology Games in Quannan County

With the active promotion of Gannan Normal University Innovation Workshop, the first Junior Science and Technology Games were held in Quannan County, Ganzhou city, Jiangxi Province on October 26, 2019, which is

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

the first scientific and technological games held in Ganzhou and Even Jiangxi Province, including water rocket, wire gyro, paper bridge load-bearing, riprap siege, slow falling and Qigong arrow. Among the 27 primary and secondary schools in the county, 310 primary and secondary students from the county participated in the competition through class recommendation and in-school selection.

5.1 General Requirements

Combined with the theme of holding the Science and technology Games, it is required that the projects should follow uniform rules. The overall requirements are shown in Table 1.

Table 1 Overall Requirements of the First Junior Science and Technology Sports Meeting in Quannan County

Overall project objectives	Students actively participate, use their hands and minds, use common article making devices in daily life, propose problems and conceive solutions, explore the process of technical practice, form a deep understanding of science and technology, experience the fun of practice and the joy of success, stimulate innovation and imagination in technical practice, and complete the work within the specified time.
Materials selected for the project	Water bottles, newspapers, wire, sticks, scotch tape, etc.
Project specific process	Problem thinking (analysis and inquiry) → group discussion (brainstorming) → scheme design (question inquiry) → hands-on production → work demonstration → group test.

4.2 Project Settings

The competition items and evaluation elements of the Junior Science and Technology Sports meeting in Quannan County are shown in Table 2.

Table 2 Setting and Description of the First Junior Science and Technology Sports Meeting in Quannan County

Item	Description	Evaluation elements
Wire gyro	Competitors shall use the specified material (a fixed length of wire) to make the gyro within the specified time. The total time of continuous rotation of the gyro after a start shall be recorded as the result. The longer the spinning time, the better the competition result.	The balance of gyro is better, the center of gravity is as close to the axis as possible; the center of gravity should be as low as possible; the radius of the top should be large, so the moment of inertia will be large; the fulcrum friction resistance should be as small as possible.
Slow falling	Drop the ball free from the device, stay on the device for the longest time, and the ball must not stop rolling for more than five seconds.	The weight should be controlled within a certain range (reducing consumables), the ability to withstand collisions, the descent process has energy, moderate speed, can accept a certain buffer, the center of gravity should be stable, the structure should be stable, the force of the beam should be uniform, the distance of the planning and the size of the slope.
Paper bridge load-bearing	The team will use the materials provided by the organizing committee to make a paper bridge on site within 120 minutes. After the bridge is made in the production area, the team will go to the weight measuring area for the competition. The result of the race is that the measured vehicle passes the paper bridge completely, and the maximum weight it can carry is the	The overall shape should be beautiful, the degree of refinement of the production should be as high as possible, the paper should be less, the bridge length, bridge width and bridge height should be controlled, stable, load-bearing as far as possible, and the design should be creative.

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

	final result.	
Water rocket	The team must make the water rocket on site within 120 minutes. All the necessary tools and materials must be provided by the competitors. After the water rocket is made in the production area, the competition is held in the launch area, and the results are ranked according to the flight height order of the water rocket.	The arrow system has good compressive resistance, hard objects posing a security threat shall not be fitted outside the arrow.The arrow body of the team making the multistage water rocket requires a field completion.The separator can be made in advance.The water rocket is launched as high as possible.The water carrying capacity should be suitable for the work, and the stability should be good.Water rocket trajectory should follow the design, easy to be recycled.
Riprap siege	This project requires the construction of gravity riprap on site with disposable bamboo chopsticks and other materials and the “siege” competition, mainly competing on the accuracy of projection.	Trebuchet projection precision is higher, for gravity trebuchet, namely the trebuchet all mass ejection force provided by the weight of the material selection should be in accordance with the specifications, the shaft height is not more than 40 cm, total height less than 80 cm, to launch within the given time, number of bullets to limit range, the trebuchet base insurmountable “moats”.
Qigong arrow	Competitors use the materials provided to make air arrow model in the corresponding launch tube or outside the tube, through the handheld launcher shooting competition.	The accuracy of the target, the time of production and whether it conforms to the selected materials within the specified range, the center of gravity of the work and the stability of the flight to the predetermined distance, the appearance of the design of the work and the consideration of air resistance, should be good bite on the bull's eye .

4.3 Case Analysis

The students take active part in the Junior Science and Technology Games, which have greatly enriched their learning. It is of great significance to the development of intelligence, the cultivation of learning interest and the accumulation of experience. It not only helps to exercise and enrich their thinking ability, learning ability, cooperation ability, practical ability and imagination, but also helps to improve teachers' enthusiasm for work. It plays a great role in the development of teachers and students, multi-disciplinary integration teaching and innovative teaching.

4.3.1 Project Process

According to the relevant requirements and competition tasks of “falling body slowing down” project, the activity process includes free thinking, problem exploration, work production (making falling body slowing down device), on-site demonstration and other links, as shown in Table 3.

Table 3 Process and Content of “Slow Falling” Project

Process	Content
Free thinking	After the instructor suggested the purpose of the competition and explained the main points, the students in the same group thought about what level their works should reach, what shape and structure they should use, what materials they should use and so on, and estimated reasonable completion time and specific division of labor. If you have enough time, you can simply sketch the style of the work, which is convenient for later production and implementation.
Problems Exploring	The same group of students, based on their living and learning experience, combined theory with practice, discussed how many layers of the work should be divided, how much paper should be used, what tools should be used, what blocking method should be designed so that the ball balls would not fall out, what was the slope, height and

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

	load-bearing range of the work, and predicted the production time, test and improvement time. Instructors use concepts such as friction, acceleration, gravity, kinetic energy and resistance to provide students with directions for exploration. This group of students divided the labor to explore the influence degree of each element and record.
Production	According to the predetermined plan, combining with the previous thinking, discussion and exploration, the same group of students accurately control each element and start to make the falling body decelerating device. After the completion of the production, simple experiments are conducted, observations are made quickly, and various data are recorded, so that the defects and problems of the device could be corrected, continuously improved, modified, tested and repeated until the time is up.
Demonstration	All the teams in this project will show the feasibility of the work under the observation of the judges and the audience, put in the ball, and the special judges will record the relevant results and answer the corresponding questions of the judges. Students and teachers in the same group and different groups communicate, analyze the reasons and summarize the experience.

4.3.2 Project Resources

Each team will be provided with one hollow steel ball for testing during production by the organizing committee. 304 stainless steel ball's diameter is 25mm, 0.5mm thick, weighing about 6g. Contestants can only complete their works with qualified materials, including paper, plastic board, KT board, PVC board, ABS board, foaming board, Schofer board and wood board. The original size of the material shall not be less than 200mm×200mm, and the quantity is unlimited. The adhesive materials required for the production of the work are self-provided, such as transparent adhesive, double-sided adhesive, solid adhesive, nail free adhesive, hot-melt adhesive, etc., but the use of 502 constant speed dry adhesive is not allowed. Contestants should bring measuring, cutting, cutting, punching and other tools, such as scissors, paper knife, ruler, etc. [9]

4.3.3 The Evaluation Rules

After each team finishes the work within the specified time, the judging group will evaluate the work uniformly, which is reflected in the following aspects:

(1) Falling Body Deceleration Device Specification

The size, length, width and height of the works are limited within 60cm. The works whose specifications do not meet the requirements shall not be tested.

(2) Work Design List and Material Consumption

Make statistics on the consumables of the production work and check the design record list of the work to ensure that the submitted work can be supported independently and stably without external forces. Devices outside the specified material scope shall not appear in the work, and works that do not meet the requirements shall not be tested.

(3) Measurement Data of Demonstration on Site

During the live demonstration of the work, place the ball on the work and start the timing. When the ball rolls off the work, the timing stops immediately. The time the ball stays on the device is the single test result. If the ball stops for more than 5 seconds, it will be counted as failure of this test. A single score will be recorded as 0 second. Each team will have three test opportunities, with the highest score being the final score.

(4) Violation of the Rules

Students demonstrating during the competition timing shall not touch the work and the ball, and shall not interfere with the ball by blowing or shaking the table. Otherwise, it will be recorded as a violation and the score will be counted as 0 second. When students release the ball, they should let the ball fall freely without deliberately applying the initial speed, otherwise, it will be recorded as a violation.

(5) Project Implementation

In the teaching process, teachers should create a good situation, fusion engineering concept, namely "slow down production fall device, put the ball in the above, from the top down to set the path of the natural decline, and rolling as much as possible for a period of time, don't pause", guides the student to clearly involved in the

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

project time, friction, acceleration, gravity, kinetic energy and resistance, such as concept, at the same time provide the necessary equipment for each group of students, such as: all kinds of paper, plastic, glue, etc., ask the students to group and explore and complete the task. In the process of discussion, design, production and practice, the teacher should give students appropriate help and support, to help students solve the exploring process of all kinds of difficulties, such as: the material selection of the falling body decelerating device, the design of the paper track path during the design and the improvement of the stability of the work before students have no idea stuck. After the work is finished, the instructor can provide the necessary experimental scheme to test the feasibility of the work. In view of the inadequacy of the work, it should be timely improved and continuously optimized to improve the quality.

Student activities can be described by three independent and interrelated cycles, including one external cycle and two internal cycles. Teachers' activities go through an independent external cycle. Teachers and students' activities collaborate with each other. First, the teacher analyzes the characteristics of relevant projects, creates a certain situation, and the students analyze the composition of the problem, understand the problem according to their own knowledge and experience, and enter the free thinking link. The students preliminarily determine the material and general structure of the work, think about the principle, and draw a sketch if time permits. Second, under the active guidance of the teacher in a step-by-step and planned way, the students in the same group will determine the final plan by combining relevant physics principles, considering various elements. Thirdly, under the guidance and design of teachers, the same team members work together, process materials according to the original plan, and independently complete the production of works. Fourthly, the teacher provides help to the students according to the production results and time schedule. Under the guidance, the students test the falling body deceleration device. According to the actual effect, the device is checked and filled up. Fifth, enter the evaluation stage, give a live demonstration in the presence of the judges and the audience, answer the questions of the judges, and carry out exchanges between teachers and students. Finally, the students should reflect on their learning and reflect on the shortcomings in the operation process according to the results of the competition, so as to accumulate experience. Teachers should reflect on teaching, think about the defects in the teaching guidance process, accept and absorb the opinions and suggestions given by the judges modestly, give feedback to students, and communicate with students, teaching with learning.

4.4 Results and Effects

The first Science and Technology Games of primary and secondary schools in Quannan County is a precise activity to support the wisdom under the background of STEM education, which is characterized by wide coverage, high degree of participation, accurate coordination of educational resources, enthusiastic participation of teachers and students, and close to the STEM education forefront, and has achieved good educational effects. It is a beneficial practice of the overall improvement of the comprehensive ability of teachers and students focusing on the long-term development and long-term progress of education in this region.

First-class judge, first-class equipment, first-class court, enable the players to compete with each other, to play style and to play level. Starting from the simple things in life, it enables the primary and middle school students who participate in the Science and Technology Games feel the hidden wisdom power of science and technology in life, which not only runs through the link of STEM education, but also describes the specific project process. It is conducive to the integration of teacher-guided and student-centered, direct and indirect experience, knowledge mastery and intelligence development, and is a successful attempt in the reform of STEM education model in underdeveloped areas.

5. Conclusions and Implications

Junior Science and Technology Games promoting intelligence which is based on STEM education model realize the ingenious integration of scientific inquiry and competitive sports, whose process is both intense and intense, and full of fun. It not only makes the participants' comprehensive quality fully displayed, but also can be recorded and evaluated objectively, accurately and in real time. It is highly consistent with the international trend of the integration of science, technology and engineering education, and provides a large-scale implementation solution for the performance evaluation of students' scientific and technological literacy.

It is the first time for Ganzhou and Jiangxi province to hold the Junior Science and Technology Games. It combines scientific and technological inquiry with sports, and innovates the cultivation mode of students' learning of science and technology. This is a successful attempt of information technology education reform in primary and secondary schools in Quannan County. The scientific nature and feasibility of the strategy of promoting intelligence are verified. Governments in underdeveloped regions, especially relevant educational

ISSN 2616-7433 Vol. 2, Issue 11: 25-32, DOI: 10.25236/FSST.2020.021105

departments, should make full use of and coordinate educational resources to strengthen the communication and cooperation between schools, universities and local governments, which will promote the science and technology games and other practical activities routine and scale, to promote the implementation and promotion of STEM curriculum model in underdeveloped areas, to formulate the implementation plan and operation mechanism of activities scientifically to attract more students to participate actively. We should truly support students' intelligence based on practice, innovation and learning, and strive to improve their scientific literacy and innovative practical ability.

Acknowledgement

Higher Education Teaching Reform project of Jiangxi Province (JXJG-17-14-13); Key project of Scientific Planning for Education in Jiangxi Province (18ZD057).

References

[1] People's Daily. Learn from General Secretary Xi Jinping's important discourse on building an educational power [EB/OL].
[2] Xinhuanet. Commentator of People's Daily: Vigorously Promoting the reform and Innovation of the education system -- On the study and Implementation of General Secretary Xi Jinping's important speech at the National Education Conference [EB/OL]
[3] Chang Yongmei, Zhang Yaya, Jin Xianzhi (2017). Research on current Situation of STEM Education based on quantitative Perspective [J]. China Audio-Visual Education, no.6, pp.114-119.
[4] Li Kedong, Li Ying (2019). 5EX design model of STEM education interdisciplinary learning activities [J]. Audio-visual education research, vol. 40, no.4, pp.5-13.
[5] Shi Hui, Li Feng (20196). New engineering education: perspective of STEM courses [J]. Open education research, vol.25, no.3, pp.36-43.
[6] Chen Kai, Chen Lin, Chen Yue (2019). Research on Middle School Students' ATTITUDES toward STEM Learning -- Based on a survey of six PILOT STEM middle schools in Jiangsu Province [J]. China Audio-Visual Education, no.4, pp.92-102.
[7] Chen Liang, Zhang Yuxin (2016). Research on the Curriculum Model of Poverty Alleviation in Primary and Secondary Schools based on Blended Learning [J]. Modern Educational Technology, vol.28, no.7, pp.58-64.
[8] Wang Jiayi, Feng Qingyun, Zhang Jin (2016). Education and accurate precision for poverty alleviation poverty [J]. Journal of education research, no.7, pp.12-21.
[9] Xinghua Science Education website. Junior science and technology Games: race, manual, schedule, background [EB/OL]. https://www.risechina.org/issc. blog STEM in the project---The Ball Slow Falling - The teaching of a small paper project.