

THE UNIVERSITY OF WALES, TRINITY SAINT DAVID

**A Study of Attitudes to Curriculum Innovation
in a China's Rural Secondary School**

being a dissertation in partial fulfillment of the requirements for the
degree of M.A. in Teach English to Speakers of Other Languages at the
University of Wales, Trinity Saint David

2218895

2023

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Declaration Form



Master's Degrees by Examination and Dissertation Declaration Form.

1. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: *Zhongxi Ye*

Date: 25th August 2023

2. This dissertation is being submitted in partial fulfillment of the requirements for the degree of M.A. in Social Anthropology.

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3. This dissertation is the result of my own independent work and investigation, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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Supervisor's Declaration.

I am satisfied that this work is the result of the student's own efforts.

Signed: *Dr Jessica Clapham*

Date: 28th August 2023

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Acknowledgement

First of all, I would like to give my heartfelt thanks to my supervisor, Professor Doctor Jessica Clapham, for her professional, inspiring guidance and profound knowledge. From her insightful ,critical and beneficial lecture, I have obtained a better understanding of theories concerning my TESOL major and thus developed interest in it. Working on a very tight schedule, she still conduct lectures , meetings and email interconnection to supervise our paper writing though catching a cold and having a sore throat at some periods. Without her instructive insights and constant encouragement, it would not have been completed.

I also express my appreciation to all teachers who have lectured me for their insightful lectures which are of great benefit to me in my research.

My cordial thanks also go to my working school , Huangshan Wenfeng School , from which I gain access to essential research resources. Sincere gratitude should also go to my classmates who have kindly provided me assistance and companionship in the course of preparing this paper and urged me to do better in this research.

Especially this thesis owes a debt to my wife Yuzu Wu who dedicates herself to attending to our kindergarten son and newly-born daughter so that I am able to spare sufficient time to focus on my courses, assignments and paper writing.

Zhongxi Ye

Abstract

China's Ministry of Education has been implementing a nation-wide curriculum innovation reform in some of the provinces for its moral education of socialist builders and successors and for the national college entrance examination since 2019 and the curriculum innovation reform is at present conducting in secondary schools , in cities and rural areas of Anhui province and will witness its new national college entrance examination after the curriculum innovation reform in 2024.

Attitudes towards curriculum innovation reflect its implementation situation and provide a perspective of adjusting and perfecting the curriculum innovation for teachers, schools and even policy makers, especially the attitudes captured from a rural secondary school, which is one of the most earthly places carrying out the curriculum innovation and serves as a sample or a tip of the iceberg through which we are able to glimpse the whole picture of the curriculum innovation. Thereby this paper studies the attitudes to curriculum innovation in a China's rural secondary school to help assess and convert the attitudes and contribute to the curriculum innovation.

Key Words: attitudes; curriculum innovation; China; rural secondary school; college entrance examination

A Study of Attitudes to Curriculum Innovation in a China's Rural Secondary School

1.Introduction

1.1 Background and Significance

The background of this investigation is as follows. First of all, the new ongoing national college entrance examination reform is being carried out in Anhui Province from the year of 2021 after the first test region , the Shanghai city and Zhejiang province in 2014 , the second test areas like Beijing city, Tianjin city, Shandong province and Henan province in 2017 and the third round of provinces like Hebei province, Liaoning province, Jiangsu province, Fujian province, Hubei province, Hunan province, Guangdong province and the Chongqing city in 2018. The aim of the new national college entrance examination reform is to foster and select better socialism successors. To meet the requirement of the national college entrance examination, the curriculum innovation is accordingly on its way. What is more, the author is now teaching in one of rural secondary schools in Anhui province, where both the national college entrance examination and the curriculum innovation are ongoing and at their initial stage with so many issues to be discussed, so many questions to be solved and so much research work to be conducted. Moreover, the author is now majoring in TESOL in the University of Wales Trinity Saint David at Master's level where the author is equipped with some professional knowledge to do relevant research work. The school the author is teaching and conducting the research is a China's rural secondary school in a town named Yanzi, where both the national college entrance examination and the curriculum innovation are ongoing and at their initial stage with so many issues to be discussed, so many questions to be solved and so much research work to be conducted. The author is now also the dean of the school in charge of teaching affairs, especially the study of the new Gaokao, the new national college entrance examination and the curriculum innovation, which makes the author suitable and advantageous to research the attitudes towards curriculum innovation in a

China's rural secondary school. Most importantly, there are some practical English as a Foreign Language(EFL) theories and some other related theories to back up the author's study of attitudes to curriculum innovation in a China's rural secondary school.

A large number of existing studies probe attitude itself , attitude and behavior and attitude towards a specific course. There are also varieties of studies concerning curriculum and curriculum innovation. A few studies touch the effect of an attitude towards curriculum innovation. Whist a considerable body of research has been carried out on attitude and curriculum innovation separately, much less is known about the study of attitudes to curriculum innovation, especially that of a China's rural secondary school.

The significance the research consists of two aspects. One is that a study of attitudes to curriculum innovation in a China ' s rural secondary school provides objective theory support for the parents, the teachers, the students , the school and even the policy makers from an academical perspective. The other is from practical perspective to contribute to adjust and perfect the curriculum innovation for the school or the country, which is in fact realistic because the policy maker once made some adjustments according to students' attitudes towards curriculum innovation when they were choosing their compulsory and optional courses to learn. Therefore, this study makes a new insight into the assessment of the curriculum innovation and makes major contribution to future researches on the nation's curriculum innovation by demonstrating and changing attitudes towards curriculum innovation in a China's rural secondary school.

1.2 Curriculum Innovation

1.2.1 The Idea Change of the Curriculum Innovation

In terms of curriculum innovation , it does not merely mean the curriculum innovation itself narrowly. As a matter of fact, in China, in the broadest sense, the ministry of education of China defines the curriculum innovation or reform as Three Newness , San Xin in chinese, namely Xin Kegai, Xin Gaokao and Xin jiaocai as a whole, which means new curriculum innovation, new national college entrance examination and

new textbooks and thus the combination of the three is what this paper refers to as the curriculum innovation. Virtually this definition is reasonable because the latter two, the new national college entrance examination and the new textbooks are strictly and indivisibly guided by the new curriculum innovation. An elaboration on the new curriculum innovation is essential to serve as the background knowledge in the following.

First and foremost, about the curriculum innovation for senior high school students the curriculum covers nine subjects, that is Chinese, math, English, physics, chemistry, biology, politics, history, and geography. This paper provides specific curriculum innovation in three main subjects, namely Chinese, math and English to serve as background information. The major contents and changes of the revision are stated from two aspects. One is about the curriculum and the other is about standards for subject curriculum. Firstly, the curriculum innovation further clarifies the position of general high school education. The general high school education in our country is on the basis of compulsory education, the task of which is to further improve the quality of the people and face basic education for the masses, promote the holistic and individual development of students, adapt them to social life, higher education and occupation development and lays the foundation for students' lifelong development. The training goals of the general high school are to further improve students' comprehensive quality, focus on developing core literacy, and enable students to have reasonable beliefs and a sense of social responsibility, scientific and cultural literacy and lifelong learning ability, and self-development

force and communication ability to work together. Secondly, the curriculum structure was further optimized. In addition to retaining the original subjects of study, the curriculum innovation adjusts foreign languages plans, adding German, French, and Spanish besides originally planned languages like English, Japanese, and Russian. Also, the curriculum innovation adjusts the course categories to compulsory courses, optional compulsory courses and optional courses. On the premise of a common foundation, optional courses are offered to students of different development directions. Moreover, the curriculum innovation further clarifies the functional

positioning of various types of courses, which is linked with the comprehensive reform of the college entrance examination: compulsory courses are designed according to the students' all-round development needs and all need examinations; optional compulsory courses are set according to the student's personal development and only those who choose the optional courses are to take the examinations of the optional courses. Optional courses are carried out by the school according to the actual situation of the school and students either choose to study on their own initiative without examination or study with examinations, which provides reference for student employment and high school recruitment. The curriculum innovation also rationally determine various types of curriculum. Proportionately, reconstructing the original compulsory course credits with the same total graduation credits. It consists of compulsory course credits, optional compulsory course credits, and optional courses are added as appropriate , which not only guarantees the basics, but also considers the selectivity.

Thirdly, the system for effective implementation of the curriculum has been strengthened. The curriculum innovation further clarifies the implementation of the curriculum responsibilities and requirements, from curriculum standards, teaching materials, curriculum planning, teaching management, curriculum evaluation, resource construction, and other aspects. Differentiated demands of the country, province (autonomous region or municipality directly under the central government), and school are made. A "condition guarantee" component was added to build teachers, teaching facilities and financial guarantees and specific requirements are put forward in terms of financial guarantees. The "management and supervision" section was added to strengthen the implementation of all levels of responsibility , educational administrations and the school curriculum.

In view of the contents and changes of the curriculum innovation, the other aspect is the standards for academic curriculum. Firstly, the curriculum innovation cultivates the core literacy of academic sciences. The development of core literacy in Chinese students is the party's education concrete and detailed guidelines. In order to establish the intrinsic link between core literacy and curriculum teaching, it is necessary to

excavate the curriculum of various disciplines and to comprehensively implement the party's educational principles and implement the fundamental responsibility of cultivating morality and cultivating people. The unique value of quality education is based on the essence of each discipline. The core literacy of science defines the correct value concept that students should achieve after learning the course of the subject. The required qualities and key competencies, value of knowledge and skills, processes and methods, and emotional feelings, the three-dimensional objectives were integrated. Curriculum standards also revolve around the implementation of core literacy, selecting, and regrouping curriculum content, identification of content requirements, guidance in pedagogical design, evaluation of examinations and preparation of teaching materials recommendations.

Secondly, the curriculum innovation updates teaching content, further refines the content of the subject, and pays attention to the general overview or big unit of the subject. The curriculum innovation structures the content of the course, uses the theme as the guide, and makes the content of the course contextual to promote the implementation of core literacy in academic sciences. Combining the characteristics of the student's age , academic characteristics, the content of the curriculum implements the socialist thinking with Chinese characteristics in the new era of Xi Jinping , organically integrates into the core of socialism value, China's excellent traditional culture, revolutionary culture, and socialist advanced cultural education, striving to present new achievements in economic, political, cultural, scientific, technological, social, and ecological development and enriching and cultivating students' sense of social responsibility, a spirit of innovation, and a sense of practical ability.

Thirdly, academic quality standards have been developed. Each discipline clearly ensures that students complete their learning tasks and the level of core literacy should be reached, and the key performance of each level constitutes the evaluation of the academic profession. The standard for quality guidance and teaching pays more attention to the purpose of educating people, and pays more attention to the cultivation of students' core elements, strengthening the ability of students to

comprehensively apply knowledge to solve practical problems and help teachers and students grasp the depth and breadth of teaching and learning, providing an important basis for stage evaluation, academic level examination, and the college entrance examination, promoting the connection among teaching, learning, and examination, and forming joint power of nurturing the people.

Fourthly, Guidance has been enhanced. The curriculum innovation serves the preparation of teaching materials, the service of teaching, and the service of examinations. The principle of evaluating services highlights the operability of the curriculum standards and effectively strengthens the guidance of compiling the teaching materials, teaching implementation and examination evaluation. The curriculum standards are easy to understand and the logic is clearer. On principle, each module or theme on it is composed of "content requirements", "teaching instructions" and "academic requirements". Examples of teaching and evaluation have been added in most subjects, and evaluation items have been refined according to academic quality standards to enhance the guidance on teaching and evaluation.

This revision is an important link in deepening the reform of the curriculum of ordinary high schools, and is directly related to the quality of cultivating students. The general upper secondary school curriculum guidelines and curriculum standards must be tested in educational practice and get improved. It can be expected that the vast number of education workers experiencing the reform in the past 10 years on the basis of their rich and dynamic practice of education and teaching have made the level of curriculum implementation constantly raised. It is true that we should continuously deepen the reform of the curriculum of ordinary high schools, jointly create a new brilliance of ordinary high school education and the modernization of national education and make contributions to the building of a strong country in education.

1.2.2 The Curriculum Innovation in Chinese

To have a good understanding of the changes of the curriculum innovation, this paper lists differences between the curriculum of the old version - the 2003 version and the new or innovative version of the curriculum of - the 2017 version. Firstly, there is a difference in the guiding ideology: in the 03 version, it is stated that "the construction

of the language curriculum in senior secondary schools should be guided by Marxism and scientific educational theories", while in the 17 version, the thought of socialism with Chinese characteristics in the new era has been added.

Secondly, the tasks are different: the 2017 edition clearly puts forward the fundamental task of "cultivating moral integrity", while the 2003 edition has no relevant expression.

Thirdly, the objectives are different: the 2003 version establishes the objectives in the dimensions of "knowledge and ability", "process and method", and "affective attitude and values", and "comprehensively improving students' language skills". "Comprehensively improving students' language literacy" is only one part of the teaching objectives. The 2017 version puts forward the core concept of "core literacy", emphasizing "core literacy-based", putting the language subject into the context of "core literacy", and putting the language subject into the context of "core literacy". The 2017 edition puts forward the core concept of "core literacy", stressing "core literacy as the basis", and condenses and integrates the core literacy of the language subject into four aspects: language construction and use, thinking development and enhancement, aesthetic appreciation and creativity, and cultural inheritance and understanding. Knowledge and ability", "process and method", "emotional attitude and values" are integrated into the "core qualities". The 2017 edition takes the enhancement of students' core literacy as a red line running through the text, which has become a distinctive feature of the new standard. Therefore, the new standard is also called the core literacy version, while the 2003 version is called the knowledge ability version.

Fourthly, the goal system is developed in a different way: the 2003 version explains the goal system of language teaching from five aspects: accumulation-integration, feeling-appreciation, thinking-comprehension, application-expansion, discovery-innovation, etc., while the 2017 version refines the goals into twelve aspects: accumulation and construction of language, language expression and communication, language sorting and integration, enhancement of the ability of figurative thinking, development of logical thinking, improvement of the quality of thinking,

enhancement of the aesthetic experience of the motherland's language and writing, appreciation of literary works, beauty of expression and creativity, inheritance of Chinese culture, understanding of diverse cultures, and concern for participation in contemporary culture. The first three areas are related to "language construction and use", four to six are related to "thinking development and enhancement", seven to nine are related to "aesthetic appreciation and creation", and ten to twelve are related to "cultural heritage and understanding".

Generally speaking, the 2003 version is structured along the level of methodological competence, while the 2017 version is structured along the level of literacy. The 2017 version has three levels of objectives, which is relatively simple and clear, while the 2003 version has four levels, which is more complex. 14 and 11 sub-objectives are proposed at the levels of Reading and Appreciation, and Expression and Communication (for the Compulsory Part) respectively in the fourth level of the 2003 version, whereas there are five sub-objectives in the Optional Part (Poetry and Prose, Expression and Communication, and Aesthetic Appreciation and Creativity) in the optional part. In the elective part, 36 sub-targets are proposed in five series (Poetry and Prose, Fiction and Drama, Journalism and Biography, Language and Literature Application and Inquiry, and Cultural Literature and Seminar). The objective system is complicated, not subordinate to each other, and difficult to grasp.

Fifthly, the structure of the curriculum is different: the 2003 version of the language curriculum consists of two major sections: compulsory and elective, both of which are organized according to modules. The compulsory programme contains two series of objectives, namely, "Reading and Appreciation" and "Expression and Communication", which form five modules from "Language I" to "Language V". The elective courses are designed in five series: Poetry and Prose, Fiction and Drama, Journalism and Biography, Language and Literature Application and Inquiry, and Selected Cultural Theses and Seminars.

Version 2017 consists of three types of courses: compulsory, optional compulsory and elective. The three types of courses are arranged in 7-9 learning task clusters respectively. The content of Chinese excellent traditional culture, revolutionary

culture and advanced socialist culture always runs through the compulsory, selective compulsory and elective courses. There are seven compulsory courses: "Whole Book Reading and Seminar", "Contemporary Cultural Participation", "Cross-media Reading and Communication", "Language Accumulation, Sorting out and Exploring "Literary Reading and Writing," "Critical Reading and Expression," and "Practical Reading and Communication." Nine selective compulsory courses: "Whole Book Reading and Seminar", "Contemporary Cultural Participation", "Inter-media Reading and Communication", "Language Accumulation, Sorting and Exploration", "Literature Reading and Writing", "Critical Reading and Expression", "Practical Reading and Communication", "Study of Chinese Traditional Culture Classics" , "Study of Chinese Revolutionary Traditions" , "Study of Contemporary Chinese Writers" , "Study of Foreign Writers", "Study of works of foreign writers" , and "Study of scientific and cultural treatises". Nine elective courses: "Reading and Seminar on Whole Books", "Participation in Contemporary Culture", "Inter-media Reading and Communication", "Seminar on Chinese Characters and Chinese Language", "Seminar on Chinese Traditions", "Seminar on Traditional Chinese Writings". "Seminar on Chinese Traditional Culture", "Seminar on Chinese Revolutionary Traditions" , "Seminar on Contemporary Chinese Writers" , "Seminar on Inter-culturalism" and "Seminar on Academic Works". There are as many as eighteen types of task groups.

Sixthly, the new curriculum standard has added the section of "academic quality level", which describes the academic quality level in the form of a list of 20 aspects at five levels.

Seventh, the expressions of teaching suggestions and assessment suggestions are different.

Eighthly, the new curriculum standard adds "academic level examination and college entrance examination proposition suggestions". It emphasizes "taking specific situations as the carrier", "taking typical tasks as the main content", "taking comprehensive examination as the proposition guide", and "avoiding designing examination questions on the basis of simple knowledge and ability points". Avoiding the design of examination questions based on simple knowledge and ability points,

and avoiding rote memorization", and "the structure of the examination paper and the form of the test should not be solidified to avoid the formation of a new test-taking mode".

The structure and content of the appendices are different: the 2003 version lists common literary words (including 120 real words and 15 imaginary words), while the 2017 version does not have this content; the 2003 version lists 40 ancient poems to be recited, while the 2017 version lists 72; the suggestions on reading materials inside and outside the classroom (the 2003 version reads "Suggestions on Reading Materials Outside the Classroom"), while the 2017 version emphasizes the importance of reading materials outside the classroom. Regarding the suggestions for reading materials inside and outside the classroom (the 2003 version reads "Suggestions for reading materials inside and outside the classroom"), the 2017 version emphasizes "works reflecting the Chinese revolution and advanced socialist culture", while the 2003 version states that for contemporary literature, teachers are advised to choose from the award-winning works of the Mao Dun Literature Prize as well as various outstanding Chinese and foreign works published in recent years. It is recommended that teachers choose from among the award-winning works of "Mao Dun Literature Prize" and various outstanding Chinese and foreign works published in recent years.

To sum up, it is not difficult to find the distinctive features of the new version: firstly, it highlights the goal of educating people with moral integrity and the goal of enhancing the core qualities of language; secondly, it is more strongly ideological, including political and traditional cultural colors, such as the addition of the "Ideology of Socialism with Chinese Characteristics in the New Era", socialist core values, traditional Chinese revolutionary works and seminars, and the inclusion of ancient literature and traditional Chinese literature. Thirdly, the ideological colour has become stronger, including political and traditional cultural colors, such as the inclusion of "Socialist Ideology with Chinese Characteristics in the New Era", socialist core values, Chinese revolutionary traditions, etc., and the number of ancient poems to be recited has increased significantly; Fourthly, the reading of the whole book is valued, with emphasis on the examination of comprehensive ability, which better reflects the

characteristics of language teaching in senior secondary school and is more conducive to the construction of a "book-scented society"; Fifthly, it is closely coordinated with the new college entrance examination, and the content of the curriculum is divided into three sections, which is obviously convenient for the implementation of the new college entrance examination; and sixthly, it is possible that the new curriculum will replace the syllabus of the college entrance examination to become the authoritative document guiding language teaching (which has already been adopted by the government). The new standard is likely to replace the syllabus of the college entrance examination and thus become the authoritative document guiding language teaching (already confirmed), the examination of the whole book is likely to be included in the scope of the college entrance examination, and the separate examination of sick sentences and idioms is likely to be canceled (already confirmed).

1.2.3 The Curriculum Innovation in Math

Requirements for Compulsory Courses

1. Preparatory Knowledge

(1) To be able to summarize the general characteristics of mathematical objects in real situations or mathematical situations and express them in set language. To learn initially to express mathematical objects of study in three languages (natural language, graphic language and symbolic language) and to be able to convert between the three. Master the basic relations and basic operations of sets.

(2) To be able to express, argue and communicate mathematically with the help of common logical terms, and to appreciate the role of common logical terms in mathematics.

(3) To be able to recognize equations and inequalities from the perspective of functions, to appreciate the connection between mathematical knowledge, and to recognize the importance of functions. Master the properties of equations and inequalities.

(4) To focus on enhancing the literacy of mathematical abstraction, logical reasoning and mathematical operations.

2. Functions

(1) To be able to understand the meaning and mathematical expression of functions from various perspectives, such as the dependence between two variables, the correspondence between real powder sales, the geometrical intuition of function images, etc., to understand the correlation between symbolic expressions and abstract definitions of functions, and to know the significance of abstract concepts of functions.

(2) To be able to understand the monotonicity and maximum (small) value of a function, and to know the parity and periodicity of a function; to master the background, concepts and properties of some basic function classes (univariate function, inverse proportion function, univariate function, riot function, exponential function, logarithmic function, trigonometric function, etc.).

(3) To be able to construct mathematical models and solve problems by choosing appropriate functions for simple practical problems; to be able to recognize equations from a functional point of view and to use the properties of functions to find approximate solutions to equations: to be able to recognize inequalities from a functional point of view and to use the properties of functions to solve inequalities.

(4) Focus on enhancing mathematical abstraction, mathematical modelling, mathematical operations, intuitive imagination and logical reasoning.

3. Geometry and Algebra

(1) To be able to understand the concepts and algorithms of vectors from various perspectives, and to master the Fundamental Theorem of Vectors; to be able to use vector operations to solve simple geometrical and physical problems, and to be aware of the relationship between mathematical operations and logical reasoning.

(2) To be able to understand the concept of complex numbers and master the four operations of complex algebraic expressions.

(3) To be able to understand spatial shapes through visual diagrams, to master the concepts and basic features of basic spatial shapes and their simple combinations, and to solve simple practical problems. To be able to use the concept of figure to describe the basic relationships and basic results of figures. Be able to prove simple geometric propositions (the property theorems of parallelism and perpendicularity) and make

simple applications.

(4) Focus on enhancing intuitive imagination, logical reasoning, mathematical operations and mathematical abstraction.

4. Probability and Statistics

(1) To be able to grasp the basic features of classical generalization, to construct probability models based on practical problems, and to solve simple practical problems. To be able to have a preliminary understanding of finite sample space, random events, and the probability of random events with the help of classical generalization.

(2) To be able to choose appropriate sampling methods to obtain sample data according to the needs of practical problems, and to extract the required numerical characteristics to infer the overall situation. Be able to correctly apply the methods of data analysis to solve simple practical problems.

(3) To be able to distinguish the difference between statistical thinking and deterministic thinking, and between inductive inference and deductive proof. Be able to understand the contingency of statistical inferences in relation to specific problems, and correctly use statistical results to explain practical problems.

(4) Focus on enhancing literacy in data analysis, mathematical modelling, logical reasoning and mathematical operations.

5. Mathematical Modelling Activities and Mathematical Inquiry Activities

(1) To experience the whole process of mathematical modelling activities and mathematical investigation activities, to collate information, to write a research report or a short paper, and to report on and share them. For the evaluation of the research report or mini paper, teachers should organize an evaluation group, which may invite experts from outside the school, members of the community, parents, etc. to participate in the evaluation, or organize students to evaluate each other. Teachers should guide students to follow academic norms and adhere to the bottom line of integrity. The research report or thesis and its evaluation shall be deposited in the students' personal learning archives to provide reference and basis for university admission. Students can complete the research independently or in small groups.

(2) Focus on enhancing mathematical modelling, mathematical abstraction, data analysis, mathematical operations, logical reasoning and intuitive imagination literacy

Requirements of Selective Compulsory Courses

1. Functions

(1) be able to combine specific examples, understand the importance of the general formula for the series, know that the general formula is the analytical expression of this kind of function; through the study of the isomorphic series and the isoperimetric series, feel that the series is a mathematical model that can be used to depict a class of things in the real world with recursive law, master the relationship between the general formula and the formula for the sum of the first n terms; to be able to use the series to solve simple real-world problems.

(2) through specific situations, intuitive understanding of the concept of the derivative, the sense of the limit idea, know that the limit idea is a human being profound knowledge and expression of the real world necessary thinking quality. Understand that the derivative is a kind of operation with the help of limit, master the basic operation rules of the derivative, and be able to find the derivative of simple functions and simple composite functions. To be able to use the derivative to study the nature and law of change of simple functions, and to be able to use the derivative to solve simple practical problems. To know the process of the creation of calculus and the role of calculus in the development of mathematics.

(3) Focus on enhancing mathematical abstraction, mathematical operations, intuitive imagination, mathematical modelling and logical reasoning.

2. Geometry and Algebra

(1) To be able to understand the concepts, operations, background and role of space vectors; to be able to rely on space vectors to build up spatial shapes and imaginative graphical relationships; to be able to master the basic theorem of space vectors, to appreciate its role, and to be able to make simple applications; to be able to use space vectors to solve some simple real-world problems, and to appreciate the way of thinking about solving a certain type of problem with vectors.

(2) To be able to master the basic process of problem solving in plane analytic

geometry: to establish a plane right-angle coordinate system according to the characteristics of a specific problem situation; to transform a geometric problem into an algebraic problem by algebraic language according to the characteristics of the geometric problem and the graph; to explore the ideas of solving the problem according to the analysis of the geometric problem (the graph); to get the conclusion by algebraic methods; to give a reasonable geometric explanation of the algebraic conclusion and finally to solve the geometric problem. Solve geometric problems.

(3) To be able to establish the equations of plane line and circle, the standard equations of ellipse, parabola and hyperbola according to different situations; to be able to use algebraic methods to study the basic relationship between the above curves; to be able to use the ideas of plane analytic geometry to solve some simple practical problems.

(4) Focus on enhancing intuitive imagination, mathematical operations, mathematical modelling, logical reasoning and mathematical abstraction.

3. Probability and Statistics

(1) To be able to recognize and understand the principles of categorical addition counting and stepwise multiplication counting and their functions in relation to specific examples, and to be able to apply these principles to solve simple practical problems.

(2) To be able to understand the relationship between the permutation, combination and binomial theorems and the two counting principles with specific examples, to be able to use the two counting principles to derive the relevant formulas of the permutation, combination and binomial theorems, and to be able to use them to solve simple real-world problems, in particular certain problems in probability.

(3) To be able to understand the relationship between the independence of random events and conditional probability with specific examples, to understand the role of discrete random variables in describing stochastic phenomena, to master the two basic probability models and their scope of application, to understand the role of normal distribution, and to further deepen the understanding of the role of stochastic ideas in solving practical problems.

(4) To be able to solve simple practical problems of statistical correlation of pairs of data. To be able to master the method of one-dimensional linear regression analysis with specific examples. To master the use of 2×2 series table method to solve simple practical problems of independence test.

(5) Focus on enhancing literacy in data analysis, mathematical modelling, logical reasoning, mathematical operations and mathematical abstraction.

4. Mathematical Modelling Activities and Mathematical Inquiry Activities

Mathematical modelling activities and mathematical investigation activities are carried out in the form of project research. In selective compulsory courses, students are required to complete a project study, either on mathematical modelling or on mathematical enquiry. The topic may be a continuation of a topic already completed by the student while studying the compulsory programme, or a new topic.

Requirements for Elective Courses

1. Category A Courses

Class A courses include three topics: calculus, space vectors and algebra, and probability and statistics.

(1) Calculus. To establish the concepts of limits and continuity of functions on the basis of limits of series; to portray the derivatives in specific contexts with limits, and to give a general method for studying the properties of functions with the help of derivatives; to establish the concepts of differentiation and integration through limits, and to explain the relationship between differentiation and integration (the Fundamental Theorem of Calculus) and its applications. This topic includes: limits of series, limits of functions, continuous functions, derivatives and differentiation, definite integrals.

(2) Space Vectors and Algebra. On the basis of the compulsory and optional compulsory courses, the integration of geometry and algebra is realized through the systematic study of vector algebra in three-dimensional space, expressing the geometric background of various operations. The concepts of matrices and determinants are introduced, and matrix theory is used to solve systems of ternary equations; using vector algebra, the positional relations and measures of points, lines

and planes in three-dimensional space are discussed; and the theory of equidistant transformations in planes and spaces is established using intuitive imagination. This topic includes: space vector algebra, third-order matrices and determinants, systems of ternary equations, planes and lines in space, and isometric transformations.

(3) Probability and Statistics. Through specific examples, further study of continuous random variables and their probability distributions, two-dimensional random vectors and their joint distributions, and the use of these mathematical models to solve some simple practical problems. Combined with some specific tasks, learn parameter estimation, hypothesis testing, and use these methods to solve some simple practical problems; on the basis of one-dimensional linear regression analysis, combined with specific examples, further study of binary linear regression analysis methods to solve some simple practical problems. This topic includes: continuous random variables and their distributions, two-dimensional random variables and their joint distributions, parameter estimation, hypothesis testing, binary linear regression models.

2. Category B Courses

Class B courses include four topics: calculus, space vectors and algebra, applied statistics, and modelling.

(1) Calculus. To establish the concept of function limit on the basis of the limit of series; to portray the derivative with the limit in a specific context, and to give a general method to study the nature of functions with the help of the derivative; to establish the concept of differentiation and integration through the limit, and to explain the relationship between differentiation and integration (Fundamental Theorem of Calculus) and its application. On the basis of the study of unitary functions, understand the concept of binary functions and their partial derivatives. This topic covers . Limits, derivatives and differentiation, definite integrals, and binary functions.

(2) Space vectors and algebra, a more systematic study of three dimensions based on the required and optional compulsory courses.

The overall structure of inter-space - vector help algebra, and a sense of the integration of geometry and algebra. Introduces the concepts of matrices and

determinants, and discusses the structure of solutions to systems of elementary equations. wood topics include: space vector algebra, third-order matrices and determinants, and ternary systems of equations.

(3) Applied Statistics. Further study of continuous random variables and their probability distributions, two-dimensional random vectors and their joint distributions, and the application of this mathematical model.

distribution, and use this mathematical modelling to solve a simple practical problem. To study parameter estimation, hypothesis testing and statistical tests that do not depend on the distribution of 3, and use these methods to solve some simple practical problems; to study two special methods of data analysis - cluster analysis and orthogonal design. This topic includes: continuous random variables and their distributions, two-dimensional random variables and their joint distributions, parameter estimation, hypothesis testing, binary linear regression models, cluster analysis, orthogonal design.

(4) Modelling. On the basis of compulsory and optional compulsory courses, some basic mathematical models are established through a large number of practical problems. This topic includes: linear models, quadratic curve models, exponential function models, trigonometric function models, and variational models.

3. Category C Courses

Class C courses include three topics: preliminary logical reasoning, mathematical modelling, social investigation and data analysis.

(1) Preliminary Logical Reasoning. To be able to further understand the nature of logical reasoning and appreciate its role in mathematical reasoning and argumentation; to be able to use relevant logical knowledge to correctly express one's own thoughts and explain phenomena in social life, to improve logical thinking ability, and to develop logical reasoning literacy. This topic includes: mathematical definitions, propositions and reasoning, the premise of mathematical reasoning, types of mathematical reasoning, the main methods of mathematical proof, axiomatic thinking.

(2) Mathematical Modelling. Through concrete examples, some economic and social models based on mathematical expressions are developed. To let students know the

background of the formation of these models, mathematical expression of reasoning, the significance of the model parameters, the scope of application of the model to enhance the mathematical modelling, mathematical abstraction, mathematical operations and intuitive imagination literacy; know that some of these models (as well as the derivatives of the model) to obtain the reason for the Nobel Prize for Economics, understand the application of mathematics, improve the interest in learning mathematics, enhance the ability to practice and innovation. This topic includes: economic mathematical models, social mathematical models.

(3) Social investigation and data analysis. Students are guided to experience the whole process of social investigation and analyse the problems that may be encountered during the implementation of social investigation and the countermeasures for solving these problems in combination with specific social investigation cases. This topic includes: introduction to social survey, social survey programme design, sampling design, social survey data analysis, social survey data report, and selected social survey cases.

4. Category D Courses

Category D courses include four topics: Beauty and Mathematics, Mathematics in Music, Mathematics in Fine Arts, and Mathematics in Sports.

(1) Beauty and Mathematics. Through the study of this topic, students' feeling of beauty can move from sensibility to rationality, enhance the aesthetic interest and aesthetic ability of students who aspire to a career in art and sports, and enhance rational thinking ability on the basis of image thinking. This topic includes: beauty and mathematical simplicity, beauty and mathematical symmetry, beauty and mathematical cycles, beauty and mathematical harmony.

(2) Mathematics in Music. Through the study of this topic, students can understand music more rationally, appreciate the beauty of music to enhance the mathematical cultivation of students who aspire to a career in music, and enhance rational thinking ability. This topic includes: sound waves and sinusoidal function, law system, scale and series, the music of the beat and fractions, musical instruments in the mathematics, mathematics in the music and so on.

(3) Mathematics in Fine Arts. Through the study of this topic, students are helped to understand the mathematical concepts of translation, symmetry, golden section, perspective geometry and other mathematical concepts in fine arts, to understand the basic concepts and methods of computer art, to understand the mathematical ideas embedded in the creative process of the artist, to experience the role of mathematics in fine arts, to appreciate fine arts more rationally, and to enhance the intuitive imagination and mathematical abstraction literacy. The contents of this topic include: painting and mathematics, mathematics in other art works, art and computers, and mathematical ideas of artists.

(4) Mathematics in Sports. Through the study of this topic, students will be able to use mathematical knowledge to explore ways to improve the efficiency of sports, to use mathematical methods to rationally arrange events, to enhance the mathematical literacy of students who aspire to a career in sports, and to enhance their rational thinking ability. The contents of this topic include: mathematical principles on the sports field, data analysis of sports performance, planning of sports events, and mathematical knowledge in sports equipment and facilities.

5. Category E Class Curriculum

Category E courses are courses developed or selected by schools according to their own needs, including mathematics courses for broadening horizons, daily life, local characteristics, and also prerequisite courses for university mathematics. Schools should determine the teaching requirements in a scientific and reasonable manner according to their own characteristics and actual needs.

1.2.4 The Curriculum Innovation in English

The senior secondary English programme adopts a curriculum model that combines compulsory and elective courses. The aim of the compulsory courses is to enable students to acquire basic English language proficiency, develop positive learning attitudes, flexible and diversified learning strategies, as well as cross-cultural communication awareness and competence, so as to lay a foundation for lifelong learning. The purpose of elective courses is to meet the needs of different students in terms of career choices, further studies and personal interests and development.

The focus of this curriculum reform is to change the past tendency of placing too much emphasis on explaining and teaching grammar and vocabulary knowledge and neglecting the cultivation of students' actual language-using abilities, and to emphasize the adoption of a task-based teaching approach from the perspective of students' learning interests, life experiences and cognitive levels, so that students can develop comprehensive language-using abilities through experience, practice, participation and communication. The new standards add emotional factors, learning strategies as well as cultural awareness and intercultural communicative competence, reflecting the concept of human-centred education, fostering students' lifelong learning ability, and cultivating their sound personality and skill development ability, mentioning the core of educational success.

At the senior secondary school level, we should focus on improving students' ability to acquire information, process information, analyse and solve problems in English, and in particular, we should improve students' ability to think and specialize in English, to develop intercultural communication awareness and basic intercultural communication skills, to further broaden the international outlook, to enhance the spirit of patriotism and the sense of national mission, and to form a sound sense of emotions, attitudes and values, so as to lay a good foundation for future development and lifelong learning. Lay a good foundation for future development and lifelong learning. English teaching in senior secondary schools should encourage students to form the process and methods of English learning with the characteristics of senior secondary school students through active experimentation, self-exploration, self-discovery and active practice and other learning methods.

The new curriculum standard adopts the internationally accepted grading system, which takes into account the teaching of primary, junior and senior secondary schools as a whole, and divides the objectives of the English curriculum into nine levels according to the level of competence, so as to ensure the organic articulation of the curriculum in each academic level. The course advocates a task-based teaching mode, and the teaching process should form a process of teacher-student interaction, positive interaction and common development. A democratic and open classroom teaching

atmosphere should be formed. Students should be allowed to achieve the objectives of the tasks and feel successful through perception, experience, practice, participation and co-operation under the guidance of teachers. Emotional and strategic adjustments are made during the learning process in order to form a positive learning attitude and promote the improvement of practical language use.

The new evaluation system is more scientific, comprehensive and complete, which not only does not neglect the outcome evaluation but also focuses on formative evaluation. According to the new standard, the evaluation should be conducive to cultivating and stimulating students' learning motivation and self-confidence. Examination and testing should be conducive to promoting the improvement of students' comprehensive language-use skills. The evaluation mechanism should include the evaluation of the curriculum, the testing of students' learning status and the testing of teachers' teaching.

The new standards have strengthened the requirements for vocabulary, increasing from 1,800 to 2,000 to 3,300 words and 400 to 500 idioms or fixed collocations at the senior high school level, and 4,500 to 5,000 vocabulary words for the excellent ones. The amount of vocabulary mastered to a certain extent constrains the level of students' ability to use the language, vocabulary is too low not only helps to reduce the burden on students, but also makes it difficult for students to form a certain language ability due to the use of too few words.

The increase of vocabulary is bound to have higher requirements for reading. In particular, the amount of extracurricular reading is required to reach more than 360,000 words by the time students graduate from high school. 200,000 and 300,000 words are required for 10th and 11th grades (i.e., freshman and sophomore years of high school) respectively. That is equivalent to 617 words per day.

The Senior Secondary English Programme is designed to be contemporary, fundamental and selective. The senior secondary English curriculum is divided into two categories: compulsory and elective courses. The design of the compulsory courses is based on the five levels of compulsory education, and students are enabled to gradually reach the target requirements of the seven levels through learning. The

Senior Secondary English Compulsory Programme consists of 10 credits. Students who have completed the 10 compulsory credits will meet the graduation requirements for passing the English Language subject. Students are required to complete the compulsory credits and pass the Certificate VII in English (i.e. attaining Level 7) in order to be eligible for university study.

English elective programmes are divided into two categories: sequential elective programmes and optional elective programmes. The Sequential Elective Programme is based on the Upper Level of English and provides students with the opportunity to study at Level 8 and Level 9. There are five modules in the Sequential Elective Programme, which students can take sequentially, and the Any Elective Programme, which allows students to choose whatever they want at senior secondary level, with no sequential requirement. There are three series of any elective programmes, namely, Language Knowledge and Skills, Language Use and Appreciation.

1.2.5 The Curriculum Innovation in the New College Entrance Examination

The new round of reform of exam and enrollment system is a major political task determined by the Party Central Committee and directly led and promoted by the Party Central Committee and the State Council. The Third Plenary Session of the 18th CPC Central Committee adopted the "Decision of the Central Committee of the Communist Party of China on a Number of Major Issues on Comprehensively Deepening the Reform" (hereinafter referred to as the "Decision"), which made a comprehensive and systematic deployment of the comprehensive reform of the college entrance examination, and explicitly called for the advancement of the reform of the examination and enrollment system, and the exploration of the relative separation of enrollment and examination, the autonomy of schools to enroll students according to the law, the organization and implementation of professional institutions, the government's macro-management, and the participation of society in the supervision of the operation mechanism. Fundamentally solve the "one exam for life" drawbacks.

In the programme development process, Anhui Province, organized an in-depth systematic research, through a series of symposiums, questionnaires, etc., to widely

consult the provincial people's Congress, the provincial CPPCC, city, county (city, district) education administration, examination bodies, teaching and research institutes, colleges and universities, ordinary high schools, vocational schools, and other departments, schools, and experts and students, parents and other aspects of the views, focusing on the selection of classes, examination subject settings, grade assignment and other key and difficult issues to carry out thematic research, after unremitting research, has been after more than 60 special meetings to study, formulated the "deepening the comprehensive reform of examination and enrollment of ordinary colleges and universities in Anhui Province, the implementation of the programme" (hereinafter referred to as the "implementation of the programme"), to carry out expert argumentation, risk assessment, lawfulness and compliance review, by the executive meeting of the provincial government to consider the adoption of the provincial government to the provincial party committee for final approval by the provincial government reported to the After the Ministry of Education filed its approval, it was formally issued and implemented.

The reform of the new college entrance examination is guided by Xi Jinping's thought of socialism with Chinese characteristics in the new era, conscientiously implements the spirit of the 19th CPC National Congress and the Second, Third, Fourth and Fifth Plenary Sessions of the 19th CPC Central Committee, and is deployed in accordance with the National Conference on Education, comprehensively carries out the education policy of the CPC, implements the fundamental task of establishing a moral character and fostering the development of socialist builders and successors who have all-round development of morality, intelligence, physical fitness, and aesthetic ability. Adhering to the principles of being conducive to guiding the reform of the way ordinary high schools educate their students, promoting the scientific selection of talents by colleges and universities, and safeguarding social fairness, we are implementing a comprehensive reform of the examination and enrolment system of ordinary colleges and universities, constructing a fairer and more just, scientific and efficient examination and enrolment system for ordinary colleges and universities, meeting the people's growing demand for high-quality and diversified education, and

adapting to the economic and social development of the need for diversified and highly qualified talents. The new college entrance examination reform starts from 2021, and will provide talent support and intellectual support for the construction of a new stage of modern and beautiful Anhui.

The new college entrance examination reform from 2021 to start the comprehensive reform of the examination and enrolment of ordinary colleges and universities. Reform of the examination subject settings, the full implementation of the general high school academic level examination and comprehensive quality evaluation system, improve the college admission method. By 2024, the formation of classified examination, comprehensive evaluation, multiple admission examination and admission mode, improve the promotion of fairness, scientific selection, supervision and powerful college examination and admission system mechanism, the formation of the national unified college entrance examination and high school academic level examination results, reference to the comprehensive quality evaluation of the multiple admission mechanism.

Anhui Province, the comprehensive reform of the college entrance examination is the overall design of the college entrance examination enrollment system, is an integrated, systematic and comprehensive reform, mainly including five aspects: First, improve the general high school academic level examination system, clear test subject settings, test content, test subjects and time, performance presentation, etc.; Second, deepen the college entrance examination subject reform, clear test subject settings, performance composition and scoring, Examination time and form, etc.; Third, the implementation of the comprehensive quality evaluation system for students at the senior high school level, which specifies the improvement of the evaluation system and the strengthening of the evaluation of the use of the fourth is the reform of the unified college entrance examination enrollment and admission mode, which specifies the strengthening of the guidance of student development, the establishment of the subject guidance mechanism, the improvement of the volunteer settings and the filing method, etc.; Fifth, the deepening of the reform of the classified examination for enrollment of higher vocational colleges.

According to the overall arrangement of the Ministry of Education, our province as one of the fourth batch of provinces to promote the comprehensive reform of the college entrance examination, from the autumn of 2021 enrollment of students in the first year of high school began to implement, by 2024, the province of ordinary colleges and universities unified examination enrollment admissions will be established based on the unified college entrance examination and the results of the academic level examination of the ordinary high school, with reference to the evaluation of comprehensive quality of the admissions admission of a new mechanism, referred to as the "two Based on one reference".

A total of six subjects will be included in the total score of the college entrance examination, i.e., "3+1+2". The "3" subjects are Chinese, mathematics and foreign language, regardless of the original arts or science category; the "1" subject is one of the two optional subjects of physics and history; and the "2" subjects are to choose 2 out of 4 selective examination subjects of politics, geography, chemistry and biology. The three unified examination subjects of Chinese, mathematics and foreign language are conducted in accordance with the time of the national unified college entrance examination, and the examination of selective examination subjects is conducted immediately after the unified college entrance examination. The examination of foreign language subjects consists of two parts, listening and written, and when conditions are ripe, foreign language subjects will be offered two opportunities to take the examination. The total score of the college entrance examination is 750 points. Candidates' total score consists of the grades of three subjects in the unified examination, namely Chinese, mathematics and foreign language, and the grades of three optional subjects in the Academic Level Examination chosen by the candidates on their own. Among them, the full marks of Chinese, mathematics and foreign language are all 150 points, which are included in the total score with the original marks; the full marks of the optional subjects of the Academic Level Examination are all 100 points, with the history and physics subjects included in the total score with the original marks, and the politics, geography, chemistry and biology included in the total score with the graded marks. The results of each subject are valid for that year.

The provincial "implementation programme" stipulates that candidates in determining the selective examination subjects for the senior secondary academic level examination should choose one of the two preferred subjects in history and physics, and then choose two of the four re-selected subjects in politics, geography, chemistry and biology. In this way there are theoretically 12 combinations of selective examination subjects as follows:

Table of the twelve combination of subject choices

NO.	Physics Packages	NO.	History Packages
1	Physics +Chemistry +Biology	7	Physics+Politics +Geography
2	Physics +Chemistry +Politics	8	History+ Chemistry +Politics
3	Physics+ Chemistry +Geography	9	History +Chemistry +Geography
4	Physics + Biology + Politics	10	History +Biology +Politics
5	Physics+ Biology+ Geography	11	History+ Biology +Geography
6	Physics+Politics +Geography	12	History+ Politics+ geography

Grade points are converted from raw marks to graded marks according to uniform rules. For a sub-selective subject, after a candidate has achieved a pass in the qualifying examination for that subject, the starting point for the assignment of marks for conversion is 30 marks out of a total of 100 marks. A total of five grades, A, B, C, D and E, will be assigned according to the raw scores of the candidates of the elective subjects in descending order, with the proportion of the number of students in each grade being about 15 per cent, 35 per cent, 35 per cent, 13 per cent and 9 per cent respectively. The raw scores of the candidates within the five grades from A to E are converted to the five score intervals of 100~86, 85~71, 70~56, 55~41 and 40~30 according to the principle of conversion of equal ratio to get the grade scores of the candidates.

(1) Score conversion parameter setting

Grade	A	B	C	D	E
Proportion	≈15%	≈ 35%	≈35%	≈ 13%	≈2%
Interval	100~86	85~71	70~56	55~41	40~30

Note: Proportion here means the proportion of the number of approximate people and the Interval here refers to the assigned score interval.

(2) Conversion formula

$$\frac{Y_2 - Y}{Y - Y_1} = \frac{T_2 - T}{T - T_1}$$

Where Y_1 and Y_2 denote the lower and upper limits of the original score interval respectively; T and T_2 denote the lower and upper limits of the grade score interval respectively; Y denotes the original score; T denotes the grade score.

1.3 Investigation Aims

In terms of the research title A Study of Attitudes to Curriculum Innovation in a China's Rural Secondary School, the investigation aims are clear-cut and aim to make clear the attitudes of the school, the teachers, the students and the parents towards the ongoing curriculum innovation in the China's secondary school I intend to survey since attitudes towards curriculum innovation reflect its implementation situation and provide a perspective of adjusting and perfecting the curriculum innovation for teachers, schools and even policy makers. The attitudes of the school side thoroughly determine to what level or degree the curriculum innovation is implemented, the positiveness, efficiency and effectiveness of carrying out the curriculum innovation reform because it is the school side that maps the blueprint of the curriculum innovation reform of the school itself. Teachers are the conductors of the curriculum innovation and thus the attitudes of the teachers directly decide whether the curriculum can be made a reality and carried out positively and completely. The attitudes of the teachers also mirror the implementation situation of the school and undoubtedly affect the attitudes of the students. Students are the receivers of the curriculum innovation. Whether they are beneficiaries or victims of the curriculum innovation depends on the attitudes, the executive ability of the school and the teachers and the attitudes of the students themselves. And the attitudes of the students are the test stones of assessing the implementation situation of the curriculum innovation, via which the teachers, the school and the policy makers gain first-hand feedback and necessary reasons to improve or perfect the ongoing curriculum innovation. Nowadays schools and families bond over students learning under the curriculum innovation. Positive and supportive attitudes of the parents contribute to

students' learning journey while negative and objective attitudes of the parents hinder students' learning process under the curriculum innovation. To some extent, the attitudes of the parents shed light on the attitudes of the students, the school and the school teachers.

In order to fill the existing literature gap and evaluate and change the negative attitudes towards the curriculum innovation in rural China's secondary school scientifically, this paper identifies ,assesses and provides scientific ways to change the negative attitudes of the school, the students, the parents and the teachers towards the curriculum innovation in a China's rural secondary school.

2. Literature Review

A large number of existing studies probe attitude itself ,attitude change and behavior ,attitude towards a specific course and the curriculum innovation itself. For instance, in the journal paper of Musgrove, L. E. (1998)'s Coming to Terms: Attitude, it gives an account of the origin of the attitude, the theoretical definitions of the attitude and the practical applications of the attitude. Musgrove ,L. E. (1998) argues that studying models of positive attitudes advance students' learning even if they may not enact them self-consciously or consistently.

In the paper of Tamler Sommers (2007)'s The Objective Attitude, Tamler Sommers(2007) describes what he considers the objective attitude to be, then addresses concerns about this raised by Susan Wolf , argues that aspects of certain attitudes commonly thought to be contradictory to the objective attitude are in fact in accordance with it , examines the prospects of someone who longs to employ the objective attitude permanently and argues that our commitment to attitudes that presuppose moral responsibility can soften and fade without our noticing it.

In the paper of Rokeach, M. (1966)'s Attitude Change and Behavioral Change, Rokeach Milton (1966) argues that the change of attitude is a function not merely of attitude towards an object but also of attitude towards a situation. This perspective further complicates the study of expressed opinion change and behavior change in relation to attitude, and leads the author to consider several new avenues to evaluating attitude change.

In the journal article of Liska, A. E. (1974)'s *The Impact of Attitude on Behavior: Attitude-Social Support Interaction*, Liska, A. E. (1974) deals with the relationship between attitude and behavior, focuses on the additive effects of social support, examines the relationship between attitude, social support, and behavior and finds the relationship between attitude and behavior to be strongest at a high level of social support and hypothesizes that when attitude is referred to as a general category of people, a high level of social support may function to activate certain attitudinal behavior implications, but when attitude points to specific behavior patterns the potential for an activation effect is restricted.

In the book of Ruffell, M., Mason, J., & Allen, B. (1998)'s *Studying Attitude to Mathematics. Educational Studies in Mathematics*, Ruffell, M., Mason, J., & Allen, B. (1998) intends to produce instruments for teachers to use in digging into student attitudes as part of their personal professional research and development. They undertake eight small studies of attitude which is carried out across the educational phases, challenging the very construct of attitude and the cause-and-effect model underlying much attitudinal research and assumes attitude as at best a complex notion, which is not a quality of an individual but rather a construct of an observer's desire to formulate a story to account for observations.

There are also varieties of studies concerning curriculum and curriculum innovation like Jones, L. B. (1962)'s *Curriculum Innovations in a Public-School System. Theory Into Practice*, Lowrey, A. M. (1972)'s *Components of Curriculum Innovation*, Hord, S. M., & Huling-Austin, L. (1986)'s *Effective Curriculum Implementation: Some Promising New Insights* and Pemberton, R., Carmichael, S., & Lam, M. (2004)'s *Developing Learner Motivation through Curriculum Innovation*. A few studies touch the effect of an attitude towards another like Behar-Horenstein, L. S., Pajares, F., & George, P. S. (1996)'s *The Effect of Teachers' Beliefs on Students' Academic Performance during Curriculum Innovation*.

In the book of Kärkkäinen, K. (2012)'s *"Bringing About Curriculum Innovations: Implicit Approaches in the OECD Area"*, Kärkkäinen, K. (2012) discusses varieties of innovation rationales for the central and school-based methods to curriculum

decision making and offers an overview of OECD education systems in this continuum. Apart from formal decision making, various structural factors that may have an impact on those decisions are analyzed and the ways the different stakeholders can affect curriculum innovations discussed. The paper combines various OECD and UNESCO data with a focus on public lower-secondary education.

OECD (2021), "Challenges and strategies for equity in curriculum innovation", in *Adapting Curriculum to Bridge Equity Gaps: Towards an Inclusive Curriculum*, presents the challenges faced by countries or jurisdictions in an attempt to attend to inequity through curriculum innovation, and the strategies they have adopted to the four major types of curriculum innovations examined: digital curriculum, personalized curriculum, cross-curricular content and competencies, and flexible curriculum. The strategies depicted are not recommendations, but rather opportunities for countries or jurisdictions to learn from each other, in line with the Education 2030 project's peer-learning mission. Examples reported in this section from Northern Ireland (United Kingdom), the United States, Brazil and India should not be considered the official views of the government since they were submitted by independent researchers, not government officials.

Of all the following theories to be mentioned I put special emphasis on Brain K. Lynch's(1996) practical theory in his book *Language Program Evaluation: Theory and Practice* because the curriculum innovation is of a language program and the evaluation of it besides observing attitudes is consistent with Lynch's theory and practice and his research method of addressing the question of how young children become bilingual(her first research question) is of high reference value. For instance, when Brain K. Lynch studies how young children become bilingual, he does not use the mixed language group in all of his analyses and he chooses two families from different language settings to study further by making eight tape recordings of mother-child and father-child interaction separately , through which the percentage of the interactions is calculated and an appendix list is used. The questionnaires he sends out are over 100 and his data are compatible with the Sequential Model and what I quite appreciate is his skills in evaluation in his *Reading English for Science and*

Technology Project, in which he offers a theoretical background and some practical techniques for the evaluation of language education programs. Scanning his book, historical overview, positivistic and naturalistic views, model designs, detailed evidence examples and research paradigms are traced to make his research systematic at every process. What really seize my attention is that some attitudes and curriculum evaluation are also mentioned, which makes me aware that analyzing attitudes is also of evaluating curriculum innovation.

Kenneth M. Zeichner (1987) in his book *Critical Pedagogy and Teacher Education* he provides a normative basis approach to teacher education and a series of conceptual lenses and instructional strategies are used to become much more politically involved in teacher education, which is often the case in China's education because Chinese teachers' pedagogy and education are more political. The curriculum innovation along with the new national college entrance examination is politics-oriented. Thus Kenneth M. Zeichner's theory is worth mentioning in terms of my study of the attitudes towards the curriculum innovation of a China's rural secondary school.

For theories about curriculum innovation, Jones, L. B. (1962) in his book *Curriculum Innovations in a Public-School System. Theory Into Practice* analyzes the curriculum innovation situation in a public school, which is quite similar to mine and the theories presented in his book open up a window for my research. Behar-Horenstein, L. S., Pajares, F., & George, P. S. (1996) in their book *The Effect of Teachers' Beliefs on Students' Academic Performance during Curriculum Innovation* showcases how the teachers' attitudes affect students' attitudes towards academic performance during curriculum innovation, which appropriately contribute to my research. Hord, S. M., & Huling-Austin, L. (1986) in their book *Effective Curriculum Implementation: Some Promising New Insights* provides study findings based on Principal-Teacher-Interaction(PTI)study, which reflects the attitude of the principal, the representative of the school affects the attitudes of teachers in implementing the curriculum innovation. This perspective lives up to my expectations of studying the attitudes of the school and the teachers. Pemberton, R., Carmichael, S., & Lam, M. (2004) 's book *Developing learner motivation through curriculum innovation* gives a

insight into the way of shifting students' attitudes towards curriculum innovation to motivate their learning, which can be a way and be adopted by analyzing students' attitudes. Mairtín Mac An Ghaill. (1992)'s theory in his book *Student Perspectives on Curriculum Innovation and Change in an English Secondary School: An Empirical Study* is quantitative-based. Mairtín Mac An Ghaill provides a case-study of how curriculum innovation is being mediated through a secondary school, in which a student perspective or a student attitude is shown. From the above books and theories , the study of attitudes among the school, the students , the teachers and the parents is more theoretically prepared.

As for the attitude itself and the identification of the attitude, there are also some theories to justify them such as Kuhl, J. (1982) 's Action-vs. state-orientation as a mediator between motivation and action, Ajzen, I. (1985)'s *From Intentions to Actions: A Theory of Planned Behavior*, Carl Hovland's *Attitude's ABC theory* and *Attitude Organization and Change* , Kelman's compliance, identification and internalization theories. Murphy, G. Allport, Krech, Freedman, La Piere, Newcomb, Weigel, Fishbein, Froming, Petty, Davidson, Kallgren, Fazio, Williams and so on are all additional resources for the study of attitude.

Gregory R. Miao, Geoffrey Haddock and Bas Verplanken (2019)'s book *The Psychology of Attitudes & Attitudes Change* elaborates on the aspects of attitudes specifically, thus serving as a practical guidance for my attitude study, especially the research methods involved.

As is analyzed above, we can see that a large number of existing studies probe attitude itself , attitude and behavior and attitude towards a specific course. Whilst a considerable body of research has been carried out on attitude and curriculum innovation separately, much less is known about the study of attitudes to curriculum innovation, especially that of a China's rural secondary school.

3.Methodology

3.1 Research Approach

This paper aims to study the attitudes of the teachers, students, parents and the school side of a China's rural secondary high school towards curriculum innovation. The site of the survey takes place in a town called Yansi where the rural secondary school the author is working is located. The study of the attitudes of the teachers, students, parents and the school side of a China's rural secondary high school towards curriculum innovation is aimed to identify objectively the attitudes so as to provide a reference of changing some negative attitudes and perfecting the process of the curriculum innovation.

The method adopted in this paper is quantitative method based on the theory and philosophy of positivism because attitudes can be measured. Attitude measures commonly used in social psychology include attitude scales and questionnaires of Likert scale.

3.2 Research Design

When designing an attitude measurement method, the first thing that must be identified is the attitude object. Attitude objects can be more concrete or more abstract, but must be clearly distinguishable from other concepts. The main attribute of attitude is evaluative, i.e., the tendency to react positively or negatively to a certain attitude object. Attitudes should be placed in a certain position in terms of evaluative connections, indicating their direction and degree. Attitudes are linked to the basic values and basic needs of the individual, which can cause differences in the degree of self-involvement. Attitude is not directly observed; its presence is shown through visible reactions. Visible responses can be distinguished into three categories, namely cognitive responses (agree or disagree), affective responses (like or dislike) and behavioral responses (support or oppose). Evaluative tendencies can be gauged through any of these responses. For example, the aspect of beliefs can usually only be estimated through cognitive responses. Attitude is an abstract concept and its measurement requires a specific approach.

The Likert scale is the most commonly used type of general rating summation scale,

where items belonging to the same construct are scored in a sum manner, and separate or individual items are meaningless. It was improved by the American social psychologist Likert in 1932 on the basis of the original total plus scale. The scale consists of a set of statements, each statement has "strongly agree", "agree", "not necessarily", "disagree", "strongly disagree" five kinds of responses, respectively, recorded as 5, 4, 3, 2, 1, each respondent's attitude score is the sum of the scores obtained from his answers to the questions, the total score can be illustrated by the strength of his attitudes or his different states on this scale.

The Likert scale is similar in form to the Shah's Passage Scale in that it asks the participant to express his or her opinion on a set of statements related to the topic being measured. The difference is that the Shah's General Scale asks the participant to select only those statements with which he agrees, whereas the Likert Scale asks the participant to indicate the extent to which he agrees or disagrees with each of the attitude-related statements. In addition, a set of attitude-related statements in the Shah's General Scale has a defined score in terms of favourable and unfavourable, whereas the Likert Scale simply requires a classification of attitude statements as favourable or unfavourable.

A Likert option is a statement. The participant is asked to indicate the extent to which he or they agree with the statement made in that question, or any form of subjective or objective evaluation. Five response ratings are commonly used. A recent empirical study noted that data from the 5-, 7-, and 10-rank options had similar means, variances, skewness, and kurtosis after a simple transformation of the information. For example, Likert's 5-rank option's: 1. strongly disagree 2. disagree 3. neither agree nor disagree 4. agree 5. strongly agree The Likert scale is a quantitative method with two extremes that measures positive or negative responses to a statement. Likert scales may be distorted by several factors. Participants may avoid ticking extreme options (neutralisation bias); habitually agree with statements (inertia bias); or try to figure out and accommodate their own or their organisation's desired outcomes (social approval bias).

The basic design steps are:

- (1) A large number (20 to 50) of declarative statements related to the concept being measured are collected.
- (2) A researcher classifies each measured item as either "favourable" or "unfavourable" according to the concept of measurement, and generally there should be a certain number of favourable or unfavourable items in the measured items.
- (3) Selected subjects are pre-tested on all items and asked to indicate whether each item is favourable or unfavourable and to choose between the following direction-strength descriptors, generally on a so-called "five-point" scale: a. Strongly agree b. Agree c. Indifferent (not sure) d. Disagree e. Strongly disagree
- (4) A score is given for each response, e.g. 5, 4, 3, 2, 1 for favourable items from strongly agree to strongly disagree, and for unfavourable items the scores would be 1, 2, 3, 4, 5.
- (5) Algebraic sums were calculated based on the subjects' scores for each item to obtain a total individual attitude score, and the subjects were classified into high and low groups based on the number of total scores.
- (6) Select a number of items that have a greater ability to differentiate between high and low groupings to form a Likert scale. For example, the average score of each item in the high and low groupings can be calculated, and those items with higher average scores in the high groupings and lower average scores in the low groupings can be selected.

After the questionnaire has been completed, each option may be analyzed individually, or some groups of options may be summed and built up into a scale. For this reason, Likert scales are often referred to as summative scales.

Whether individual Likert items can be regarded as interval data or should only be regarded as ordinal data remains a controversial issue. Many regard such items as ordinal scale data because, especially when only five levels are used, it is not possible for subjects to perceive these neighbouring items as being equally spaced. On the other hand, usually (as in the example above) the wording of its response levels clearly implies a symmetry of response levels in the intermediate categories; at the very least, such an item would turn out to be intermediate between the sequential and

interval scales; treating it only as sequential data would be missing some of the information. Furthermore, if the item is accompanied by a visual analog scale, the spacing of its response levels makes it clear that its argument as interval data is more robust.

When viewed as ordinal data, Likert data can be organised into long bar charts, with medians or plurals (but not averages) to show concentrated trends, and interquartile ranges to show the degree of dispersion (but not the standard deviation), or analysed with non-parametric tests such as the Chi-square test, Mann-Whitney test, Wilcoxon signed-rank test), or the Kruskal-Wallis test.

Data from several Likert questions might be summed, and if the same Likert scale is used for all questions, the scale can effectively approximate the interval scale, which at this point can be viewed as an interval data measure of potential variables. If the summed results satisfy these assumptions, they can be tested using parametric statistics such as analysis of variance. However, it should only be used if there are more than five items.

Data obtained from Likert scales sometimes combine all agreement and disagreement responses into two categories, "acceptance" and "non-acceptance," which can become nominal scales; Chi-Square, Cochran Q, or McNemar-Test are common statistical methods used after these transformations of the data have been made.

The Likert method enjoys many advantages like:

- (1) Easy to design;
- (2) Wider range of use than other scales, and can be used to measure certain multidimensional and complex concepts or attitudes that cannot be measured by some other scales.
- (3) Typically, Likert scales have higher reliability than scales of the same length.
- (4) The five answer formats of Likert scales allow respondents to easily mark their positions.

But the limitation of this method is that identical attitude scorers have very different attitude forms. Because the Likert scale is an item-total additive score representing a person's degree of approval, it can roughly distinguish between individuals who have

high and low attitudes, but it cannot further describe their attitudinal structure differences.

3.3 Data Collection

The author randomly finds 5 students, 5 teachers, 5 parents and 5 school leaders to conduct a survey in the form of 4 different Likert questionnaires to get the first-hand primary data. The questionnaires will be attached in the appendix part. The data collected is assessed and possessed via SPSS and Excel.

3.4 Ethical Issues

All participants were voluntary and were informed in advance of the purpose of the study, no privacy would be disclosed or violated during the study, they could discontinue their participation at any time they wished, and in general all research ethics would be observed. A consent form was also provided and signed.

4.Results

There are four different questionnaires intending to evaluate attitudes of the teachers, the students, the parents and the school side toward the curriculum innovation. In the questionnaire designed for the school side, ten questions were asked in the form of the Likert scale as follows:

Q1. 学校是否支持国家的新课程标准改革？ Do you support the curriculum innovation?

Q2. 学校是否支持更换为现在的新课本教材？ Do you support the change of the new textbooks?

Q3. 学校是否同意学生高考题型的变化？ Do you agree the change of the question type of the exams?

Q4. 学校是否同意新高考的 12 种组合会对孩子产生不好影响？ Do you agree that the 12 combinations have a negative impact on children?

Q5. 学校是否喜欢 12 组合下孩子走班上课模式？ Do you like the new class attending mode guided by the 12 combinations?

Q6. 学校是否支持新课程标准改革中的树人理念？ Do you like the idea of

cultivating students in the curriculum innovation?

Q7. 学校是否同意新课程改革对农村家庭不利? Do you agree that the curriculum innovation makes high school families in rural schools no advantage?

Q8. 学校是否同意新课程改革导致学生学习难度增加? Do you agree that the curriculum innovation makes students' learning more difficult?

Q9. 学校是否同意新课程改革其实和没改的也差不多? Do you agree that the curriculum innovation makes no difference to the school side?

Q10. 学校是否同意新课程改革会对学校管理产生不好的影响? Do you agree that the curriculum innovation has a negative impact on the management of the school?

The primary data was assessed via SSPS and the result of its Cronbach value is 0.858 and its KMO is 0.633, which shows the credibility of this survey and the result is as is shown in the table.

Table of the result of the questionnaire for students

Student	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Toatal
L1	3	3	3	3	3	3	3	2	4	4	31
L2	5	4	4	2	4	4	2	2	2	2	31
L3	5	5	5	1	5	5	1	1	1	1	30
L4	5	5	5	1	5	5	1	1	1	1	30
L5	5	5	5	5	5	5	1	1	3	5	40
Average	4.6	4.4	4.4	2.4	4.4	4.4	1.6	1.4	2.2	2.6	32.4

Note: Q1-Q10 refers to questions 1 to 10; L1-L5 stands for school leaders 1 to 5.

From the table we can see that the total average score is 32.4, which is a little higher than the middle score 30 meaning neutral and indicates that the rural secondary school are not very fond of the curriculum innovation especially it comes to the question 4, question 7, question 8, question 9 and question 10.

In the questionnaire designed for the students, there are also ten questions asked in the form of the Likert scale in the following.

Q1. 您是否支持国家的新课程标准改革? Do you support the curriculum innovation?

Q2. 您是否喜欢现在更换的新课本教材? Do like the new textbooks?

Q3. 您是否同意高考题型的变化? Do you agree the change of the question type of

the exams?

Q4. 您是否喜欢新高考的 12 种组合? Do you like the 12 combinations of the new college entrance examination?

Q5. 您是否喜欢 12 组合下的走班上课模式? Do you like the new mode of attending classes guided by the 12 combinations?

Q6. 您是否支持新课程标准改革中的树人理念? Do you like the idea of cultivating students in the curriculum innovation?

Q7. 您是否同意新课程改革对农村高中生不利? Do you agree that the curriculum innovation makes high school students in rural schools no advantage?

Q8. 您是否同意新课程改革导致考试难度增加? Do you agree that the curriculum innovation makes exams more difficult?

Q9. 您是否同意新课程改革其实和没改的也差不多? Do you agree that the curriculum innovation makes no difference to students?

Q10. 您是否同意新课程改革会对学生职业生涯规划产生不好的引导? Do you agree that the curriculum innovation leads astray of the students' job career planning?

After the survey the primary data was assessed via SPSS and the result of its Cronbach value is 0.870 and its KMO is 0.623, which shows the credibility of this survey and the result is as is shown in the table.

Student	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
S1	5	5	5	5	5	5	3	3	4	4	44
S2	5	5	5	5	5	5	1	1	1	1	34
S3	4	4	4	4	5	5	3	3	4	4	40
S4	3	3	5	5	5	5	4	2	2	3	37
S5	5	5	5	5	5	5	1	1	5	5	42
Average	4.4	4.4	4.8	4.8	5	5	2.4	2	3.2	3.4	39.4

Note: Q1-Q10 refers to questions 1-10 and S1-5 stands for students 1-5.

The total average score of the students' answer is 39.4, which is near all agree value 40 and proves that students in the rural secondary school basically agree the curriculum innovation. However, special attention should be paid to question 7, question 8, question 9 and question 10 due to their low average score as is shown in the table above.

In the questionnaire designed for parents, ten questions were asked like below.

Q1. 您是否支持国家的新课程标准改革？ Do you support the curriculum innovation?

Q2. 您是否支持您孩子现在更换的新课本教材？ Do you support the change of the new textbooks?

Q3. 您是否同意您的孩子高考题型的变化？ Do you agree the change of the question type of the exams?

Q4. 您是否同意新高考的 12 种组合会对您的孩子产生不良影响？ Do you agree that the 12 combinations have a negative impact on your child?

Q5. 您是否喜欢 12 组合下您的孩子走班上课模式？ Do you like the new class attending mode guided by the 12 combinations?

Q6. 您是否支持新课程标准改革中的树人理念？ Do you like the idea of cultivating students in the curriculum innovation?

Q7. 您是否同意新课程改革对农村家庭不利？ Do you agree that the curriculum innovation makes high school families in rural schools no advantage?

Q8. 您是否同意新课程改革导致您的孩子学习难度增加？ Do you agree that the curriculum innovation makes your child's learning more difficult?

The primary data was checked and assessed by SPSS and its Cronbach value is 0.858 and its KMO is 0.533, which suggests the credibility of the survey and the result is displayed in the below table.

Parent	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
P1	5	4	4	4	4	4	4	3	3	3	38
P2	5	5	5	1	5	5	1	1	1	1	30
P3	5	5	5	2	5	5	3	3	3	3	39
P4	5	5	3	3	3	5	3	3	3	3	36
P5	5	5	5	5	5	5	5	5	1	5	46
Average	5.0	4.8	4.4	3.0	4.4	4.8	3.2	3.0	2.2	3.0	37.8

Note: Q1-10 refers to questions1-10 and P1-5 stands for parents 1-5.

The total average value of the parents is 37.8, which is a little higher than the neutral value 30 and lower than the agree value 40 and implies parents are concerned about the curriculum innovation especially when asked about question 4, question 7, question8, question9 and question10.

In the questionnaire designed for teachers, still ten questions were made according to

the Likert scale like the following.

Q1. 您是否支持国家的新课程标准改革？ Do you support the curriculum innovation?

Q2. 您是否喜欢教现在更换的新课本教材？ Do like the new textbooks?

Q3. 您是否同意高考题型的变化？ Do you agree the change of the question type of the exams?

Q4. 您是否同意新高考的 12 种组合会对您的教学管理产生不好影响？ Do you agree that the 12 combinations have a negative impact on your class management?

Q5. 您是否喜欢 12 组合下教授走班模式学生？ Do you like teaching students moving from different classes guided by the 12 combinations?

Q6. 您是否支持新课程标准改革中的树人理念？ Do you like the idea of cultivating students in the curriculum innovation?

Q7. 您是否同意新课程改革对农村教师不利？ Do you agree that the curriculum innovation makes high school teachers in rural schools no advantage?

Q8. 您是否同意新课程改革导致教学难度增加？ Do you agree that the curriculum innovation makes teaching more difficult?

Q9. 您是否同意新课程改革其实和没改的也差不多？ Do you agree that the curriculum innovation makes no difference to students?

Q10. 您是否同意新课程改革会对教师职业生涯规划产生不好的影响？ Do you agree that the curriculum innovation has a negative impact on teacher's job career?

After being analyzed by SPSS, the Cronbach value of the primary data is 0.897 and its KMO is 0.723, which justify the credibility of the survey. The result of the survey is in the below table.

Teacher	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
T1	4	4	4	2	3	3	1	2	2	2	27
T2	5	5	5	1	5	5	1	1	1	1	30
T3	5	3	5	2	2	5	1	1	3	3	30
T4	5	5	5	1	5	5	1	1	1	1	30
T5	4	4	4	3	2	4	3	2	4	4	34
Average	4.6	4.2	4.6	1.8	3.4	4.4	1.4	1.4	2.2	2.2	30.2

Note: Q1-Q10 refers to questions1-10 and T1-5 stands for teacher 1-5.

Surprisingly, the total average score of the teachers' answer is 30.2 , the lowest value

among other participant groups. This means teachers' attitude is quite neutral and shaking and they are deeply worried about their teaching arrangement and job careers because of the 12 combination in the curriculum innovation in which some of the teachers may be deprived of their job on condition that few students choose his class. Question 4, question 7, question 8 , question 9 and question 10 are to be put special attention for the school side or policy makers.

5. Conclusion

This paper sets out to study the attitudes of the students, teachers, parents and the school side in a China's rural secondary school towards the curriculum innovation. Quantitative method based on positivism was adopted via questionnaires according to the Likert scale. This study has identified attitudes of the students, teachers ,parents and the school side. Overall, the students and parents agree with the curriculum innovation while the teachers and the school side as implement side keeps neutral and quite disagree with the curriculum innovation. The result gives an deep insight into the attitudes towards the curriculum innovation and contributes to both the school side and the policy maker by clarifying the attitudes, which helps the school side and the policy maker think about possible ways to tackle problems shown by low score values in the survey result and accordingly perfect the curriculum innovation.

This paper strongly advises that the policy maker to give support to rural secondary schools according to the assessment of the attitudes and the school side to help teachers cope with problems and anxieties encountered in the process of the curriculum innovation.

6. Discussion and Summary

I in this paper probe the attitudes of the students, teachers, parents and the school side in a China's rural secondary school towards the curriculum innovation and the result of it is that as curriculum innovation receivers, the parents and the students are more agreeable with the curriculum innovation than the curriculum innovation performers, the teachers and the school side. This paper does fill the gap of studying attitudes towards the curriculum innovation undergoing in China. While this study sheds light on the attitudes of the students, teachers, parents and the school side in a China's rural

secondary school towards the curriculum innovation, gives an insight for the school side and the policy maker, there is still room to improve the study. For instance, more specific answers should be designed to demonstrate more problems. Besides answers in the questionnaires should be adjusted to make the Cronbach and KMO value higher. Moreover, more participants should be called in to make the result more objective and gender should be added to manifest attitudes between different genders. Lastly the process of the data should be more professional.

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Appendix

CONSENT FORM

This consent form made on August 1, 2023, by and between Consentee Dr. Jessica Clapham with a mailing address of j.clapham@uwtsd.ac.uk and Releasee Zhongxi Ye with a mailing address of 2218895@student.uwtsd.ac.uk to perform the following acts.

Thank you for considering taking part in this research. You will be given a copy of this Consent Form to keep and refer to at any time.

I confirm that I understand that by ticking each box I am consenting to this element of the research. I understand that it will be assumed that unticked boxes mean that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element I may be deemed ineligible for the research.

1. I confirm that I have read and understand the information sheet for the above research. I have had the opportunity to consider the information and asked questions which have been answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to one week after my interview.
3. I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the UK GDPR.
4. I understand that the confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications.
5. I agree that the researcher may access my questionnaire results for the purpose of this research project.
6. I agree that the researcher may use my unidentifiable data for further research.
7. I understand that the information I have submitted will be published as a report and I can get a copy of it when I asked.
8. I consent to my interview being audio recorded.

胡志鹏 吴诚 洪毅晨 华帅涛 史世林 余继凡 张红燕 黄翔 詹恩阳
张振江 朴娜 李聪 金鹏 张洛嘉 章叶航

Name of participant :

席凌超 胡弘洋

Date: September 26th, 2023

Signature:

邵胡栋 胡嫣然 巴书其

Information Sheet

I would like to invite you to participate in this research project which forms part of my Professional Master's degree research. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take the time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information.

What is the purpose of the research?

Attitudes towards curriculum innovation reflect its implementation situation and provide a perspective of adjusting and perfecting the curriculum innovation for teachers, schools and even policy makers, especially the attitudes captured from a rural secondary school, which is one of the most earthly places carrying out the curriculum innovation and serves as a sample or a tip of the iceberg through which we are able to glimpse the whole picture of the curriculum innovation. Thereby the purpose of this paper is to study the attitudes to curriculum innovation in a China's rural secondary school to contribute to the curriculum innovation.

Why have you been invited to take part in my research?

I am inviting the school leaders, teachers in our senior high department who has more than three years' working experience in our school and would like to make them more aware of their attitudes towards the ongoing curriculum innovation. I am also inviting students of those teachers and parents of these students who are willing to take part in this research.

What will happen to you if you take part in?

To the school leaders and teachers who agreed to take part in my research, you have to sign a consent form. Then all the school leaders and teachers would have a discussion with me about the ongoing curriculum innovation and do a survey about their attitudes towards the curriculum innovation anonymously.

To students and parents who agreed to take part in my research, you have to sign a consent form as well. Then you will be given an online questionnaire via smartphones anonymously which is designed to find out the attitudes towards the curriculum innovation and your data will be collected anonymously too.

Do I have to take part in?

Participation is entirely voluntary. Please note that, even you signed the consent form, you can withdraw from my research at any time.

What are the possible benefits and risks of taking part?

There are no known risks of taking part.

Possible benefits to leaders:

Leaders of the school may focus on more information of the curriculum innovation later in their management career. The study survey of the curriculum innovation of a teacher may influence their attitudes towards it later on positively.

Possible benefits to teachers:

Teachers may know more information about curriculum innovation and be more aware of the curriculum innovation, which may arouse more interest in exploring more innovative and practical teaching methodology in the atmosphere of curriculum innovation.

Possible benefits to students:

Students may be more aware of the curriculum innovation and may form a kind of consciousness of master when surveyed, which may fuel students to learn all subjects guided by the curriculum innovation more actively.

Possible benefits to parents:

Parents of the students are mostly peasants of this rural area who seldom cares about the curriculum innovation and are even not aware of its existence. Through this survey they may get to know more knowledge about the curriculum innovation and may be more willing to communicate with their teachers since they feel they are informed of this big innovation.

Data Storage, Retention, Destruction and Future Use

No data will be accessed by anyone other than me. Anonymity of the material will be protected by using anonymous participant ID numbers. Electronic files containing confidential data will be password-protected and deleted after data collection, and entries are complete.

What will happen to the results of the research?

A report of the main findings will be made available to you if you request it. And the results of the research will also be used in my Master's degree dissertation.

Who should I contact for further information?

If you have any questions or require more information about this research, please contact me using the following contact details:

Email Address: 2218895@student.uwtsd.ac.uk

Phone Number: 0086-15905596656

APPLICATION FOR ETHICAL APPROVAL

RESEARCH STUDENTS

This form is to be completed by the student within **SIX** months for full-time students and **TWELVE** months for part time students, after the commencement of the research degree or following progression to Part Two of your course.

Once complete, submit this form via the **MyTSD Doctoral College Portal** at (<https://mytsd.uwtsd.ac.uk>).

This document is also available in Welsh.

RESEARCH STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk , with the title 'Ethical Approval' followed by your name.

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of **research activity**: "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the "principal researcher".

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of

application.

SECTION A: About You (Principal Researcher)

1	Full Name:		Zhongxi Ye			
2	Tick all boxes that apply:		Member of staff:	☐	Honorary research fellow:	☐
	Undergraduate Student	☐	Taught Postgraduate Student	☒	Postgraduate Research Student	☐

3	Institute/Academic Discipline/Centre:	Institute of Education and Humanities
4	Campus:	Lampeter Campus
5	E-mail address:	2218895@student.uwtsd.ac.uk
6	Contact Telephone Number:	0086-15905596656
For students:		
7	Student Number:	2218895
8	Programme of Study:	MA TESOL
9	Director of Studies/Supervisor:	Dr Jessica Clapham

SECTION B: Approval for Research Activity

1	Has the research activity received approval in principle? (please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual)		YES	☒	NO	☐
					Date	
2	If Yes, please indicate source of approval (and date where known): Approval in principle must be obtained from the relevant source prior to seeking ethical approval	Research Committee	Degrees	☐	July17,2023	
Institute Research Committee			☒			
Other (write in)			☐			

SECTION C: Internal and External Ethical Guidance Materials

	Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.	
1	UWTSD Research Ethics & Integrity Code of Practice	☒
2	UWTSD Research Data Management Policy	☒
3	<i>[List any other relevant documents here]</i>	☐

SECTION D: External Collaborative Research Activity

If there are external collaborators then you should gain consent from the contact persons to share their personal data with the university. If there are no external collaborators then leave this section blank and continue to section E.

1	Institution					
2	Contact person name					
3	Contact person e-mail address					
4	Is your research externally funded?	YES	☐	NO	☐	
5	Are you in receipt of a KESS scholarship?	YES	☐	NO	☐	
6	Are you specifically employed to undertake this research in either a paid or voluntary capacity?	Voluntary	YES	☐	NO	☐
7		Employed	YES	☐	NO	☐
8	Is the research being undertaken within an existing UWTSD Athrofa Professional Learning Partnership (APLP)?	If YES then the permission question below does not need to be answered.	YES	☐	NO	☐
9	Has permission to undertake the research has been provided by the partner organisation?	(If YES attach copy) If NO the application cannot continue	YES	☐	NO	☐

Where research activity is carried out in collaboration with an external organisation

10	Does this organisation have its own ethics approval system?	YES	☐	NO	☐
	If Yes, please attach a copy of any final approval (or interim approval) from the organisation (this may be a copy of an email if appropriate).				

SECTION E: Details of Research Activity

1	Indicative title:	A Study of Attitudes to Curriculum Innovation in a China's Rural Secondary School		
2	Proposed start date:	July17,2023	Proposed end date:	Sept. 30 th , 2023
	Introduction to the Research (maximum 300 words per section) China's Ministry of Education has been implementing a nation-wide curriculum innovation reform in some of the provinces for its moral education of socialist builders and successors and the national college entrance examination since 2019 and the curriculum innovation reform is at present conducting in secondary schools in cities and rural areas of Anhui province and will witness its new national college entrance examination after the curriculum innovation reform in 2024. Attitudes towards curriculum innovation reflect its implementation situation and provide a perspective of adjusting and perfecting the curriculum innovation for teachers, schools and even policy makers, especially the attitudes captured from a rural secondary school, which is one of the most earthly places carrying out the curriculum innovation and serves as a sample or a tip of the iceberg through which we are able to glimpse the whole picture of the curriculum innovation. Thereby the purpose of this paper is to study the attitudes to curriculum innovation in a China's rural secondary school to contribute to the curriculum innovation. The proposed research question is around the attitudes of the school, the teachers , the students and the parents towards the curriculum innovation. The aim of the research activity is to make clear the attitudes to the curriculum innovation in a China's rural secondary school to contribute to the on-going curriculum innovation. The specific objectives of the research activity are to figure out what the attitudes of the school, the teachers , the students and the parents towards the curriculum innovation are separately. There are some existing researches that contribute to my research activity. Brain K. Lynch's(1996) practical theory in his book Language Program Evaluation: Theory and Practice helps me to evaluate the curriculum innovation, Jones, L. B. (1962) in his book Curriculum Innovations in a Public-School System. Theory Into Practice analyzes the curriculum innovation situation in a public school, which is quite similar to mine and the			

	theories presented in his book open up a window for my research, and as for the attitude itself and the identification of the attitude, there are also some theories to justify them such as Kuhl, J. (1982) 's Action-vs. state-orientation as a mediator between motivation and action, Ajzen, I. (1985)'s From Intentions to Actions: A Theory of Planned Behavior, Carl Hovland's Attitude's ABC theory and Attitude Organization and Change, Kelman's compliance, identification and internalization theories. Murphy, G. Allport, Krech, Freedman, La Piere, Newcomb, Weigel, Fishbein, Froming, Petty, Davidson, Kallgren, Fazio, Williams and so on are all additional resources for the study of attitude.
3	Purpose of Research Activity The purpose of this research activity is to study the attitudes to curriculum innovation in a China's rural secondary school to contribute to the curriculum innovation. (this box should expand as you type)
4	Research Question The proposed research question is around the attitudes of the school, the teachers, the students and the parents towards the curriculum innovation. (this box should expand as you type)
5	Aims of Research Activity The aim of the research activity is to make clear the attitudes to the curriculum innovation in a China's rural secondary school to contribute to the on-going curriculum innovation. (this box should expand as you type)
6	Objectives of Research Activity The specific objectives of the research activity are to figure out what the attitudes of the school, the teachers, the students and the parents towards the curriculum innovation are separately. (this box should expand as you type)

	Proposed methods (maximum 600 words) Provide a brief summary of all the methods that may be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. You do not need to justify the methods here, but should instead describe how you intend to collect the data necessary for you to complete your project.
7	In the research activity both quantitative and qualitative methods will be used. When collecting the data, quantitative method takes the lead and when analyzing the data or concluding the result quantitative and qualitative method are used. In view of the research of the attitudes of the school, the teachers , the students and the parents, a Thurstone Scale with a number of “agree” or “disagree” statements will be used to to assess parents’ attitudes towards the research topic concerned because parents in rural China are weak in education themselves and are tougher than the school side, students and teachers to answer some questions. So instead of making them answer questions, they are arranged to tick “agree” or “disagree” in this Thurstone Scale, in which there is a panel of judges rating the items on a scale of 1to 11 for how favorable each item is toward the topic. The lowest score(1) should indicate an extremely unfavorable attitude and the highest score(11) should imply an extremely favorable attitude. While in terms of the school side, the students and the teachers, the most widely used Likert Scale is adopted because they have the ability to respond to a series of statements, which includes agreement, frequency, importance and likelihood. The Semantic Differential Scale ,which is a seven-point rating scale is used to reveal the correspondents attitudes towards the given object or event by asking them to select an appropriate position on a scale between two bipolar adjectives like “powerful” or”weak”. (this box should expand as you type)
	Location of research activity Identify all locations where research activity will take place.
8	Senior High Department, Wenfeng School, Huangshan, Anhui Province,Mainland China (this box should expand as you type)
	Research activity outside of the UK If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional

	associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural and/or legal sensitivities or vulnerabilities of participants. If you live in the country where you will do the research then please state this.
9	No specific ethical issues in China. I do my research according to the ethical considerations of the Uk. <i>(this box should expand as you type)</i>

10	Use of documentation not in the public domain: Are any documents NOT publicly available?	NO	☒
		YES	☐
11	If Yes, please provide details here of how you will gain access to specific documentation that is not in the public domain and that this is in accordance with the current data protection law of the country in question and that of England and Wales. <i>(this box should expand as you type)</i>		

	Does your research relate to one or more of the seven aims of the Well-being of Future Generations (Wales) Act 2015?	YES	NO
12	A prosperous Wales	☐	☒
13	A resilient Wales	☐	☒
14	A healthier Wales	☐	☒
15	A more equal Wales	☐	☒
16	A Wales of cohesive communities	☐	☒
17	A Wales of vibrant culture and thriving Welsh language	☐	☒
18	A globally responsible Wales	☐	☒
19	If YES to any of the above, please give details:		

	(this box should expand as you type)
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SECTION F: Scope of Research Activity

	Will the research activity include:	YES	NO
1	Use of a questionnaire or similar research instrument?	☒	☐
2	Use of interviews?	☐	☒
3	Use of focus groups?	☐	☒
4	Use of participant diaries?	☐	☒
5	Use of video or audio recording?	☐	☒
6	Use of computer-generated log files?	☐	☒
7	Participant observation with their knowledge?	☐	☒
8	Participant observation without their knowledge?	☐	☒
9	Access to personal or confidential information without the participants' specific consent?	☐	☒
10	Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☐	☒
11	Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
12	Investigation of participants involved in illegal activities?	☐	☒
13	Use of procedures that involve deception?	☐	☒
14	Administration of any substance, agent or placebo?	☐	☒
15	Working with live vertebrate animals?	☐	☒
16	Procedures that may have a negative impact on the environment?	☐	☒
17	Other primary data collection methods. Please indicate the type of data collection method(s) below.	☐	☒
	Details of any other primary data collection method: (this box should expand as you type)		

If NO to every question, then the research activity is (ethically) low risk and **may** be

exempt from **some** of the following sections (please refer to Guidance Notes).

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION G: Intended Participants

If there are no participants then do not complete this section, but go directly to section H.

Who are the intended participants:		YES	NO
1	Students or staff at the University?	☐	☒
2	Adults (over the age of 18 and competent to give consent)?	☒	☐
3	Vulnerable adults?	☐	☒
4	Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)	☒	☐
5	Prisoners?	☐	☒
6	Young offenders?	☐	☒
7	Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?	☐	☒
8	People engaged in illegal activities?	☐	☒
9	Others. Please indicate the participants below, and specifically any group who may be unable to give consent.	☐	☒
	Details of any other participant groups: (this box should expand as you type)		

Participant numbers and source		
Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?		
10	How many participants are expected?	17 (this box should expand as you type)

11	Who will the participants be?	2 leaders, 5 students, 5 teachers and 5 parents. <i>(this box should expand as you type)</i>
12	How will you identify the participants?	Inform potential participants of the survey, recruit volunteers and then set up "consent to be approached" to identify the participants. <i>(this box should expand as you type)</i>

	Information for participants:	YES	NO	N/A
13	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
14	Will you tell participants that their participation is voluntary?	☒	☐	☐
15	Will you obtain written consent for participation?	☒	☐	☐
16	Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☒	☐	☐
17	If the research is observational, will you ask participants for their consent to being observed?	☒	☐	☐
18	Will you tell participants that they may withdraw from the research at any time and for any reason?	☒	☐	☐
19	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
20	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☒	☐	☐
21	Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?	☒	☐	☐
22	If NO to any of above questions, please give an explanation			
	<i>(this box should expand as you type)</i>			

	Information for participants:	YES	NO	N/A
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24	Will participants be paid?	☐	☒	☐
25	Is specialist electrical or other equipment to be used with participants?	☐	☒	☐
26	Are there any financial or other interests to the investigator or University arising from this study?	☐	☒	☐
27	Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	☒	☐
28	If YES to any question, please provide full details			
	(this box should expand as you type)			

SECTION H: Anticipated Risks

	Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them.		
	If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.		
1	Full risk assessment completed and appended?	Yes ☐ No ☒	
2	Risks to participants For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information		
	Risk to participants: For student participants, there is a risk of sleep deprivation because they are occupied with their lessons and schoolwork. (this box should expand as you type)	How you will mitigate the risk to participants: Avoid surveying them during school day. Send them questionnaires during weekends when they have no classes to attend. (this box should expand as you type)	

3	If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities		
	(this box should expand as you type)		
4	Risks to the investigator For example: personal health & safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest		
	Risk to the investigator: No risk (this box should expand as you type)	How you will mitigate the risk to the investigator: No risk (this box should expand as you type)	
5	University/institutional risks For example: adverse publicity, financial loss, data protection		
	Risk to the University: No risk (this box should expand as you type)	How you will mitigate the risk to the University: No risk (this box should expand as you type)	
6	Environmental risks For example: accidental spillage of pollutants, damage to local ecosystems		
	Risk to the environment: No risk (this box should expand as you type)	How you will mitigate the risk to environment: No risk (this box should expand as you type)	

Disclosure and Barring Service			
If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.	YES	NO	N/A

7	Does your research require you to hold a current DBS Certificate?	☐	☒	☐
8	If YES, please give the certificate number. If the certificate number is not available please write "Pending"; in this case any ethical approval will be subject to providing the appropriate certificate number.			

SECTION I: Feedback, Consent and Confidentiality

1	Feedback What de-briefing and feedback will be provided to participants, how will this be done and when?
	Their survey results will be provided to participants via a net linkage https://www.wenjuan.com/ when the survey is done. <i>(this box should expand as you type)</i>
2	Informed consent Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation.
	Hand out a paper including the information and intention of the survey and a consent form to potential participants. Those who voluntarily hand in the paper are those who are willing to take part in the survey. <i>(this box should expand as you type)</i>
3	Confidentiality / Anonymity Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.
	Surveys are done through 4 different Internet linkages which will be formed by https://wenjuan.com/ , via which the access to the linkages of the questionnaires is blocked by passwords giving to the participants themselves secretly and computer and file passwords are adopted to ensure anonymity and confidentiality. <i>(this box should expand as you type)</i>

SECTION J: Data Protection and Storage

	Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 “GDPR” and the Data Protection Act 2018 “DPA”)?	YES	NO
1	“Personal data” means any information relating to an identified or identifiable natural person (‘data subject’). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants is considered to be personal data.	☐	☒
If YES, provide a description of the data and explain why this data needs to be collected:			
2	(this box should expand as you type)		
	Does it involve special category data (as defined by the GDPR)?	YES	NO
3	“Special category data” means sensitive personal data consisting of information as to the data subjects’ – (a) racial or ethnic origin, (b) political opinions, (c) religious beliefs or other beliefs of a similar nature, (d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992), (e) physical or mental health or condition, (f) sexual life, (g) genetics, (h) biometric data (as used for ID purposes),	☐	☒
If YES, provide a description of the special category data and explain why this data needs to be collected:			
4	(this box should expand as you type)		

	Will data from the research activity (collected data, drafts of the thesis, or materials for publication) be stored in any of the following ways?	YES	NO
5	Manual files (i.e. in paper form)?	☒	☐
6	University computers?	☐	☒
7	Private company computers?	☐	☒
8	Home or other personal computers?	☒	☐
9	Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☒	☐
10	"Cloud" storage or websites?	☐	☒
11	Other – specify:	☐	☒
12	For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of backup procedures, password protection, encryption, anonymisation and pseudonymisation: Once the data is collected, limit the access to it through computer and file passwords. Make a backup with password in a private specific U-disk which will be stored in a safe. Use Azure Disk Encryption for Windows VMs. (this box should expand as you type)		

Data Protection			
	Will the research activity involve any of the following activities:	YES	NO
13	Electronic transfer of data in any form?	☒	☐
14	Sharing of data with others at the University outside of the immediate research team?	☐	☒
15	Sharing of data with other organisations?	☐	☒
16	Export of data outside the UK or importing of data from outside the UK?	☐	☒
17	Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☐	☒
18	Publication of data that might allow identification of individuals?	☐	☒
19	Use of data management system?	☐	☒

20	Data archiving?	☒	☐
21	If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and any international equivalents, where appropriate): Electronic transfer of data via the survey linkage https://www.wenjuan.com . Once the researcher download the survey results, the researcher store and archive the data with computer and file password and Azure Disk Encryption for windows VMs. <i>(this box should expand as you type)</i>		
22	List all who will have access to the data generated by the research activity: The researcher, the research supervisor, and participants. <i>(this box should expand as you type)</i>		
23	List who will have control of, and act as custodian(s) for, data generated by the research activity: No one except the researcher myself. <i>(this box should expand as you type)</i>		
24	Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not. Firstly the questionnaires of data collection will be stored at the website https://wenjuan.com with passwords to access. Then after collecting the data, the data result will be downloaded ,stored and archived in a file folder named Attitudes with a computer and file password. The Azure Disk Encryption for windows VMs is used to maintain security . The data in the form of Microsoft Word files will be stored in a file folder named Attitudes for 6 months. <i>(this box should expand as you type)</i>		
25	Please indicate if your data will be stored in the UWTSD Research Data Repository (see https://researchdata.uwtsd.ac.uk/). If so please explain. <i>(Most relevant to academic staff)</i>		

	Will not be stored in the UWTSD Research Data Repository <i>(this box should expand as you type)</i>		
26	Confirm that you have read the UWTSD guidance on data management (see https://www.uwtsd.ac.uk/library/research-data-management/)	YES	☒
27	Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding	YES	☒

SECTION K: Declaration

The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants. In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: https://www.uwtsd.ac.uk/research/research-ethics/		
1	Signature of applicant: Zhongxi Ye	Date: August 1,2023

For STUDENT Submissions:

2	Director of Studies/Supervisor: Dr. Jessica Clapham	Date: August 1,2023
3	Signature: <i>Jessica Clapham</i>	

For STAFF Submissions:

4	Academic Director/ Assistant Dean:	Date:
5	Signature:	

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

☒	I have read the guidance notes supplied before completing the form.
☒	I have completed ALL RELEVANT sections of the form in full.
☒	I confirm that the research activity has received approval in principle
☐	I have attached a copy of final/interim approval from external organisation (where appropriate)

☐	I have attached a full risk assessment (where appropriate) <i>ONLY TICK IF YOU HAVE ATTACHED A FULL RISK ASSESSMENT</i>
☒	I understand that it is my responsibility to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice.
☒	I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Academic Director.

RESEARCH STUDENTS ONLY

Once complete, submit this form via the **MyTSD Doctoral College Portal** at (<https://mytsd.uwtsd.ac.uk>).

RESEARCH STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk , with the title 'Ethical Approval' followed by your name.

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES

should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

Blank Questionnaire for parents

新课改态度调查 (Questionnaire Of Attitudes Towards Curriculum Innovation)

学生调查问卷 (Questionnaire For Students)

- * 1. 您是否支持国家的新课程标准改革? Do you support the curriculum innovation?

完全支持Absolutely for

很不支持Totally against

⑤

④

③

②

①

- * 2. 您是否喜欢现在更换的新课本教材? Do like the new textbooks?

非常喜欢Very like

很不喜欢Very hate

⑤

④

③

②

①

- * 3. 您是否同意高考题型的变化? Do you agree the change of the question type of the exams?

非常喜欢Very agree

很不喜欢Very disagree

⑤

④

③

②

①

- * 4. 您是否喜欢新高考的12种组合? Do you like the 12 combinations of the new college entrance examination?

非常喜欢Very like

很不喜欢Very dislike

⑤

④

③

②

①

- * 5. 您是否喜欢12组合下的走班上课模式? Do you like the new mode of attending classes guided by the 12 combinations?

非常喜欢Very like

很不喜欢Very dislike

⑤

④

③

②

①

- * 6. 您是否支持新课程标准改革中的树人理念? Do you like the idea of cultivating students in the curriculum innovation?

非常支持Absolutely for

很不支持Totally against

⑤

④

③

②

①

* 7. 您是否同意新课程改革对农村高中生不利? Do you agree that the curriculum innovation makes high school students in rural schools no advantage?

非常同意Very agree

很不同意Very disagree

①

②

③

④

⑤

* 8. 您是否同意新课程改革导致考试难度增加? Do you agree that the curriculum innovation makes exams more difficult?

非常同意Very agree

很不同意Very disagree

①

②

③

④

⑤

* 9. 您是否同意新课程改革其实和没改的也差不多? Do you agree that the curriculum innovation makes no difference to students?

非常同意Very agree

很不同意Very disagree

①

②

③

④

⑤

* 10. 您是否同意新课程改革会对学生职业生涯规划产生不好的引导? Do you agree that the curriculum innovation leads astray of th students' job career planning?

非常同意Very agree

很不同意Very disagree

①

②

③

④

⑤

提交