

## DEVELOPMENT OF INQUIRY-BASED INSTRUCTIONAL PROCESS TO PROMOTE INDEPENDENT LEARNING ABILITY FOR IDEOLOGICAL AND MORAL CULTIVATION AND LEGAL BASIS

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### ABSTRACT

The objectives were to 1) develop the inquiry-based instructional process to promote independent learning ability for Ideological and Moral Cultivation and Legal Basis, and 2) implement and determine the effectiveness of the inquiry-based instructional process to promote independent learning ability. The population of this study was 400 first-year undergraduates in the first semester of 2022-2023 academic year in Zhoukou Normal University. The sample was 30 students derived from a cluster sampling. The research instruments were 1) six lesson plans using inquiry-based instructional process, 2) the independent learning ability evaluation forms including classroom observation form and self-evaluation form with the criterion set at 70 percent, and 3) the questionnaire for students' satisfaction. The research instruments could be used after evaluation by five experts. The statistics used for data analysis were the mean, standard deviation, and t-test of one sample.

The findings of the study were as follows. The inquiry-based instructional process to promote independent learning ability for Ideological and Moral Cultivation and Legal Basis was consisted of seven steps. Before class, it was Step 1 which was "Assignment and preview". During class, it was Step 2 which was "Introduce situations", Step 3 which was "Individual inquiry", Step 4 which was "Cooperative group inquiry", Step 5 which was "Presentation of the result", and Step 6 which was "Summary and evaluation". After class, it was Step 7 which was "Assignment and homework. The mean score, which was evaluated by five experts, was 4.22 - 4.88. This was higher than the criterion of 3.51, and the standard deviation was 0.14 - 0.30.

After using the inquiry-based instructional process, the percentage of the independent learning ability, the classroom observation, the self-evaluation of the students and the students' satisfaction were higher than the criterion set at 70 percentage with statistical significance at .05 level.

### Keywords

Ideological and moral; Cultivation and Legal basis; Inquiry-based Instructional Process, Independent Learning Ability

### Significance of the problems

Self-regulated Learning (SRL) was born in the 1980s and is considered as a necessary condition for lifelong Learning. The requirement of modelrn education to the educatee is not only what to learn, but also how to learn. Without the help, management and supervision of schools and teachers, every kind of "learning" after going out of campus requires the ability of independent learning to truly achieve lifelong learning in order to achieve personal continued development. Therefore, in the comprehensive ability of cultivating talents in colleges and universities, independent learning is one of the important abilities related to students' sustainable development. (Liu Xiaoqing, 2021)

According to the Work Points of Henan Education Department in 2020 of Henan Provincial Working Committee for Colleges and Universities, they proposed to optimize teaching methods and teaching links, focus on inspiring, interactive and inquiry-based teaching, emphasized contextual teaching, and promote research-based, project-based and cooperative learning. Under the macro background of a new round of curriculum reform in the current new era, new challenges were posed to educational researchers, and more and more educational researchers begun to pay attention to the research of inquiry teaching mode. In order to improve students' independent learning ability.

Through the investigation of data in many papers and in terms of the teaching of moral education in colleges and universities over the past 20 years, there were great problems in the teaching of Ideological and Moral Cultivation and Legal Basis in most colleges and universities in China. In the university stage, students were in a period of rapid development of logical thinking, and they liked to explore problems and pursued rationality. Nowadays, in most cases, the teaching of "Ideological and Moral Cultivation and Legal Basis" did not meet the needs of students' rational knowledge completion. The teaching content of the course is boring. The teaching mode was single, and the students' interest in learning was not high. In order to stimulate students' enthusiasm and initiative in learning the course of "Ideological and Moral Cultivation and Legal Basis", we must improve the teaching process of "Ideological and Moral Cultivation and Legal Basis" under the premise of giving full play to the leading role of teachers. So that students can study independently, think independently and improve their independent learning ability under the guidance of teachers. (Hao wenbin, 2020). Because of the reasons above, the implementation

of "ideological and moral cultivation and Legal basis" course inquiry- based instructional process was inevitable.

At the theoretical level, although there are a lot of related researches on independent learning ability, there are not many researches on improving the independent learning ability of college students. This study is an enrichment and supplement to the research content in this field. At the same time, based on humanistic learning theory and constructivism theory, this study puts forward an inquiry- based instructional process that can improve learners' independent learning ability, which provides teachers in colleges and universities with a teaching model and research theory that is suitable for the new teaching background and meets the needs of current talents. At the practical level, this study carried out the practice of the inquiry- based instructional process in the "ideological and moral cultivation and Legal basis" course of Zhoukou Normal College, which enriched the practical research cases of college teachers on the teaching model, and provided a reference research implementation approach for subsequent scholars.

### Research questions

1. How does the inquiry- based instructional process to promote independent learning ability for Ideological and Moral Cultivation and Basic Legal Course?
2. How does the implementation effect of the inquiry- based instructional process to promote independent learning ability for Ideological and Moral Cultivation and Basic Legal Course?

### Research objectives

The objectives of this research were as follows;

1. To develop the inquiry-based instructional process to promote independent learning ability for Ideological and Moral Cultivation and Basic Legal Course.
2. To implement and determine the effectiveness of the inquiry-based instructional process to promote independent learning ability.

### Research Methodology

#### 1.1 Population and sample

The population was 400 undergraduate students from the Ideological and Moral Cultivation and Basic Legal Course of Zhoukou Normal University.

The sample was 30 first-year college musicology students at Zhoukou Normal University. They were selected by cluster random sampling method.

#### 1.2 Research instruments

Research instruments were as follows:

### 1.2.1 Six lesson plans

The 5 experts who evaluated the quality of six lesson plans included 2 specialists in curriculum field ,2 specialists in instruction relevant to specific content , and 1 specialist in measurement and evaluation field. The results of Content Validity Index (CVI) were 0.8-1.0,which were all higher than 0.79 (Shi Jingjing,et al,2012). Therefore, the six lesson plans could be used.

### 1.2.2 Independent learning ability evaluation form

The Independent learning ability evaluation form consisted of the classroom observation form and the self-evaluation form. The assessment forms of students' independent learning ability were in three items: self-planning, self-monitoring and self-evaluation. The Indexes of Item objective Congruence ( IOC) were 0.8-1.0 and 0.8-1.0 respectively. They were higher than 0.50. Therefore, classroom observation sheets and self-evaluation sheets could be used.

### 1.2.3 Questionnaire for students' satisfaction

Five experts evaluated 18 items of satisfaction questionnaire, and then the researchers calculated its findings according to the Indexes of Item Objective Congruence ( IOC ). The IOC Indexes of items were 0.80- 1.00. The result showed that 18 items in satisfaction questionnaire were appropriate and could be used in inquiry-based instructional process. The Cronbach's Alpha - value was 0.94. This showed that the internal consistency of the student satisfaction questionnaire met the requirements.

## 1.3 Data collection

- 1) The sample learned through the inquiry-based instructional process.
- 2) After the inquiry- based instructional process, the samples were subjected to classroom observation evaluation of the independent learning ability. They were asked to do the questionnaire survey of the independent learning ability.
- 3) Assessed students' satisfaction using satisfaction questionnaire

## 1.4 Data analysis

In this study , data was analyzed by using the statistical method according to the research objectives.

- 1) Compared the results of independent learning ability after learning through inquiry-based instructional process with the criterion of 70 percent.
- 2) Compared the results of the students' satisfaction after learning through inquiry-based instructional process with the criterion of 70 percent.

## Research findings

### 1. The results of developed the inquiry-based instructional process to promote independent learning ability for Ideological and Moral Cultivation and Basic Legal Course.

Through researched literature on the definition of "inquiry-based instructional process" by people in different periods, constructivism theory and Humanistic learning theory, we get the interpretation of the meaning of inquiry- based instructional process.The inquiry- based instructional process studied in this paper refers to the process of student-centered independent

inquiry under the guidance of teachers. The instructional process is inspired by teachers, under the premise of students' independent learning and cooperative discussion, with current teaching materials as the basic inquiry content, to provide students with sufficient freedom of expression, to explore questions, and to cultivate students' independent learning ability of self-planning, self-monitoring and self-self-evaluation in the process of exploration. The process of instructional were as follow:

1) Before class:

Step1: Assignment and preview

Teacher prepares the learning plan which consisted of situation and instructional materials and so on. Students Individually or in-group preview before class and find problem solutions through finding and other methods.

2) In class

Step2: Introduce situations

Teachers determine the learning situation according to the teaching objectives and teaching progress, introduce the situation and ask questions, and guide students to learn independently.

Step3: Individual inquiry

According to the allocated tasks, students find solution, link to individual inquiry. Teacher asks the students for self-planning and self-monitoring, reading, listening, analyzing correct information. After that ask them for self-evaluation about their individual task.

Step4: Cooperate group inquiry

Team members brainstorm, collaborate, share information, and discuss problem to get results. If they cannot solve the problem, ask them to communicate with the teacher. The teacher pays attention to and guides the study of each group. In this process, teacher should play the role as an organizer, a coordinator and guidance. Teacher should assign exercise students according to their independence ability.

Step5: Present the result

The results are presented in small groups. The group send representatives to answer questions. Each team evaluates each other and votes for the best team in the class. The group members evaluate each other and select the best student in each group.

Step6: Summary and evaluation

Teacher asks the students to summary individually, and present to the group for improving. Teacher evaluates then gives feedback. Then teacher provides summary by using variety of platform and various kinds of presentation, mind map and other advance organizers.

3) After class

Step7: Assignment and homework

The teacher assigns homework, applies knowledge to real life, sends to student online platform. Students are urged to submit their homework to the platform within the specified time. Their advantages and disadvantages are pointed out to evaluate their feedback on the homework.

The five experts evaluated the appropriateness and consistency of the various components of the inquiry-based instructional process. The mean score was 4.22 - 4.88 which were higher than 3.51, and the standard deviation was 0.14 - 0.30. This indicated a good quality

of suitability and internal consistency for each component of the inquiry-based instructional process.

**2. The results of implemented and determined the effectiveness of the inquiry-based instructional process to promote independent learning ability.**

**2.1 The results of the classroom observation**

The results of the classroom observation after learning through inquiry-based instructional process with the criterion of 70 percent as showed in follow table 1.

Group	n	Full score	Criteria score	M	SD	t	p
Experimental group	30	15	10.5	11.83	1.08	6.72*	.000

According to table 1, the results of post-test of 30 students' independent learning ability were shown as follow:  $\bar{X} = 11.83$ ,  $SD = 1.08$ ,  $P = 0.00 < 0.05$ . The above results showed that after learning the inquiry-based instructional process, the score of students' independent learning ability in the course of "Ideological and Moral Cultivation and Legal Basis" was higher than 70% at .05 level. This indicated that the independent learning ability of students in the course of Ideological and Moral Cultivation and Legal Basis has been significantly improved through the inquiry-based instructional process.

**2.1 The results of self-evaluation**

The results of the self-evaluation after learning through inquiry-based instructional process with the criterion of 70 percent as showed in follow table 2.

Group	n	Full score	Criteria score	M	SD	t	p
Experimental group	30	15	10.5	13.24	0.42	35.57*	.000

According to table 2, the results of post-test of 30 students' independent learning ability were shown as follow:  $\bar{X} = 13.24$ ,  $SD = 0.42$ ,  $P = 0.00 < 0.05$ . The above results showed that after learning the inquiry-based instructional process, the score of students' independent learning ability in the course of "Ideological and Moral Cultivation and Legal Basis" was higher than 70% at .05 level.

This indicated that the independent learning ability of students in the course of ideological and moral cultivation and legal basis has been significantly improved through the inquiry-based instructional process.

### 2.3 The results of students' satisfaction

The results of the students' satisfaction after learning through inquiry- based instructional process with the criterion of 70 percent as showed in follow table 3.

Group	n	Full score	Criteria score	$\bar{X}$	S.D.	T	p
Experimental group	30	90	63	75	3.48	125.37	.000*

According to table 3, the results of post-test of 30 students' students' satisfaction were shown as follow:  $\bar{X} = 75$  (full score was 90), SD=3.48, P=0.00<0.05. The above results showed that after learning the inquiry- based instructional process, students' satisfaction in the course of "Ideological and Moral Cultivation and Legal Basis" was higher than 70% at .05 level. This indicated that the students' satisfaction in the course of ideological and moral cultivation and legal basis has been significantly improved through the inquiry-based instructional process.

## Discussion

The discussion based on the above research results were as follow:

1) Inquiry- based instructional process, is to give priority to explore the teaching. The Instructional process is induced in the inspiration of teacher on the premise of students independent learning and cooperative discussion. The current teaching material was the basic exploring content to students around the world. The life practice was used as reference object to provide students with full freedom of expression, to question, to explore, and to discuss issues. Students can participate in the process of acquiring knowledge independently. They can master the inquiry ability which is necessary for inquiry learning. At the same time, on the basis of mastering new knowledge, the positive attitude of exploring the unknown world is cultivated (Liuhua 2011). Inquiry-based instructional process is an essential teaching method that introduces inquiry in the field of science into the classroom. It enables students to understand scientific concepts and the nature of scientific inquiry through a process similar to that of scientists. It cultivates the ability of scientific inquiry (Xiaxin 2012). The purpose of inquiry instructional process is to cultivate students' independent learning ability and learning satisfaction (Peng Xiantao, 2011).

2) The inquiry-based instruction process improves students' independent learning ability in the course of Ideological and Moral Cultivation and Legal Basis. Several characteristics in "inquiry-based instructional process" promote students' independent learning ability. First, self-helping and advocating research before teaching. Students learn independently through tasks assigned by teachers under the guidance of help sheets to continuously improve students' independent learning ability. Second, mutual assistance (cooperative learning) and setting appropriate task- driven situations allow students to fully demonstrate. Questions, supplementation, questioning, debates and other forms, the independent inquiry and group

cooperation, peer exchanges and other forms of mutual aid learning can be implemented. Third, it is teacher ' assistance which means teacher helps students improve according to their learning situation. The teacher changes the traditional method of all-inclusive teaching which based on learning to teach and on the basis of the correct diagnosis of the learning situation. Teacher deletes the complication and simplify the situation. With this implementation, the targeted teaching and learning should be matched with the needs of students. Specifically, traditional "teaching" and "learning" is reversed. The teacher sets up appropriate questions with help sheets to let students explore first, and then let them show their learning results, discuss, question, and collaborate in the classroom. Then determine what to teach and how to teach after students' different ideas have fully stirred and collided in the classroom (Zhong Guangqun, 2014).

3) Student satisfaction was improved through the inquiry-based instruction process. There are several reasons. The implementation of inquiry-based instructional process is not only the transformation of classroom teaching process, but also the transformation of teachers' teaching concept and students' learning method. In this study, teachers actively accept the teaching concept of inquiry-based instructional process and respect students' physical and mental development. It is believed that each student will have different progress and development in ideological and moral cultivation and legal basis learning. Therefore, inquiry-based instructional process cannot only increase students' subject knowledge, but also cultivate students' emotional attitude of learning to share, be tolerant and accept, and improve their independent learning ability (Peng Xiantao, 2011).

### Recommendation

1. Teachers are encouraged to use an inquiry-based instruction process. Inquiry teaching is a useful teaching method which is suitable for college students' learning psychology which should be applied in the course of "Ideological and Moral Cultivation and Legal Basis". It is also a feasible means to solve various problems in the course of "Ideological and Moral Cultivation and Legal Basis". In the inquisition teaching of Ideological and Moral Cultivation and Legal Basis, teachers should change the traditional teaching concepts, get to know the students deeply, and formulate comprehensive teaching objectives. In the classroom teaching, teachers should pay attention to enriching the teaching content, grasp the degree of inquiry, and choose useful inquisition teaching strategies and evaluation system.

2. Independent learning focuses on an inquiry-based instructional process. Students are the subject of independent inquiry learning. Through independent inquiry learning, independent thinking and cooperative inquiry, they can discover problems and acquire knowledge, so that the classroom meets with the needs of students. Moreover, the "teachers guide students to learn" becomes "students expect to learn". This highlights that students are the subject of independent learning and self-development.

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