East African Scholars Journal of Education, Humanities and Literature



Volume-7 | Issue-10 | Oct- 2024 |

DOI: https://doi.org/10.36349/easjehl.2024.v07i10.003

OPEN ACCESS

Review Article

Investigation on the Present Situation of Mathematics Large Unit Teaching in Middle Schools in Anyang and Its Improvement Countermeasures

Yongwei Yang^{1*}, Xiaoqin Xu¹, Xiaoting Zhang¹

¹School of Mathematics and Statistics, Anyang Normal University, Anyang, China

Article History Received: 19.09.2024 Accepted: 27.10.2024 Published: 31.10.2024

Journal homepage: https://www.easpublisher.com



Abstract: Under the background of educational reform, large-unit teaching strategy is of great significance to improve the quality of middle school mathematics teaching and promote students' deep learning. Based on the integration of pedagogy theory and practice, this paper deeply analyzes the challenges and opportunities faced by middle school mathematics teachers in Anyang when implementing large-unit teaching strategies, and puts forward targeted professional development strategies for teachers at different stages, such as rookie, backbone and senior. At the same time, this paper also discusses how to combine teachers' internal motivation and external support to build an effective strategy system. These research results not only provide concrete guidance for middle school mathematics teachers to implement large-unit teaching strategies, but also provide in-depth insights and references for educators to promote the sustainable development and innovation of middle school mathematics education.

Keywords: Anyang, Large Unit Teaching, Middle School Math Teacher.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1. INTRODUCTION

In the wave of educational reform, improving the quality of education is always the core pursuit, which constantly responds to the diversified needs of social changes and individual growth, showing a gradual and progressive evolution trend. In recent years, a series of important measures in the field of education in China have attracted particular attention. On June 3, 2020, the Ministry of Education of China officially issued the Curriculum Plan for Ordinary Senior High Schools (Revised in 2020), and on April 21, 2022, it further promulgated the curriculum plan for compulsory education and the curriculum standards for 16 subjects, which clearly emphasized "exploring large-unit teaching, actively promoting comprehensive teaching activities such as thematic learning and project-based learning, aiming at promoting the transfer and comprehensive application of students' abilities. This series of measures not only laid a solid foundation for the promotion of large-unit teaching in the basic education stage, but also marked that the large-unit teaching mode based on core literacy has become a new trend in education reform (Liu H., 2024).

Large-unit teaching, which subverts tradition and is full of innovation, is gradually becoming the focus of educational theory and practice exploration. This model advocates taking the unit as the basic unit of teaching, closely surrounding the core literacy of the subject, and trying to realize the all-round cultivation of students' knowledge, ability and literacy by integrating teaching content and designing theme activities or projects. Compared with the traditional knowledgecentered teaching mode, large-unit teaching pays more attention to the systematization and coherence of knowledge, and emphasizes students' active exploration and cooperation in the learning process, aiming at cultivating students' higher-order thinking ability and comprehensive quality.

From a historical perspective, the concept of large unit teaching is not without roots. As early as the end of 19th century and the beginning of 20th century, in the new education movement in Europe and America, pioneers such as De Klee put forward the teaching principles of "integration" and "interest center", which laid a solid ideological foundation for the birth of largeunit teaching (Zhang Z., 2024). Later, American educator Ke Boqu clearly put forward the "design teaching method", which regarded teaching as a meaningful large-unit activity and further enriched the theory and practice of large-unit teaching. From an international perspective, the research and practice of large-unit teaching has gone through a hundred years, and a variety of theoretical frameworks have been formed, including constructive learning design, ternary

teaching and evaluation design, reverse teaching design and demonstrative teaching design, which provide rich reference for the application in different educational situations (Bonner E., Lege R., Frazier E., 2023).

In China, the research and practice of large unit teaching have also achieved remarkable results. Especially with the introduction and popularization of the concept of core literacy, large unit teaching has gradually become an important direction of teaching research in various disciplines. In the field of middle school mathematics, large unit teaching is regarded as an effective way to improve students' mathematical literacy and cultivate their mathematical thinking and problemsolving ability (Mao Q., 2024, Wang L., et al., 2023). However, despite the obvious advantages of large unit teaching, its popularization and application still face many challenges in actual teaching. Especially in different regions and schools, there are significant differences in teachers' cognition, attitude and implementation ability of large-unit teaching, which hinders the wide promotion and in-depth implementation of large-unit teaching to some extent (Lv W., 2024).

As an important city in Henan Province, the development of Anyang's education has always been concerned. According to the statistics of Anyang Education Bureau, there are 1447 ordinary primary and secondary schools in Anyang in the 2022-2023 school year, including 76 ordinary high schools, 267 ordinary junior high schools and 1104 primary schools. There are

1,018,200 students and 66,300 full-time teachers in ordinary primary and secondary schools in the city. In order to promote large-unit teaching in middle school mathematics teaching in Anyang area, this paper deeply explores the actual implementation of large-unit teaching by middle school mathematics teachers. By investigating teachers' specific practices in teaching strategies, methods and resource use, we aim to comprehensively factors analyze various that affect teachers' implementation of large-unit teaching, and then provide teachers with more targeted support and help. We believe that through this study, we can not only provide useful reference for the reform of middle school mathematics teaching in Anyang city and even wider areas, but also contribute to the overall improvement of the quality of basic education in China.

2. CONTENTS

2.1. Statistical Analysis of Middle School Mathematics Teachers Implementing Large Unit Teaching in Anyang

In order to understand the implementation of large unit teaching by middle school mathematics teachers in Anyang area and its influencing factors, this study designed a questionnaire containing four main dimensions (curriculum reform policy factors, school factors, students factors and teachers' personal factors). The specific items of the questionnaire are shown in Table 1, covering teachers' cognition, attitude, practice and effect evaluation of large unit teaching.

Index	Operating Items
	CP1: The propaganda and guidance of related curriculum reform is helpful for teachers to understand the
Curriculum	significance of large unit teaching.
Reform	CP2: The wider the scope of related curriculum reform, the more favorable it is for teachers to carry out large-
Policy	unit teaching.
	CP3: The publicity of related curriculum reform makes teachers realize the importance of large unit teaching.
School	SS1: The school has carried out teaching and research activities such as open classes on large unit teaching,
Support	which has improved teachers' participation in large unit teaching.
	SS2: The theory and skills training of large-unit teaching in schools make teachers have a deeper understanding
	of large-unit teaching.
	SS3: The school provides abundant teaching resources, which is beneficial for teachers and me to carry out
	large-scale teaching.
Student	SF1: Large-unit teaching improves students' participation in class.
Feedback	SF2: Students' feedback and opinions will affect teachers' implementation of large unit teaching.
	SF2: Large-unit teaching improves the quality of students' homework.
Individual	TP1: Teachers know the concept of large unit teaching very well.
Teacher	TP2: Teachers believe that large unit teaching can stimulate students' learning motivation.
	TP3: Teachers think that the teaching methods of large unit teaching are more flexible and diverse.
	TI1: Teachers are willing to spend time and energy on large unit teaching design.
	TI2: Teachers are willing to purchase materials by themselves or collect materials online for large-unit teaching
	theory study.
	TI3: Teachers are willing to participate in offline training and communication and other related activities in
	large-scale teaching.
	TB: Teachers' implementation of large unit teaching.
	TS1: The large unit teaching implemented by teachers can better achieve the teaching objectives.
	TS2: Through students' feedback, teachers are satisfied with the effect of large unit teaching.

 Table 1: Operational Items of Influencing Factors in the Implementation of Large Unit Teaching

The survey covers four districts in Anyang (Wenfeng District, Beiguan District, Yindu District and Long 'an District) and four counties (Anyang County, Neihuang County, Tangyin county and Hua county) as well as middle school math teachers in a county-level city (Linzhou city). Through the extensive distribution of questionnaires, a total of 225 questionnaires were actually sent out, and 223 questionnaires were effectively recovered, with an effective rate of 99.1%. Cronbach's alpha coefficient is used as the reliability index to test the reliability of each latent variable in the questionnaire. As shown in Table 2, the Cronbach's alpha value of each latent variable is greater than 0.7, and the Cronbach's alpha value of the whole questionnaire is as high as 0.972, which indicates that the questionnaire has high internal consistency and the measurement results are stable and reliable.

Variables	Number	Cronbach's Variables		Number	Cronbach's	
	of Items	Alpha		of Items	Alpha	
Curriculum Reform Policy	3	0.930	Teachers' Cognition	3	0.869	
School Support	3	0.918	Teachers' Wishes	3	0.927	
Student Feedback	3	0.881	Teachers' Implementation	3	0.916	
			Satisfaction			

The survey results show that the education level of middle school mathematics teachers in Anyang area is relatively balanced, among which undergraduate teachers account for the highest proportion, reaching 70.40%, which shows that the overall quality of teachers in this area is high. Teachers with college education account for 8.97%, while teachers with master's degree or above account for 20.63%, indicating that some teachers have high academic background and professional knowledge. The proportion of teachers in junior high school and senior high school is close, with junior high school teachers accounting for 49.78% and senior high school teachers accounting for 50.22%. This balanced distribution helps to understand the similarities and differences of teachers in different classes in the implementation of large-unit teaching. Among the teachers involved in the survey, 73.99% are located in cities, and the remaining 26.01% are located in villages and towns. Through these data, we can know that most of the respondents work in urban schools, while a small proportion work in township schools.

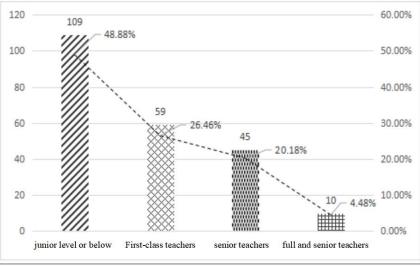


Fig. 1: Distribution of Teachers' Professional Titles

Most teachers' professional titles are at the junior level or below, accounting for 48.88% of the total sample, occupying the main part of the teaching staff. First-class teachers followed closely, accounting for 26.46% of the total sample, which is in a relatively medium position in the overall title distribution, indicating that these teachers have accumulated and improved their teaching experience and professionalism. In contrast, the proportion of senior teachers is relatively small, accounting for 20.18%. Although they have rich experience and high attainments in the teaching field, their proportion in the whole teaching staff is still not high. The full and senior teachers are scarce resources, accounting for only 4.48% of the total sample. They are usually outstanding in the teaching field and have excellent teaching ability and scientific research level.

Items	Standard Error	Mean Value 95% CI(<i>LL</i>)	Mean Value 95% CI(<i>UL</i>)	Kurtosis	Skewness	Variable Coefficient
TP1	0.056	2.042	2.263	0.390	0.578	39.047%
TP2	0.054	1.844	2.057	0.039	0.549	41.638%
TP3	0.055	1.950	2.167	0.804	0.227	40.233%

Table 3: Cognitive anal	ysis of Mathematics	Teachers on Im	plementing Lar	ge Unit Teaching
-------------------------	---------------------	-----------------------	----------------	------------------

From the data in Table 3, we can observe that the mathematics teachers' understanding of the concept of large unit teaching is relatively consistent, with an average of about 2.042, and the 95% confidence interval of the average is [2.042, 2.263]; At the same time, teachers generally believe that students' feedback and opinions have a certain influence on the implementation of large-unit teaching. The average value of this view is about 1.844, and its 95% confidence interval is [1.844, 2.057]. In addition, teachers also believe that large-unit teaching can effectively improve the quality of students' homework. The average value of this view is about 1.950, and its 95% confidence interval is [1.950, 2.167].

According to the analysis, 70.4% of middle school math teachers said that they knew the concept of large unit teaching very well, 23.8% of them were neutral, and only 0.9% of them disagreed. This data distribution also shows that middle school mathematics teachers generally think it is necessary to carry out large-unit teaching, which shows that the vast majority of teachers have a high level of cognition of large-unit teaching. 65% of middle school math teachers said that "agree" or "completely agree" with the implementation of large-unit teaching can better achieve the teaching objectives, while 26.9% of teachers held a neutral attitude, while only 0.90% of teachers disagreed. This result fully shows that most middle school math teachers are highly satisfied with large-unit teaching.

The analysis of the willingness to implement large-unit teaching shows that the average value is 2.063,

which means that teachers tend to accept or implement large-unit teaching as a whole. The standard deviation is 0.952, which shows that this will has a large range of changes among teachers, that is, the attitudes of different teachers are quite different. The median value is 2.000, which further shows that teachers' wishes are generally concentrated at the middle level, and most teachers' attitudes are neither particularly positive nor particularly negative. There may be errors in the calculation of the interquartile distance (IQR), because IQR is usually the difference between the third quartile (75% quantile) and the first quartile (25% quantile), instead of 2.000 directly given. However, assuming that IQR is used to describe a certain distribution range, it still shows the distribution breadth of teachers' wishes to a certain extent. In addition, the kurtosis is 0.227, which shows that the data has a slight peak relative to the normal distribution, that is, the data distribution is slightly more concentrated than the normal distribution, but the peak is not significant. On the whole, mathematics teachers' willingness to teach in large units shows a positive attitude tendency, but there are certain differences and ranges of attitude changes among individual teachers. This difference may be due to many factors, such as teachers' personal teaching style, teaching experience, understanding of large-unit teaching, teaching environment and resource conditions of the school. Understanding these differences is helpful to carry out targeted training and guidance, so as to improve teachers' acceptance and implementation effect of large-unit teaching.

Items	Options	Frequency	Percentage (%)	Cumulative Percentage (%)
TB	1-2 times a week	54	24.22	24.22
	1-2 times a month	55	24.66	48.88
	1-2 times per semester	31	13.90	62.78
	Used in open classes	34	15.25	78.03
	Haven't tried yet	49	21.97	100.00
Total		223	100.0	100.0

 Table 4: Behavioral Differences of Teachers' Willingness to Large Unit Teaching

As shown in Table 4, we can see that there are some differences in the willingness and behavior of math teachers in large-unit teaching. From the perspective of willingness difference, most math teachers have a certain understanding of large-unit teaching, which shows that the proportion of choosing "once or twice a week" and "once or twice a month" to implement large-unit teaching is 24.22% and 24.66%. There are still some teachers (21.97%) who say they haven't tried large-scale teaching. From the perspective of behavioral differences, teachers' actual behaviors show diversity. Some teachers (15.25%)

© East African Scholars Publisher, Kenya

use large-unit teaching in open classes, and 13.90% teachers say that they use large-unit teaching once or twice every semester. On the whole, there are great differences in the frequency and methods of implementing large-unit teaching. Some teachers try and use it more frequently, while others try less or even haven't tried yet.

On the whole, there are differences in willingness and behavior among math teachers in largeunit teaching. Some teachers have a high awareness of large-unit teaching and are willing to try and apply it in practice, while others may need more publicity, training and support to improve their awareness and willingness to implement large-unit teaching.

2.2. The Behavioral Characteristics of Teachers **Carrying out Large Unit Teaching in Anyang**

According to the analysis of the demographic characteristics of the questionnaire, factors such as teaching age, urban and rural areas, gender, teaching period, education background and professional title may have certain influence on the implementation of largeunit teaching by middle school mathematics teachers in Anyang area. Through regression analysis, it is further found that there is a significant positive relationship between teachers' teaching experience and their implementation of large-unit teaching, that is, the longer they teach, the more likely they are to adopt large-unit teaching methods; On the other hand, teachers' academic qualifications and teaching periods have a significant negative impact on the implementation of large-unit teaching, which means that the higher their academic qualifications or teaching periods, the lower the frequency of teachers adopting large-unit teaching. In addition, teachers are divided into three groups (cluster_1, cluster_2 and cluster_3) by using K-prototype cluster analysis method, which account for 25.11%, 31.84% and 43.05% of the total sample respectively. See Table 5 for details. There are significant differences among these three groups in many research items, such as curriculum reform policy cognition, school support, student feedback, teachers' own cognition, implementation willingness and implementation satisfaction (p < 0.05). See Table 6 for detailed data, which shows that different teacher groups have obvious differentiation characteristics in the implementation of large-unit teaching.

Table 5: Basic Situation of Clustering Categories					
Clustering Category	Frequency	Percentage (%)			
cluster_1	56	25.11%			
cluster_2	71	31.84%			
cluster_3	96	43.05%			
Total	223	100%			

Clustering Category	Frequency	Percentage (%)			
cluster_1	56	25.11%			
cluster_2	71	31.84%			
cluster 3	96	13.05%			

Items	Options	Cluster_Kprototype_939022			Total	χ^2
	-	cluster_1 cluster_2 cluster_3				
Teachers' Teaching Ages	1-5 years	8(14.29)	46(64.79)	50(52.08)	104(46.64)	78.071
	6-10 years	37(66.07)	5(7.04)	15(15.63)	57(25.56)	
	11-15 years	7(12.50)	2(2.82)	7(7.29)	16(7.17)	
	More than 16 years	4(7.14)	18(25.35)	24(25.00)	46(20.63)	
Teachers' Academic	College degree	11(19.64)	1(1.41)	8(8.33)	20(8.97)	21.525
Qualifications	Bachelor degree	37(66.07)	46(64.79)	74(77.08)	157(70.40)	
	Master degree or above	8(14.29)	24(33.80)	14(14.58)	46(20.63)	
Teaching Periods	Junior school	41(73.21)	21(29.58)	49(51.04)	111(49.78)	23.954
	Senior high school	15(26.79)	50(70.42)	47(48.96)	112(50.22)	
Implementation of Large	1-2 times a week	2(3.57)	42(59.15)	10(10.42)	54(24.22)	158.427
Unit Teaching	1-2 times a month	1(1.79)	16(22.54)	38(39.58)	55(24.66)	1001127
0	1-2 times per semester	4(7.14)	3(4.23)	24(25.00)	31(13.90)	
	Used in open classes	12(21.43)	8(11.27)	14(14.58)	34(15.25)	
	Haven't tried yet	37(66.07)	2(2.82)	10(10.42)	49(21.97)	

Class I teachers account for 25.11%, and their teaching experience is mostly between 6 and 10 years. The members are mainly junior high school mathematics teachers with undergraduate education, and 66.07% of them have not used the large-unit teaching model. This kind of teachers have formed a relatively mature and stable teaching mode and method. Because it takes a lot of time and energy to change the teaching mode, they may prefer to choose those relaxed and familiar teaching methods instead of trying new and more challenging

teaching modes. At the same time, most of them are in the age group of 30-36 years old, facing "role conflict" and need to spare time and energy to take care of their families and children. However, the large amount of lesson preparation and complicated design in large-scale teaching may increase their workload.

Class II teachers account for 31.84% of the statistical sample, mainly composed of senior high school teachers with bachelor's degree, among which

teachers with 1-5 years' teaching experience account for 64.79%. As young teachers in the junior or new teacher stage, they are more likely to accept and adapt to new teaching concepts and methods, such as large-unit teaching, which has gradually become the mainstream in their environment. These young teachers are willing to try and explore teaching methods suitable for students, accumulate teaching experience in the process, and strive to improve their teaching ability.

Class III teachers have the largest sample size, accounting for 43.05% of the statistical sample, and are mainly composed of young junior high school teachers with 1-5 years' teaching experience and bachelor degree, which reflects the actual situation of most junior high school teachers. They actively seek help and guidance in order to better adapt to the environment. They are less affected by the curriculum reform policy and rely more on students' feedback, their own cognition and willingness to teach. Therefore, it is necessary to give such teachers sufficient development time, increase the input of teaching resources and encourage them to learn theoretical knowledge in order to improve the teaching quality.

2.3. Strategies for Promoting Middle School Mathematics Teachers to Implement Large Unit Teaching

2.3.1 Comprehensive Development Strategies of Different Groups of Teachers

1. Empowering Rookie Teachers:

Potential tapping and rapid growth. With the help of systematic training system, it is ensured that rookie teachers fully grasp the essence and implementation skills of large-unit teaching, and then improve their teaching design and implementation efficiency. At the same time, build a normal interactive platform, encourage rookie teachers to share their teaching insights, promote mutual learning, and create a positive teaching ecology. In addition, through the exhibition of teaching achievements, their selfconfidence and professional honor are enhanced, and their teaching enthusiasm is further ignited.

2. Core Teachers:

Balance challenges and deepen practical exploration. For teachers with 6 to 10 years' teaching experience, we should deeply understand the dual pressures of occupation and life, and give them full understanding and support. On the premise of respecting its existing teaching mode, guide it to explore the integration of large-unit teaching and encourage innovative attempts. By strengthening the cooperation and communication among teachers, building an online and offline collaborative platform and jointly developing high-quality curriculum resources, the aim is to improve students' comprehensive quality and promote the steady improvement of teaching quality.

3. Senior Expert Teachers:

Pilot innovation and experience inheritance. For senior teachers with 11 years or more rich teaching experience, we should give full play to their leading role and encourage them to play a core role in the innovation and promotion of large-unit teaching. By organizing special forums, workshops and other activities, senior teachers are encouraged to explore the theory and practice of large-unit teaching, refine and share valuable experience, and build a teaching model that is easy to replicate and has remarkable results. At the same time, encourage them to participate in educational research, deepen large-unit teaching research, and contribute wisdom and strength to the reform of middle school mathematics education.

2.3.2 Strategies for Changing the External Factors That Promote Teachers' Internal Motivation

- 1. Build an incentive mechanism to ignite the source of internal power. The establishment of a scientific and reasonable incentive system, such as the "teaching style" exhibition stage, aims to provide teachers with an opportunity to themselves and exchange show their experiences, and more importantly, to stimulate their internal driving force for professional growth. These platforms should focus on the practice of teaching innovation, students' development and education reform, rather than simply evaluation and examination, so as to guide teachers to turn external incentives into internal motivation and continue to deepen the practice of large-unit teaching.
- 2. Deepen cognition and clarify the implementation path. In view of teachers' lack of understanding of large-unit teaching and vague implementation path, it is necessary to strengthen theoretical study and practical training to help teachers fully grasp the core elements and implementation requirements of large-unit teaching. At the same time, teachers are encouraged to explore and innovate in teaching practice, and explore the large-unit teaching path suitable for them by combining personal teaching characteristics and students' characteristics. Through continuous practice and adjustment, a personalized and situational teaching mode is constructed.
- 3. Strengthen support and optimize teaching environment. Schools should increase their support for large-scale unit teaching, including providing rich teaching resources, advanced technical support and professional theoretical guidance. Under the background of information education, schools should actively promote the deep integration of information technology and education and teaching, and equip teachers with advanced teaching tools and platforms to help them improve teaching efficiency and quality. At the same time, we should strengthen the

theoretical research and practical exploration of large-unit teaching, provide rich cases and experience for teachers, and promote the continuous updating of teaching concepts and methods.

- 4. Deepening training and improving teachers' comprehensive quality. Teacher training is a key link to improve teachers' quality and promote educational reform. In view of the actual needs of large-scale unit teaching, schools should organize professional training activities regularly and invite industry experts to give lectures and guidance to help teachers deeply understand the connotation and value of large-scale unit teaching. At the same time, teachers are encouraged to actively participate in teaching research and practice reflection, constantly sum up experience and optimize teaching strategies and methods. In addition, strengthen exchanges and cooperation among teachers, build a learning organization, and jointly promote the in-depth development of large-unit teaching.
- 5. Pay attention to students' needs and enhance teaching adaptability. Teaching should be student-centered and pay attention to students' individual needs and learning experience. In the process of large-unit teaching, teachers should use various methods to understand students' needs and puzzles, such as questionnaire survey, individual consultation, classroom observation, etc., to ensure that teaching design and implementation can accurately meet students' actual needs. At the same time, teachers should have keen insight and judgment, and be able to find and solve students' learning problems in time. Pay attention to teacher-student interaction and home-school cooperation in the teaching process to jointly promote students' all-round development.

3. CONCLUSION

In this study, we deeply discussed how to motivate middle school mathematics teachers to effectively practice large-unit teaching strategies. By comprehensively analyzing the characteristics and development needs of different teacher groups, we put forward a series of comprehensive development strategies and external influencing factors transformation strategies. It is a systematic project to motivate middle school mathematics teachers to practice large-unit teaching strategies. It is necessary to comprehensively consider the characteristics and development needs of different teacher groups, formulate targeted development strategies, and stimulate teachers' internal motivation and external support by building incentive mechanisms, deepening cognition, strengthening support, deepening training and paying attention to students' needs, so as to promote the in-depth implementation of large-unit teaching and the reform of middle school mathematics education.

Acknowledgement

The works described in this paper are partially supported by Research and Practice Project of Higher Education Teaching Reform in Henan Province in 2024: Research and Practice on the Training Path of Young Mathematics Teachers in Colleges and Universities under the Background of Normal Professional Certification (No.2024SJGLX0609) and Key Scientific Research Program of Universities Funded by Henan Province (No. 24B110002).

REFERENCES

- Bonner, E., Lege, R., & Frazier, E. (2023). Large language model-based artificial intelligence in the language classroom: practical ideas for teaching. *Teaching English with Technology*, 23(1), 23-41.
- Liu, H. (2024). Big unit teaching : the teaching reform from the perspective of learning sciences. *Educational Research*, 45(5), 110-122.
- Lv, W. (2024). Design of large unit teaching guided by big ideas and reflection. *Biology Teaching*, 49(5), 24-28.
- Mao, Q. (2024). Large unit teaching design from the perspective of learning center. *Curriculum*, *Teaching Material and Method*, 44(3), 52-58.
- Wang, L., Chen, J., Yang, B., & Sun, X. (2023). Review and enlightenment: the research of mathematics unit teaching in China basic education in recent forty years. *Journal of Mathematics Education*, 32(4), 21-27.
- Zhang, Z. (2024). Strategies for cultivating mathematical core literacy in large unit teaching. *International Journal of Mathematics and Systems Science*, 7(1), 149-152.

Cite This Article: Yongwei Yang, Xiaoqin Xu, Xiaoting Zhang (2024). Investigation on the Present Situation of Mathematics Large Unit Teaching in Middle Schools in Anyang and Its Improvement Countermeasures. *East African Scholars J Edu Humanit Lit*, 7(10), 341-347.