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Using AI to create a new Marxist-Leninist Philosophy course environment

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Abstract: The study of Marxist-Leninist Philosophy is a fundamental component of the Vietnamese higher education curriculum, providing students with essential knowledge of Marxism-Leninism. Nevertheless, the conventional instructional techniques employed in this course continue to encounter constraints such as being unchanging, devoid of interactivity, and unable to engender students' enthusiasm. In order to tackle this issue, the study suggests implementing a novel instructional approach that utilises ChatGPT technology and HTML to develop an Angry Birds game, hence improving students' ability to review and retain information. This approach guarantees an immersive and interactive learning experience by incorporating game elements into the course material. Furthermore, the utilisation of information technology in education also aids in improving the contemporary and pragmatic aspects of Marxist-Leninist Philosophy instruction. This paper will comprehensively discuss the constraints of conventional teaching techniques, introduce the technologies of ChatGPT and HTML, propose the concept of utilising these technologies to develop a Philosophy review game, and evaluate the possibilities and limitations of this unique approach.

Keywords: Marxist-Leninist Philosophy, ChatGPT, HTML, Angry Birds, teaching method innovation

1. Introduction

Marxist-Leninist Philosophy is a social science subject that is included in the curriculum of universities and colleges in the Vietnamese education system. This course imparts essential knowledge on Marxism-Leninism and Ho Chi Minh's ideology, which helps students create a

scientific perspective, methodology, and comprehension of societal and national development. While acknowledging the significance and relevance of the subject, the actual implementation of teaching and learning Marxist-Leninist Philosophy encounters numerous obstacles and complexities.

Conventional teaching approaches that rely on imparting theory have demonstrated numerous shortcomings, such as a lack of liveliness and interactivity. Consequently, pupils experience a decline in concentration, encounter difficulties in assimilating information, and rapidly forget the material they have acquired. Meanwhile, the learning outcome requirements for the course on Marxist-Leninist Philosophy necessitate that students possess the ability to employ philosophical views in order to analyse and assess practical challenges within society. Hence, it is imperative to enhance the efficacy of students' review and consolidation of knowledge in this course.

In light of this circumstance, there is an urgent need to conduct research and develop new teaching methods that are tailored to the evolving trends in information technology in higher education. This paper presents a novel instructional approach for the Marxist-Leninist Philosophy course by developing an Angry Birds review game application using the ChatGPT and HTML platforms. This approach integrates cutting-edge artificial intelligence and web design technology to establish an interactive and captivating learning environment, hence enhancing students' interest and the effectiveness of their review.

2. Research Overview

2.1. Constraints of Conventional Instructional Approaches for Marxist-Leninist Philosophy

The traditional pedagogical method in teaching Marxist-Leninist Philosophy focuses on one-way transmission of theory from lecturers to students through activities such as lecturing, dialogue, and report presentations. This leads to several limitations and inadequacies as follows:

Firstly, students exhibit passiveness in the learning process. They mostly assume the role of passive listeners, acquiring knowledge through lectures without actively participating, exploring, or applying their knowledge. Consequently, pupils frequently have a low degree of knowledge retention and are prone to forgetting what they have learned.

Secondly, the course content is characterised by its abstract nature. The Marxist-Leninist Philosophy course primarily focuses on the fundamental theoretical aspects of philosophy, politics, economics, and society, making it highly abstract in nature. Simply transmitting material through spoken words will result in a monotonous course, and the knowledge becomes increasingly conceptual, challenging to comprehend and retain for pupils.

Thirdly, obsolescence and limited utilisation of technology are prevalent issues in traditional teaching methods. These methods commonly depend on textbooks, blackboards, and occasionally, instructors still employ slide projection techniques. These educational resources have progressively exposed numerous constraints, infrequently undergoing updates and incapable of keeping pace with the swift advancements in modern information technology. This diminishes the course's appeal and creates a sense of detachment from real-world application.

Fourthly, limited interaction and experiential opportunities: The process of acquiring knowledge in Marxist-Leninist Philosophy within conventional educational settings typically entails passive engagement, such as listening and note-taking, with minimal contact between instructors and students or among peers. Students lack opportunities to actively engage with and apply theoretical information.

In general, traditional teaching methods are constrained by various limitations, including their passive nature, abstract approach, tendency to become outdated, and lack of interaction. This greatly impedes students' capacity to assimilate knowledge and diminishes the efficacy of course review.

2.2. An Overview of ChatGPT and HTML Technologies

ChatGPT is an AI model created and trained by OpenAI. This model was designed to engage in conversation, enabling it to respond to subsequent inquiries, acknowledge errors, question wrong assumptions, and decline inappropriate demands. ChatGPT underwent fine-tuning based on the GPT-3.5 series model and completed its training in early 2022. The training process took place on Microsoft's Azure AI supercomputing infrastructure. It allows for the comprehension and effective handling of inquiries and demands expressed in a flexible and intelligent manner using natural language. ChatGPT possesses the ability to comprehend intricate connotations and contexts inside text.

- Respond to inquiries by synthesising acquired information.
- Establish logical connections between material and communicate it in a concise and coherent writing manner.
- Offer comprehensive justifications, elucidations, and evaluations.
- Produce written compositions, documents, and computer programming instructions in accordance with specified criteria...

Aside from ChatGPT, we employ HTML (Hypertext Markup Language) for the purpose of designing and constructing the game's interface and control features. HTML serves as the universally used coding language for constructing webpages. Web browsers parse HTML source code and display it as a webpage that includes text, photos, videos, sounds, links, and other elements. While HTML itself is not considered a complete programming language, when used in conjunction with other languages such as CSS and JavaScript, it has the capability to create sophisticated and interactive web applications.

2.3. Developing an Angry Birds Game for Philosophy Review

Angry Birds is a highly popular digital game that revolves around the clash between furious bird creatures and antagonistic green pig characters. The main gameplay mechanics revolve around players using a catapult to tactically propel angry birds with the goal of destroying the fortified structures occupied by the pig enemies. The core idea revolves around utilising fundamental physics principles, such as gravitational forces, kinetic energy, and momentum, to accurately calculate trajectories and ensure effective target impacts.

By drawing inspiration from the original Angry Birds game's premise and processes, we have recognised substantial potential in applying this approach to examine concepts from the Marxist-Leninist Philosophy curriculum. The suggested modification entails substituting the pig-like strongholds with a series of multiple-choice questions or situational scenarios that necessitate the utilisation of fundamental knowledge, theoretical principles, and philosophical viewpoints derived from Marxist-Leninist ideologies, alongside conventional review inquiries. Instead of using real catapult missiles, players would participate by answering theoretical questions or addressing the offered situational problems within the game environment.

This technique enables the development of a vibrant and engaging gaming experience that actively promotes player involvement and ongoing examination of course content. At the same time, it enhances the growth of interactive skills, the application of practical information,

and cognitive capacities, making the review process more captivating and relevant compared to conventional teaching techniques.

Furthermore, the game design enables the incorporation of elements such as assessment of performance, adjustable difficulty levels based on the learner's knowledge and skills, and immediate visual feedback methods. These aspects can improve the review process and strengthen information retention in the field of philosophical studies.

3. Creating a Philosophy Review Game with ChatGPT and HTML

3.1. The process of development

The creation of the Marxist-Leninist Philosophy review game on the ChatGPT and HTML platforms involves the following steps:

First step: Analyse the framework and formulate the game's content

- Determine the subjects and ideas that require further examination in the course.
- Create a repository of theoretical questions and corresponding scenarios derived from the textbook.
- Classify and encode questions based on their subject, idea, and level of complexity.
- Utilise ChatGPT to design the background and space of the game in the style of Angry Birds.

Step 2: Construct the game UI and elements with HTML and ChatGPT.

- Write HTML code to render interface components such as the game frame, menu, score bar, and indicators.
- Embed the question material into the fortifications and destructible blocks in the game.
- Create control entities that closely resemble the original catapult birds.
- Link JavaScript functions to regulate the progression of the game.

Step 3: Implement the game's logic by utilising JavaScript and ChatGPT.

- Utilise JavaScript libraries to code the animation effects of the avian creatures in flight.
- Implement accurate answer scoring and update the score on the user interface.
- The program's level of progression and difficulty increases once the fortresses have been cleared.
- Incorporate ChatGPT to identify and analyse players' unrestricted responses.

Step 4: Conduct testing, evaluation, and refinement of the product.

- Verify the precision of the content and game logic on various web browsers.
- Gather input from students and professors to assess and enhance the game.
- Improve the game through the process of evaluating and incorporating suggestions.
- Develop educational materials and instructions for incorporating the game into teaching.

3.2. Particular implementations of ChatGPT and HTML

ChatGPT application: - Utilise ChatGPT to encode and organise a bank of multiple-choice questions pertaining to the knowledge acquired in the course on Marxist-Leninist Philosophy.

- Compose scenarios and tasks that necessitate the examination and implementation of theoretical knowledge.

- Consolidate and derive theoretical concepts to incorporate into the game as recommendations and guidelines.

- Capability to autonomously recognise, categorise, and analyse the answers provided by players.

An HTML application:

- Construct the interface of the game by utilising elements such as shooting boxes, fortifications, and avian creatures.

- Implant the substance of inquiries and circumstances within the defensive structures that require dismantling.

- Create an input field and present the response options in the form of both multiple choice and essay formats.

- Manipulate and send objects within the game utilising HTML5.

- Utilise CSS and JavaScript in conjunction to generate dynamic animation effects.

4. Assessment of Prospects and Constraints

4.1. The Method's Potential and Advantages

Comparative Analysis: To enhance readers' comprehension of the potential benefits and drawbacks, it is crucial to compare the suggested game-based learning technique with current teaching approaches for Marxist-Leninist Philosophy. A comparative analysis would emphasise the distinct characteristics and contributions of the game-based approach in comparison to existing methods.

Conventional lecture-based approaches to teaching Marxist-Leninist Philosophy frequently encounter issues such as inactivity, limited engagement, and challenges in captivating pupils with abstract theoretical ideas. On the other hand, the suggested game-based method utilises gamification and interactive components to encourage active engagement, heightened motivation, and the practical application of theoretical information. By integrating philosophical topics into an immersive gaming environment, students can cultivate a more profound comprehension and enhance their information retention.

Nevertheless, it is imperative to recognise the possible constraints of the game-based approach in comparison to conventional methodologies. Although gamification has the potential to increase involvement and drive, it can also present difficulties when it comes to effectively evaluating students' understanding of intricate philosophical concepts. In addition, the creation and execution of such a method may necessitate significant resources and specialised knowledge, which could impede its acceptance in educational environments with limited resources.

Utilising ChatGPT and HTML to develop a game resembling Angry Birds for the purpose of reviewing Marxist-Leninist Philosophy is a highly promising and advantageous technique.

Firstly, the game enhances the level of interaction and proactiveness among students. It fosters a dynamic learning environment where students are not only passive participants, but rather actively engage by regularly interacting, answering questions, and applying their knowledge. This enhances focus, curiosity, and active pursuit of knowledge.

Secondly, it presents a user-friendly and comprehensible technique: By incorporating gamification into the lectures, the subject of Philosophy becomes more easily understandable, in a straightforward and engaging manner that aligns with the current entertainment preferences of contemporary students. The captivating components will progressively foster a sense of proximity and emotional warmth towards the subject.

Thirdly, ChatGPT enables personalised learning by allowing instructors to effortlessly generate customised review materials that cater to certain student cohorts, so successfully individualising the learning experience for each student.

Finally, it facilitates the implementation of information technology in educational settings. This product serves as tangible proof of extensive study aimed at incorporating contemporary technology into teaching practices, aligning with the prevailing digital education movement characteristic of the fourth industrial revolution age. Additionally, it creates opportunities for future advancements in teaching methods.

4.2 Constraints and Difficulties

It is essential to prioritise addressing accessibility difficulties in order to guarantee that the proposed game-based learning experience is inclusive and fair for all students, including those with impairments. The authors should engage in a discussion regarding methods for meeting the needs of learners with varied backgrounds and fostering inclusivity in the design and execution of the game.

An effective method to improve accessibility could involve integrating customisable settings and helpful tools into the game. This may encompass choices for modifying visual and aural components, offering alternate input methods for pupils with movement limitations, and including text-to-speech or speech-to-text capabilities for individuals with vision or hearing impairments.

And, it is crucial to prioritise the adherence to well-established accessibility norms and standards, such as the Web Content Accessibility norms (WCAG), throughout the process of developing the game. Engaging in consultations with accessibility specialists, performing user testing with a wide range of user demographics, and soliciting input from students with disabilities can provide additional insights for the design process and guarantee that the game is accessible to all learners.

Furthermore, alongside the potential and benefits, this groundbreaking approach also entails certain constraints and obstacles that must be taken into account:

The first factor to consider is the upfront cost and work involved in creation. Creating and constructing the review game demands substantial initial investment of time and resources. Lecturers are required to devote time towards programming, content creation, and graphic design for the game. Enhancing IT competency is also necessary for acquiring relevant abilities.

One important concern when incorporating technical tools such as ChatGPT is the matter of security and copyright. It is crucial to give careful consideration to intellectual property rights and data protection. It is imperative to take measures to prevent the potential risks of student information leakage or copyright infringement resulting from unlawful usage.

There are three constraints when it comes to devices and network connectivity: Electronic games necessitate students to possess gadgets such as laptops, smartphones, and reliable internet connections. Implementing this approach in disadvantaged regions with limited access to technology will encounter substantial obstacles.

The fourth problem lies in the evaluation of results. Games offer a unique learning experience compared to traditional approaches, thus necessitating the development of suitable assessment techniques, which poses a significant obstacle. In order to assess students' level of knowledge acquisition, lecturers must possess well-defined strategies and efficient assessment instruments.

The risk of diversion and abuse is five. While games can enhance attractiveness and engagement, they can also operate as distractions for pupils if not correctly developed. Certain pupils may prioritise recreation over education.

It is important to discuss the long-term viability and expandability of the proposed game-based learning strategy, as these elements are essential for its successful implementation and widespread acceptance. This include factors pertaining to the continuous upkeep and modernization of the game, as well as tactics for broader adoption in various educational environments and institutions.

In order to achieve long-term viability, it is imperative to create a comprehensive strategy for consistently refreshing and upkeeping the game's content, features, and compatibility with advancing technologies. This may require the allocation of specialised resources, such as a group of developers and subject matter experts, to consistently improve and polish the game according to user feedback and new educational trends.

Scalability can be achieved by implementing a modular architecture in the game, which enables effortless adaption and localization to various educational environments and curriculum. In addition, establishing collaborations with educational institutions, technological businesses, or government agencies could help the broader distribution and acceptance of the game-based learning approach in various educational environments.

Additionally, the authors should contemplate creating an all-encompassing training regimen for educators to guarantee the successful incorporation of the game into their instructional methodologies. This may entail furnishing instructional tools, instructions, and professional development opportunities to equip educators with the requisite expertise and understanding to properly utilise the game-based method.

5. Summary

Utilising emerging technologies such as ChatGPT and HTML to develop an Angry Birds game for the purpose of examining Marxist-Leninist Philosophy is a novel and auspicious instructional approach. This product enhances students' engagement and efficacy in reviewing while showcasing the utilisation of information technology in teaching. Key benefits include enhanced learner engagement and initiative, a wide range of knowledge dissemination techniques, tailored material and learning strategies that align with contemporary trends.

In addition to these potentials, this method also encounters obstacles related to the allocation of resources for execution, security and copyright concerns, as well as constraints in technological infrastructure and network connectivity. The matter of assessing outcomes and the potential for diversion are other aspects to consider. Nevertheless, via the process of development and refinement, this idea has the potential to become a highly efficient instrument for enhancing subject efficacy, attracting students, and introducing innovative teaching methods within the framework of the 4.0 industrial revolution.

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