

Cultivation of Youth Artificial Intelligence Literacy from the Perspective of Social Consensus: Analysis of Roundtable Forum

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Abstract: The advent of the era of artificial intelligence has brought about great changes to contemporary education and teaching, not only in the teaching work of teachers but also in the learning content and learning mode of students. These issues have become the focus of discussion in the education industry. Due to the large differences in the level of education and teaching in different regions, there have always been different concepts in the development of artificial intelligence education in different regions, and thus there has been no consensus on the cultivation of youth artificial intelligence literacy, which is not conducive to the development of youth artificial intelligence literacy cultivation. Therefore, it is important to explore the process and factors of consensus formation. This study aims to explore how to reach a consensus on the cultivation of youth artificial intelligence literacy from the perspective of social psychology. The analysis of the forum on youth artificial intelligence literacy shows that the factors affecting the achievement of consensus are mainly divided into three parts: shared reality, intersubjective consensus, and social representation.

Keywords: Social Consensus Theory; Artificial Intelligence Education; Roundtable Forum

1. Introduction

The rapid development of artificial intelligence has brought unprecedented challenges to education and teaching, especially the generative artificial intelligence represented by ChatGPT, which can communicate smoothly with humans based on natural language by deeply learning a large amount of text data. Literacy, as the ability to meet complex needs in a specific context, has distinct characteristics of the times, integrity, development, and measurability [1]. At present, artificial intelligence literacy has gradually become one of the key literacies for the survival and development of individuals. During the Digital Learning Week in September 2023, the United Nations Educational, Scientific and Cultural Organization (UNESCO) released a draft framework for the artificial intelligence capabilities of school students and teachers, indicating that all citizens should possess "artificial intelligence literacy". People from all walks of life in the field of education have recognized the importance of youth artificial intelligence literacy and general education. However, in the face of the profound impact of artificial intelligence, there is no unified view on how to effectively carry out youth artificial intelligence literacy and general education. Common questions include: in the face of the rapid development of artificial intelligence technology, can the national-level guidelines keep up with the times? How should schools choose the appropriate artificial intelligence platform, whether to develop it independently or cooperate with external companies? Under the influence of artificial intelligence, how to ensure that students' creativity is not weakened, but even enhanced [2]? Some people worry that the impact of artificial intelligence may not weaken students' creativity, but may enhance it, but many educational institutions may not be fully prepared for this. In this new era of artificial intelligence education, all sectors of society have launched heated and intense discussions. The lack of consensus reflects the collision of diverse social thoughts, and the difficulty in reaching this consensus may hinder the work of education and teaching.

At present, carrying out the cultivation of youth artificial intelligence literacy and general education has become the focus of attention in the education industry [3]. All sectors of society urgently need a consensus on the cultivation of youth artificial intelligence literacy. To promote this process, the UNESCO Chair in Artificial Intelligence and Education, in conjunction with the China Education

Development Strategy Society, jointly held a forum on youth artificial intelligence literacy and general education. This forum aims to reach a consensus on youth artificial intelligence literacy and general education and apply the conference results to practice. The theoretical research on the formation and role of social consensus in the field of psychology [4] has deeply explored how social members form a common cognition and view of specific things at the psychological level [5], and how this consensus affects the behavior, attitude, and values of individuals and social groups [6]. These studies focus on the formation mechanism, dissemination path, maintenance, and change factors of social consensus, aiming to reveal the laws and principles behind social psychological phenomena. These theories will provide valuable guidance for this study, helping us understand the obstacles to "meeting policy requirements but difficult to form a social consensus" and the positive impact of the forum in promoting consensus formation.

2. Literature Review

In recent years, the exploration of youth artificial intelligence literacy and related general education has significantly increased globally. For example, Singapore has implemented the "Smart Nation" plan, dedicated to promoting youth STEM (Science, Technology, Engineering, and Mathematics) and programming education to promote the development of technological innovation [7]. The United Kingdom has incorporated programming education into the national curriculum system [8], and the US government has ensured that K-12 students can access and learn the basics of computer science and artificial intelligence through capital investment and the promotion of computer science education [9]. China's "New Generation Artificial Intelligence Development Plan" also clearly states that artificial intelligence education should be incorporated into the primary and secondary school curriculum system, covering STEM education, programming education, and other content [10]. Although countries have different measures in promoting artificial intelligence education, they all show a high degree of attention to this field.

In terms of artificial intelligence education methods, countries have different focuses. Some countries pay more attention to traditional artificial intelligence education, such as STEM education [11]; while other countries focus on cultivating talents who develop generative artificial intelligence and vigorously carry out programming education [12]. In China, compared with the past, the importance of STEM education has declined, especially after the emergence of generative artificial intelligence. Experts have different views on this [13-14]. Some experts believe that carrying out artificial intelligence education only needs to closely follow the national policy; while other experts believe that it is necessary to reform the traditional education model and take generative artificial intelligence as the core of education. Obviously, China is still in a stage of development where a consensus has not yet been reached in the way of artificial intelligence education.

The formation of social consensus is a complex process, involving multiple aspects such as the influence between individuals, the dynamic changes of network structures, and the feedback of psychological states. In the field of psychology, the theoretical research on the formation and role of social consensus involves multiple levels, including the consistency of perception between individuals, the construction of consensus in the process of group decision-making, and the impact of consensus on social behavior and attitudes. Research shows that the degree of consistency in people's evaluation of common goals can be quantified by generalization theory, and this consistency is not only affected by the familiarity between individuals, but also related to the dimension of personality traits [15]. In addition, the formation of consensus is also related to the accessibility of self-referential information, that is, an individual's response to a certain social stimulus (support or opposition) predicts how they expect others to respond (consensus estimation) [16]. In group decision-making, the construction of consensus is regarded as an important condition to ensure that team members reach an agreement on the decision, which helps to improve commitment and successfully implement the strategy [17]. However, although consensus has been widely studied, the causal model of its cognitive mechanism is not yet clear [18]. In addition, the social network structure also has an important impact on the realization of consensus. Research shows that increasing contact can help to reach consensus and truth, but this is not always beneficial [19].

Oskamp (1965) concluded in a clinical experiment that people tend to overestimate the correctness of their judgments when estimating the correctness of their own judgments [20]. From the perspective of cognitive dissonance theory, when an individual has a conflict with the outside world's ideas, they tend to combine their own information with external information to adjust their cognition, thereby reducing the sense of cognitive dissonance. This adjustment process may lead individuals to show

higher overconfidence in group decision-making, because in the process of striving to reach a consensus, they may rely too much on their own judgments rather than objective facts [21]. Another researcher analyzed the SIB paradigm from the perspective of individual cognition, combined with cognitive dissonance theory, and found that when an individual has a conflict with the outside world's ideas, they tend to combine their own information with external information to adjust their cognition. Currently, "cognitive dissonance" becomes a motivation to reach a consensus [22]. Bi Y. et al. (2008) also supports this point. They found that compared with individual decision-making, individuals in group decision-making are more likely to show overconfidence, which further illustrates the complexity of reaching a consensus in group decision-making [23].

The guests in the forum are all elites from all walks of life engaged in artificial intelligence education. Before the forum was organized, they all had profound insights into artificial intelligence education. However, because individuals tend to overestimate the correctness of their own conclusions when making decisions alone, there may be a problem that the understanding of these experts may not fully meet the social needs. To apply the theories of experts to society, it is necessary to integrate the insights of various experts in artificial intelligence education through discussion, absorb the essence, and discard the dross. Therefore, the forum is regarded as an effective way to reach a consensus on the theme of artificial intelligence education. The theoretical basis of this approach lies in the "speak and believe" effect of the consensus theory in social psychology. The latest research results of Cui Z. et al. (2025) have deeply explained this. They pointed out that in a group, an individual's speech will be influenced by the attitudes of the words of the people around them, making it easier to form a consensus [24]. Therefore, this study aims to use the consensus theory to analyze how experts in the forum reach a consensus through forum discussions, and to draw a conclusion that promotes the achievement of consensus.

As an open social occasion, the roundtable forum's discussion content and the consensus conclusion reached usually become reference materials for the further development of the field. For this reason, in recent years, many studies have been conducted on how the meeting reaches a consensus. Cresswell et al. (2013) conducted an in-depth discussion on how to achieve a qualitative goal in the analysis of the conference on the business case and procurement challenges of the hospital electronic prescribing system, and this study used a large language model to analyze the speeches of the participants, providing strong support for understanding the process of reaching a consensus in the meeting [25].

3. Research Ideas and Design

3.1. Research Questions

After the preliminary research on the relevant fields, we noticed that although there are many papers discussing youth artificial intelligence education, most of them mainly focus on analyzing the artificial intelligence education achievements in a specific region. In addition, the research also focuses on the precautions for developing artificial intelligence education and the teaching goals and methods of the teaching profession in the context of artificial intelligence education. However, there is rarely any involvement in the forum analysis of youth artificial intelligence in the framework of consensus theory. Therefore, the purpose of this study is to make up for the lack of the existing research in the perspective of social psychology consensus theory, and to deeply explore the factors that affect the achievement of consensus and the consensus conclusion under the theme of youth artificial intelligence education, to better promote the formation, development, and progress of the consensus of artificial intelligence education. Specifically, this study focuses on the following questions:

- 1) What are the actual situations of youth artificial intelligence education shared by the participants in the roundtable forum?
- 2) How much consensus on youth artificial intelligence education can the roundtable forum promote among the participants?
- 3) In what way do the participants express their respective views on youth artificial intelligence education?

3.2. Research Design

This study is based on the social consensus theory in the field of social psychology, with the goal of deeply analyzing the expert discussions in the forum meetings and adopting the discourse analysis

method to explore the consensus reached by the participants in the field of artificial intelligence education and the various factors that affect the formation of consensus.

3.3. Overview of Roundtable Dialogues

In an event titled "Forum on Youth Artificial Intelligence Literacy and General Education" moderated by the UNESCO Chair in Artificial Intelligence Education, the organizers carefully planned two roundtable conferences, themed "Cultivation of Youth Artificial Intelligence Literacy" (referred to as "AI Literacy Education") and "Innovation in Youth Artificial Intelligence Education and Teaching" (referred to as "AI Teaching Innovation"). Among them:

1) The "AI Literacy Education" roundtable forum focuses on the cultivation of youth artificial intelligence literacy, discussing the requirements for the core literacy of youth in the intelligent era, the key artificial intelligence literacy, the development status, and future cultivation suggestions.

2) The "AI Teaching Innovation" roundtable forum focuses on "Innovation in Youth Artificial Intelligence Education and Teaching", covering the current teaching status, innovation in teaching modes and methods, the status and innovative means of teaching evaluation work, the key competence requirements and teacher development innovation practices of artificial intelligence teachers, and suggestions for future teaching innovation and professional development of teachers.

A total of 14 people participated in this conference, including 2 moderators and 12 experts, who came from the leadership level of the education industry or the field of artificial intelligence research and development, and had a high degree of authority and voice on this topic. Table 1 and Table 2 are the main information of the participants in the two roundtable forums.

Table 1: Basic Information of the Participants in the "AI Literacy Education" Roundtable

Participant Number	Affiliated Region	Nature of the Affiliated Organization	Professional Title / Position	Dialogue Role
LF	Shanghai	Colleges and Universities	Professor	Moderator
FL	Beijing	Colleges and Universities	Professor	Participant
UXH	Beijing	Educational Administrative Department	Director	Participant
ZZ	Shanghai	Educational Administrative Department	Director General	Participant
WD	Chongqing	Educational Institution	Deputy Director	Participant
LZJ	Shanghai	Educational Technology Company	Company Executive	Participant
ZYM	Beijing	Educational Technology Company	Company Executive	Participant

Table 2: Basic Information of the Participants in the "AI Literacy Education" Roundtable

Participant Number	Affiliated Region	Nature of the Affiliated Organization	Professional Title / Position	Dialogue Role
WLK	Hubei	Colleges and Universities	Professor	Moderator
LXM	Shandong	Educational institutions	Director	Participant
MYG	Beijing	Educational Administrative Department	Headmaster	Participant
ZL, CYB	Heilongjiang	Educational Administrative Department	Director	Participant
QH	Beijing	Educational Administrative Department	Headmaster	Participant
BSQ	Zhejiang	Educational Administrative Department	Headmaster	Participant
WYH	Hebei	Educational institutions	Company Executive	Participant

3.4. Data Collection and Analysis Methods

First, we digitized the video content of the roundtable conference and converted it into document format. This step is necessary because only by transforming video materials into text can we conduct in-depth analysis and editing using modern technology.

Next, we adopted the latest technological tools: ChatGPT version 4.0, Wenxin Yiyan version 3.0, and Doubao version 1.16.2 for Mac. These tools have advanced functions in language processing and data analysis. Through these tools, we input the preliminary records of the conference into the

corresponding instruction windows and executed the instruction of "summarize the original conference manuscript". This step aims to remove colloquial expressions and make the conference records more formal and clearer.

To ensure the accuracy of the paraphrasing, we compared the paraphrased document with the original conference record, paying special attention not to add any emotional vocabulary that may affect the results of discourse analysis. This meticulous comparison work is to ensure the objectivity and accuracy of the analysis.

Finally, we imported the revised document into Doubao version 1.16.2 for Mac and executed the instruction of "Please analyze the following text content in combination with the above paper and explore in detail how the forum reached a consensus". This step not only helps us understand how consensus is formed in the conference but also deepens our understanding and analysis of the conference content. Throughout the process, we referred to relevant academic research and, through quantitative and qualitative methods, combined with text and multimodal analysis, explored how frames, metaphors, and dialogues in the roundtable conference work together on the audience and how leaders construct personal and collective identities through non-verbal strategies. This provides us with theoretical support and an analysis framework, making our analysis more comprehensive and in-depth.

4. Preliminary Findings

4.1. Impact of Shared Reality

During the communication process, the participants shared several practical situations that they believed were necessary to understand during communication. These practical situations together constitute their shared reality of educational reform in the intelligent era.

4.1.1. "AI Literacy Education" Roundtable

After in-depth analysis of the content of the roundtable dialogue, we found that the participants unanimously believed that in the context of the intelligent era, schools shoulder an important mission, that is, to teach students to be proficient in artificial intelligence technology and cultivate their ability of critical thinking. For example:

1) LF put forward the core goal of artificial intelligence education, that is, to enable students to master artificial intelligence tools proficiently.

2) ZZ emphasized that teenagers should objectively understand artificial intelligence technology and apply it in real life.

3) FL believes that artificial intelligence courses should focus on improving students' digital literacy so that they can better adapt to life in the digital age.

4) LZJ emphasized the importance of correctly guiding and using artificial intelligence and believes that this is an important part of cultivating students' future development.

5) YXH is committed to guiding students to correctly understand and use artificial intelligence tools and helping them become qualified citizens in the information age.

6) WD discussed from a practical perspective how to further promote the popularization and development of artificial intelligence education.

These viewpoints comprehensively reflect their consensus on the educational direction in the intelligent era, that is, to make joint efforts to let students form a harmonious interactive relationship with artificial intelligence technology. This reflects a manifestation of people's common pursuit of the internal state of the world in the shared reality.

4.1.2. "AI Teaching Innovation" Roundtable

Through a detailed analysis of the discourse of this roundtable, we draw the conclusion that they unanimously agree that the key to artificial intelligence education is to combine theory with practice and that policy guarantees and regional promotion are needed.

They realize that artificial intelligence education not only needs to integrate theoretical knowledge into the practical applications of schools, teachers, and students but also requires policy guarantees and regional promotion strategies to enhance the intelligent literacy of students and teachers. For example:

1) WLK emphasizes that the focus of the forum lies in closely combining theory and practice and implementing it in specific practices. At the same time, he also mentions issues such as the need for strong policy guarantees in primary and secondary schools.

2) LZM shares the specific practice of promoting artificial intelligence education by setting up pilot areas.

3) MYG tells the story of how schools use artificial intelligence technology to improve the abilities of teachers and students by establishing research centers.

4) ZL mentions the efforts made locally in actively promoting artificial intelligence education.

5) QH presents successful cases of applying artificial intelligence technology in the classroom.

6) BSQ introduces examples of schools realizing educational reform by introducing artificial intelligence tools.

7) WYH puts forward the concept of how enterprises can provide intelligent support for schools.

These viewpoints jointly reveal a fact that they all agree that artificial intelligence education in practice requires the joint efforts and support of all sectors of society. This reflects people's common understanding of artificial intelligence education and expectations for the future in the shared reality.

4.2. Inter-subjective Consensus Reached

4.2.1. "AI Literacy Education" Roundtable

From the content summarized in Roundtable One, the participants reached a consensus on the following issues:

1) Necessity of intelligent literacy education: All participants (LF, ZZ, FL, LZJ, XYH, WD) recognize that in the intelligent era, cultivating students' intelligent literacy is extremely important. They unanimously believe that education should enable students to better utilize artificial intelligence technology rather than being replaced by it, which reflects the consensus on the urgency and importance of intelligent literacy education.

2) Application of artificial intelligence in education: The participants generally agree on the broad application prospects of artificial intelligence technology in education. They propose using artificial intelligence to empower education and improve education quality and efficiency (ZZ) and cultivating students' core literacy by offering artificial intelligence courses (FL, LZJ). In addition, XYH specifically introduced practical application cases of artificial intelligence in the field of education, such as intelligent norm recognition and precise English teaching, further strengthening this consensus.

3) Value of interdisciplinary theme learning: Both FL and LZJ emphasized the importance of interdisciplinary theme learning in the implementation of artificial intelligence courses. They believe that through interdisciplinary theme learning, students' technological abilities and scientific spirits can be enhanced. Combined with the new curriculum standards, it forms a joint force and enhances teaching effects. This consensus reflects the common recognition of teaching method innovation.

4) Critical thinking and ethical concerns: Both LF and ZZ emphasized the importance of critical thinking in artificial intelligence education. They believe that students need to have critical thinking abilities to correctly understand and apply artificial intelligence technology and deal with the social and ethical impacts it brings. This consensus reflects the importance attached to moral education and value cultivation in educational goals.

According to the discourse analysis of this roundtable, we found that the viewpoints of others echoed to varying degrees the new requirements for the core literacy of teenagers proposed by Mr. ZZ. This concept analyzes the cultivation of artificial intelligence literacy for teenagers at present from the levels of knowledge and concepts, technology and tools, thought and philosophy. This shows that in the process of roundtable forum dialogue, Chinese people's habitual situational attribution, that is, they habitually attribute the concepts generated in the situation to having a great connection with the situation. It can be seen from the discourse that they agree with the concepts proposed by Mr. ZZ and integrate them into their own concepts as concepts absorbed in the situation. They unanimously recognize the importance of these requirements for students' development in the intelligent era and have reached an inter-subjective consensus on the norms and values of artificial intelligence education.

4.2.2. “AI Teaching Innovation” Roundtable

In the core viewpoints of this roundtable, the participants reached a consensus in multiple aspects:

1) Importance of artificial intelligence literacy education: The participants generally recognized the importance of carrying out artificial intelligence literacy education in primary and secondary schools, believing that this helps to improve students' intelligent literacy and lay a solid foundation for future learning and life.

2) Necessity of policy guarantee and regional promotion: Many participants (such as WLK, LM, MYG) mentioned that the promotion of artificial intelligence literacy education requires policy support and guarantee, as well as active promotion and comprehensive planning in regions.

3) Penetration and integration of all disciplines: Participants such as MYG and QH emphasized that artificial intelligence education should not be limited to specific disciplines but should penetrate all disciplines and promote the integration of artificial intelligence literacy in various disciplines through practical projects and cases.

4) Using artificial intelligence technology to improve education quality: Participants (such as MYG, QH, BSC) shared the practices of their respective schools in artificial intelligence education and demonstrated how to use artificial intelligence technology to improve education quality and effects, such as through intelligent teaching and management platforms and precisely introducing artificial intelligence tools.

These consensus points reflect the common understanding and expectations of the participants in the field of artificial intelligence education and provide a useful reference for future educational practices and policy formulation.

According to the discourse analysis of this roundtable, we found that when other participants narrated their own viewpoints, they all introduced the core meaning of the viewpoints such as the need for policy guarantee for artificial intelligence education proposed by Mr. WLK into their own viewpoints and used them as arguments to expound their own viewpoints. This conforms to what is mentioned in the inter-subjective consensus theory: individuals can often be aware of a certain norm existing in the group atmosphere. We can interpret it as the view of "what others think of something in my eyes". That is, in this roundtable, the concept that educational policy guarantee measures are crucial for the development of artificial intelligence education is the "norm" among the participants of this roundtable and the inter-subjective consensus they have formed.

4.3. The Influence of Social Representations

4.3.1. “AI Literacy Education” Roundtable

According to the discourse analysis of this roundtable, we found that when they expressed their viewpoints, they were influenced by other participants in the forum. For example, the differences in artificial intelligence education in different regions mentioned by WD were also reflected in the remarks of others before and after. They “solidified” and “objectified” WD's theory. First, they absorbed the unfamiliar knowledge mentioned by WD – in his company, how to take corresponding development measures on the theme of artificial intelligence development for teenagers, and conceptualized him abstractly to achieve the goal of initially understanding the social reality of his experience mentioned by WD. Subsequently, the participants “objectified” the concepts mentioned by WD, that is, concretized the parts that were just abstracted to better understand the social reality of WD's experience. Through the above thinking process, the participants reached a consensus. That is, they all believe that social environments, such as the development of the intelligent era and the guidance of educational policies, will affect individuals' cognition and application of artificial intelligence. This indicates that social representations have an influence in the process of reaching consensus in the roundtable conference.

4.3.2. “AI Teaching Innovation” Roundtable

According to the discourse analysis of this roundtable, we found that when they described the concepts of artificial intelligence education implementation and artificial intelligence education development, although they were all affected by the social reality of different policies and resources in the regions where the participants were located, they still reached a preliminary consensus on the theme of artificial intelligence education. This is because when individuals face the same complex social problem, they often give solutions to these problems based on the social reality and social culture of

their own experiences. However, after communication, the originally unknown concepts mentioned in others' speeches will become familiarized in individuals, enabling the mutual structural adjustment of society and individuals, and finally reaching a consensus on the topic. This shows that social representations have a great influence on reaching consensus. For example, in this roundtable conference, LXM mentioned the policy guidance and innovative measures of Qingdao. MYG talked about how to carry out school practices in response to Beijing's policies. BSQ mentioned how to realize the transformation of schools into smart campuses in the absence of support from major policies and funds. WYH proposed that to develop artificial intelligence education, it is quite necessary to combine enterprises with local resources. Even though they have great differences in regional policies and funds, they all believe that the development of artificial intelligence education needs to start from the perspective of local environmental resources to realize the popularization and implementation of artificial intelligence education. This shows that after communication, they no longer only rely on the social policies and cultural backgrounds of their own regions but have realized the mutual structural adjustment between the community and individuals within the roundtable forum group, reflecting the influence of social representations on reaching consensus.

5. Main Conclusions and Discussions

5.1. Main Conclusions

The data processing perspective of this study unfolds from three dimensions. Shared reality focuses on analyzing individual cognition in ambiguous situations. We can draw a preliminary conclusion that in cultivating artificial intelligence literacy for teenagers, even if there are "black box" elements, after the forum discussion, the participants reached a consensus - hoping that teenagers and artificial intelligence can achieve a good interactive relationship, and artificial intelligence education needs the support of policies from all parties.

1) In the "AI Literacy Education" roundtable, the participants unanimously believed that schools should teach students to be proficient in artificial intelligence technology and cultivate their ability of critical thinking. They emphasized the necessity of AI literacy education, the application of AI in education, the value of interdisciplinary theme learning, and the importance of critical thinking and ethical concerns, and reached a consensus on these viewpoints.

2) In the "AI Teaching Innovation" roundtable, the participants agreed that the key to artificial intelligence education is to combine theory with practice and requires policy guarantee and regional promotion. They reached a consensus on the importance of artificial intelligence literacy education, the necessity of policy guarantee and regional promotion, the penetration and integration of all disciplines, and the use of artificial intelligence technology to improve education quality.

3) In the two roundtable conferences, the participants were influenced by other participants and social representations when expressing their views. Through absorbing, understanding, and concretizing the experiences and theories of others, and giving solutions to problems based on the social reality and social culture of their own experiences, they finally reached a preliminary consensus on the theme of artificial intelligence education. This reflects the important influence of social representations in the process of reaching consensus. Inter-subjective consensus focuses on analyzing individual cognition under community norms. According to this theory, we can draw a conclusion that in a specific community environment, such as the youth artificial intelligence education forum, community norms will gradually form in the process of conversation, and then reach a consensus - educationally, it is necessary to cultivate the values of teenagers in the artificial intelligence era, and artificial intelligence education needs the guarantee of educational policy systems.

Social representation theory focuses on analyzing the familiarization of individuals with unfamiliar knowledge. It proposes that the influence on an individual's cognition is related to social mainstream ideas and ideology. This can be used to explore how participants reach a consensus on the topic of artificial intelligence in educational environments with different social backgrounds. In this conference, they reached two major consensus - social environment will affect individuals' cognition and application of artificial intelligence, and artificial intelligence education needs to be adapted to local conditions. We believe that analyzing the stages and processes of consensus formation from the above three perspectives has high credibility because the participants come from provinces across the country, and the validity of the conclusion is strong.

5.2. Discussion

The conclusions drawn in this study basically coincide with the core discussions of predecessors on artificial intelligence education. For the first time, it conducts an in-depth analysis of the collective mentality and consensus formation process of cultivating artificial intelligence literacy for teenagers from the perspective of social consensus theory, providing a new perspective and theoretical support for research in this field. However, the formation of consensus is not achieved overnight but is a process that requires continuous tracking and dynamic adjustment.

First, the continuity and dynamics of consensus require us to conduct long-term tracking and evaluation of its implementation effects and adjust the content of consensus in a timely manner according to changes in the external environment. To this end, it is recommended to establish a regular feedback mechanism to collect opinions from all parties to ensure that consensus can keep pace with the times.

Secondly, the interaction and integration of multiple subjects is the key to promoting the in-depth development of consensus. In the future, cross-domain cooperation should be further strengthened, especially the deep integration of the education field and the industry, to jointly promote the implementation of artificial intelligence literacy education for teenagers. At the same time, encourage public participation in discussions, especially the participation of teenage students and their parents, to make consensus closer to actual needs.

Furthermore, the bridging role of policies and practices cannot be ignored. How to transform the consensus reached in the forum into practical policy measures and ensure the effective implementation of these policies in educational practice is an important direction for future research. In addition, the fair distribution of educational resources is also a key link in achieving the consensus goal.

Finally, technical ethics and humanistic care play an important role in artificial intelligence literacy education for teenagers. While emphasizing the cultivation of technical literacy, more attention should be paid to cultivating students' awareness of technical ethics and preventing the abuse of technology. At the same time, integrate humanistic care into artificial intelligence education to promote the all-round development of students. These aspects should be given more attention in future education and policy formulation.

In summary, although this study has achieved certain results in the field of consensus on artificial intelligence education for teenagers, it still needs further in-depth discussion and improvement. By continuously paying attention to the dynamic changes of consensus, strengthening the interaction of multiple subjects, optimizing policy formulation and implementation, and strengthening technical ethics and humanistic care, it is expected to provide a more solid theoretical basis and practical guidance for the all-round development of artificial intelligence literacy education for teenagers.

5.3. Shortcomings of This Study

Even though this study is highly persuasive in the field of consensus on artificial intelligence education, this consensus analysis conclusion is likely to only be applicable to the forum studied in this research and has low explanatory power for other similar forums. In addition, the discourse analysis method of this study is relatively single, only using generative artificial intelligence as an exploration tool, and may be lacking in detail in analysis. Secondly, the analysis text of this study comes from the text transcribed from video. Although we correct the content, using the method of extracting the main trunk as the analysis material is not conducive to analyzing the psychological state and personality characteristics of the participants from the perspective of modal particles. Therefore, we may not be able to explore how the psychological efforts of participants with different personalities are different when reaching a consensus, resulting in low validity of this research method. In addition, this research method belongs to a relatively new and less explored field. Especially for exploration from a psychological perspective, it needs to use relevant content of linguistics. We lack explanatory power for linguistics and sufficient previous research literature, so there will be places that are not rigorous enough.

References

- [1] Feng, C. D. (2017). *Competency-based education: Connotation, model, principles and challenges*. *Educational Science Research*, (04), 30–34, 40.

- [2] Lu, D. K., & Li, S. T. (2024). Is it a “mythical creature” or a “gray rhino”: The multi-dimensional impacts of ChatGPT and other large language models on education and countermeasures. *Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition)*, (2), 106–124.
- [3] Li, Q. X., & Liang, Z. (2022). Exploration of teachers' professional development paths in the era of artificial intelligence. *Theory and Practice of Education*, 42(34), 54–58.
- [4] Zhang, Y. R., & Zuo, B. (2006). Social identity theory and its development. *Advances in Psychological Science*, (03), 475–480.
- [5] Wu, Y., & Yang, Y. Y. (2013). The “mutual constitution” of society and individuals in the formation process of social mentality: The enlightenment of the “consensus” theory in social psychology on the study of social mentality. *Social Science Front*, (02), 159–166.
- [6] Liu, F., & Zuo, B. (2010). Intergroup emotion theory and its research. *Advances in Psychological Science*, (06), 940–947.
- [7] Teo, T. W. (2019). STEM education landscape: The case of Singapore. *Journal of Physics: Conference Series*, 1340(1), 012002. doi:10.1088/1742-6596/1340/1/012002
- [8] Wang, H. Y., & Tian, Y. H. (2016). UK: Programming education enters the national curriculum. *Shanghai Education*, (02), 20–23.
- [9] Qian, S. L. (2023). The current situation and enlightenment of computer science education in American primary and secondary schools. *Primary and Secondary School Information Technology Education*, (09), 91–94.
- [10] Yuan, H. (2018). Interpretation of the "New Generation of Artificial Intelligence Development Plan". *Technology Wind*, (31), 37.
- [11] Xu, W., & Ouyang, F. (2022). The application of AI technologies in STEM education: A systematic review from 2011 to 2021. *International Journal of STEM Education*, 9(1), 59. doi:10.1186/s40594-022-00348-1
- [12] Han, Q. Q. (2020). A comparative study of artificial intelligence education in primary and secondary schools in China and the United States [Master's thesis]. Zhejiang Normal University.
- [13] Ding, M. R., & Wang, T. J. (2021). Design and application of the "knowledge construction, STEM, and maker" trinity teaching model in artificial intelligence teaching. *E-Education Research*, (04), 108–114.
- [14] Tang, Y. W., Guo, L. T., Xie, Y. G., & Zhong, S. C. (2017). Research on the interdisciplinary integration model of STEM supported by educational artificial intelligence. *China Educational Technology*, (08), 46–52.
- [15] Kenny, D. A., Albright, L., Malloy, T. E., & Kashy, D. A. (1994). Consensus in interpersonal perception: Acquaintance and the big five. *Psychological Bulletin*, 116(2), 245. doi:10.1037/0033-2909.116.2.245
- [16] Clement, R. W., & Krueger, J. (2000). The primacy of self-referent information in perceptions of social consensus. *British Journal of Social Psychology*, 39(2), 279–299. doi:10.1348/014466600164680
- [17] De Vreede, T., Reiter-Palmon, R., & de Vreede, G. J. (2013, January). The effect of shared mental models on consensus. In 2013 46th Hawaii International Conference on System Sciences (pp. 263–272). IEEE. doi:10.1109/HICSS.2013.117
- [18] Briggs, R. O., Kolfschoten, G. L., & Vreede, G. J. D. (2005). Toward a theoretical model of consensus building. *AMCIS 2005 Proceedings*, 12.
- [19] Zollman, K. J. (2012). Social network structure and the achievement of consensus. *Politics, Philosophy & Economics*, 11(1), 26–44. doi:10.1177/1470594X11414884
- [20] Oskamp, S. (1965). Overconfidence in case-study judgments. *Journal of Consulting Psychology*, 29(3), 261–265. doi:10.1037/h0022062
- [21] Tversky, A., Kahneman, D., & Slovic, P. (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge University Press.
- [22] Echterhoff, G., Higgins, E. T., Kopietz, R., & Groll, S. (2008). How communication goals determine when audience tuning biases memory. *Journal of Experimental Psychology: General*, 137(1), 3–21. doi:10.1037/0096-3445.137.1.3
- [23] Bi, Y. L., Liu, Z., & Li, S. (2008). A comparative study of overconfidence in group decision-making and individual decision-making. *Chinese Journal of Ergonomics*, (04), 49–52, 77.
- [24] Cui, Z. Q., Zhang, H., & Liu, X. P. (2025). The “saying is believing” effect: An explanation based on shared reality. *Psychological Development and Education*, (01), 145–152.
- [25] Cresswell, K. M., Slee, A., Coleman, J., Williams, R., Bates, D. W., & Sheikh, A. (2013). Qualitative analysis of round-table discussions on the business case and procurement challenges for hospital electronic prescribing systems. *PLoS One*, 8(11), e79394. doi:10.1371/journal.pone.0079394.