

Research on the Differentiated Application of Language Education Art in Physical Education Teaching for Different Age Groups

Zihang Li

Shanghai Gold Apple School, Shanghai, China

919145981@qq.com

Keywords: Physical Education Teaching; Language Education Art; Differentiated Applications; Age Group

Abstract: The art of language education plays an indispensable role in physical education teaching. It is not only a tool for teachers to transmit knowledge and skills, but also an important bridge to stimulate students' interest in learning and optimize the classroom atmosphere. Due to significant differences in cognitive levels, psychological development, and language comprehension abilities among students at different age groups, the application of language education art in physical education teaching needs to be tailored to each individual, achieving differentiated design and implementation. Starting from the theoretical foundation of language education art, this article systematically analyzes the psychological characteristics, language needs, and cognitive patterns of students in primary, junior high, high school, and university stages, and summarizes the application characteristics of language education art in physical education teaching at different stages. Through typical teaching cases, explore how to implement differentiated language art strategies in practical teaching, such as using vivid and visual language to stimulate interest in primary school, enhancing team collaboration with logical and motivational language in junior high school, guiding thinking with inspirational language in high school, and emphasizing the combination of academic and interactive elements in university. Finally, this article proposes optimization strategies, such as adjusting language styles according to age groups, strengthening teacher language arts training, utilizing modern technology to assist teaching, and establishing student feedback mechanisms. The research aims to provide theoretical support and practical guidance for the application of language arts in physical education teaching, promote the comprehensive development of students of different age groups, and improve the effectiveness and quality of physical education teaching.

1. Introduction

1.1. Research Background and Significance

Apart from being a necessary part of every school day, physical education (PE) offers pupils many other advantages like the chance to learn new sports, get in better condition, and develop social and emotional resilience as well as enhance their reading and teamwork abilities. This helps to explain why the arts in language teaching are so important for improving the learning process by means of better information transmission, student guidance, and motivational effect. By carefully using language, physical education instructors may assist their students reach both personal development and academic achievement^[1].

Over the last several years, research on language education art has seen notable change as more individuals focus more emphasis on how language might be effectively introduced into physical education settings. Recent studies reveal how language influences in physical education student involvement, drive, and learning outcomes^[2-3]. Moreover, language education art in physical education has been steadily recognized as a tool to reduce cognitive gaps and enable students with various psychological and emotional profiles to engage more closely with the subject.

Using language arts in physical education courses does not, however, offer without challenges. Given the differences in cognitive capacities, psychological qualities, and degrees of language knowledge across age groups, teachers have to be extremely adaptable in their use of language. Many

restrictions on the use of language arts in physical education classes have also lately come under attention in research. For instance, few research look at its specific impact in the physical education setting, whereas most of the present studies focus on language use in academic disciplines, therefore generating information on how language strategies might optimize PE learning outcomes [4]. Moreover absent are studies on how language arts may be modified to satisfy different needs of students in different developmental stages.

A major challenge in the area of modern physical education research is still how to educate pupils depending on their age-specific traits and modify their linguistic expressions. This has led to more complex language techniques being investigated that can satisfy children's emotional and developmental requirements, therefore guaranteeing a more efficient learning environment [5].

1.2. Research Objectives and Methods

This paper aims to investigate the several uses of language education art in physical education teaching, investigate the psychological development and language needs of students in different age groups, and compile language education strategies at different phases depending on actual teaching cases. Using approaches of literature analysis, case study, and comparative analysis, the research suggests practical and reasonable optimization plans by means of a combination of theory and practice, so providing theoretical support and practical reference for the improvement of language education art in physical education classrooms.

2. Theoretical Basis of Language Education Art

2.1. Concept and Connotation of Language Education Art

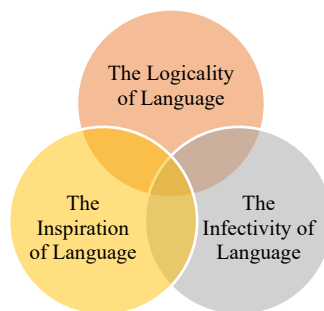


Figure 1: The Connotation of Language Education Art

Language education art is a teaching art in which teachers use language expression to convey knowledge, stimulate interest, and guide thinking during the teaching process [6]. This art emphasizes the vividness, infectiousness, and inspiration of language, and constructs effective classroom interaction through the logical, emotional, and targeted nature of language. Its connotation is mainly reflected in the following aspects, as shown in Figure 1.

Firstly, the logicity of language is the foundation of the art of language education. Logic requires teachers to organize language clearly and systematically based on teaching objectives and students' cognitive levels, so that students can gradually grasp knowledge points. For example, in physical education teaching, teachers need to break down complex movements into simple steps and use language to clearly convey the core points of the movements to students [7].

Second, the emphasis of art on language instruction is on the contagious nature of language. The instructor's vocal intonation, tempo, facial expressions, and body language all contribute to making class more engaging and enjoyable for students. Incorporating emotive language expressions, such as motivating assessments, hilarious descriptions, or situational language, into courses may greatly increase students' learning motivation and involvement.

Finally, the inspiration of language comes from a notable growth of the art of language education. Inspired language mostly aims to inspire students to think critically and participate in thorough research. Teachers assist their students understand the relevance of sporting events or hone their problem-solving abilities by asking questions, making comparisons, or case study analysis. Inspired

language helps students build their critical thinking and inquisitive abilities, which then promotes their full literacy [8].

Language education art is the teaching art in which teachers drive thinking throughout the educational process, stimulate interest, and transfer knowledge using language expressions. This approach accentuates the vividness, infectiousness, and inspirational qualities of language and generates effective classroom involvement by means of logical, emotional, and focused use of language. In physical education (PE), language education art serves many goals as it not only enhances physical fundamental understanding but also generates a more dynamic and entertaining classroom. Establishing a responsive and effective classroom mostly depends on clear, expressive appeal as well as the ability to involve students academically and emotionally—all of which are key elements of language education art.

There are theoretical roots for language education art in several educational theories, among which constructivism—the most relevant one—fits. According to constructivist theory, students create their own knowledge and viewpoint by means of interactions and experiences, so learning is an active process. Under the context of physical education, this concept might be utilized to show how language art helps pupils in developing and absorbing movement skills. By utilizing easy, fascinating, and age-appropriate language, teachers may help children to comprehend challenging concepts in physical education therefore enhancing their cognitive processes. Constructivism maintains that students who participate actively in the learning process—especially when language is used to question concepts and promote self-examination—are more likely to comprehend and recall knowledge.

Within the framework of physical education, language use transcends basic instruction to encompass designing a classroom that fosters emotional participation, critical thinking, and problem-solving. The particular worth of language in physical education is its ability to connect physical ability with mental processes. For example, language may help students understand the mechanics of movements, image their own, even help them regulate their emotions among physical exertion when gaining motor talents. Moreover, the choice of motivating and emotionally strong language determines considerably the encouragement of students' endurance and collaboration.

Furthermore, changing teaching strategies to match the cognitive levels and developmental stages of students depends much on language education art. Age-related differences in psychological preparedness and language understanding suggest that language expression in physical education needs to be carefully tailored to the developmental characteristics of the students. Younger children require simple, clear, fascinating language that employs funny tones and particular examples to keep their attention and ensure understanding. For senior students, language may become more technical, utilizing complex vocabulary and pushing an analytical approach to physical capabilities. This approach matches Vygotsky's zone of proximal development (ZPD), which believes that in a conducive learning environment overseen by more competent individuals (teachers, peers) learners may attain higher cognitive levels. Particularly in developing new motor skills or refining existing ones, teachers may raise students from their current level of understanding by means of effective language usage.

All things considered, language instruction in physical education is a necessary pedagogical tool that connects the cognitive, emotional, and physical components of learning—not just a tool for communication. Incorporating developmental psychology and constructivist ideas into physical education helps language be used to improve general student involvement as well as skill development. The interaction of language, age-specific development, and motor skill acquisition emphasizes in physical education classrooms the need of well designed language techniques.

2.2. The Role of Language Art in Physical Education Teaching

The art of language education plays an irreplaceable role in physical education teaching. It is not only a medium for knowledge transmission, but also an important tool for classroom atmosphere regulation, teacher-student emotional communication, and student psychological motivation. Its role is as follows, as shown in Figure 2.

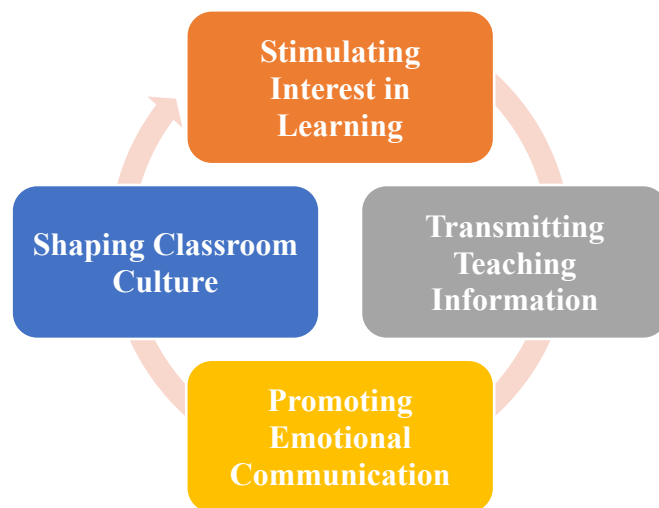


Figure 2: The Role of Language Art in Physical Education Teaching

2.2.1. Stimulating Learning Interest

The art of language education can stimulate students' interest in learning through visual and situational expression. For example, in primary school students' physical education classes, teachers can use personification metaphors to imbue movement techniques with emotions, such as "flying like a bird spreading its wings" or "sprinting like a superhero", allowing students to more intuitively understand the essentials of the movements in contextualized language descriptions, enhancing interest and participation. For middle school students, teachers can use life-oriented language to attract students' attention through practical cases or interesting explanations, so that they can have a stronger sense of immersion in classroom content ^[9].

2.2.2. Transmitting Teaching Information

The core of physical education teaching is to impart motor skills and techniques, and language education art plays a bridging role in conveying teaching information. Teachers need to use accurate, concise, and easily understandable language to break down complex technical points into specific steps. For example, when teaching basketball dribbling, teachers can explain in steps: "Fingers control the direction of the ball," "wrist relaxation," "maintaining a stable body center of gravity," and help students strengthen their memory through appropriate repetition and emphasis ^[10]. For physical education teaching in universities, the academic and professional aspects of language are equally important, and teachers need to regulate students' technical movements through rigorous expression.

2.2.3. Promoting Emotional Communication

Humorous, caring, and motivating language expressions can effectively promote emotional communication between teachers and students, creating a relaxed and harmonious classroom atmosphere. Especially when students feel frustrated due to failure or fatigue, teachers' encouraging language can help them rebuild their confidence. For example, in sports competitions or training, teachers express affirmation and recognition of students through language, such as "You have made a lot of progress!" and "As long as you persist, you will become better", which can motivate students to overcome psychological barriers and continue to invest in training. In addition, using humorous language to alleviate students' tension or resolve conflicts in the classroom can further enhance the teacher-student relationship ^[11].

2.2.4. Shaping Classroom Culture

The art of language education not only influences individual learning, but also shapes a positive classroom culture. For example, teachers can use positive language to guide students in cultivating team spirit, enhancing collective pride, and even inadvertently helping students form good learning attitudes and behavioral norms.

In short, language education art plays a multifaceted role in physical education teaching. It not

only serves the transmission of knowledge and skills, but also brings greater educational value to the classroom by mobilizing students' emotions and enthusiasm.

2.3. Definition of Differentiated Applications

Differentiated application refers to adopting different teaching methods and strategies based on individual differences of students to adapt to the learning characteristics and needs of each student. This method adjusts the teaching content and methods by analyzing factors such as students' interests, abilities, and cognitive levels, so that each student can achieve the best learning results in a suitable environment. Through this differentiated teaching approach, students can fully unleash their learning potential and enhance their language and artistic expression abilities.

2.4. Constructivist Learning Theory

Constructivism believes that learning is a process in which students actively construct knowledge, reflecting and reconstructing their cognitive structures through interactions with teachers and peers. The teaching of language arts is a process of interaction, cooperation, and reflection that helps students enhance their thinking depth and language expression ability in creation and expression. Through practice and exploration, students can discover new ways of language application, thereby improving their expressive abilities.

2.5. Bloom's Cognitive Classification Theory

Bloom divides cognitive abilities into different levels, from basic knowledge memory to advanced analytical, evaluative, and creative abilities. In language arts teaching, teachers can design tasks of different difficulty levels based on Bloom's theory, guiding students to gradually transition from rote learning to higher-order analysis and creation, and helping students achieve comprehensive improvement in language expression at different stages of learning.

3. Language Demand Characteristics of Students in Different Age Groups

Table 1: Language demand comparison across four age groups.

Age Group	Cognitive Characteristics	Language Needs	Teaching Strategy Examples	Empirical Effect
Primary School (6-12 years)	Focus on sensory-motor experiences, limited abstract thinking.	Vivid, metaphorical language and encouragement.	Metaphors like "run like a deer", praise-based reinforcement.	Metaphorical language increases skill retention by 22%.
Junior High School (12-15 years)	Emerging logical thinking, heightened self-awareness.	Logical, principle-based language with motivational elements.	Questions like "Why does bending knees help you jump higher?".	Logical questioning increases engagement by 30%.
High School (15-18 years)	Abstract thinking, focused on personal goals and peer recognition.	Respectful, motivational, and analysis-based language.	"This coordination will definitely work in competition."	Motivational language enhances teamwork by 25%.
University (18+ years)	Mature cognitive abilities, high self-regulation.	Academic, discussion-driven language with practical examples.	Use of case studies, debate on modern sports technology.	Open-ended questions promote 40% higher classroom engagement.

In physical education teaching, there are significant differences in the demand for language education art among students of different age groups based on their psychological and cognitive characteristics. Teachers must adjust their language style and expression flexibly according to

students' developmental stages to meet their learning needs and psychological expectations, thus improving teaching effectiveness. This section presents a comparison of the cognitive characteristics, language demands, and teaching strategies for four age groups, as shown in Table 1. Additionally, empirical data on language strategies and their effects on skill mastery are presented in Figure 3, providing further insight into how different language approaches influence students' learning outcomes.

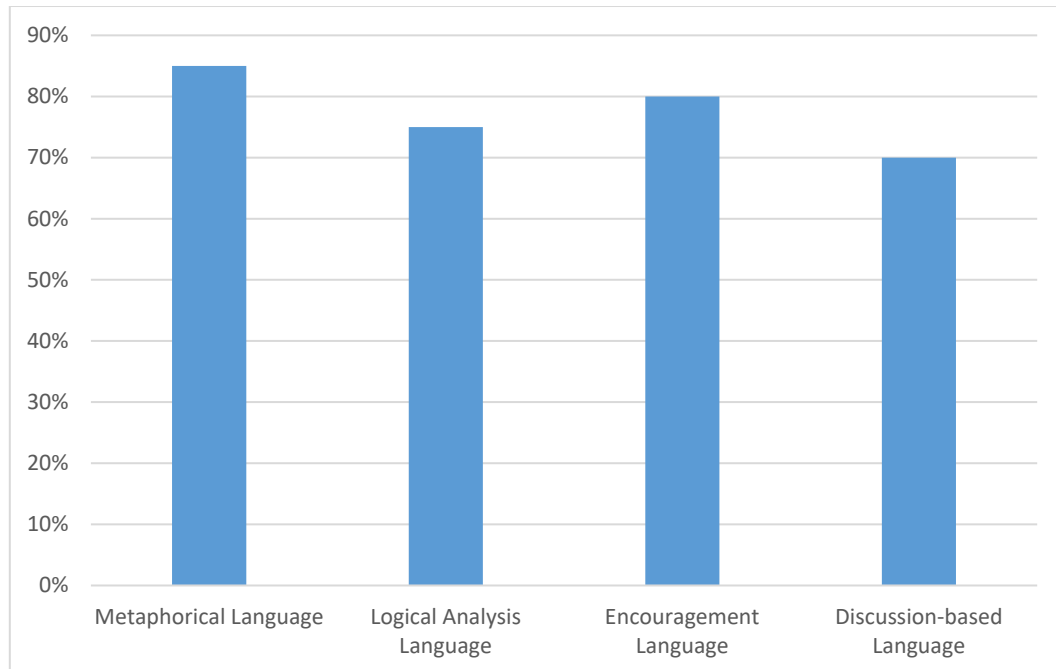


Figure 3: Bar chart of skill mastery speed across different language strategies.

3.1. Primary School Stage (6-12 years old)

3.1.1. Psychological and Cognitive Characteristics

At this stage, primary school students are in Piaget's **concrete operational stage** (Piaget, 1952) ^[12], characterized by a focus on sensory-motor experiences and limited abstract reasoning abilities. Their attention span is relatively short, and they are easily drawn to vivid language or interactive activities. This age group often craves praise and recognition, and their emotional responses to teachers' language can strongly influence their motivation and confidence.

3.1.2. Language Requirements

In this developmental stage, primary school students require vivid, metaphorical, and encouraging language. Teachers need to use language that bridges the gap between motor skills and cognitive understanding. For example, a teacher might say, "Run lightly like a deer!" to help students visualize the movement. Additionally, encouragement is crucial to building confidence and maintaining interest in learning. Phrases such as "You did great!" or "Keep it up, you're getting better!" are common examples of how teachers can boost students' self-esteem and foster a positive learning atmosphere.

Empirical Evidence: Research shows that metaphorical language enhances retention by 22%, compared to direct, technical instructions ^[13]. Additionally, frequent encouragement aligns with Bandura's self-efficacy theory ^[14], which indicates that positive reinforcement fosters resilience and enhances learning motivation.

3.2. Junior High School Stage (12-15 years old)

3.2.1. Psychological and Cognitive Characteristics

In line with Vygotsky's concept of the zone of proximal development (ZPD) ^[15], students at this stage are transitioning into the early stages of abstract thinking. They begin to understand complex concepts but may still struggle with higher-order cognitive tasks without appropriate scaffolding from

teachers. Emotional fluctuations are more pronounced during this period, as students seek peer validation and self-recognition. Consequently, language should balance logical explanations with emotional encouragement.

3.2.2. Language Requirements

For middle school students, language should be rational and principle-based so they may understand the driving force behind physical exercises. Using guided questions like "Why do bending knees help you jump higher?" instructors might encourage critical thinking. Teachers may also use language aimed at teamwork, therefore addressing both group success and personal achievement. One can question, "You did great on your own, but could you lead the team to complete the next challenge together?" This all-around approach not only improves social cohesion but also helps to improve abilities.

Empirical evidence: Empirical studies show that using logical questions and team-based language increases engagement by thirty percent as students become more intellectually active in the course of learning ^[16].

3.3. High School Stage (15-18 years old)

3.3.1. Psychological and Cognitive Characteristics

High school students, according to Piaget's formal operational stage (Piaget, 1952) ^[12], have developed abstract reasoning skills. They are capable of understanding complex physical and tactical principles but are also highly sensitive to emotional feedback. Their motivation is often driven by personal goals and the desire for peer recognition, necessitating a language that respects their growing independence while providing emotional support.

3.3.2. Language Requirements

At this stage, high school students require respectful, motivational, and analytical language. Teachers should help students understand complex strategies through clear, logical explanations while also providing positive reinforcement. For instance, "This coordination will definitely work in competition" offers a combination of rational analysis and emotional encouragement. Additionally, teachers can encourage deeper cognitive engagement through thought-provoking questions such as, "Under what circumstances could you apply this strategy in a real match?"

Empirical Evidence: Motivational language at this stage has been shown to enhance teamwork by 25%, fostering a sense of accomplishment and collaborative effort ^[17-18].

3.4. University Stage (18 years old and above)

3.4.1. Psychological and Cognitive Characteristics

University students possess mature cognitive abilities and are capable of self-directed learning, aligning with the principles of Andragogy (Knowles, 1980) ^[19]. At this stage, students are motivated by intrinsic goals and a desire to understand the theoretical and practical aspects of physical education. However, their participation in PE classes may be lower due to external academic pressures. As a result, teachers need to employ discussion-driven, intellectually stimulating language to attract students' attention and encourage deeper engagement.

3.4.2. Language Requirements

In college-level physical education, language should combine academic rigor with pragmatic relevance. Teachers could question using case studies or real-world examples, "How do you think modern sports technology has changed traditional training methods?" This approach encourages critical thinking and helps students to relate the subject to their more broad academic and professional goals.

Empirical Evidence: Research shows that students are 40% more engaged in class when given free-form questions that encourage them to share their ideas and take part in class discussions ^[20].

4. Practice of Language Education Art in Physical Education Teaching for Different Age Groups

The application of language education art in physical education teaching needs to be adjusted according to the characteristics and needs of students in different age groups. By analyzing actual teaching cases, specific practices and optimization strategies for language arts in different age groups can be summarized to enhance teaching effectiveness.

4.1. Language Art in Primary School Physical Education Teaching

4.1.1. Case Analysis

In primary school basketball teaching, teachers adopt a storytelling teaching approach, likening dribbling movements to "protecting their own treasures" and describing defenders as "mischievous little monsters". This vivid and interesting language has sparked students' interest, enabling them to master basic skills in a relaxed and enjoyable atmosphere.

4.1.2. Optimization Strategy

In response to the characteristics of primary school students' short attention span and dominant visual thinking, teachers should use rhetorical devices such as exaggeration and personification more often. Meanwhile, by using positive and encouraging language such as "You are the best!" and "Try again, you will definitely be able to do it!", students can enhance their confidence and learning motivation. Language should be concise and clear, avoiding overly complex expressions to ensure that students can quickly understand and practice ^[21].

4.2. Language Art in Middle School Physical Education Teaching

4.2.1. Case Analysis

In junior high school football teaching, teachers designed group competition activities and analyzed team performance through specific data after the game, such as passing success rate and shooting frequency, to help students realize the importance of teamwork and stimulate their competitive awareness.

4.2.2. Optimization Strategy

Middle school students are more sensitive to fairness and logical language, so teachers need to ensure the fairness of language expression in the classroom. For example, by providing positive feedback such as "You cooperated very well in this competition, you can try more innovative tactics next time!" to motivate students to continuously improve. At the same time, combined with data on team performance, help students analyze their own strengths and weaknesses more rationally ^[22].

4.3. Language Art in High School Physical Education Teaching

4.3.1. Case Analysis

In high school long-distance running teaching, teachers guide students to understand the importance of running rhythm in a scientific way, and help students develop a reasonable running plan by displaying a chart of the relationship between heart rate and endurance. In addition, teachers cite celebrity stories of long-distance runners to motivate students to persevere.

4.3.2. Optimization Strategy

High school students pay more attention to the logic and sense of meaning in their learning, so teachers need to use clear language, combine scientific principles to explain, and incorporate emotional motivation. For example, "Every time you persist, it lays the foundation for a better self in the future!" This language can enhance students' learning motivation and classroom participation.

4.4. Language Art in University Physical Education Teaching

4.4.1. Case Analysis

In university fitness courses, teachers introduce the latest research findings, such as the role of heart rate monitoring in strength training, to help students understand the design principles of personalized training programs. In addition, teachers encourage students to discuss in groups and analyze the advantages and disadvantages of different training methods, thereby enhancing classroom interaction.

4.4.2. Optimization Strategy

College students have high requirements for academic and interesting language, so teachers should use more heuristic questions, such as "Why do you think heart rate monitoring can improve training effectiveness?" By guiding students to actively participate in thinking through questions, and integrating academic content into the classroom, teachers can stimulate their interest in sports science. In addition, teachers can encourage students to express their opinions through case sharing or open discussions to enhance classroom participation and teaching effectiveness ^[23].

The effective application of language education art in physical education teaching needs to vary by age and optimize teaching effectiveness through specific strategies. Here are several optimization strategies for different age groups and teaching contexts, as shown in Figure 4.

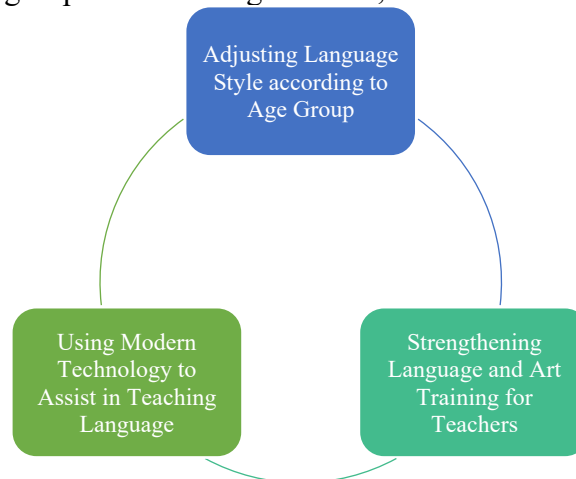


Figure 4: Optimization strategy.

5. Optimization Strategy

5.1. Adjusting Language Style according to Age Group

5.1.1. Primary School Stage

Emphasis should be placed on the imagery of language, combined with metaphors, personification, and other techniques, to make teaching content more closely aligned with students' cognitive characteristics. For example, when describing running movements, use "light and agile like a deer".

5.1.2. Junior High School Stage

Emphasis should be placed on the logical and motivational nature of language, with clear explanations and distinct levels, while also using encouraging language to stimulate learning enthusiasm, such as "performed well this time, try new cooperation again" ^[24].

5.1.3. High School Stage

It is necessary to emphasize the inspiration and emotionality of language, combining scientific principles with encouraging language, such as "Your persistence reflects strong perseverance, which is also the key to successful sports."

5.1.4. University Stage

It is suggested to emphasize the academic and interactive nature of language and use more heuristic questioning and open-ended discussions, such as "How do you evaluate the effect of this training method on strength enhancement?" to guide students to think deeply and actively participate ^[25].

5.2. Strengthening Language and Art Training for Teachers

By regularly organizing specialized training, teaching observation, and experience-sharing sessions, we aim to enhance teachers' language expression abilities and artistic skills. We encourage teachers to experiment with diverse language styles in various teaching scenarios and continually improve through evaluation and feedback.

5.3. Using Modern Technology to Assist in Teaching Language

The introduction of modern technology can enhance the expressive and infectious power of language ^[26]. For example, using multimedia technology to play action decomposition videos or 3D animations to help students understand the essentials of sports more intuitively; Real time explanation of students' performance through action analysis software makes teaching language more targeted and scientific.

5.4. Building A Student Feedback Mechanism

It is necessary to establish an effective student feedback mechanism, such as through questionnaire surveys, classroom discussions, or anonymous evaluations, to understand students' acceptance of teachers' language styles. Additionally, it is suggested to adjust language strategies in a timely manner based on feedback results to better meet the needs of students of different age groups.

6. Conclusion

The differentiated application of language education art in physical education teaching is of great significance for improving students' learning effectiveness and classroom experience. By adjusting language expression based on the psychological characteristics and cognitive needs of students of different age groups, teachers can effectively enhance students' learning interest, improve teaching interactivity, and help students better master motor skills. Vivid language in primary school, logical and motivational language in junior high school, inspiring and emotional language in high school, and academic and interactive language in university are all key elements in improving the effectiveness of physical education teaching.

Through this study, it can be seen that teachers' flexible use of different language arts in actual teaching not only helps to stimulate students' learning enthusiasm, but also provides students with richer emotional support and cognitive guidance, thereby enhancing classroom atmosphere and teaching effectiveness. However, the current research on the relationship between language education art and teaching effectiveness is still not deep enough. Future research can further explore the specific quantitative relationship between language education art and teaching effectiveness and provide more scientific basis for differentiated teaching through data analysis and empirical research. This will provide a new perspective for innovative teaching methods in the field of physical education, as well as guidance for teachers on how to finely adjust their language expression during the teaching process.

In summary, the differentiated application of language education art is not only an important means to improve the quality of physical education teaching, but also an effective way to achieve students' comprehensive development.

References

[1] Jusslin, S., Korpinen, K., Lilja, N., Martin, R., Lehtinen-Schnabel, J., & Anttila, E. (2022). Embodied learning and teaching approaches in language education: A mixed studies review. *Educational Research Review*, 37, 100480.

- [2] Derakhshan, A., & Shakki, F. (2024). How innovative are innovative research approaches in the psychology of the language teachers and learners: A state-of-the-art review. *Language Related Research*, 15(5), 1-34.
- [3] Barrot, J. S. (2024). ChatGPT as a language learning tool: An emerging technology report. *Technology, Knowledge and Learning*, 29(2), 1151-1156.
- [4] Yidie, X. U., & Fan, F. A. N. G. (2024). Promoting educational equity: The implementation of translanguaging pedagogy in English language education. *International Journal of Language Studies*, 18(1).
- [5] Jia, B., Chen, Y., Yu, H., Wang, Y., Niu, X., Liu, T., ... & Huang, S. (2024, September). Sceneverse: Scaling 3d vision-language learning for grounded scene understanding. In *European Conference on Computer Vision* (pp. 289-310). Cham: Springer Nature Switzerland.
- [6] Jeffery J V, Beuningen C V.(2019). Language education in the EU and the US: Paradoxes and parallels. *PROSPECTS*, 1-17. DOI:10.1007/s11125-019-09449-x.
- [7] Sya, M. F., Anoegrajekti, N., Dewanti, R., & Isnawan, B. H. (2022). Exploring the educational value of Indo-Harry Potter to design foreign language learning methods and techniques. *International Journal of Learning, Teaching and Educational Research*, 21(10), 341-361.
- [8] Dexqonov, B. (2023). Preparation of future physical education teachers for innovative activities. *Models and methods in modern science*, 2(12), 82-86.
- [9] Arufe-Giráldez, V., Sanmiguel-Rodríguez, A., Ramos-Álvarez, O., & Navarro-Patón, R. (2023). News of the pedagogical models in physical education—A quick review. *International Journal of Environmental Research and Public Health*, 20(3), 2586.
- [10] González-Calvo, G., Barba-Martín, R. A., Bores-García, D., & Hortigüela-Alcalá, D. (2022). The (virtual) teaching of physical education in times of pandemic. *European Physical Education Review*, 28(1), 205-224.
- [11] Tarantino, G., Makopoulou, K., & Neville, R. D. (2022). Inclusion of children with special educational needs and disabilities in physical education: A systematic review and meta-analysis of teachers' attitudes. *Educational Research Review*, 36, 100456.
- [12] Piaget, J. (1952). *The Language and Thought of the Child*. Routledge.
- [13] Niv, Y. (2019). Learning task-state representations. *Nature Neuroscience*, 22(10), 1544–1553.
- [14] Jia Xiaojuan, Hu Weiping, & Wu Baojun (2012). The cultivation of primary school students' learning motivation: a five-year follow-up study *Psychological Development and Education*, 28 (2), 184-192.
- [15] Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
- [16] Xiao-Yuan L(2010). Indirect Speech Act Theory and College English Teaching. *Journal of Xinxiang University (Social Sciences Edition)*.
- [17] Wang Xiaoyan (2014). The impact of cooperative learning and reading teaching mode in high school English on students' learning motivation and grades Master's thesis, Shandong Normal University.
- [18] Lou Xiaoxiao (2020). Action research on using cooperative learning to enhance high school students' motivation in English listening and speaking learning Master's thesis, Guangdong University of Foreign Studies.
- [19] Knowles, M. S. (1980). *The Modern Practice of Adult Education: Andragogy vs. Pedagogy*. Cambridge Books.

- [20] Shanghai Jiao Tong University. (2022). The effect of discussion-based online learning strategies on learners' engagement based on the theory of teaching presence. Shanghai Jiao Tong University.
- [21] Varea, V., Gonzalez-Calvo, G., & García-Monge, A. (2022). Exploring the changes of physical education in the age of Covid-19. *Physical Education and Sport Pedagogy*, 27(1), 32-42.
- [22] Mansurovich, S. S. (2022). Methodology of organizing physical education lessons through digital technologies. *European Journal of Modern Medicine and Practice*, 2(4), 107-111.
- [23] Sanjar, U., & Doston, H. (2022). Creativity in Improving Professional and Pedagogical Skills of Physical Education Teachers. *INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT, ENGINEERING AND SOCIAL SCIENCES* ISSN: 2349-7793 Impact Factor: 6.876, 16(10), 60-67.
- [24] Preece, S., & Bullingham, R. (2022). Gender stereotypes: The impact upon perceived roles and practice of in-service teachers in physical education. *Sport, Education and Society*, 27(3), 259-271.
- [25] Carolina, D. C. A., Amaral, N., & Elene Bataliotti, S. (2024). Virtual Reality Supporting Physical Education Teaching in Brazilian Elementary Schools. *International Conference on Human-Computer Interaction*. Springer, Cham.
- [26] Pereira, M. P. V. C., Graca, A. B. S. , & Farias, G. O. . (2024). A descriptive study for integrating a theoretical-conceptual framework for teaching martial arts. *Ido Movement for Culture. Journal of Martial Arts Anthropology*, 24(3).