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## An interpretation of students' learning attitude and behavior toward physical education

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**Abstract**

**Background:** What is attitude? What is the relationship between attitude and behavior? Due to the influence of the trend of the times, from the interpretation of attitudes and behaviors in the early 1930 functional theory, the psychologists thought that the interpretation of attitudes has turned to cognitive theory since 1960. This faction pursues the cognitive structure, and proposes the theory of consistency and attitude change. Theory, self-cognition theory, social judgment theory, cognitive reaction theory and other related theories, and in 1968 Greenwald proposed that attitudes are composed of factors such as cognition, emotion, and behavior.

**Objective:** To understand that the current study of physical education curriculum attitudes is based on cognitive theory and the formation of attitudes is influenced by cognition, emotion and behavior.

**Methods:** This paper explores the historical development of attitudes and behaviors by means of literature analysis. Then it uses functional theory and cognitive theory to clarify the theoretical roots of learning attitudes. Finally, it uses comparative method to explore the related research results of the difference between functional and cognitive theory on college students' attitude towards learning.

**Conclusion:** Although the issue of attitudes in cognitive theory has been studied in 1960, attitude research still needs to control the research situation, field and time as not to be affected by other variables, and lose the result of accurate prediction behavior. So, the research attitude becomes a complex relationship with behavior must be controlled by factors that may interfere with the research topic, and the results of the study will be closer to the relationship between the attitude and behavior that wants to be understood.

**Keywords:** Consistency theory, cognitive theory, functional theory

### Introduction and Background

Schools at all levels in Taiwan, from elementary school to university courses, have physical education courses. However, this paper mainly focuses on students' attitudes and behaviors in physical education and explores the relationship between them. Moreover, people have long been ambiguous about the concept of "attitude" and also understand the relationship between "attitude and behavior" through the interpretation of "attitude" in this article. It is more clarifying the relationship between the students' attitudes and behaviors in learning physical education.

At the beginning of the 20th century, social psychologists began to study the concept of "attitude". The first definition of attitude before 1930 was that attitudes and behaviors were closely related to each other. It was not until 1947 that this argument was refuted, and attitude was regarded as an intermediary reaction variable of behavior. Personal attitude could not directly tell us that this person would show that particular behavior. Many psychologists began to have a one-way degree of emotion or evaluation of attitudes and behaviors after 1950, and could not reasonably explain the complexity of the attitude concept. Later on, some research reports have the opposite result for this hypothesis, indicating that attitudes cannot directly predict behavior and make various behavioral inferences. For example, Katz and Scotland defined attitude in 1959 as "personal attitude response is influenced by motivation, emotion, perception and cognition. Sustained organization; Sherif and Hovland proposed the structure of the trilogy of cognition, emotion and behavior of attitude response factors in 1961 [26], and conceptualized attitudes.

From 1930 to 1960, the interpretation and debate on the relationship between attitude and

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behavior, the historical process of this interpretation is most influenced by the functional theory and cognitive theory. Until now, students' learning attitudes are composed of three psychological components: cognition, emotion and behavior. Cognitive component refers to a kind of evaluation and understanding of students' learning activities or courses, which reflects students' understanding of learning value. It is the basis of learning attitude; emotional component refers to the emotional or emotional experience generated by students accompanying knowledge, such as the like or dislike of learning, because emotion itself reflects the learning attitude of students, therefore, emotional component is the core of attitude. Behavioral component refers to the student's tendency to respond to learning. That is the state of preparation of behavior and ready to respond to learning. Generally speaking, students' attitudes and behaviors in physical education classes are influenced by the above three components, which means that they should be understood from the interactive context of the teaching field. These interactive situations change with the students' motivations and values. So, effective physical education is not able to set of generalized attributes, but a common performance in specific school hours, school sports venues, physical education teachers and students.

From the above interpretations of the relationship between attitudes, behaviors and historical debates, we have not carefully clarified researchers often confess to the slightest conscience. This paper interprets the historical context of attitudes and behaviors first, then explores the interpretation of "attitudes and behaviors" by functionalism and epistemology, and conceptualizes the influencing factors of "attitudes". Finally, we can understand the attitudes of Taiwanese students in physical education through the above interpretations, and the tendency of behavioral performance related research.

**Interpretation of the relationship between attitude and behavior**

As early as the 20th century, social psychologists began to study the concept of "attitude". At first, research considered that attitude was an ambiguous and incomprehensible feature. Thurstone's first definition of attitude in 1928 is individuals

based on a certain topic, showing specific emotions, prejudices, preconceived ideas, ideas, emotions, threats, beliefs and so on. Later he shortened his definition and defined attitude as a psychological phenomenon of support or opposition. It is found from the earlier definitions that it seems that people can directly predict their attitudes by different behaviors. That is the behavior of known groups is different, and then the measured attitudes will be different. In the past "attitude and behavior" hypothetical both evidences are connected closely.

However, in the early 1930s, this hypothesis, which had a strong relationship between attitude and behavior, produced serious doubts. Soon, some research reports suggested the opposite result for this hypothesis, indicating that attitudes cannot directly predict behavior and conduct various behaviors. Inference: refuting the argument that there is a close relationship between attitude and behavior. Therefore, many scholars defined attitude as an implicit intermediary reaction to a stimulating target according to behavioral theory after 1930. At this time, attitude is regarded as an intermediary reaction variable of behavior, depending on attitude and behavior. There is no fixed relationship, and the understanding of personal attitudes may not tell us anything about the specific behavior that this person will show, but this understanding may tell us hypothetical evidence about the person's "type of behavior as a whole". This view has been extended until 1960.

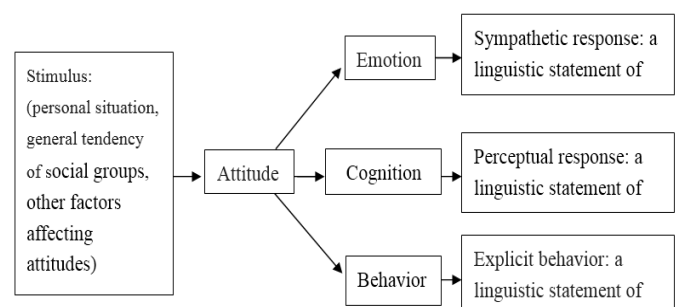
After 1960, many social psychologists proposed that "attitude" is a multi-complex view that is universally adopted and treats attitude as a complex system composed of the following components, such as: individual beliefs, feelings, and Behavioral tendencies, etc. Since attitudes cover all viewpoints, including all personal experience of the target, there is a strong relationship between attitude and behavior. But, it is difficult to assume that attitudes are completely related to behavior. For the interpretation of "attitude and behavior relationship", attitude is considered to be pluralistic. Attitude can only be related to a certain part of behavior. Attitude and explicit behavior may only have low hypothesis evidence. There is no one-to-one correspondence with behavior. Review the views of the three periods of "attitude and behavior", as shown in Table 1.

**Table 1:** Comparison of attitudes and behaviors in different periods

Time	First stage Before 1930	Second stage 1930-1960	Third stage After 1960
Interpretation of opinions	Attitude is a general term for emotions, personal subjectivity, thoughts, emotions, and beliefs.	Attitude is the intermediary reaction variable produced by behavior.	Attitude is a multi-faceted view, personal beliefs, feelings, and behavioral tendencies.
Relationship between the two	Attitude is closely related to behavior.	There is no fixed relationship between attitude and behavior.	Attitude can only be associated with a certain part of the behavior.

Source: Authors organize themselves

Katz and Stotland defined their attitude in 1959 [21] as "a continuous organization of motivation, emotions, perceptions, and cognitive processes in one aspect of the personal world." Sherif and Hovland put forward three attitudes of attitude response in 1961 [26], that is, the individual's attitudes toward stimulating the target can be divided into three categories, namely cognition: the linguistic statement of perceptual response and belief; emotion: sympathetic response and emotional language Statement; and behavior: a linguistic statement of explicit behavior and behavior, as shown in Figure 1.



Source: Sherif and Hovland's (1961) [26] Social judgement book.

**Fig 1:** Three factors of attitude response

But the component of attitude corresponds to each of these reaction categories. A complete description of the attitude needs to measure all three factors through the number of three reaction classifications. The amount of attitude obtained based on only one or two of the reaction classifications is incomplete, and the use of such incomplete measures predict explicit behavior and do not represent a fair test of the relationship between attitudes and behaviors, nor can they clearly explain behavioral predictions.

The study of attitudes from 1960 to 1990 was quite extensive. Katz and Stotland believed that attitudes had four effects on humans in 1959 [21]: First, attitudes made behaviors toward valuable goals and attitudes toward aversion; Secondly, attitude representations simplify the message of communication between people; Third, attitudes help people communicate their personal and value messages; finally, attitudes maintain ideas that people do not accept or threaten. In 1968, Greenwald [16] proposed that attitudes are composed of three parts: cognition, emotion and behavior. Cognitive components are a way of classifying people's ideas. Emotional components refer to the emotional tendency of ideas. Behavioral components refer to the acceptance or not of ideas. Predicting behavior by attitude is a more complex decision process, because other factors may also be part of the behavior and the relationship between attitude and behavior is influenced by values, beliefs, ideas, intentions and expectations. Specifically, attitude cannot determine behavior unless their attitude leads to the development of intentions. In 1980, Ajzen and Fishbein [2] proposed the theory of rational behavior to explain the concept of attitude. The theory holds that behavioral intentions are determined by attitudes and social norms. However, attitudes are influenced by individual beliefs and values. Social norms are people's shared beliefs and observances. Rational behavior theory holds that "behavioral intentions" are guided by the interaction of attitudes and social norms.

In 1985, Ajzen [3] proposed that the behavioral intentions of individuals' specific behavioral preferences would be influenced by either or both of the attitudes of individuals and the subjective norms of important others' support and the behavioral intentions would further influence the specific behaviors exhibited. In other words, the rational behavior theory assumes that "the occurrence of behavior is based on the control of the individual's will" and is mainly used to understand and predict individual behavior. In 1999, Biddle *et al.* proposed that attitudes are the tendency of individuals to view objects, people or things. They have positive or negative thoughts. Attitudes affect one's choices, challenges, and coping behaviors. The factors that make up attitudes are four parts: emotions (individuals). Emotions or feelings), cognition (personal beliefs or conscious opinions), trends (whether or not they tend to take actions), evaluations (affirmations of the situation or negative ideas).

In 1990, the empirical research platform for attitudes began to decline. The primary reason for this was that many studies at the time focused on improving the effectiveness of classroom instruction or on-site research, providing only a little practical direction. The second cause of decline, the paradigm of social psychology and educational psychology research, shifts from behavioral research to more cognitive orientation. Therefore, the shift of attitude theory orientation has deeply affected attitude research. Social psychologists believe that attitude plays an important psychological component in human life. The attitude research will extend to emotion, value and cognition. Therefore, the elements of attitudes today include

important factors such as value, cognition, belief, and emotion. Reda and Ahmad (2012) [25] define student learning attitudes as: a consistent and lasting cognition and emotion of related people, things, things and concepts in the cognitive, affective and behavioral aspects of the student's work in learning and behavioral tendencies.

In summary, attitude is one of the variables that affect behavior. In order to understand behavior more, we must consider more variables, so we must consider the adjustment variables between attitude and behavior, such as conflict attitude, competition motivation, language, intelligence, social ability, personality traits, etc., in order to accurately predict behavior. Attitude is a complex cognitive evaluation, emotional sensation and behavioral tendency with structure and organization. It is deeply influenced by personal traits and socialization. Attitude will guide the direction of learners' cognition, and the learning objectives will appear in the establishment of emotions. The situation can be implemented with a positive attitude to achieve a good learning effect. So the key prerequisites for continued physical activity are attitudes, habits and ideas. The development of sports habits and the students' cognition of physical education classes depend on the promotion of physical education administration and the teaching effectiveness of physical education teachers. The cultivation of students' attitude towards sports can achieve students' exercises habits.

### Learning attitude and Theoretical Formation

In the 1950s, "Functional theory" was the mainstream of attitude research in the early days, because this theoretical method was intriguing in concept, and functional theory provided the basis of investigation and the unique way of investigation. In fact, the functional theory was influenced by the behaviorism at that time from the same point of view. But since the 1960s, "Cognitive theory" has begun to question the theory of function. It is believed that functionalists view attitudes too simple, so many cognitivists will reinterpret attitudes in the future. The following two explanations explain the formation of learning attitudes and theories.

#### 1. Functional aspects

Functionalism means that the same thing is thought of by different individual ideas or different positions, showing different functions, and attitudes also showing different orientations. Therefore, the reasons for attitude change are individualization and individual idea differentiation. At present, the research on attitudes and function theory still has its effects. The early attitude function theory has one of the following characteristics: practical function, knowledge function, self-defense function and value performance function. Therefore, functional theorists believe that to change attitudes, it is necessary to change from the "satisfaction" demand. When the individual's own attitude cannot obtain the expected degree of satisfaction, the possibility of change of attitude is great. At that time, functionalists mentioned self-defense. The function is that people use defense mechanisms, such as rejection, suppression, and projection, to protect the self-concept from internal and external threats.

The behaviorism similar to functional theory, the form of attitude is composed of strong emotions, the formation process of emotional attitudes, including classical reflex behaviors and operational constraints. The behaviorist's method of generating emotional attitudes is the mode of operation restriction, which is the same as the reward and punishment of the famous behavioral psychology theory. For

example, I am late for class or skipped classes because I don't like this course. The process by which an individual understands oneself is the same as understanding others. It is obtained through observation of behavior. Therefore, an individual who wants to understand his or her attitude is also obtained by inference of explicit behavior. Functionalists propose relevant theories on attitudes: early learning theory, incentive theory, expectation value theory, and social learning theory.

### (1) Early learning theory

Early Learning Theories believes that attitudes are related to students' learning through "association" and "enhancement". This theory represents Skinner's theory of operational constraints. I. Association theory: The earliest learning theory is the classical reflection theory, which illustrates the repetitive relationship between stimulus and reaction. It is believed that interest or conformity will show positive participation and preference, and vice versa, showing negative, evasive and unpleasant, rejected attitude. For example, the term "simple minds and limbs" is often associated with "athletes". Parents do not like their children to participate in sports school teams during their school years because they are associated with the inherent concept of "simple minds and limbs." II. Strengthening Theory: Skinner is a behaviorist whose goal is to predict and control human behavior without speculating on people's internal psychological processes and states. The theory of operational constraints is proposed. This is the theory of reinforcement, also called the theory of behavior modification. It is believed that a person or animal will take certain actions to the environment in order to achieve a certain purpose. When the consequences of such behavior are beneficial to him, such behavior will repeat in the future; when it is unfavorable, the behavior will weaken or disappear, and people can use this positive reinforcement or negative reinforcement to influence the behavior of learning, including love and disgust. The process of behavioral learning, whether it is a favorite or a reluctantly restricted attitude, is based on external clues to reward and punish learning, while the learning process is a mechanism through operational constraints. Skinner's operational constraints theory values associations or connections and believes that objects (conditional stimuli) can cause positive or negative emotional attitudes. For example, the university sports compulsory course, students have no opinions to complete the study, because the compulsory courses are listed as graduation threshold.

### (2) Incentive theory

In 1985, Friedman <sup>[15]</sup> proposed Incentive Theory, which is closely related to decision theory and exchange theory, including the theory of expected value and the theory of cognitive response. They are all used to explain the behavior of human attitudes. The behavior is determined by the individual's analysis of the causes of the possible outcomes of various behaviors. People decide what behavior to take based on the favorable or unfavorable behavioral consequences. This theory is characterized by paying more attention to human initiative, rather than treating people as passive responders like learning theory, paying attention to the balance of current incentives, emphasizing gains and losses when adopting certain attitudes, and adopting the attitude of maximizing returns.

### (3) Expectation value theory

In 1974, Fishbein and Ajzen <sup>[14]</sup> proposed expectancy value theory, which considers the sum of expected values of objects, places, or things as a tendency toward attitude. The sum of this expected value will give the individual a positive or negative attitude. For example, I have decided on my attitude towards the school elective system, teacher teaching, peer relationship, class time, motor skills, affection, physical health, leisure level, achievement of achievement, teacher attitude, cognitive learning, etc. As a result of the assessment, individuals will respond positively or negatively.

### (4) Social learning theory

In 1977, Bandura <sup>[7]</sup> put forward the view of social learning theory that people learn social attitudes and social behaviors only by observing or imitating others' attitudes and behaviors. His theory of learning theory has a strong sociological symbolic interaction theory. He believes that the process of behavioral learning and the communication and interaction between people are closely related. In addition to behavioral skills, learning is the study of attitudes and values. Bandura's early theory was called social learning theory, but he later renamed his theory, called social cognitive theory, to include the relationship between his motivational factors and the mechanisms and behaviors of self-regulation. Bandura believes that attitude is through socialization model and emulation of learning process, individual experience to the behavioral standards of different roles, while learning social and cultural role expectations, society, my role play gradually become familiar, and then through the accumulation of cognition. The cognition of the role is clearer, and the ideal is gradually emerging. At this time, various ethics are gradually internalized as part of the individual's self-ideal, and the complete personality is formed.

## 2. Cognitive aspects

Cognitivists believe that the formation of attitude requires more rationality and information to form. After a person receives the information, he or she evaluates the information and then determines their position. The individual will also produce a desired or expected result for the thing. The formation of this cognition will produce a consistent attitude, that is, the individual in the world in which he lives, the motivational processes, emotional processes, perceptual processes, and persistent behavioral manifestations of cognitive processes. Cognitive-understanding attitude is different from the past, which only directly predicts explicit behavior by simple attitude reaction, but cares about the individual's current subjective experience, and emphasizes the behavioral attitude of the inner multi-consideration factor.

Cognitive theory is the main point of view in social psychology. It is believed that human behavior is determined by his perception of the social situation and the inner processing process. People often naturally organize perceptions, thoughts, and beliefs about a social situation into a simple and meaningful form, and people will make it regular, no matter how complex the social situation is. This perception, organization, and interpretation of the environment effects a person's response to a social situation and this process of interpreting social things is called social cognition by psychologists. The scope of social cognition is extremely broad. It includes not only our understanding of the external characteristics of others, but also our understanding of the intrinsic characteristics (personality, emotions) and interpersonal relationships of others. The central idea of this

faction is that people strive to pursue cognitive structure. If one's beliefs or values are inconsistent or inconsistent with each other, they strive to make them consistent; if a person encounters new cognition that is inconsistent with their original cognition, then he will work hard to reduce this inconsistency. Therefore, cognitive scholars put forward relevant theories about attitudes: consistency theory, theories of attitude change, self-perception theory, social judgment theory, cognitive response theory and so on.

### (1) Consistency theory

Heider proposed "Balance Theory" in 1958. The main focus is on the positive or negative cognitive attitude of the perceiver. When the individual feels unbalanced, he will restore balance by changing cognitive attitudes. An unbalanced state creates tension and produces a force to restore balance; for a balanced state, it means that the perceived individual coexists with the feelings of the emotion without pressure. The shortcoming of Heider's balance theory is that it is too simple to show the direction of the relationship, but it does not indicate the extent of the relationship. In 1955, Osgood and Tennenboun<sup>[23]</sup> extended Heider's balance theory to pay more attention to the direction of attitude, and also paid attention to the strength of attitudes in different directions. Forecasts based on consistency theories are more quantitative than those made by balance theory. The basic assumption of consistency theory is the consistency between individual attitudes and behaviors. When individuals' attitudes and behaviors are balanced, the tension can be released. Specifically, the theory of consistency assumes that individuals will strive to guide their beliefs and feelings, consistency with behaviors. There are two points in the theory: I. People think that people have different evaluations of various people and things around them, but individual behaviors and attitudes are consistent. Most of the views of consistency theory come from social perception and causal attribution. II. The relationship between beliefs, feelings and behavioral tendencies leads to the development of various attitude organizations and change theories. Consistency theory believes that people can use a variety of ways to reduce tension, and "rebuttal" is an effective way to alleviate this tension.

### (2) Theories of attitude change

Hovland proposed "theories of attitude change" in 1959<sup>[19]</sup>. This theory emphasizes the process of changing attitudes. The persuaders must first learn the content of information, emotional transfer on the basis of learning, and transfer the feelings of a thing to the same thing above other things. When people receive information from others, they generate a series of active thinking, which in turn determines the individual's overall response to the information. The number and nature of the rebuttals triggered by this information play a decisive role in the change of attitude. If the refutation process is interfered, it will produce persuasion, which will cause the attitude of the persuasive object to change. Otherwise, the persuasion object will devalue the information source. Deliberately distorting the persuasion of information and refusing to cover up the information to counter persuasion and adhere to their original attitude.

### (3) Self-perception theory

Bem proposed "self-perception theory" in 1972<sup>[8]</sup>. He believed that his own views and judgments on himself were self-concepts. He also believed that self-concept was formed in certain roles, situations, positioning relationships and

functions. The actual social facts such as the time limit contain different manifestations, such as physical me, spiritual me and society. Advocating individuals to infer their own attitudes by their own behavior; it is important that the individual self-concept is influenced by the organization. When the organization feels that the self-concept is threatened, the individual will experience anxiety and try to resist the threat if the self-defense fails. The pressure is generated and will eventually lead to self-disintegration. Regarding the attitude formation attitude, it is considered that when a person's attitude is unclear, the individual will think about the results of his or her behavior, and their behavioral outcomes will be divided into attitude responses of internal attribution and external attribution.

### (4) Social judgment theory

Regarding the basic viewpoint of social judgment theory, absorbing and assimilation of new information based on known or existing feelings, the original attitude of facing new information will have the role of framework protection, and in this way, an attitude of acceptance and rejection will be formed. When it is within the acceptable range, it will be accepted as will or not, the attitude will not change, or change in the opposite direction. In 1961, Sherif and Hovland<sup>[26]</sup> proposed the following four points for the theory of social judgment: I. The attitude held by an individual cannot be represented by a point on the measurement scale, and a section is used to represent it. II. This section consists of three parts, the acceptable area, the unclear area and the rejected area. III. When encountering a persuasive message or a new opinion, judge which area it falls in to decide whether to change the original attitude. IV. The similarity or difference between the new viewpoint and the original attitude is related to the change of attitude.

### (5) Cognitive response theory

Greenwald's "cognitive response theory" in 1968<sup>[16]</sup> is a process of understanding attitude changes by understanding the ideas that people face when they perceive messages. This theory holds that people will respond to a certain position with positive or negative thoughts, and these ideas will determine whether he supports it. Cognitive response theory believes that individuals have a cognitive response to information, and attitude is the result of personal initiative, rather than passively getting information. From the cognitive reaction theory, if some messages have strong negative thoughts, they will resist change; if negative messages are not strong, then individuals can persuade. For example, there are many students who are not willing to accept the university sports compulsory courses. It means that they are restricted by the graduation threshold. The negative information in the heart is not strong, and it is easy to persuade to support this cognitive reaction.

### Paradigm analysis of the Attitudes and Behaviors of Physical Education Classes

People's attitudes are functional, that is, they are distinguished by like and dislike. Many studies confirm the functional evaluation of attitudes, which can be derived from self-interest, reward and punishment, object evaluation, avoidance motivation, self-defense and value which performed. If we look at the attitude of cognition, when self-cognition or concept is recognized by the self and others, it will show a value attitude. Conversely, when the individual feels the potential threat, it will initiate a self-defense attitude. The

following two arguments based on attitudes illustrate the related research on the attitudes of Taiwanese students towards physical education.

### 1. Functional theory paradigm

In 1932, Alden <sup>[4]</sup> first studied college students' attitudes toward physical education. The questionnaire survey was conducted by sampling 300 women from three universities. The results showed that the disadvantages of physical education classes for female college students are: (1) it is not convenient to dress and undress. (2) There is not enough time to sort out after class and lead to untidy feelings; (3) not enough athletic skills in high school; (4) insufficient time to develop sport skills; (5) lack of interest in classroom activities.

In 1933, Bullock and Alden <sup>[10]</sup> investigated the preference of 192 freshmen in the physical education class. They found that they liked 63.6% of physical education classes and 36.4% of those who did not like them. These are the first-year female students who do not like physical education. It was before the high school physical education teacher did not teach girls sports skills.

In 1978, Lutz believed that the study of attitudes was limited by functional theory and traced the evolution of his traditional research. The study of attitudes could not be clarified from functional theory. Therefore, some people think that functionalist research attitudes can pass the concept of expectation-time-value to reinterpret.

### 2. Cognitive theory paradigm

In 1985, Figley's <sup>[13]</sup> research concluded that physical education curriculum develops students' own athletic ability and establishes the belief that students have the courage to participate in sports activities in order to benefit the long-term behavior of students' continuous sports in the future, and to obtain pleasant emotions from participating sports.

In 2004, Zhou Hong-Fang and Liu Zhao-Jin <sup>[31]</sup> studied the key factors affecting the attitudes of students in Taiwan. The results of the study found that the key events affecting students' positive sports attitudes were classified as teachers, self-concept, classroom atmosphere, curriculum, peers. Six determinants of behavior and experience; the key events affecting students' negative sports attitudes are classified into six determinants: teacher, self-concept, curriculum, experience, peer behavior, classroom atmosphere, etc.; the important basis of "Taiwan's student sports attitude indicators".

In 2006, Adams <sup>[1]</sup> *et al.* concluded that physical activity and exercise are essential activities. If the body does not exercise, personal activity reduces physical function degradation, so physical activity is an important part of social and cultural composition. Adams *et al.* ABC model (emotion, behavior and cognition), emotion is the emotional response of the entity, expressing the degree of preference of the individual; behavior refers to the typical behavioral tendency of the individual; cognition refers to the judgment of the individual's subjective thoughts and values.

In 2006, Guo Jin-Cai <sup>[17]</sup> explored the degree of recognition of the values of physical education classes among Taiwanese university students, and then explored whether the recognition of the values of physical education classes by university students affects their commitment to continue their sports. The sports value scale is included three factors such as the degree of physical and mental health perception, the degree of optimistic positive perception, and the degree of perception of

exercise commitment.

In 2006, Cai Yu-You and Xu Qin-Xian <sup>[12]</sup> discussed the differences in cognitive, affective and skill factors between Rende nursing students' sports attitudes. The results showed that the sports attitudes were higher than the five students in the cognitive factors, while the skills and affective factors were there were no significant differences. Exercise 3-4 days per week which is significantly higher than students who exercised 1-2 days per week. Students' sports attitudes will affect their physical education and sports enthusiasm and behavior. If you want to enhance your sports attitude, you must form an attitude through direct experience, previous experience or experience closely related to your own consistency of behavior.

In 2009, Lin Wei-Zhi <sup>[22]</sup> studied the attitudes of Taiwanese college students towards physical education. He preferred to take physical education classes in the afternoon. If physical education classes and undergraduate courses are rushed to the classroom, the students' willingness to take physical education courses will be reduced. Before the students take physical education classes, it will assess the professional knowledge of the instructors. The attitude of the class and the diversity and interest of the course content, and then decide whether to take the elective course. The students still consider whether the physical education class has credits, and it is included in the graduation credits. The physical education curriculum can be given to the students. Promote the added value of personal health, self-expression, and excellence.

In 2010, Hong Sheng-Cheng <sup>[20]</sup> studied the situation of students' sports attitudes in Taiwan's Yuhua University of Science and Technology. The results of the study found that students' sports attitudes have the highest cognitive factors, including "sports classes can improve physical health" and "sports classes can improve athletic ability." "The first physical education class can improve physical fitness" are the top three. The sports attitudes of students with different background variables were significantly different in terms of gender, grade, college, school team training, sports clubs, sports options, parental attitudes, and sports times.

In 2011, Xie Wei-Xiong and Ye Li-Qin <sup>[30]</sup> studied the relationship between the attitudes and behaviors of Taiwanese college students in physical education. The results of the study found that boys' attitudes and behaviors in physical education were significantly higher than girls. Sports attitudes and behaviors were positively correlated.

### 3. Compare the views of different paradigm on attitudes

#### (1) Theoretical differences

**Functionalists:** It is believed that learning attitudes are subject to different personal thoughts and positions, and will produce different behaviors. In particular, it is highly probable that individuals cannot achieve the expected changes in their attitudes.

**Cognitive:** It is believed that the learner evaluates in his own heart based on the received message, and generates a position in the mind through personal internalization, and generates a desired or preset result according to the internal positioning. The formation of this cognition will produce consistency attitude.

#### (2) Research differences

**Functionalists:** Alden's findings can directly show that students' attitudes toward physical education are directly related to behavioral performance. The results of the Bullock

and Alden studies show that prior learning experiences form a student's attitude response, and there is still a stereotyped attitude towards follow-up learning that is consistent with the behaviorism theory.

**Cognitivists:** Students' learning attitudes should be interpreted in terms of teachers' teaching effectiveness, individual student differences, student values, and learning environment. Taiwan's research scholars on the attitudes of students in physical education courses, including Guo Jin-Cai, Liu Zhao-Jin and Zhou Hong-Qu, Cai Yu-You and Xu Qin-Xian, Lin Wei-Zhi, Hong Sheng-Cheng, Xie Wei-Xiong and Ye Li-Qin, etc., have found more than ten articles on the learning attitudes of physical education. The main aspects of "cognition", "sentimentality", "behavioral intention" and "role play" are consistent with the theory of cognitive schools.

### (3) Age differences

**Functionalists:** Prior to 1960, they were mainly based on behaviorism. The earliest research on attitude theory held that attitudes and behaviors were directly related. Until the period of 1930 to 1960 was a period of research attitude, many scholars believed that there was no fixed relationship between attitude and behavior, and attitude was one of the possible reasons for behavior.

**Cognitivists:** After 1960, they mainly led the cognitive school. They believed that attitudes are diverse and complex, including personal beliefs, feelings, and behavioral tendencies. There is a correlation between attitude and behavior, but attitude can only be related to a certain part of the behavior. Therefore, the attitudes include three main factors: "cognition", "sentiment" and "behavior".

### Conclusion

First, the early attitude view that students' behavioral performance can predict students' attitudes and adopt singular thinking until the 1960s psychologists questioned the attitudes of early functionalism. Critical functional thinking attitudes and behaviors are too simple. Straight line reaction seems to be unable to do a comprehensive and accurate explanation. Therefore, the cognitive school uses Bem's self-cognitive theory and Greenwald's cognitive response theory to think that the relationship between attitude and behavior is pluralistic and complex and attitude may only play one of the factors. Behind the behavior are hidden adjustment variables that may be affected.

Secondly, through the interpretation of attitudes by cognitive scholars, the author puts forward the three factors of attitude, behavior, emotion and behavior, and conceptualizes the relationship between attitude and behavior. In the past ten years, the physical education curriculum of Taiwan colleges and universities must be selected and studied with students. Different attitudes affect the performance of school physical education curriculum. In view of this, many researchers have gradually increased their research attitudes on school physical education curriculum for their own schools. Many Taiwanese studies on learning attitudes also use "cognition". The three factors of emotion, behavior and behavior are used to construct relevant questionnaires. It is also a social science researcher today. These three factors are commonly used to study attitudes.

Finally, from the interpretation of the "attitude and behavior" in this article, we can clearly understand the attitudes of students in the study of physical education. We should consider these three factors, and by researching and designing

the variables that control other disturbances. We can get the answers to the research questions more accurately. The results of the study will be closer to the relationship between attitude and behavior that you want to understand.

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