

Investigations of the Relationship Between Emotion and Students' Motivation in Chinese High School

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Abstract: There have been many studies examining the relationship between emotion and motivation, but many questions about the relationship between anxiety and motivation in high school students remain unanswered. This paper will discuss the close connection between anxiety and high school students' motivation. First, this paper will introduce what is anxiety and the production process of anxiety from a psychological view. Second, divide anxiety into several levels to explain the influence of anxiety on students' learning motivation, such as mild anxiety, severe anxiety, and excessive anxiety. Third, we will discuss motivation, learning motivation, the classify of motivation, and the connection between motivation and learning. Last but not the least, when anxiety inevitably appears, how should students control anxiety and even how use anxiety to make themselves more motivated to study, this is also the main goal of this discussion.

Keywords: anxiety, learning, motivation

1. Introduction

Nowadays, high-school students always have a lot of work to do, homework, activity tasks, and so on. Moreover, they have little time to do these tasks, so it is very tough and challenging for them. Because of these factors, students in high school are always anxious and are not motivated to learn. Anxiety refers to students' excessive and uncontrollable worries about future and past events, excessive worries about performing competently, and severe self-awareness [1]. Motivation plays an important role in the continuity and success of everyone's learning. The higher the motivation, the higher the achievement and learning outcome [2]. A nationally representative sample of students in grades 9-12 collected in the United States between January and June 2021 found that 37% of students experienced poor mental health during COVID-19. In China, this data also holds high, so anxiety is a very serious and damaging problem that students are facing. As we all know, high school is the most difficult period of my academic career. A school is a competitive place, and the mental pressure faced by high school students in their studies has become more and more intense [3]. Anxiety has become the most common and serious problem faced by high school students today. Although anxiety is widely perceived as a negative emotion, students who face a certain level of anxiety will promote learning [4]. The majority of previous studies have explored anxiety from a

macro-perspective; however, few examined the connection between anxiety and only Chinese high-school students' study motivation. Thus, the current study aims to fill the gap with some information on anxiety and high-school students' motivation.

2. Emotion

Emotion is a complex behavioral phenomenon that involves many levels of neural and chemical integration [5]. Researchers from different theoretical backgrounds agree that emotions are multifactorial events [6]. The evaluation of control and value is central to evoking achievement emotions, such as enjoyment, frustration, and boredom experienced during learning, and outcome emotions related to success or failure, such as joy, hope, pride, anxiety, hopelessness, shame, and anger [7]. This paper focuses on the importance of emotions for learning.

2.1. Anxiety

Anxiety is a natural emotion and can occur under normal circumstances. There are a lot of definitions of anxiety, in this article, we consider anxiety as a future-oriented emotional state associated with preparing for possible, upcoming negative events [8]. In the APA Dictionary of Psychology, anxiety is described as an emotion characterized by physical symptoms of worry and nervousness, in which a person anticipates imminent danger, disaster, or misfortune, always with muscles becoming tense, breathing quickens, and heart rate increases. In conclusion, if people have expectations for the future, they will worry about their future and they may feel nervous and do something to release their pressure. When faced with certain threats to life safety and future destiny, people can become anxious due to excessive worry [9]. People usually think that anxiety is a negative emotion, but in fact anxiety also has its own meaning. Anxiety itself may be a predictive risk factor and mediate the association between stress and depression. Many reasons result in anxiety, such as fast-paced social life, complex interpersonal relationships leading to stress, lack of experience and knowledge, and relatively high achievement goals. In the fast-paced modern society, mental health problems such as anxiety, depression and stress have become very common among the general public. Moreover, achievement goals also influence students' selections of learning strategies, perceived self-efficacy, and test anxiety [10]. Additionally, interpersonal stressors led to common mental health problems that were measured as anxiety and depression [11]. According to statistics, one in four people is affected by a mental disorder at some time in their lives. In terms of cost, mental illness ranks second only to ischemic heart disease. Twenty-three percent of deaths worldwide are caused by depression and anxiety [12]. There has been little change in the naming of anxiety disorders, of which depression, obsessive-compulsive neurosis, affective psychosis, and personality disorders are subdivisions [13]. These all-known illnesses can be caused by the patient's expectations, fear, and anger. We can see the damages that anxiety causes people. However, all these are the internal factors, characteristics, and manifestations of anxiety. There are a lot of external factors of anxiety that are noticeable. Anxiety can be divided into several levels such as mild anxiety, moderate anxiety, and severe anxiety, which has different effects on students' learning.

2.2. Degree of Anxiety

The degree of anxiety is determined by the HAM-A total score. The score will directly affect our evaluation of people with anxiety. Research has proved that HAM_A score ≤ 7 can be judged as mild anxiety. Mild anxiety will not affect learning and life, which is a common and common phenomenon. However, if self-regulation and psychological treatment are not carried out in time, it will cause more serious anxiety. Moderate and severe anxiety can lead to students' depression and other symptoms, which are also clearly reflected in physical and psychological aspects. Moderate

and severe anxiety can cause students' physical discomfort to learning and affect learning [14]. Mild anxiety can also affect people's life, work, and study. It will lead to problems such as insufficient learning ability, unsociable personality and childishness compared with peers. It will cause stress to patients with mild anxiety [15]. Specific psychotherapy that has been proved effective for moderate anxiety disorder is often not easy to obtain. In this study, selected patients supported learning skills to control symptoms. This method is effective and acceptable [16]. People with several anxiety react too actively to "fight or flee", and they will perceive threats when there is usually no threat. And under the pressure of parents in learning, children will also compare themselves with other children and form severe anxiety [17]. And students have no ability to deal with these problems, which leads to some students in a state of serious anxiety and students do not have a positive attitude to study [18]. Anxiety caused by different pressures will be Grooming analysis algorithm, which can also reflect students' anxiety behavior. For example, when students are under high pressure and low pressure, the anxiety generated by them can reflect the level of students' anxiety, and cause different anxiety behaviors of students [19]. Keeping a good score will cause anxiety for students, and some students will deal with their anxiety, so they will not have too much serious anxiety for learning, and mild anxiety can make students' learning more positive, but moderate anxiety and severe anxiety mostly only bring negative emotions and more pressure, leading to students' learning difficulties.

3. Motivation

Motivation is a driving force or a reason that initiates direct and sustains behavior toward achieving a goal. It is the internal or external stimulus that prompts an individual to act towards a desired outcome. Motivation can be influenced by various factors, such as personal values, beliefs, goals, needs, emotions, social and cultural factors, and environmental conditions. It plays a critical role in shaping human behavior, performance, and well-being, and is an essential component of many psychological theories and models [20].

3.1. Learning Motivation

Learning motivation refers to the internal drive or desire that encourages an individual to learn new knowledge, skills, or behaviors. It involves a willingness to engage in activities that promote learning and personal growth, even when faced with challenges or obstacles. Learning motivation can be influenced by various factors, such as personal interest, curiosity, a desire for self-improvement, social recognition, intrinsic rewards (such as personal satisfaction), and extrinsic rewards (such as grades or recognition) [21]. Individuals who are highly motivated to learn tend to have a growth mindset, which means they believe that their abilities and skills can be developed and improved through effort and practice. In contrast, individuals with a fixed mindset believe that their abilities and skills are innate and unchangeable. Learning motivation is important for both academic and personal success, as it helps individuals to acquire new knowledge, skills, and attitudes that can improve their lives and the lives of others [22].

3.2. Classification of Learning Motivation of High School Students

The learning motivation of high school students can be classified according to different classification methods. The following are some common classification methods [23]: intrinsic motivation refers to the individual's interest and desire for learning and growth, and willingness to actively learn and explore. Extrinsic motivation refers to external incentives and rewards, such as getting good grades, praise from teachers or parents, etc. Achievement motivation refers to the individual's pursuit of his own goals, hoping to achieve good grades and rewards in his studies,

while affinity motivation refers to the individual's pursuit of social needs such as social relations and friendship. Non-performance motivation refers to the drive of interest and curiosity in learning itself, such as exploring new knowledge, pursuing growth, etc., while performance motivation refers to studying hard to get good grades and other external rewards. Autonomous motivation refers to the individual's independent choice of learning and effort, while control motivation refers to the drive from external pressure and mandatory requirements, such as the requirements of parents or teachers. These motivation classifications are not mutually exclusive, and individual learning motivation is often the result of the joint action of various motivational factors. Understanding one's learning motivation can help individuals better develop their learning potential and improve learning effects through targeted learning strategies [24].

3.3. Relationship Between Anxiety and Learning Motivation

To answer the question of how emotions affect learning, we need to look at the physiological basis of emotions [25], two important theories: cognitive development from the physiological basis produces emotions and cognitive-based in turn affects the physiological changes that lead to emotions. Emotions have a clear impact on human behavior [26]. In a bad emotional state, it is difficult to develop strong motivation and interest in learning. Especially high school students, who are in their adolescence, are very unstable due to the rapid changes in their physiological indicators, which lead to very big emotional changes [27]. Common emotions that affect high school students' motivation to study are: first, depression. It is manifested as a sense of depression, little joy, and reluctance to take the initiative to interact with others [28]. Secondly, interpersonal sensitivity, which manifests itself in having no friends in life, not fitting in, and having difficulty adapting to new environments [29]. The last thing I want to emphasize in this paper is anxiety. With the increase of the competitiveness of the entrance examination, parents and students pay great attention to learning [30]. The most common anxiety among high school students is test anxiety. Test anxiety refers to the individual's experience of worrying about evaluation before and during the test [31]. Some students worry about the bad evaluation of others; Some students worry about the future; Some worry that they can't really prove their strength due to insufficient preparation. Emotions have a clear impact on human behavior. In a bad emotional state, it is difficult to develop strong motivation and interest in learning. Especially high school students, who are in their adolescence, are very unstable due to the rapid changes in their physiological indicators, which lead to very big emotional changes. The degree of anxiety can be divided into mild anxiety, moderate anxiety, severe anxiety. The students with severe anxiety, due to their strong learning motivation and high level of ambition, people with high learning anxiety are too sensitive to interpersonal factors and environmental factors in the process of learning, and show unstable learning mood, easy to be impatient, which affects learning motivation. The students with mild anxiety have weak learning motivation, unclear goals, and weak sense of responsibility for learning. Their learning behavior is easy to follow their feelings. They are obviously affected by external incentives and accidental factors, and their learning efficiency is not high [32]. Therefore, anxiety does not only interfere and hinder learning. Moderate anxiety is necessary for normal learning [33]. Students with moderation anxiety can rationally grasp the subjective and objective factors in the learning environment, correctly understand and deal with the relationship between learning objectives, learning ability and learning conditions, and adjust their learning motivation and ambition level to the appropriate level, with stable learning mood and high learning results. A certain degree of anxiety can make people keep proper vigilance in dangerous situations, but when a person has anxiety when he should not have anxiety, and the anxiety symptoms are very serious, lasting for a long time, and affecting daily life and learning, then this anxiety may be a disease [34]. Anxiety is

dynamic, and it is impossible to be in high or low anxiety all the time during the learning process, thus affecting motivation.

4. Conclusion

Based on the literature reviewed, it can be concluded that anxiety and motivation are closely related constructs that interact in complex ways. While anxiety can have a negative impact on motivation, leading to avoidance behavior and decreased engagement in tasks, it can also serve as a motivator in certain situations, such as when the anxiety is related to a specific goal or when the individual perceives a high level of control over the situation.

Additionally, the role of motivation in anxiety management cannot be overlooked. Motivational strategies, such as setting achievable goals, self-reward, and positive self-talk, can help individuals with anxiety to feel more in control and empowered in the face of stressful situations.

Overall, the relationship between anxiety and motivation is nuanced and multifaceted, and further research is needed to fully understand the mechanisms involved. Nevertheless, this literature review highlights the close relationship between anxiety and motivation among high-school students.

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