Retraction

Retraction: Psychological Characteristics and Influencing Factors of Students with Learning Difficulties based on the Analysis of Big Data (*J. Phys.: Conf. Ser.* 1744 032245)

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This article has been retracted by IOP Publishing following an allegation that raises concerns this article may have been created, manipulated, and/or sold by a commercial entity. In addition, IOP Publishing has seen no evidence that reliable peer review was conducted on this article, despite the clear standards expected of and communicated to conference organisers.

The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

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Psychological Characteristics and Influencing Factors of Students with Learning Difficulties based on the Analysis of Big Data

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Abstract. Learning difficulty is a universal global problem and one of the main problems in adolescence. In addition to intelligence factors, some non-intelligence factors also have a certain impact on learning according to the analysis of big data. Because the students with learning difficulties are a large group, it is of great significance to study the influencing factors of learning difficulties and how to intervene them. This paper first expounds the analysis of students' personality, psychological state and family environment, and then introduces the influencing factors of students' learning difficulties. Finally, this paper puts forward some countermeasures and thoughts for the education of students with learning difficulties.

Keywords: Psychological Characteristics, Big Data, Students With Learning Difficulties

1. Introduction

The students with learning difficulties refer to the students whose learning conditions are poor or backward due to cognitive ability, emotion, physiology, educational background and other factors. The main causes of learning difficulties are the functional disorder of brain and nervous system, cognitive ability and cognitive ability of psychological factors, as well as the imbalance with basic learning skills, as well as learning motivation, learning interest, personality, emotion, environmental factors, family, school environment, etc. In the process of forming learning difficulties, these factors can play an independent role or interact with each other. The causes and current situation of the students with learning difficulties are various, so it also brings the situation that the types are interrelated and coexist with each other, which requires a comprehensive analysis and research when taking educational countermeasures for the students with learning difficulties, and targeted education.

2. Characteristics of students with learning difficulties

There are four types of students with learning difficulties, i.e. students with intellectual learning difficulties, students with dynamic learning difficulties, students with learning disabilities without learning methods and students with learning disabilities caused by external factors, as shown in Figure 1.
2.1. Characteristics of students with learning difficulties
Such students are slow in intelligence and low in intelligence. In thinking activities, the flexibility and agility of nervous system can affect the speed of generalization, comparison, analysis, synthesis and other psychological activities. Their memory is difficult, their attention is not stable, their understanding is slow, their expression is confused, and they can't change their knowledge. They spend more time on learning than other students, but their scores are far lower than other students, and they are in a state of continuous difficulty in multi-disciplinary learning difficulties.

2.2. Characteristics of students with learning difficulties of dynamic factor type
This kind of students has normal intelligence and flexible mind, but their learning motivation often causes learning difficulties. Their main characteristics are: unclear learning purpose, lack of lofty ideals and aspirations, lack of initiative and enthusiasm in learning, lack of interest in learning, do not love to use their brains and hands. In the process of learning, often cannot self-control, cannot adhere to all the time. Most of these students are mentally unhealthy, weak willed, mentally fragile, have poor ability to bear setbacks, and have excessive learning anxiety.

2.3. Characteristics of students with learning disabilities
This kind of students has normal intelligence and good memory, but they can't learn properly, and they don't have good learning habits. Their main characteristics are: learning machinery, inflexibility, slow understanding, learning is always rote, they don't understand and master the internal relationship of knowledge, the knowledge they learn is in a scattered and disordered state, and they can't form a knowledge structure, resulting in poor understanding ability. They lack the ability to generalize and draw inferences from others, and cannot use knowledge in practice.

2.4. Characteristics of students with learning difficulties caused by external factors
This kind of students has normal intelligence. Their learning is often difficult due to family environment, social impact and other reasons. Its main characteristic is that because of the special reason in the study, the spirit is weak, good fatigue, lazy, some performance for the study result drops sharply, simultaneously has the thought, the moral character, the behavior bad tendency, some is the single subject or several subjects study result drops obviously, the psychological state is not stable, causes the mood or the depression. The causes of these students' learning difficulties are more complex, and there are more stages or localities in learning difficulties.

3. The influencing factors of students' learning difficulties

3.1. Influence of school factors
School environment will affect students' learning skills, specialty development and personality growth. However, in order to pursue the rate of admission, many schools have repeatedly increased the burden of students' schoolwork, invisibly increasing students' competition and psychological pressure, but there are only a small number of winners in the learning competition, so excessive competition in learning is more likely to induce the inferiority and self-abandonment of students with learning difficulties. This is because
the competition in learning is based on interpersonal comparison. In the competition-oriented classroom, interpersonal comparison brings more pressure to students. And some teachers pay attention to a small number of students with good academic performance. They are indifferent and sarcastic to the students with learning difficulties. These behaviors have a negative effect on students' learning, even lead to students' psychological obstacles.

### 3.2. Influence of family factors
Family is the starting point of students' growth and development. Students first obtain the basis of physical development from family and form the basic mode of behavior habits. Then, most parents value their children's academic performance, but ignore the ideological and moral education of their children; ignore the mental health of students, and lack the necessary communication and communication with their children. It is precisely because of this kind of education that all kinds of defects of students are brought up, which makes it difficult for them to face the difficulties in learning, lose interest in learning, and finally cause the decline of performance.

### 3.3. Influence of students' own factors
Students' own factors include physiology, character, motivation, learning habits and methods, as shown in Figure 2.

![Figure 2. Students' own influence factors](image)

For the students with learning difficulties, although their intelligence is within the normal range, if many factors in the intelligence structure develop unevenly, some less developed intelligence factors will also lead to their learning difficulties. Students with learning difficulties often have poor learning attitude, weak will, lack of clear learning objectives and self-control. Learning motivation is a kind of internal motivation that directly promotes students to study, and it is a need to motivate and guide students to study. In addition, it is very important for students to form good learning habits and master correct learning methods and strategies.

### 4. Countermeasures to students with learning difficulties
First of all, it is necessary to carry out curriculum reform, solve the problems of unreasonable current teaching requirements and teaching contents, over academic requirements for subject knowledge, update the educational concept of educators, promote the real change of students' learning style, and build a new teaching management system and evaluation system. Establish the growth files of the students with learning difficulties, adjust the measures in time according to the actual situation, take the development of people as the purpose according to the concept of the new curriculum, actively advocate the formation of a cooperative and cooperative learning atmosphere in the school, and create a relaxed and pleasant learning environment for the students.

Secondly, parents should set up correct educational concepts, face all kinds of problems in educating their children, have patience, determination and educational wit, creatively take appropriate measures, and persevere in seeking better educational effects, instead of catching up with the social trend and blindly following. Finally, no matter the excellent students or the students with learning difficulties, they must master the correct learning methods in order to effectively improve the teaching quality. We should remove the emotional barriers, make the non-intelligence system orderly, pay attention to the cultivation of non-intelligence factors, guide them to use correct and scientific learning methods, arrange the time reasonably, and help them to make learning plans, carry out self-assessment and self-monitoring, and encourage them more.

### 5. Conclusions
The education problem of the students with learning difficulties involves three aspects: family, school and society. If the relationship among the three is not handled well, their growth balance will be out of balance, it is inevitable that such problems will occur. Therefore, families, schools and society should fully recognize the seriousness and urgency of this problem, form a solid three-in-one educational structure, and jointly promote the healthy physical and mental development of students with learning difficulties. In a word, the transformation of the students with learning difficulties cannot be completed overnight. They need to be full of enthusiasm, encouragement and help to transform themselves. Therefore, it needs not only the efforts of parents, schools and teachers, but also the efforts of students themselves.

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