

Research on Bullying Law and Education in the Context of Educational Informatization

Qufei Guo*

Hainan Normal University, China.

* Corresponding author. Tel.: 13882003157; email: 510729630@qq.com

Manuscript submitted April 12, 2019; accepted September 8, 2020.

doi: 10.17706/ije.2020.10.4.350-360

Abstract: This paper first combs the literature of domestic and foreign scholars on campus bullying. Secondly, the author explains the current situation of campus bullying in China, and summarizes the corresponding characteristics. Then, taking developed countries such as Britain and Japan as examples, this paper analyzes the laws and regulations of anti-bullying in detail, discusses its implementation and policy effect, and then explores the experience and Enlightenment for China, such as the combination of guidance education and appropriate punishment, the expansion of guardian responsibility, and the strengthening of data collection and statistics system construction. Finally, based on the results of country comparison, this paper draws relevant conclusions, in order to make suggestions for the relevant departments of education. As mentioned above, in view of many problems in campus bullying that cannot be monitored in detail, with the help of digitalization, networking, intelligence and multimedia of educational resources, educational informatization can find problems more timely and efficiently. Therefore, this paper further studies the current situation and typical representative enterprises of China's educational informatization.

Key words: Campus bullying, education informatization, big data application, legal provisions, international comparison.

1. Introduction

1.1. Research Content

In recent years, campus bullying incidents are widespread in all countries. Most scholars have analyzed the issue from the perspective of sociology and psychology, while few people have analyzed the legal provisions of campus bullying from the comparative level of different countries. With the emergence of a series of excellent literary and art films and TV works such as "young you", the public's attention to campus bullying has reached an unprecedented height. However, due to the lack of bullying laws in China, it is difficult to make a legal decision on such incidents. Therefore, how to stop bullying on campus has become a hot topic in all walks of life. This paper makes an in-depth analysis of the above issues in order to give guidance and suggestions to the educational practitioners and researchers.

1.2. Research Significance

First of all, from the perspective of law, Chinese scholar Yu Xueyan proposed that the legal research on campus bullying is of great significance in improving the legal consciousness of social anti-bullying, reducing the bullying behavior of each school, strengthening the state's rule of law and legal construction. Secondly, from the psychological point of view, Ma Zhijie *et al.* have shown that bullying problem is greatly

related to the depersonalization, obedience to authority, herd mentality and bystander effect of victims, bullies and bystanders, so it is very important to analyze and remedy the problem from the psychological point of view. In addition, from the perspective of sociology, Professor Zhang Guoping pointed out that cultural transmission theory, structural tension theory, social control theory, label theory and other phenomena can be explained. Finally, the education of teachers and parents for their children is directly related to bullying. Parents and teachers may not be able to correctly guide their children because of personality or handling methods, which leads to the continued existence or even deterioration of bullying. Therefore, it is very important to analyze and guide from the perspective of pedagogy.

2. Literature Review

2.1. Domestic Scholars

Bullying was originally a transliteration of the English word "bullying". Scholars Chujing Wang and Tiane Liuboth believe that campus bullying refers to the behavior that is carried out by students and causes great psychological and physical harm to other students through the form of attack and violence.

There are mainly the following bullying ways on Campus: 1. Verbal bullying: abusing or ridiculing one party with insulting words, or threatening the safety of one party with words. 2. Rumor bullying: spreading rumors that damage the reputation of the parties in reality or on the Internet. 3. Physical bullying: ignoring the safety and dignity of one party, and doing physical or psychological harm to one party's body. 4. Material bullying: destroy or occupy one's personal belongings at will, or leave the worst to the person when the teacher distributes textbooks and prizes. 5. Attitude / relationship bullying: treat a person with cold violence on a large scale.

Zhenwan Qiu, a scholar, defines bullying as "a kind of continuous and repeated physical and psychological injury behavior between people, and there is an obvious power imbalance between bully and bullied". According to Chaohui Chu, a researcher at the Chinese Academy of Educational Sciences, bullying should be defined according to the feelings of bullies, that is, bullying happens when bullies suffer from their behaviors. Therefore, it is one-sided to analyze bullying only from the surface and form. The author believes that the definition of campus bullying needs to be combined with many factors, not limited to form and result [1].

2.2. Foreign Scholars

Goldsmid defines it more comprehensively. He believes that general aggression can be called bullying as long as it meets the following five conditions: malice, power imbalance, long-term repetition, bad motivation and emotional trauma of the victim. From the standpoint of teenagers, the Ministry of culture and culture of Japan proposes that teenagers who suffer psychological and physical injuries from people in their own interpersonal relationships can be called bullying. Most European and American countries define bullying from the perspective of legislation. Bullying is an intentional or aggressive act against an individual or group without rights. According to the British government and the Ministry of education and skills, bullying refers to that an individual or group deliberately and repeatedly causes harm to others in various ways, such as language and behavior, so that the individual who is bullied loses resistance or feels resistance.

To sum up, this paper defines campus bullying as the physical or psychological behavior of an individual or group that repeatedly and deliberately injures other individuals or groups for a long time, including the way of physical, verbal, sexual attack or network conflict. Killing or serious injury, sexual assault and other serious victims and social behaviors are not within the scope of campus bullying; the fighting, banter and other behaviors between students for the purpose of playing games do not lead to injury or lack of

repeatability, and are not included in the discussion.

3. Current Situation of Campus Bullying in China

In 2002, Wenxin Zhang and others surveyed nearly 10000 K12 students in Shandong Province, and found that 14.9% of them thought they were bullies, and 2.4% of them admitted that they were bullies. According to statistics, in 2014-2015, there were 43 bullying incidents in China only disclosed by the media. Language bullying is the main form of campus bullying in China, accounting for 23.3%; in addition, in terms of geographical distribution, the proportion of students in the central region is the highest, accounting for 46.23%.

According to the current situation in China, the author believes that effective anti-bullying should be achieved by using "campus bullying" in the text of laws and regulations, making the campus bullying law a special law, making the legislative purpose very clear, making the definition of "bullying" as complete and standard as possible, and setting up and changing the project of campus bullying to ensure the effective implementation of policies. The state needs to provide sufficient funds for dealing with bullying cases on campus and raise professionals to give psychological guidance to students [2].

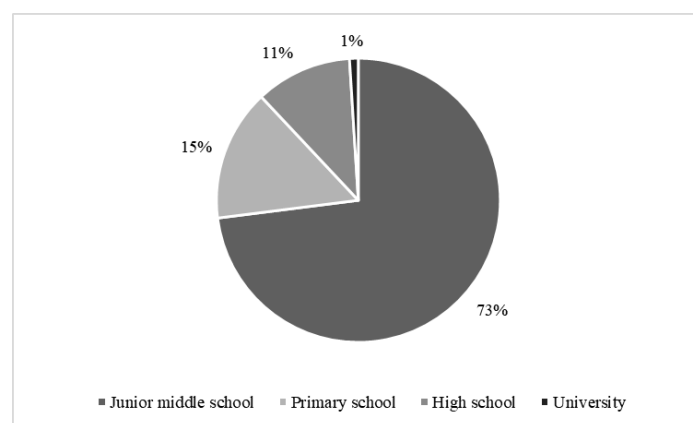


Fig. 1. The most common school-age stage of bullying in China.

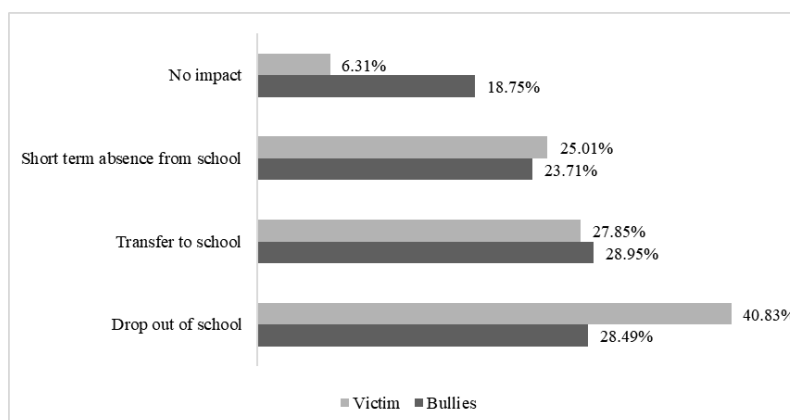


Fig. 2. Cognitive differences between bullies and bullied.

According to the data from the authoritative survey "see campus bullying: Public Cognition Survey data report", as shown in Fig. 1, 73% of campus bullying in China occurs in junior high school, 15% in primary school, so it accounts for 88% in basic education. In addition, it can be seen from Fig. 2 that nearly 41% of the bullies dropped out of school due to the bullying event, and nearly 28% of the students chose to transfer. All of these show the serious harm of bullying behavior to participants.

4. Legal Provisions and Comparison of Campus Bullying in the World

4.1. Britain

4.1.1 Legal status of anti-bullying in UK

According to the survey, in the 1970s, there was an increase in violence in primary and secondary schools in Britain, which caused widespread concern in the society. In 1997, a survey by the UK Department of education and skills showed that 4.3% of students suffered from bullying on average two to three times a month. Bullying on campus is of high risk. No matter the victims or the perpetrators, they will suffer from it when they grow up or even when they are adults. Therefore, it is very important for primary and secondary schools to prevent and intervene bullying as soon as possible.

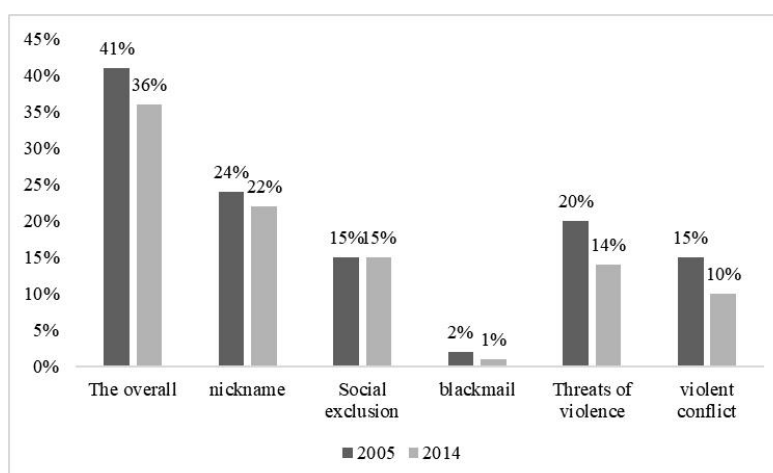


Fig. 3. Comparison of data of different types of bullying in 2005 and 2014.

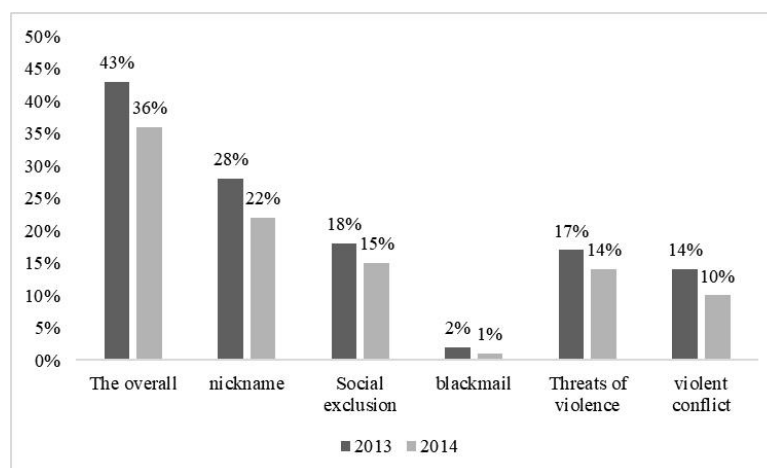


Fig. 4. Comparison of data of different types of bullying in 2013 and 2014.

It is clear in the UK that local governments should support schools in taking measures to prevent any form of bullying on campus. In 2012, the Ministry of education stipulated that schools must formulate and implement effective strategies against bullying on campus. In 2014, the UK Ministry of education further stipulated that schools must formulate reasonable, practical and effective anti-bullying policies and strategies to ensure that the phenomenon of bullying can be managed. On December 15, 2015, the UK Ministry of Education announced on its official website that "bullying in school plummets". As shown in Fig. 3, compared with 2005, more than 30000 students were bullied after 10 years, and extortion among students was reduced by more than half. In 2014, only 1% of students reported being blackmailed. Fig. 4 is a

comparison of grade 9 (2013) and grade 10 (2014), and it can also be concluded that bullying in schools has declined [3].

4.1.2 Experience and enlightenment of UK anti-bullying law

4.1.2.1. Combination of guidance education and moderate punishment

The UK government requires schools to set up learning support units (LSUs) to help students improve serious deviant behaviors. If bully has no effect after LSUs class and there is a risk of being permanently suspended, the school shall start the pastoral support program (PSP). Although the PSP should be organized and completed by the school, the local competent education department should provide corresponding assistance: that is, to assist the school to implement the student behavior improvement program by providing counseling, mental health care and other services to bully and their parents. For students who have been permanently suspended due to bullying on campus, alternative education services will continue to complete the task of behavior modification for bully, so as to prevent such students from entering the society and committing crimes. It can be seen that only by combining the guidance and education of bullies with the appropriate punishment, can the two complement each other in order to effectively correct bullies' behaviors.

4.1.2.2. Expanded responsibilities of guardians

It is also worth learning from the idea that the legal system of anti-bullying in the UK has expanded the responsibilities of guardians. The responsibilities and obligations of the guardian are mainly reflected in the following two aspects: to prevent the deterioration of the deviation behavior of the guardian. If a student violates the court's injunction, the court may issue a parenting order to the guardian, that is, to require the guardian to discipline the child, so as to prevent his deviant behavior from deteriorating into bullying behavior. Assist the school to improve the bully's serious deviant behavior. If the school is suspended due to bullying on campus, the court may issue a parenting order to the guardian upon the application of the school or the competent department of education [4]. Generally, the parenting order requires the guardian to attend relevant tutoring courses for no more than 3 months and cooperate with the school to correct the bully's deviant behavior. In addition, if the ward is suspended from school for more than 5 days due to bullying behavior, the guardian must manage and ensure that he / she should be at home for introspection in the first 5 days and should not go out.

4.2. Japan

4.2.1. Expanded responsibilities of guardians

Japanese society began to pay attention to the problem of campus bullying around 1980, but before 2013, there was no special law to prevent and regulate campus bullying in Japan. In the mid-1980s and mid-1990s, there were two upsurges of discussion on campus bullying in Japan. The direct reason was that some students committed suicide due to campus bullying. In September 2011, a boy committed suicide due to bullying in a middle school in Dazū City, Japan. The incident triggered a huge response in Japanese society and set off the third discussion upsurge on campus bullying.

Affected by the Dajin incident, the local autonomous regions actively promoted the formulation of bullying prevention regulations and established an investigation agency. From the Dajin incident to July 1, 2013, eight local autonomous regions, including Dajin City, formulated local bullying prevention regulations, defined the concept of bullying, defined the responsibilities of all parties, and specified specific countermeasures. These autonomous communities all provide for the establishment of permanent third-party investigation institutions. At the same time, this incident also directly promoted the legislative

work of the government. In April 2013, the Democratic Party, the life party and the social democratic party jointly proposed the basic act of bullying countermeasures promotion, which was passed in June 2013. There are 35 articles in 5 chapters in the law on the promotion of measures to prevent bullying, which is applicable to schools, not applicable to kindergartens. The basic idea of the law is that, in view of the fact that bullying prevention measures are related to all children, it is necessary to create an environment in which children can learn and carry out other activities in peace and without bullying on and off campus. Its basic policy is: (1) the basic direction of the campus bullying prevention countermeasures; (2) the basic content of the bullying prevention countermeasures; (3) other countermeasures. According to the law on the promotion of anti-bullying measures, in order to deal with campus bullying correctly, the state and local public organizations should strengthen the training and training of teachers, improve their qualifications, and make them master professional knowledge related to providing consultation and support and other anti-bullying activities; the state and local public organizations should also ensure talents with professional knowledge of psychology, social welfare and so on, so as to learn The requirements of the university can be met when sending such personnel to it .

4.2.2. Expanded responsibilities of guardians

4.2.2.1. Strengthen the construction of data collection and statistics system

Since 1985, the Japanese government has publicized the investigation and analysis report on "bullying on campus" of the previous year every year. The data is collected and reported by local education committees, educational institutions, educational organizations and other local units at different levels. The data is checked through independent questionnaire survey and other forms to punish the behavior and subject of false report, and at the same time, it is transparent Third party social supervision relies on the public, media workers, public organizations and so on.

4.2.2.2. Establish special criminal law and Judicial system

In Japan's criminal law, qualitative rules are used to determine the nature of criminal acts. Taking theft as an example, in Japan's qualitative model, theft of one yuan and theft of ten thousand yuan, the legal nature of which is determined as theft. Applying this mode to campus bullying makes the judgment of "campus bullying" no longer be restricted to moral level and education level, but is a powerful guarantee for the directness of criminal law.

4.2.2.3. Legal system for minors

Japan has developed a set of relatively complete criminal legislation and judicial prosecution system, such as the juvenile justice law. This makes age not the only factor to decide whether a crime is established or not. This means that even the young minors, after the campus bullying, as long as they are identified as a crime, they need to be prosecuted by the criminal, but the corresponding criminal justice and punishment system is different from that of the adults.

4.2.2.4. Problems in anti-bullying law of Japan

There may be some problems in the implementation of the law on the promotion of measures to prevent bullying: first of all, the law stipulates that the school founder or school must establish a third-party investigation agency to investigate major bullying events, but it does not specify who should form the subsidiary body, which may lead to problems such as whether the investigation agency has professional deficiencies and whether it will conceal the investigation results. In addition, the law strengthens the responsibility of teachers, but does not take into account whether teachers have the energy and ability to deal with such problems. Finally, with regard to the punishment measures for stopping classes, the measures infringe on the right to education stipulated in Article 26 of the Japanese Constitution to some

extent, so they are not commonly used. In addition, Japanese teachers are limited, so it is difficult to arrange teachers to make up for students who have suspended classes. So the feasibility of this measure needs to be studied [5].

4.3. Sweden

The Swedish law against bullying on campus is mainly the school law revised in 2010, which is applicable to primary schools, junior high schools and senior high schools. The law "stipulates that teachers and principals have reporting obligations and legal responsibilities for bullying, and defines the role of the national school supervision group in preventing bullying on campus". Campus bullying causes damage to students, the school bears no fault responsibility, that is, as long as students are bullied in the school, the school will bear the responsibility. Since 1993, schools at all levels have set up a campus bullying prevention project under the Ministry of education, which aims to achieve four goals.

4.4. The Republic of Korea

South Korean society is deeply influenced by Confucian culture, and the idea of superiority and inferiority and hierarchy are more prominent. In primary and secondary schools, this kind of atmosphere is easy to breed bullying. In the legislation of bullying on campus, in 2004, South Korea enacted the law on prevention and Countermeasures of school violence, which has been amended 18 times so far, and the corresponding "same law enforcement order". The law on school violence prevention and countermeasures mainly includes the following aspects: first, to clarify the responsibilities of the central and local governments; second, to require the state to establish a "school violence countermeasures committee", as the highest responsible person for school bullying prevention in South Korea, to be responsible for reviewing relevant issues raised by various departments; The third is to stipulate a five-year plan to prevent bullying on campus, that is, to issue a "basic plan to prevent school violence" every five years; the fourth is that local education administrative departments should set up special departments and schools should set up a "school violence negotiation room". In 2014, South Korea passed the law on the revitalization of human nature education, and opened a 117 hotline for 24-hour reporting of campus violence to prevent bullying in various aspects.

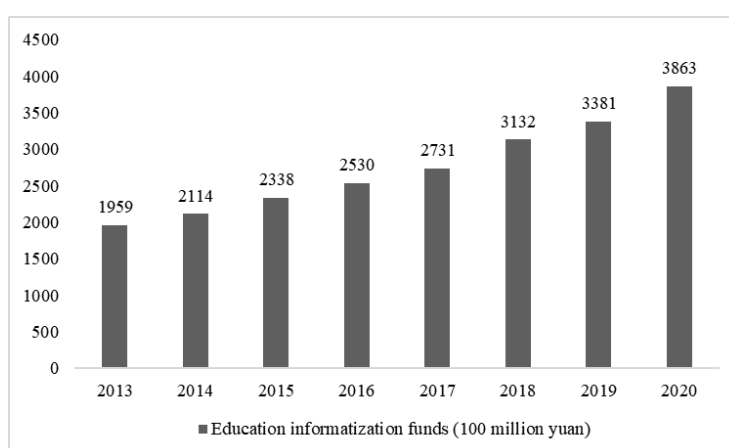


Fig. 5. China's financial allocation for education informatization in 2013-2022.

5. Research on the Solution of Campus Bullying by Educational Informatization

5.1. Current Situation of Educational Informatization

As mentioned above, in view of many problems in campus bullying that cannot be monitored in detail, educational informatization can find problems in a more timely and efficient manner with the help of

digitalization, networking, intelligence and multimedia of educational resources [6]. According to China's Education Statistics Yearbook and estimation, from 2013 to 2022, China's financial allocation for education informatization surged, as shown in Fig. 5. According to the data of China education network, the scale of China's online education market is also growing rapidly in 2016-2021, as shown in Fig. 6.

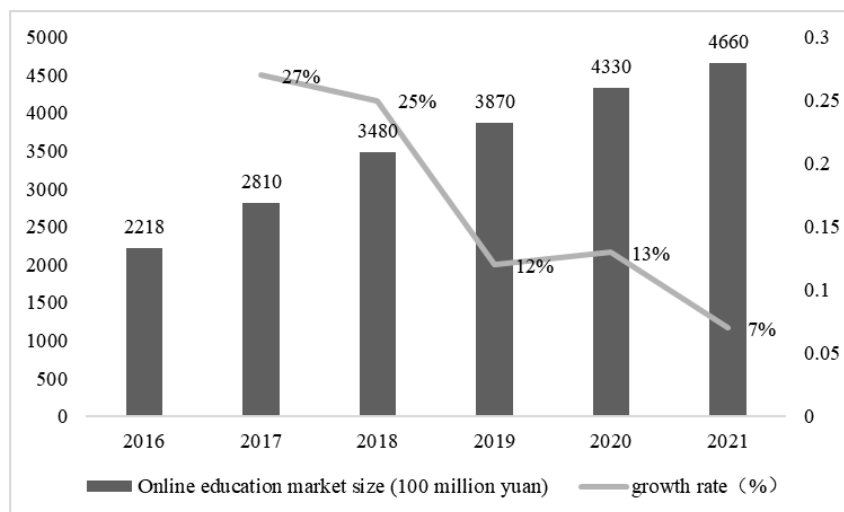


Fig. 6. Scale and growth of China's online education market in 2016-2021.

5.2. Typical Educational Information Application Enterprises

5.2.1. Wuhan Tianyu Information Industry Co., Ltd.

Its main businesses include data security smart card (financial IC card, communication smart card, city pass card, etc.), smart terminal (MPOs, traditional POS, QR code POS, smart POS and other financial terminals), tax control terminal and value-added services (comprehensive services such as finance and tax, supply chain finance, etc.) for taxpayer enterprises, Internet of things technology service cloud platform and value-added services, and foreign countries K12 smart education business with home education informatization as background. Smart education products include district school integrated smart education, smart campus overall solutions, as well as smart education software and hardware products and services covering teaching, learning, examination, evaluation and management (core teaching application, precise teaching content, examination and evaluation system, campus management platform, teaching & Learning & Management smart terminal, etc.).

Its business expansion mainly includes: 1) the company continues to optimize intelligent education products based on user needs, actively develops personalized learning products for student users, and lays the foundation for the subsequent development of C-end market [7]. 2) The company has carried out the market strategy of "platform building, channel expansion, full product, large project and deep operation", and has undertaken the construction, operation / operation and maintenance projects of education cloud platform in Guangdong, Jiangsu, Shandong, Zhejiang, Shanghai, Tianjin and other provinces (autonomous regions, municipalities directly under the central government). The market share of education cloud platform continues to maintain the leading position in the industry. Third, we should continue to intensify the brand building of "Tianyu education", actively participate in the exhibition of educational equipment, and organize the 2 Symposium on educational informatization, the Internet plus education platform and the construction of smart campus [8].

The company's core competitiveness includes: 1. Brand advantages: the company won the top ten brands

of 2018 intelligent education at the 2018 International Education Information summit and international intelligent education exhibition, and the brand effect gradually appears; 2. Channel advantages: the company's two-level channel system of "provincial service provider + regional agent" has been constructed and improved, and the proportion of city, district and county agents' channel revenue has been rapidly increased. At present, the market the occupation rate is in the forefront of the industry.

5.2.2. Sansheng Intellectual Education Technology Co., Ltd.

Sansheng Education focuses on intelligent education services and intelligent education equipment. In the field of intelligent education service, the company has independently developed a software system covering the whole range of educational cloud platform, intelligent classroom, intelligent teaching and research, intelligent teaching, intelligent resources and tools, and intelligent learning, mainly providing comprehensive solutions and educational software services for all kinds of educational institutions. The large-scale infrared touch screen produced by Guangzhou Huaxin, a subsidiary, is widely used in intelligent interactive tablet for teaching. At present, it is the core of the company's intelligent education equipment business, and its main customers include smart interactive tablet manufacturers such as schivo, Samsung, sharp, Foxconn, etc [9].

Business expansion mainly includes: 1) Hengfeng information, a subsidiary, has been deeply involved in the South China market represented by Guangdong for a long time, and has adopted the dual driving mode of direct selling of its own products and regional agent in other regions of China, supplemented by the advantages of integration ability, to achieve a wide regional coverage. By the end of 2018, Hengfeng information service school has covered 26 provinces, regions and cities in China. 2) Hengfeng information has completed the construction of "education platform" based on cloud computing technology and micro service architecture from 0 to 1, and gradually built the product matrix of "1 open platform + n core applications", to create and improve the education platform. 3) In the second half of 2018, the company transferred all the limited partnership shares of Ruisong tianqin. The company invested by Ruisong tianqin held Taiyuan new hope bilingual school and Taiyuan new era bilingual school. The company made a preliminary layout in the field of academic education [10].

The core competitiveness mainly includes 1. Technological R & D advantages: Hengfeng information has more than 110 software copyrights, initiated the establishment of Guangdong Modern Intelligent Education Research Institute, and jointly built Gansu Muduo Intelligent Education Research Institute with Northwest Normal University. As of 2018, the company has 214 R & D personnel, accounting for nearly 50%; 2. Market and brand advantages: the company has the world's leading infrared touch technology, and the large-scale infrared touch screen produced by Guangzhou Huaxin, a subsidiary, is widely used in the field of intelligent educational equipment, with a market share of more than 50% in the subdivision field.

6. Conclusion

In recent years, a number of serious incidents of campus bullying in China have been frequently seen in the news media, highlighting that there are deficiencies in the governance of campus bullying in China, there are gaps in legislation, the concept of governance is relatively backward, the system construction is not perfect, and it is difficult to adapt to the needs of the development of the times.

Through the comprehensive comparative analysis of the legislation and governance system of campus bullying in developed areas, it can be seen that as a social problem, campus bullying has established a relatively complete system in terms of legislation, policies, specific measures, etc., with a high degree of institutionalization and obvious results. First of all, these developed countries have a clear definition of campus bullying, and continue to detail it, and constantly fill in legal loopholes; second, they have clearly

defined the specific responsibilities of the school, guardians, etc.; most importantly, these developed areas have established a complete legal system for campus bullying, so that the people can rely on the law.

As a universal social problem, the occurrence mechanism of campus bullying is relatively complex, including many deep-seated factors, such as society, family, psychology, education, law and many other aspects. It is impossible to completely solve the problem only by the government and school, or by making several laws and regulations. In order to prevent and control bullying on campus, we must rely on the strength of all parties to jointly promote the establishment and improvement of the governance system. Campus bullying involves all kinds of legal relations, legal responsibilities and social responsibilities. Only when multiple subjects participate in it together can we solve the problem of campus bullying better. For example, in Japan, local education committees, social public organizations, communities, media and public welfare organizations are all involved, while in Singapore, according to special circumstances, police can be stationed on campus to help schools solve bullying problems; Experts in sociology, psychology, pedagogy, law and other fields and parents of students are invited to participate in the development of anti-bullying strategies and plans in Sweden. China should establish a multi governance model of campus bullying, such as giving full play to the role of the media, doing a good job of anti-bullying propaganda, providing public opinion and moral support for the healthy growth of children; making full use of the educational function of the community, setting up a community youth workstation, encouraging children to participate in more community activities, cultivating a sound personality; Give full play to the role of experts and scholars as think tanks to provide intellectual support for solving bullying on campus. In addition, social groups and volunteer organizations can also be included in the campus bullying management system to share the hard work of administrative departments and schools.

Any laws, regulations, policies and measures must be well researched in the early stage, which is a basic precondition. Throughout these developed countries, they attach great importance to the investigation, statistics and academic research of campus bullying. Japan's work in data collection, statistics and collation has lasted for more than 30 years; many anti-bullying projects in Norway are constantly improved and improved on the basis of in-depth research and repeated experiments of project team members. Local governments and education administrative departments can jointly or entrust universities, scientific research institutions and third-party independent investigation institutions to conduct regular investigation and Research on campus bullying, so that the government and relevant departments can master the real situation of campus bullying and provide basis for decision-making. The academic research on campus bullying can deeply analyze the causes, mechanisms, types and manifestations of campus bullying, and lay a foundation for the formulation of operational interventions.

Through in-depth study of the mature experience of Britain, Japan, Korea, Sweden and other countries in anti-bullying, it is found that its policies in legal system construction, investigation and research, intervention projects, process monitoring and multi governance are particularly effective for anti-bullying behavior, which also provides an important reference for the legislative construction of dealing with campus bullying in China.

Conflict of Interest

The authors declare no conflict of interest.

Author Contribution

Qufei Guo: As an independent author of the thesis, he is the person in charge of the whole thesis project. He has carried out literature search and framework construction, as well as industry analysis and data statistics, and finally draws conclusions and relevant suggestions.

References

- [1] Mary, M. S., Hazel, T. C.-F., & Katherine, S. (2018). Childhood bullying: Implications for physicians. *American Family Physician*, 97(3), 187-192.
- [2] Espelage, D. L., Basile, K. C., Leemis, R. W., Hipp, T. N., & Davis, J. P. (2018). Longitudinal examination of the bullying-sexual violence pathway across early to late adolescence: Implicating homophobic name-calling. *Journal of Youth & Adolescence*.
- [3] Pernilla, G., Rúnar, V., & Guernún, K. (2018). Bullying in school-aged children in Iceland: A cross-sectional study. *Journal of Pediatric Nursing*.
- [4] Hong, J. S., Espelage, D. L., & Lee, J. M. (2018). School climate and bullying prevention programs. *The Wiley Handbook on Violence in Education*.
- [5] Aida, M. D., & Doumas, R. T. (2018). Evaluation of a brief, school-based bullying bystander intervention for elementary school students. *Professional School Counseling*.
- [6] Yuan, G., & Xiao, C. (2018). Enlightenment and interpretation of 2018 Chinese vocational education technology outlook: Horizon project report. *e-Education Research*.
- [7] Lu, X. (2020). Application of 5g technology in education informatization. *Strategic Study of Chinese Academy of Engineering*, 21(6).
- [8] Jia, Y., & Lee, G. (2019). Current situation and discussion of teachers' information literacy in the era of "education informatization 2.0". *Proceedings of ITM Web of Conferences: Vol. 26*.
- [9] Fang, Y. T., Wang, X., & Cai, M.-Q. (2018). Statistical analysis of literature research on preschool education informatization. *Proceedings of International Conference on Management & Education*.
- [10] Jiajia, X., (2018). Research on the countermeasures of open online course construction in the education informatization 2.0 Era in China. *Proceedings of International Conference on Education*.

Copyright © 2020 by the authors. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)).



Qufei Guo is a junior in Hainan Normal University. Her major is mathematics and applied mathematics. She likes reading and running. At the same time, she is cheerful, active in practice and loves life. She once worked as an intern teacher in middle school. She also participated in hospital medical guidance, voluntary traffic police and other voluntary activities every winter and summer vacation.