

Theory and Significance on Construction of Early Warning System on Emergency Management at Universities in China

Lixia Wen^{1,2,*}

¹ South China Normal University, Guangzhou, Guangdong, China

² Jinan University, Guangzhou, Guangdong, China

*Corresponding author. Email: shiqishidai1983@jnu.edu.cn

ABSTRACT

University is always one of the hot spots for emergency. Furthermore, the continuous reform and development of higher institutions increase the occurring frequency. In light of the progress of global economic development, the paper starts with ensuring the lives and properties of teachers and students and sticks to the people-oriented concept. In addition, with the combination of Fauconnier's Conceptual Integration Theory, it focuses on constructing early warning system on emergency management at universities from the viewpoint of guiding principles and concepts of early warning system.

Keywords: *Emergency, Emergency management, Early warning system, Conceptual Integration Theory.*

1. INTRODUCTION

The emergencies at universities are receiving high attention from the public and spread quickly, which disturb not only healthy order at school but also social stability. These emergencies are likely to cause destructive problems, if not dealt with through mature measures and psychological preparations.

In a new era of social transformation and institutional transition, the factors that lead to safety problems at universities are much more various and complex. Meanwhile, as the universities increasingly open their doors to outside business and deepen their inner management systems, the contacts among different universities and the society become more tense, especially after the enrollment expansion and logistics socialization of the universities, which has objectively increased the occurrence of emergencies among students at

universities. Thus, it has become a crucial subject for the universities and the nation to strengthen the management of emergencies at universities and establish an effective early warning mechanism, so as to maintain a healthy and stable development of the society.

2. THE CONCEPT, CHARACTERISTICS AND RESEARCH STATUS OF EMERGENCIES AT UNIVERSITIES

In order to fulfill the common commitment of protecting life and property safety, and maintaining stability of the community, it is a joint task for every government and university to take effective actions to handle, prevent, and solve the emergencies at universities.¹ [1]

*Funds: The paper reported here is sponsored by Zhuhai Philosophical and Social Sciences Planning Project 2021-2022, Project name: Research on CPC History Education in the Whole Process of Fostering Character and Civic Virtue, Project Grant No.: 2021YBC099. The research is also result by 2021 Party Building Research Project at Jinan University, Project name: Research on CPC History Education in the Whole Process of Fostering Character and Civic Virtue.

1. Department of Ideological and Political of Ministry of Education of China, 2011:186

2.1 The Concept of Emergency and Emergency at Universities

Emergencies at universities normally refer to those practices happening at universities that threaten teachers and students' life and property, cause casualty, and seriously disturb the normal order at universities.² [3]

Emergencies at universities normally refer to the incidents which are caused by natural, man, or social and political force, happen suddenly at universities, and mainly involve students. They aren't influenced by the ministrations of universities and cause losses to work and life at universities.³

2.2 The Characteristics of Emergencies at Universities

Firstly, they occur in a sudden; secondly, they hugely violate the normal order of the universities, and cause life loss and property loss; thirdly, the lasting impacts do lots of harm to mental health of both teachers and students at universities. Fourthly, it is difficult to solve effectively with the existing manpower at universities. Fifthly, it attracts high attention from the society. It can be seen that, apart from the characteristics shared by common emergencies, the emergencies taking place at universities possess their own unique features. It is largely due to the high density of population, especially young students, who have a collective life for a long time. They are particularly easy to communicate with, and share many common interests. They also possess agile responses to latest information, and are sensitive to activities and public affairs.⁴ [1]

2.3 The Status of Research on Emergencies Management at Universities

The research on emergency management at universities in China is still at a preliminary stage. So far the nation hasn't established a mature theoretical system on emergency management at universities, and hasn't made any practical guidebooks to deal with emergencies aroused at universities, either. Now the emergencies at universities show an increasing tendency of diversity and complexity, and have a deeper and

wider impact on the society, which has attracted high attention from the government as well as the society.

3. THE CONSTRUCTION OF EMERGENCY MANAGEMENT SYSTEM AT UNIVERSITIES

A philosopher in Greece once said, "Half of human's life is spent in crisis". The emergencies at universities are unpredictable. They can have great impacts on the society, and spread quickly. Thus, high awareness ought to be raised to deal with emergencies with instant actions. With emergency consciousness, one keep alert and timely response to the environment change and it is based upon a common understanding that over our heads hangs a Sword of Damocles.

3.1 Theory of Emergency Management at Universities

There hasn't been an independent theoretical system of emergency management, whose development is based upon theory of public security management. The contemporary public emergency management, based upon international practices, should be a circle of prevention, preparation, response and recovery of the crisis. The United States has done theoretical exploration on public security management for dozens of years, and has summarized a series of theories and principles of crisis management. In respect to the modes of emergency management, there are three main theories, namely "All-hazards approach", the "community Recovery Theory", and "four-stage Theory".⁵[1]

The practice of emergency management in both the federal ministry of education and universities at all levels of the United States has been carried out according to the "Four Stages". Particularly in 2003, the federal Ministry of Education of the United States put forward the Practical Information on Crisis Planning: A Guide for Schools and Communities, which is a milestone of the development of emergency management at universities in USA. It specifies the type, stage, prevention and measures of all kinds of emergencies.

The thesis will start with the Conceptual Integration Theory, and focus on the prospective

2. Guang Chen, 2011:1

3. Bin Sun, 2008:30

4. Department of Ideological and Political of Ministry of Education of China. 2011:187

5. Department of Ideological and Political of Ministry of Education of China, 2011:188-189

measures to deal with emergencies, to reduce the possibility of emergencies and the damages caused by emergencies. The core of establishing early warning mechanism is to make efforts to respond and prevent the emergencies, and reduce losses and casualties to the lowest.⁶ [3]

3.2 Conceptual Integration Theory

In the 1990s, Fauconnier, the renowned cognitive linguist in the United States, put forward the concept of Conceptual Integration Theory in his book *Mapping in Thought and Language* (1997), as shown in "Figure 1". Generally, Conceptual Integration is a series of cognitive activities that combine different framework in cognitive domain. In the process of thinking and talking, people continuously build some concept packages to understand and take actions, and store them in virtual psychological space. The conversation will continue to build new psychological space, while each psychological space is a temporary structure, whose existence relies on some wider and more stable knowledge structures.

Fauconnier (1997) thought that Conceptual Integration Theory had five main characteristics, including cross-space mapping, partial mapping from input space, generic space, emergent structure, and integration of events. The process of Conceptual Integration can be divided into three basic stages: 1) composition, which is a process from input space to integrated space; 2) completion, which is a process of the projection of input space matching the information system of long-term memory. It is the resource of the content of emergent structure; 3) elaboration, which is a process cognitive operation in the integrated space according to its own emergent logic.⁷ [5]

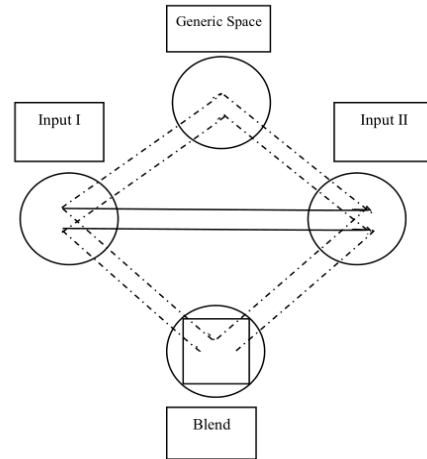


Figure 1 A Conceptual Integration Network with Two Input Mental Spaces.

The Conceptual Integration Theory includes three spaces that are abstract: Generic Space, Mental Space, and Blend Space. To be concrete, Conceptual Integration Theory takes psychological space as basic unit, and according to the cognitive operation based upon analogy, recursive, psychology, concept, knowledge framework, etc, it forms four abstract psychological space: generic space, input space I, source mental space, input space II(or target mental space), and blending space.

3.3 The Application of Conceptual Integration Theory on Early Warning System on Emergency Management

This thesis applies Conceptual Integration Theory to the study of the establishment of early warning system on emergency management. Giving full attention to the linkage of four spaces, the thesis tries to build a systematic and scientific warning system, as shown in "Figure 2":

6. Guang Chen, 2011:42

7. Fauconnier, 1997:151

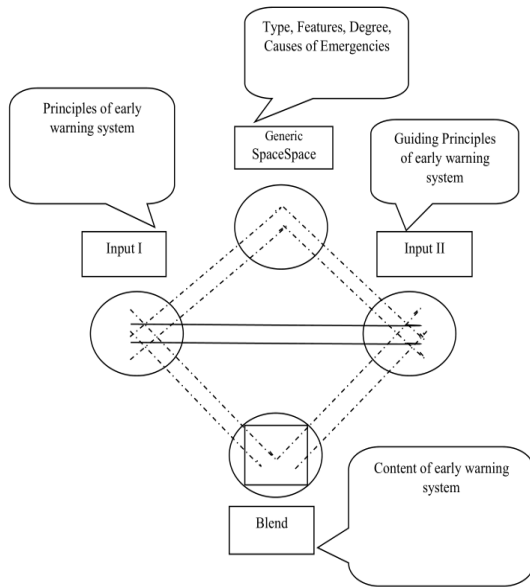


Figure 2 A Conceptual Integration Network of Early Warning System on Emergency Management.

Generic space is a selective space which is built through providing the types, characteristics, degrees, and causes with emerging integrated space. It reflects the guiding principle and common abstract structure from two different warning system of input spaces; input space I, which is the principles of early warning system, and input space II, which is main beliefs of construction of early warning system. The two input spaces will be selectively reflected through cross-space mapping on a third space, the so-called blend space of emergent structure. The blend space connects the background, structure, and cognitive model of relevant domains, so as to achieve a new cognition of early warning system of emergencies at universities.

4. THE INSPIRATION FROM EARLY WARNING SYSTEM ON EMERGENCY MANAGEMENT

It was said in *The Book of Rites: Mean* that preparedness ensure success, unpreparedness spells failure. The Former Chairman Mao Zedong also said in *Selected Works of Mao Zedong: on Protracted War* that there cannot be victory in war without advanced planning and preparations. As the emergencies at universities occur more frequently, the early warning system on emergency management is key factor to successful management of emergencies. Whether the early

warning system can be carried out successfully depends on largely on the accordance of plans with reality, and full preparation.

4.1 Establishment of Organizational System for Early Warning on Emergency Management

To ensure effective implement of early warning system of emergencies at universities, a special group, first of all, should be selected as the leaders of emergency management. It is a basic premise and organizational guarantee to deal with emergencies at universities. Most of universities take passive actions when the emergency events occur. Thus, universities should pay high attention to establish a special permanent department of emergency management.

The universities should set up Emergency Management Committee, in which the Secretary of the CPC Committee and the president of universities serve as director, the vice-secretary of the CPC Committee and the vice-president as vice-directors, the principal assistant as the secretary general, and it include all leaders at universities, the legal advisers, and psychological experts. Each functional departments and schools should set up corresponding emergency management teams. They should carefully arrange personnel to take responsibility for emergency management, and keep in touch with each other; take actions in accordance with emergency management committee and the emergency management office.

4.2 Establishment of General Early Warning System on Emergency Management

David Osbe, an American scholar, thinks that the mode of management of a prescient government should be preventative rather than therapeutic. The government shouldn't passively accept the great loss that emergency events cause to the society. Instead, they should pay much attention to the prevention of events. The 17th CPC report put forward that the government will improve early warning system on emergency management, and make this task a significant part of social construction nowadays which focus on the well-being of common people. Making plans for dealing with emergencies is the representation of implementing the theory of the Chinese Communist Party, an important content of scientific

development and harmonious socialist society, and protect safety of life and property.⁸ [3]

Making emergency plans is an important measure to adhere to safeguard life and property, and maintain university and society stability. The plans should be scientific, effective, and stick to the principle of clear responsibility and strong operability. A mature system consists both general plan and specific plan that are classified.⁹ [3]

The early warning emergency plan, whether general or specific, should be scientific and effective. Four principles are applied in making the plans: every proposal should be complete; it should accord with the rules in the process of preventing and combating emergency events; the content and procedure should comply the habits of cognitive and conducting things; all of the works should take the well-being of common people as the priority, and pay much emphasis to prevention of emergencies.

The sub-plans of early warning system on emergencies at universities are made to deal with specific emergencies in particular areas. It is required to make sub-plans based upon practical situations. In 2011, Guang Chen put forward 12 sub-plans in *On Strategies dealing with Emergencies at Universities*, including regulations on preparedness for and response to emergencies for public health hazards, fire emergencies, affairs with people and organizations outside of universities, sudden shut-down of water and electricity, the outbreak of mass poisoning among teachers and students, the events associated with internet, gang fighting, emergencies occurred when holding mega-events, the sudden occurrence of natural disasters, safety emergencies occurred when holding examinations, the volatility of the price of food and non-staple food, the occurrence of terrorist attack.¹⁰ [3]

4.3 The Evaluation of Risk of Emergencies Information Processing

As the basis of the emergency management at universities, the universities should recognize, analyze, and evaluate the risk brought by emergencies. Specifically, in the process of evaluation of risk by emergencies, the main task is to recognize the type, origin, nature, and

characteristics of those emergencies, and evaluate the possibility and consequence of the emergencies, to provide supporting guidance for prevention of emergencies.¹¹ [4]

As shown in "Figure 3", to ensure an effective evaluation of risks brought by emergencies, all relevant information should be collected, and every possible factors that may lead to risks of emergencies should be listed out, and proper classification of those risks should be made.

8. Guang Chen, 2011:48

9. Guang Chen, 2011:77

10. Guang Chen, 2011:53.

11. Bin Sun, 2008:60

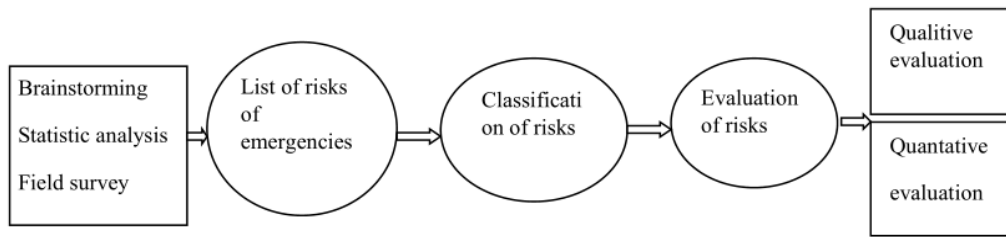


Figure 3 The Evaluation of Risks of Emergencies Information Processing.

4.4 The Training of Emergencies Management at Universities

Generally, after evaluation of risk of emergencies, the universities ought to take measures to prevent emergencies, including the training of emergencies management at universities.

The training to deal with emergencies will equip the teachers and students with basic knowledge about emergency situation and causes of emergencies, to raise awareness of causes of emergencies, and reduce their anxiety if the emergencies occurred. Through training on emergencies, the universities are able to find out problems in existing management of emergencies, and improve the early warning and supervision system of emergency management, and approaches to deal with emergencies if they occur.

In 2008, Bin Sun wrote in his book *On Management of Emergencies at School*, that content of carrying out training for management of emergencies at schools, including psychological training, knowledge training, communication training, training on cooperation of departments to deal with emergencies, training on emergency plans and the theory into practice. He also suggested six approaches for the emergency training, including work instruction, lecturing, case study, role play and behavior simulation, guidance by computer, and exercises.¹² [4]

5. CONCLUSION

The educating purpose of university is to comprehensively develop the ability of students, including the ability to deal with emergencies in campus.¹³ [6] Safety of life and property at universities is a fundamental requirement to ensure prosperous higher education in China. It is also essential to maintain social stability and nourish the

next generations. Moreover, the construction of early warning system of emergencies is a basic requirement for a harmonious campus and society.

AUTHORS' CONTRIBUTIONS

This paper is independently completed by Lixia Wen.

REFERENCES

- [1] Department of Ideological and Political of Ministry of Education of China, *Entering Student Affairs Management of American Universities*. Beijing; China Renmin University Press, 2011.
- [2] The Portal Site of Central Government of China, http://www.gov.cn/ziliao/flfg/2007-08/30/content_732593.htm
- [3] Guang Chen. *On Strategies dealing with Emergencies at Universities*. Beijing: Gunagming Daily Press, 2011
- [4] Bin Sun. *On Management of Emergencies at School*. Beijing: China Meteorological Press, 2008.
- [5] Fauconnier, G. *Mappings in Thought and Language*. Cambridge: Cambridge University Press, 1997.
- [6] Bok, Dereck. *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More*. Shanghai: East China Normal University Press, 2012.

12. Bin Sun, 2008:50

13. Bok, Dereck, 2012:45