



Thoughts and Suggestions on "technology +" psychological Training for college students

Hao Wen¹, Zhiyong Zhang¹, CongCong Lv¹, Lijun Zhang¹, Xin Li¹

¹National University of Defense Technology, Changsha,410000, China

**Corresponding author. Email: 395831362@qq.com*

ABSTRACT. At present, science and technology are promoting the reform and innovation of psychological training, our country's psychological training are also constantly absorbing science and technology, further development, psychological training as one of the entrance education of college students, has a long development process, is also the college students must be trained, the current frontier science and technology application to the college students' psychological training, which can promote psychological training content of science and technology, It can also improve the effect of psychological training and enhance the psychological quality of college students. Through the investigation and research on the current situation of college students' psychological training, this paper summarizes the problems existing in the current psychological training, analyses the causes of the problems, and puts forward solutions. This paper puts forward the application of mature science and technology, namely AI, Big data and AR technology, to upgrade the traditional psychological training.

Keywords: College students, Psychological training, Technology +

1 Introduction

At present, science and technology are quietly promoting the reform and innovation of psychological training, especially with the leapfrog development of computer technology and the relevant application of computer technology in various fields to promote the development of "science and technology +" psychological training. How to keep the mental health and collective consciousness of college students, understand the cutting-edge science and technology, improve the enthusiasm of psychological training, better improve their own psychological quality, and quickly adapt to college life has become an urgent problem to be solved.

2 The present situation and problems of college students' psychological training

2.1 Carry out current situation investigation and research

Adopted consulting experts, conversations and status in the form of questionnaire survey, the questionnaire of the formulation by using the literature consult, expert interview and the present situation of the university research and reference for the questionnaire, through carding summed up the strong correlation between psychological training present situation and problems, and set the reverse problem, Five-point Likert scale was used for evaluation. The score was measured according to completely agree (5 points), partially agree (4 points), basically agree (3 points), disagree (2 points), disagree (1 point). Design of the current situation of the college students' psychological training survey questionnaire, the questionnaire is divided into two parts the first part mainly records the basic information of the participants, the second part mainly records of college students questions about the present situation of psychological training, through the meaning of psychological training method (A) and (B), (D) (C), asked to four aspects such as design for 30 questions. The reliability and validity of the questionnaire were tested. In the reliability test results. Cronbach's alpha coefficient was 0.830, and cronbach's alpha coefficient based on the standardized term was 0.829, both greater than 0.8, which showed high reliability and met the requirements. In validity test results, KMO value is 0.631, greater than 0.6, basically meeting validity test.

The questionnaire survey, the form of online through online to issue the training college students' mental status questionnaire 92, including recycling questionnaire, 85, of which three reverse positive answers, eliminate, recycling effective questionnaire 82, grade level contains all the college students and college counsellors, psychological teacher three kinds of people, including college students of the age distribution is relatively concentrated. Most are between 18 and 24 years old, and counsellors and teachers are relatively older.

2.2 Analysis of questionnaire status

Through the sample of college student questionnaire survey data analysis and research. One is the significance of psychological training. College students, counsellors, teachers generally believe that psychological training is meaningful, and carrying out psychological training has more significance, college students generally believe that it has a good role in enhancing combat effectiveness, improving willpower, improving team consciousness, improving psychological quality. The second is the method of psychological training. At present, most of the psychological training has carried out training mobilization and warm-up activities, but less use of technical equipment to monitor the physiological indicators of college students, less maintenance of training sites, less to establish psychological training files for college students, and less to individual college students for heart-to-heart communication. The third is the organization of psychological training. The organization of psychological training has been well implemented in the organizational process, equipment guarantees and safety protection, but there are

more training staff than participants, and sometimes the maintenance of order will be chaotic. The collection of training data is still insufficient. It is worth noting that whether school leaders attach importance to psychological training in the questionnaire survey, the average score is low, only 1.9878, indicating that some leaders do not pay enough attention to psychological training. Fourth, the requirements of psychological training. Current school must carry out the relevant psychological training, but the difference between attitudes towards mental training is bigger, some schools require a serious atmosphere of psychological training some schools require a relaxed and happy atmosphere for psychological training. I personally think the attitude should be according to the content of the psychological training. On the content of psychological training requirements at the same time, also is large, some school's requirements should be one tree, extreme high rock climbing, etc have a higher risk of psychological training, to meet the demand of the school, some schools require trust back, blind disorder such as a lower risk of mental training content, more conducive to college students' physical and mental health.

2.3 Summary of psychological training problems

Through the comprehensive analysis of the current situation and expert interviews, the more prominent problems are sorted out. First, the content and type of psychological training are not scientific enough. The current college students' psychological training is mainly use high psychological training ground for the limits of psychological training and the use of unmanned broad space for two kinds of the interaction of psychological training, applicability in content and status of the college students is not high, does not highlight the characteristics of college students, and types of psychological training is relatively small, only limit psychological training and interactive psychological training. Secondly, the organization and guidance of psychological training personnel are not standardized enough. There are not many teachers in charge of psychological training in the school, and the organizational strength of each training is relatively limited. Sometimes there is a certain disorder in the field order, which leads to poor training effect and ineffective guidance for every college student. Thirdly, the data collection and storage of psychological training are not timely enough. Psychological training, as a kind of scientific training methods, in order to achieve better training effect, need on college students' physiological and psychological indexes data are collected, and establish the personal psychological training files, and the current college students' psychological training on data collection, also USES the traditional way of written records, the recorded data of only a few key node. And the data storage still stays in paper media, and there is no in-depth research on data mining.

3 Analysis and reasons of college students' psychological training

According to the basic logic of finding problems, analysing problems and solving problems. Analyse the causes of the problems found.

3.1 The development of college students' psychological training is rather sluggish

School is the advantage concentration highland of psychological training in China, and psychological training has always been in the forefront of our country. We found by referring to the longitudinal comparison of relevant literature that the development of psychological training in China reached its peak in 2015, and then the number of relevant literature appeared an inflexion point and gradually decreased. Through the horizontal comparison of psychological training among different countries, the United States is in the lead in psychological training. In the early 21st century. American colleges and universities initially introduced various high-tech technologies into psychological training, among which virtual reality technology is the most widely used technology. Over the same period, the school psychological training in our country, for a long time are concentrated in the high altitude psychological behaviour training, there is not a big change, also not according to the characteristics of college students' specific psychological training, in addition to the flight academy (a) the school's psychological training of a high and new technology, the development of general mental training school also satisfied with their current training. Although there are many studies on the introduction of high technology into psychological training in the academic world, there are few studies on the application of high technology to psychological training in schools, and the overall impetus is not enough.

3.2 The talent that school organizes psychological training is scarce

Can be seen from the literature retrieval literature quantity and a lot of psychological training in our country, and the researchers base also many, but many researchers look carefully you can find it is not a trained teacher psychology, school psychology training organizer is most coaches and sports teacher, most of these schools by the teacher in charge is not a psychology major. And relatively school teachers, the number of students is relatively large, and all college students should be psychological training, rather than one or two people of experiential training, every time the psychological training, the organizers usually only 2-3 people, most of which is trained and served as psychological training teacher, real learning psychological training during the period of undergraduate or graduate teacher is less. And many school psychological training teachers, there is no new and old replacement for a period of time, there are even faults.

3.3 School psychological training data records are chaotic

School psychology training since appeared to after a long period, but for data records have been using the more primitive method, artificial data and print media, some schools will destroy every other period, this is bad for a review of psychological training, is unfavourable to further research on college students' psychological training. Base of college students' psychological training of personnel, the amount of data is relatively more, especially on data records, mainly taking the key node to bring physiological data record, not to keep a record of the behaviour of the participants of this to a large extent

can miss some key data, and part of the data record of the work is done by college students. This violates the principle that the data recorder and participants of the same psychological experiment cannot be the same, which will make the data recording deviation, and college students are not professional enough in recording data.

4 Thoughts and Suggestions on psychological training of College students

As countries promote the application of new technology, the school also is in the critical period of high-speed development, but as the backbone of the future society, college students are facing all kinds of pressure also more and more big, the development of school psychology training must also keep pace with the times, the application of the technology of a mature to the psychological training, to improve the effect of mental training, strive to promote the comprehensive promotion of college students' mental quality. To provide a good foundation for future social office.

4.1 Evaluation of psychological training using big data technology

The advent of the era of big data, make all walks of life are based on the theory of big data to establish the database of the industry, their own school psychological training should serve their own database, and stored in the electronic media, to ensure that data is not lost, in order to better evaluate the mental training and psychological training need deep mining of the connection between the physiological and psychological indexes. The use of structured query language (SQL), the use of MySQL management system for the design and construction of the database, management system using C and C++ for writing, to ensure the portability of the source code, but also for the next in-depth mining, to create a better premise. The collected data is mainly divided into two parts: one is to record and store the basic information of trainees. The second is to record and store the physiological and psychological index data of participants in psychological training. In order to facilitate the search, the type of data is coded to facilitate the next step of rapid search and analysis of data, through a large number of data in the database, can also provide data support in the construction of artificial intelligence.

4.2 Use virtual reality technology to enrich the content of psychological training

Virtual reality technology as a kind of mature technology has been at home and abroad are widely used in a kind of psychological therapy and psychological training methods, but in the application, relatively early start compared with domestic, abroad and achieved certain results, the domestic application of virtual reality technology, focuses on psychological treatment, and rarely used in psychological training. The application of virtual reality technology is also concentrated in the pilot and astronaut and other special professions, but with the development and popularization of virtual reality technology, especially after the substantial decrease in cost, it can be applied to the

psychological training of college students. The author thinks that the psychological quality required by college students should be sorted out, which can be divided into four categories: patriotism cultivation, group psychological training terrorist environmental adaptation, emotional ability psychological training, application of virtual reality technology to build related scenario, design content, plot to use VR headsets and VR handle for human interaction, the use of smart bracelets and display on physiological indexes and psychological indexes of the real-time monitoring, enter the collected data into the database you created earlier.

4.3 Using artificial intelligence technology to guide the development of psychological training

Through the establishment of the database of psychological training and the construction of virtual environment by virtual reality technology, it provides a good foundation for the application of artificial intelligence technology. College students' psychological training in the virtual world based on virtual reality technology, we through the accumulation of past data, and analyse the data processing, the psychological training process and participate in the mental training set of the favourable comb summary, build an NPC in the virtual world to auxiliary psychological training organization staff, the college students' psychological training to lead all the way. At the same time, some prompt slogans, prompt arrows, prompt voice and other reminders are designed in the virtual scene. These are the application of artificial intelligence technology, which can greatly save manpower costs, spread excellent experience and improve training efficiency.

5 conclusion

In this paper, the present situation and problems of the college students' psychological training has carried on the reason analysis, combined with the current AI, Big data, AR, such as the latest technology and the development of interdisciplinary application of the ground, it combined with psychological training in the right way, to upgrade traditional psychological training, the right thinking and suggestions, has certain theory significance. However, as this research is still in the stage of theoretical research, the next step will be related to practical application.

6 REFERENCES

1. Lisa Duan, Analysis of mental health status and influencing factors of grass-roots officers and soldiers under COVID-19. *Journal of PLA Medical College*, vol. 42, 2021, pp. 387–391.
2. Xiaofang Chen, Visual analysis of multi-source college students' mental health questionnaire data. *Journal of Computer Aided Design and Graphics*, vol. 32, 2020, pp. 181–193.
3. Yuan Xu, Research on the teaching application of augmented reality technology. *Distance Education in China*, vol. 10, 2007, pp. 68–70.

4. He Wang, Application of UAV operator training based on virtual reality technology. *The plane design*, vol. 40, 2020, pp. 17–20.
5. Jia Wang, Research and prospect of virtual reality technology in psychological training. *Medical*, vol. 43, 2019, pp. 699–703.
6. Dali Chen, *Principles of psychological training*, pp. 345–351, 2016.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

