

# The Application of Script Board Games in Psychology Course

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**Abstract:** To explore whether the use of script board games can better awaken students' emotions in psychology courses, so that students can more intuitively perceive emotions, understand emotions, and achieve teaching results. The stratified random sampling method was used to randomly select 60 college students and divide them into two groups. One group used the script board game for emotional arousal, and the other group used traditional materials for emotional arousal. After that, the two groups completed the SCL-90 scale, and finally collected the factor scores of fear as a single factor analysis of variance for statistical analysis. The scores of fear factors in emotional arousal using traditional materials were significantly higher than those in the blank control group ( $F(2,60)=12.193, p<01$ ); The scores of fear factors of emotional arousal using script board games were significantly higher than those of the control group and traditional material group ( $F(3,90)=6.090, p<01$ ). As a new type of emotional arousal material, script board game can trigger individual fear more than traditional materials, which provides new materials for the teaching of psychology courses. In the future courses, the chapter on "emotion" can be appropriately used to awaken the students' emotions with the play of board games

**Keywords:** Psychology Course Teaching; Script board game; Emotional arousal; SCL-90

## 1. Introduction

Since 2016, script killing games have gradually become a popular role playing board game. The script killing game originated from the drama inspired education in foreign preschool education, which aims to let children understand the society in advance and contact the thinking and emotion of the adult world<sup>[1]</sup>. After being introduced into China and transformed, the script has successfully added Chinese cultural elements, which has more functions of "immersion" and "interaction". "Immersion" is similar to "empathy" proposed by Freud<sup>[2]</sup>, which refers to the perception of the emotional feelings of a third party. The theoretical basis for the research on the generation of immersion in "script killing" in this study is mainly from the Discovering Flow, the Psychology of Optimal Experience, written by American psychologist Mihari Cheksen Mihalai. The general work systematically explains the generation path of immersion in the psychological level, and combines various elements in life that can make people feel immersed, and also points out several characteristics of immersion experience. Immersion theory provides theoretical support for the immersion of "script killing" studied in this paper. In addition, in the study of immersive drama, the sense of immersion is also often concerned by scholars, among which Mihari's "flow theory" (also translated as "immersion theory") is also the foothold for scholars to carry out research<sup>[3]</sup>.

The script killing game can have a more excellent emotional arousal effect, which may be combined with its emotional immersion and the influence of drama. Acting out: The pleasure of performance hero (2014) by Madelon Hoedt shows that in immersive performance or drama activities, terrorist elements tend to be more immersive. In his research, he gave several examples of horror films. When the audience saw that the online evaluation was "terrible" or "disgusting", they would more like to try. The same is true for literary works, plays, games and amusement parks. The audience will have a desire to stimulate the horrible things. The same is true of the "sense of terror" in the "script killing". The reason why the "horror book" was popular at that time also came from the psychological satisfaction brought by terror.

Emotional arousal is related to self-regulation. Individual regulation of negative emotions will be affected by cognitive reappraisal. Emotional regulation refers to a series of cognitive processing processes that adjust or change the appearance, intensity and duration of emotional states (Eisenberg et al., 2000; Gross&Thompson, 2007). Cognitive reappraisal and expressive suppression are the most commonly used and effective emotion regulation strategies<sup>[4][5]</sup>. Most of the previous studies used

materials related to themselves for negative emotional arousal, such as autobiographical memoirs, daily diaries, etc; In the electrophysiological experiment of Tian Feng et al., the experimental materials were VR-3D stereoscopic films, which were used to investigate the emotional arousal state of the subjects in the intuitive pictures. At the end of both experiments, it has been said that emotional arousal is limited by order and materials, which may affect accuracy and ecological validity [6].

Based on the above views, this study aims to explore better emotional arousal materials to facilitate the regulation of negative emotions (sadness, anger) of individuals. This is of great significance in psychology teaching. Emotion, as a subjective experience, needs to be perceived and experienced by individuals themselves. It is impossible to explain the meaning of emotion to students by describing the characteristics flatly. It seems that scripted board games, which combine the advantages of drama and games, have the effect of promoting people to immerse themselves. Therefore, we try to use students as subjects in the experiment and use scripted board games to awaken their emotions.

## 2. Objects and Methods

Using the random sampling method, 90 vocational college students in Meizhou City were randomly selected. The male to female ratio was 1:1, and the average age was 19 (SD=1.15) years old. The proportion of urban and rural students was close to 1:1. 90 subjects were divided into three groups. The experimental design was an inter group design. The three groups were treated with blank processing, traditional movie video emotional arousal processing<sup>[7]</sup> and script killing game arousal processing.

The script board killing game is provided by **Meizhou 223 Drama Club**. The themes are divided into fear and lovelorn youth on campus. Before the experiment, 50 subjects were randomly tested and orally reported in the way of pre experiment, and then retested with the same subject matter. After inspection, the retest reliability is 0.75, which conforms to the standard of experimental materials.

SCL-90 scale, which consists of 90 questions, is divided into 10 subscales to measure 10 factors of mental health, including somatization, compulsion, interpersonal relationship, depression, anxiety, hostility, terror, paranoia, psychosis, and others (reflecting sleep and diet). The scale adopts a 5-level scoring system, with 1-5 points indicating "no", "mild", "moderate", "heavy" and "severe" respectively. It is generally believed that the factor score is greater than or equal to 2, indicating that the testee has more than moderate psychological problems [9].

The three groups of subjects were treated with SCL-90, and then were treated with the test for 30 minutes respectively. The first group of blank controls stayed in the room for 30 minutes; The second group of traditional material wake-up group watched 30 minutes of films; The third group will play a 30 minute script killing board game, as shown in **Figure 1**; Finally, the three groups of subjects were administered with the SCL-90 scale again.

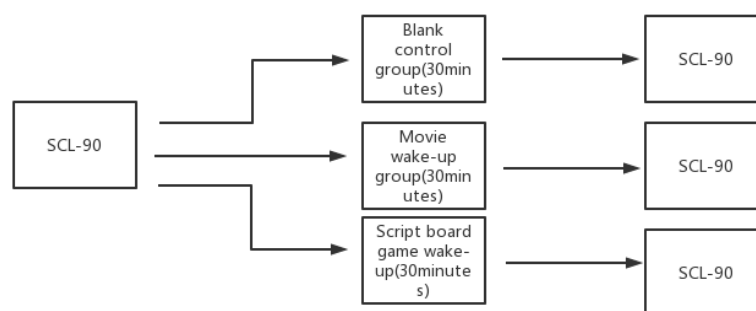


Figure 1: Experimental Flow Chart

SPSS 23.0 was used for statistical analysis in this study, Cronbach's $\alpha$ Homogeneity reliability analysis was conducted, and the results showed that The values are all above 0.97, indicating that SCL-90 has good reliability in the group of vocational school students. The correlation coefficient between the subscales and the total scale scores can be used as an index to examine the validity of SCL-90. If the correlation coefficient between the subscales and the total scale scores exceeds the correlation coefficient between the subscales, it can be used as a test method for structural validity. The correlation coefficients of somatization, compulsion, interpersonal, depression, anxiety, hostility, phobia, paranoia, neuroticism

and others with the total scale scores were 0.88, 0.90, 0.92, 0.95, 0.95, 0.87, 0.85, 0.89, 0.92 and 0.89 respectively, which were judged to be highly correlated, indicating that the content validity of the scale was relatively good. Through correlation analysis, the correlation coefficient between the sub scales is 0.69~0.88, and the correlation coefficient between the sub scales and the total scale is 0.85~0.95. The correlation coefficient between each subscale is smaller than that between each subscale and the total scale, which shows that the structural validity of the scale is also good [9]. Here, the predictive variable is SCL-90 factor score fear, and the three groups of data are analyzed by variance.

### 3. Statistics and Results

Table 1 summarizes the mean and standard deviation of the main variables in this study. These results provide preliminary support for the relevant assumptions of this study.

*Table 1: Analysis of variance of each variable*

	SCL-90 fear factor score
Blank control group	1.34 ±0.63
Movie Video arousal	2.17 ±0.96
Script Kill Material arousal	2.89 ±0.53

This study used single factor analysis of variance to statistically analyze the three groups of data. The results showed that the main effects of the three groups were significant,  $F(3, 90) = 6.090, p < .01, \eta^2 = 0.633$ , it was found that the fear score of emotional arousal in movie videos was higher than that in blank control, and the fear score of script killing material arousal was significantly higher than that in movie videos and blank control groups,  $p < .001$ .

### 4. Discussion

The influence of emotion on individual behavior efficiency has always been the focus of attention. Some studies have shown that individual emotions will affect individual cognition such as memory, classification, and problem solving. For example, individuals in positive emotional situations are more likely to classify external objects from a friendly perspective than in neutral emotional situations. The individual's emotional state will influence the individual to choose a certain attribution way to explain the results of things. The great achievements of psychologists in the study of emotion and emotion have caused people's understanding of emotion and emotion to undergo tremendous changes. Many scholars in the field of pedagogy and psychology began to explore the influence and application of emotion and emotion in education and teaching [10].

Some researchers believe that anger or fear enhances the individual's cognitive state (arousal), which enables the individual to mobilize more cognitive resources to participate in the current task, thus promoting the individual's general creativity performance. Based on the same logic, it can be speculated that in the process of malicious creativity task, when the individual's anger is induced, the enhancement of emotional arousal may enable the individual to call more cognitive resources to participate in the current task, thereby enhancing the fear emotion. That is, there is a process similar to a cycle in emotional arousal.

Traditional emotional arousal mostly uses a single video and audio stimulus, such as playing horror movies or horror audio, to induce subjects to fall into fear and sadness, but the arousal level is low. This may have something to do with the individual's cognitive and emotional regulation strategies. The negative emotions of the subjects fade away quickly without any emotional motivation and interaction. In the script killing game, we found that individual emotions were more easily awakened. In the same time (30 minutes to 40 minutes) of arousal, the subjects need to feel the emotions of the characters in the role play and have a positive emotional interaction with the subject, just like two performers in a play, rather than sitting in front of the computer to awaken a single emotion, which will enable the subjects to have more sense of situational participation.

The script killing game can have a more excellent emotional arousal effect, which may be combined with its emotional immersion and the influence of drama. Acting out: The pleasure of performance hero (2014) by Madelon Hoedt shows that in immersive performance or drama activities, terrorist elements tend to be more immersive. In his research, he gave several examples of horror films. When the audience saw that the online evaluation was "terrible" or "disgusting", they would more like to try. The same is true for literary works, plays, games and amusement parks. The audience will have a desire to stimulate

the horrible things. The same is true of the "sense of terror" in the "script killing". The reason why the "horror book" was popular at that time also came from the psychological satisfaction brought by terror

In the application of future teaching, for example, in the teaching of Medical Psychology, students need to really understand different basic emotions and complex emotions, which can use script killing games as wake-up materials in homework after class, and record the emotional state of students themselves in an autonomous way, so that students can better understand emotions and emotions.

## 5. Conclusions

To sum up, as a newly developed thing, scripted board games are, on the one hand, entertainment and entertainment for young people, on the other hand, more effective than traditional materials in emotional arousal, and easier to operate. This teaching material can be considered in practical courses, which is similar to many humanities courses in which teachers let students take short videos for interactive communication.

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