

Learning burnout of college learners and countermeasures analysis in the context of Chinese normal university

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Abstract. The research purpose of this study is to explore the status and causes of learning burnout among college students and dig out the countermeasures of solving this issue. The study takes 400 students of different majors, grades and genders from three normal universities as subjective in Southwest China, and the questionnaires including demographic information, learning burnout status, learning burnout causes were distributed to them, finally, 395 valid questionnaires were collected. Using IBM SPSS Statistics 22.0 software for statistical analysis (T-test), the results shows that there exists the phenomenon of learning burnout among university students, and there are significant differences in learning burnout in terms of gender, grade and major; Meanwhile, through regression analysis, it can be seen that each factor has different degrees of influencing the learning burnout, so the accordingly countermeasures are suggested. The study is hoped to put forward some countermeasures for learning burnout, so that it is better service the educational quality.

1 Introduction

The concept of learning burnout is developed from occupational burnout. American clinical psychologist Freuberger first put forward a relative concept of "burnout", and defined burnout as when an individual's work is not recognized by the organization or others, and is not recognized by the organization or others [5]. The corresponding rewards are chronic fatigue, depression, and frustration in individuals [5]. LixianYang defined study burnout as the negative attitude and behaviour of being bored with study due to study pressure or lack of interest in study China after combining the research results of foreign study burnout; It reflects the negative learning psychology of college students [9]. Li Fuye and others also believed that learning burnout is an important indicator reflecting the negative learning psychology of college students, and it is the manifestation of college students' negative learning psychology such as depression, fatigue, dissatisfaction, anxiety, depression, apathy, confusion, powerlessness, and low self-esteem. Learning burnout not only affects students' academic performance, but also has a certain negative impact on their interpersonal relationships and mental health [4]. Ma Yimeng believed that college

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students' learning burnout reflects their negative learning state and psychology, and the negative psychological state and behaviour of being bored with learning caused by learning pressure or lack of learning interest. Learning burnout is the main indicator reflecting the negative learning psychological state of college students, and analysing the basic learning situation of college students can provide guidance for promoting education reform and improving the quality of college teaching [11].

Regarding the factors affecting the learning burnout, the gender differences in college students' learning burnout may vary, the view is that there is no significant gender difference in college students' learning burnout [1]. Another point of view is the opposite, they believe that college students' learning burnout is significantly different in terms of gender. Caichao Li conducted a questionnaire survey on college students from a university and a normal college in Tangshan, and analysed the overall score of learning burnout and the relationship between its dimensions (depressed mood, misbehaviour, low sense of achievement) and gender [2]. Jie Luo conducted a study on three general colleges and universities in Guiyang City using convenient sampling, and found that boys scored higher than girls in all dimensions of learning burnout, especially in terms of academic alienation, boys scored significantly higher than girls [9]. As for the grades and burnout, there are obvious grade-level differences in college students' learning burnout. In Dingxiang Zhang's research, students of different grades have different degrees of burnout, and the degree of learning burnout is the second year, the fourth year, the first year, and the third year in descending order [3]. Gao selected one university in Yancheng and one in Xinxiang, Henan to conduct a collective test on college students from grades one to four. He also believed that there were significant grade differences in the total score of college students' learning burnout, but the overall trend of learning burnout level was with grades [1]. About the majors and learning burnout, Gao Bingcheng analyzed the differences in the learning status of college students with different types of learning burnout from the perspective of individual differences, and believed that the overall score of learning burnout of liberal arts students was lower than that of science students [1]. HongjunYang's research results suggest that liberal arts students are not only lower than science students in the overall score of learning burnout. The scores of liberal arts students were also significantly lower than those of science students on the three dimensions of depression, misbehavior, and low sense of achievement [7].

2 Research problems

The research takes the undergraduates in normal undergraduate colleges as the research object, investigates the current situation of their learning burnout, explores the reasons, and puts forward corresponding intervention countermeasures, in order to provide a reference for improving the quality of personnel training in normal undergraduate colleges. The research questions are the following:

1. What's the learning status of university students in Normal University?
2. As for the learning status, what are the reasons causing the learning burnout of university students in Normal University?
3. How to put forward the countermeasures of this phenomenon?

3 Research methodology

3.1 Research participants

The study takes 400 students of different majors, different grades and different genders

from three normal colleges and universities in Southwest China as subjects. A total of 400 questionnaires were distributed and 400 questionnaires were returned, of which 395 were valid questionnaires, and the effective rate of the questionnaires was 98.75%.

Table 1. The fundamental statistics of participants.

| | Gender | | Major | | Grades | | | |
|-----------------------|--------|--------|-------|---------|----------|-----------|--------|--------|
| | Male | Female | Arts | Science | Freshman | Sophomore | Junior | Senior |
| No. | 146 | 249 | 189 | 206 | 101 | 99 | 95 | 100 |
| Proportion (%) | 37.0 | 63.0 | 47.8 | 52.2 | 25.6 | 25.1 | 24.1 | 25.3 |

3.2 Questionnaire design

The questionnaire consists of three parts, namely personal basic information part, study burnout status investigation part, study burnout cause investigation part. Basic personal information section: The basic personal information section mainly investigates the basic information of students, including their gender, grade, major, academic performance, etc. Study burnout status survey part: The study burnout status survey draws on the questionnaire compiled by Lian Rong et al. It consists of three dimensions, namely depression, misbehaviour and low sense of achievement. Study burnout cause investigation part: The study burnout cause investigation is composed of six dimensions, namely professional factor, self-factor, peer factor, family factor, school factor and social factor.

3.3 Research measurement

The study used IBM SPSS Statistics 22.0 software for statistical analysis of the returned questionnaires. The analysis shows that the internal consistency coefficient of the college students' study burnout questionnaire is 0.83. The internal consistency coefficients (Alpha) for the three dimensions were 0.91, 0.87, and 0.86, respectively.

4 Results

4.1 Learning status of university students

After statistical analysis from table 2, it is found that the average learning burnout is 3.05 and the variance is 0.51. In the overall score of learning burnout, the highest is 4.95 and the lowest is 1.14. People with scores in the range of [3.00-4.00] are considered burnout, and the score is in the range of [4.00- People in the 5.00] range considered severe burnout. The result shows that the overall score of learning burnout is in the range of [3.00-5.00], accounting for 55.95% of the total number of people. The three variables of depression, misbehaviour and low sense of achievement are counted, and it is found that the scores of these three variables are concentrated in [3.00-5.00]. Inappropriate, the proportions are 65.57%, 65.32%, and 54.94%.

At the same time, the above-mentioned manifestations of college students' learning burnout are analyzed in terms of gender, grade, major and other categories, and the results are as follows:

4.1.1 Gender differences in learning burnout

Grouping by gender, t-test analysis of learning burnout shows that there are significant gender differences in the three dimensions, which is consistent with Roger's findings [8]. At

the same time, the level of depression, misbehaviour and study burnout of girls is significantly higher than that of boys. In low achievement, there is no significant gender difference.

Table 2. Learning burnout and factors variables.

| | Learning Burnout | | Depression | | Misbehavior | | Low sense of achievement | |
|-------------|------------------|----------|------------|----------|-------------|----------|--------------------------|---------|
| | No. | Pro. (%) | No. | Pro. (%) | No. | Prop (%) | No. | Pro (%) |
| [1.00-2.00) | 13 | 3.29 | 32 | 8.10 | 26 | 6.58 | 22 | 5.57 |
| [2.00-3.00) | 161 | 40.76 | 105 | 26.58 | 152 | 38.48 | 114 | 28.86 |
| [3.00-4.00) | 199 | 50.38 | 194 | 49.11 | 191 | 48.35 | 217 | 54.94 |
| [4.00-5.00) | 22 | 5.57 | 64 | 16.20 | 26 | 6.58 | 42 | 10.63 |

Table 3. Gender difference on learning burnout.

| Gender | Male | | Female | | T |
|--------------------------|------|------|--------|------|---------|
| | M | SD | M | SD | |
| Learning Burnout | 2.97 | 0.64 | 3.09 | 0.53 | -2.02** |
| Depression | 2.97 | 0.99 | 3.23 | 0.81 | -2.68** |
| Misbehavior | 2.85 | 0.76 | 2.96 | 0.68 | -1.40* |
| Low sense of achievement | 3.07 | 0.79 | 3.03 | 0.66 | 0.63 |

Notes: *p<0.1, **p<0.05, ***p<0.01

4.1.2 Grades and Learning burnout

Grouping the grades into groups, and conducting variance analysis on learning burnout, depression, misbehaviour, and low sense of achievement, the results show that there is a significant grade difference in learning burnout ($P<.05$), which is consistent with Cao's research conclusion[2]. Statistics show that: the level of learning burnout, low mood, and misbehaviour of freshman students are higher than those of sophomore and senior year; there are no significant differences in study burnout, low mood, misbehavior, and low achievement.

Table 4. Grades and learning burnout.

| Grades | Freshmen | | Sophomore | | Junior | | Senior | | F |
|--------------------------|----------|------|-----------|------|--------|------|--------|------|--------|
| | M | SD | M | SD | M | SD | M | SD | |
| Learning Burnout | 3.24 | 0.65 | 2.96 | 0.58 | 2.90 | 0.57 | 3.05 | 0.40 | 7.05** |
| Depression | 3.48 | 0.87 | 3.05 | 0.91 | 2.83 | 0.94 | 3.15 | 0.71 | 9.83** |
| Misbehavior | 3.08 | 0.75 | 2.84 | 0.74 | 2.88 | 0.72 | 2.86 | 0.60 | 2.44** |
| Low sense of achievement | 3.09 | 0.61 | 2.98 | 0.70 | 3.01 | 0.77 | 3.09 | 0.75 | 0.64** |

Notes: *p<0.1, **p<0.05, ***p<0.01

4.1.3 Majors and learning burnout

According to the majors, participants are divided into different groups, and the t-test analysis on learning burnout, low mood, inappropriate behavior, and low sense of achievement was conducted. The analysis shows that there are obvious differences in subject backgrounds for learning burnout, which is consistent with Yang Hongjun's

research conclusion [7]. There was no significant difference between the two in misconduct and low sense of achievement.

Table 5. Majors and learning burnout.

| Majors | Arts | | Science | | T |
|--------------------------|------|------|---------|------|---------|
| | M | SD | M | SD | |
| Learning Burnout | 2.92 | 0.50 | 3.04 | 0.56 | -2.13** |
| Depression | 2.75 | 0.79 | 2.98 | 0.96 | -2.60** |
| Misbehavior | 3.06 | 0.66 | 3.10 | 0.75 | -0.58 |
| Low sense of achievement | 2.93 | 0.65 | 2.98 | 0.76 | -0.80 |

Notes: *p<0.1, **p<0.05, ***p<0.01

4.2 Causes of learning burnout

The table 6 shows that the self-factor had an average score of 2.25. By analysing the topics of their own factors, it can be found that some students think that their own self-nature is poor and their concentration is not enough, which leads to their failure to implement their learning plans. Analysis of self-factors, learning burnout and various dimensions, the results show that there is a significant positive correlation between self-factors and learning burnout (0.58), depression (0.59), and misbehaviour (0.52).

Table 6. The correlation between learning burnout and own factor.

| | M | SD | Own factor | Learning burnout | Depression | Misbehavior | Low sense of achievement |
|--------------------------|------|------|------------|------------------|------------|-------------|--------------------------|
| Own factor | 2.25 | 0.72 | 1.00 | | | | |
| Learning burnout | 2.98 | 0.53 | 0.58*** | 1 | | | |
| Depression | 2.87 | 0.89 | 0.59*** | 0.84*** | 1 | | |
| Misbehavior | 3.08 | 0.71 | 0.52*** | 0.81*** | 0.56*** | 1 | |
| Low sense of achievement | 2.96 | 0.71 | 0.08 | 0.49*** | 0.03 | 0.28*** | 1 |

Notes: *p<0.1, **p<0.05, ***p<0.01

In the table 7, the average score for the family factor was 2.00. Statistical analysis of the topics related to family factors shows that whether family members can help students' learning affects students' attitudes towards learning to a large extent. Analysis of family factors, study burnout and various dimensions, the results show that family factors are significantly and positively correlated with study burnout (0.24), depression (0.41), misbehaviour (0.16), and a low sense of achievement (-0.22) which have significant negative correlation among them.

Table7. The Correlation Between Learning Burnout and Family Factor.

| | M | SD | Family factor | Learning burnout | Depression | Misbehavior | Low sense of achievement |
|--------------------------|------|------|---------------|------------------|------------|-------------|--------------------------|
| Family factor | 2.0 | 0.91 | 1.00 | | | | |
| Learning burnout | 2.98 | 0.53 | 0.24*** | 1 | | | |
| Depression | 2.87 | 0.89 | 0.41*** | 0.84*** | 1 | | |
| Misbehavior | 3.08 | 0.71 | 0.16*** | 0.81*** | 0.56*** | 1 | |
| Low sense of achievement | 2.96 | 0.71 | -0.22*** | 0.49*** | 0.03 | 0.28*** | 1 |

Notes: *p<0.1, **p<0.05, ***p<0.01

Based on table 8, the school factor had an average score of 1.80. Statistical analysis of school-related topics shows that teachers' boring lectures and lack of resources provided by schools are the main factors that affect students' learning burnout. Analysis of school factors, learning burnout and various dimensions, the results show that school factors are significantly positively correlated with learning burnout (0.26), low mood (0.40), misbehaviour (0.17), and significantly with low sense of achievement (-0.13). Sex is negatively correlated.

Table 8. The correlation between learning burnout and school factor.

| | M | SD | School factor | Learning burnout | Depression | Misbehavior | Low sense of achievement |
|--------------------------|------|------|---------------|------------------|------------|-------------|--------------------------|
| School factor | 1.80 | 0.78 | 1.00 | | | | |
| Learning burnout | 2.98 | 0.53 | 0.26*** | 1 | | | |
| Depression | 2.87 | 0.89 | 0.40*** | 0.84*** | 1 | | |
| Misbehavior | 3.08 | 0.71 | 0.17*** | 0.81*** | 0.56*** | 1 | |
| Low sense of achievement | 2.96 | 0.71 | -0.13*** | 0.49*** | 0.03 | 0.28*** | 1 |

Notes: *p<0.1, **p<0.05, ***p<0.01

5 Countermeasures of university students' learning burnout

To solve the issues of college students' learning burnout, it is necessary not only to fully mobilize students' own consciousness and initiative, but also to take students as the centre, and to build an education mechanism for all-round cooperation between schools, students, families, and society. You can start from the following aspects.

5.1 Motivation of students

For starts, correct learning motivation and make career plans. College students are the main force of social reform, innovation and development, shouldering a sacred mission. They need to clarify their own learning motivations and make career plans based on their understanding of the value of knowledge, their own abilities, and their direct interest in learning. Secondly, make and complete a study plan and learn to self-reflect. Due to the impact of the new crown epidemic on the normal opening and classroom teaching of colleges and universities, under the guidance of the "Guiding Opinions" of the Ministry of Education, colleges and universities have carried out online teaching in order to strengthen epidemic prevention and control. During this period, colleges and universities have also vigorously explored online and offline hybrid teaching. The development of online teaching has put forward higher requirements for the autonomy and self-discipline of students' learning. Students are required to learn self-regulation. When making a study plan, they must consider the feasibility of the plan and whether it can be completed with quality and quantity.

5.2 School education

For one thing, reasonably guide community activities and standardize classroom discipline. Club activities are an essential part of students' practice. However, too many club activities occupy part of the learning resources, such as occupying the study room and taking up students' study time. Therefore, schools should reasonably guide students to participate in club activities. At the same time, college students have the ability of self-management, but their determination to refuse temptation is not strong, especially during the class period, there are many "head-downers", which requires teachers to standardize classroom

management, make "strict management" [1], and help students Resist temptation. For the other thing, improve teaching methods and improve the quality of undergraduate teaching. In traditional classroom teaching, teachers mainly teach, the teaching content is updated slowly, students' participation is low, and they feel bored and bored during learning, which can easily lead to learning burnout. With the advent of the information age characterized by the Internet, cloud computing, artificial intelligence, big data, and 5G, learning methods will become more flexible and diverse, which requires teachers to master the use of multimedia and other modern information technologies in education and teaching.

5.3 Family education

In order to enhance the awareness of educational responsibility, family gives full play to the supervisory role. Sending students to the university does not mean that the educational task has been completed. Parents should make full use of letters, telephones, Internet and other methods to actively contact students and teachers to grasp the psychological dynamics of students and give timely guidance. Second, it is vital to create a good family atmosphere and provide help. Many parents think that they can't help students' learning due to cultural level and geographical restrictions. In fact, it is not the case. Students' study habits, learning concepts, and learning attitudes will be affected by the family. Therefore, families need to create a good atmosphere and provide timely help to motivate students to learn. Third, build a reasonable expectation. Parents' expectations affect students' attitudes toward learning. When parents make demands on students, they must be realistic and put forward reasonable expectations according to students' own conditions and characteristics. It must not be too high. This will seriously affect students' trust in parents. Fourth, conduct proper frustration education. In contemporary society, some parents take care of their children too carefully and spoil them too much. Over time, some children have become "flowers in the greenhouse". They lack self-control and psychological endurance. They are easy to give up when encountering difficulties. They lack experience and ability to face setbacks and blows, and are prone to extremes. Therefore, parents should not only care about their children's scientific knowledge education, but also care about their children's mental health, physical fitness and other aspects of frustration education.

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