# Research on the Intervention of Self Efficacy in Ideological and Political Education for Learning Vulnerable Groups

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**Abstract:** This study aims to deeply explore the intervention effect of self-efficacy on the ideological and political education of disadvantaged groups. Through theoretical analysis and literature review, firstly, the concept of disadvantaged groups in learning is systematically sorted out, and their characteristics and challenges are comprehensively analyzed. Subsequently, it focused on the concept, formation mechanism and current research status of self-efficacy in the field of education, revealing the influencing factors of self-efficacy on this group's ideological and political education. Finally, this article provides inspiration and strategies for the practice of ideological and political education to help educators.

# 1. Introduction

Students from disadvantaged learning groups refer to those who have learning difficulties or poor academic performance compared to their peers in school education[1]. This group may be influenced by various factors such as family background, economic conditions, and social environment, leading to a series of challenges in their learning, such as difficulty in understanding subjects, low learning motivation, and inappropriate learning methods[2]. For the disadvantaged group in college, due to their disadvantaged position, they may exhibit abnormal personality traits such as inferiority, isolation, anxiety, indifference, and even hostility[3]. At the same time, they may form distorted worldviews, outlooks on life, and values, which seriously affect their normal learning, life, and interpersonal communication. Ideological and political education is an important way to cultivate students' socialist core values, patriotism, and correct political direction. While cultivating students' comprehensive development, ideological and political education plays an important role in shaping their correct worldview, values, and outlook on life[4]. Therefore, effective ideological and political education measures are urgently needed for disadvantaged groups in university learning to help them overcome negative emotions, improve self-efficacy, enhance self-confidence, establish lofty ideals, and ultimately realize their personal life value. Self efficacy is a crucial concept that reflects an individual's confidence and belief in their own abilities, and is a self-evaluation of whether they can complete specific tasks. In the field of education, self-efficacy has a profound impact on students' learning motivation, academic achievement, and emotional regulation[5-6]. By improving self-efficacy, students are more likely to actively face various challenges in learning. Therefore, educators should stimulate the self-efficacy of students from disadvantaged groups through targeted ideological and political education, so that they have more confidence and courage to face academic pressure, and guide them to establish a positive outlook on life and values, thereby promoting their better integration into school and life. This series of efforts will help cultivate a positive mindset among students from disadvantaged groups, thereby promoting their personal potential and life goals[7].

This study aims to explore the potential impact of self-efficacy intervention measures on the ideological and political education of disadvantaged groups in learning. Through systematic empirical research, this study will examine whether self-efficacy intervention can significantly improve the ideological and political literacy level of learning disadvantaged groups, providing strong support for future practice. The aim of this study is to provide theoretical and practical support for schools, governments, and relevant decision-making institutions to develop more

effective intervention strategies for ideological and political education. By deeply understanding the impact mechanism of self-efficacy on learning disadvantaged groups, this study can provide a basis for formulating personalized and differentiated education policies, and better promote the development of ideological and political literacy among learning disadvantaged groups.

## 2. Related Words

Students from disadvantaged groups in learning are a highly concerned group in school education, and they have many performance and challenges in learning. This group often exhibits relatively low levels of subject knowledge and may face challenges in classroom learning, including difficulties in understanding concepts, memory abilities, and other aspects. Students from disadvantaged groups may receive negative evaluations from peers and society, and this social psychological pressure may affect their learning motivation and self-awareness. Learning disadvantaged groups may face a series of problems in the education system, including unfair evaluation systems, inappropriate educational policies, etc., leading to their difficulties in the education system. Ideological and political education plays an important role in Chinese education, with the goal of cultivating students' socialist core values, patriotic spirit, and correct political direction. Self efficacy, as a key concept in the field of educational psychology, has received widespread attention in recent years. Wang L [8] pointed out that there is a significant positive correlation between cognitive participation and self-efficacy among students. This indicates that the cognitive participation level of students in ideological and political theory courses is influenced by their confidence in their own abilities and self-efficacy. Students are more likely to actively participate in the learning process and increase their cognitive participation in the curriculum when they have a sense of self-efficacy. The article mentions that students' self-efficacy ultimately affects academic achievement and happiness by influencing cognitive participation. Lera M J [9] explored the impact of self-efficacy on academic achievement and well-being of students from both individual and collective perspectives. At the individual level, students' perception of educational practice is related to their self-efficacy, which in turn is related to academic achievement and well-being. At the collective level, educational practice mainly affects student well-being through self-efficacy, which is related to the overall academic achievement of the class. Effective educational practices are related to the mental health of students, and this correlation is mainly achieved through their self-efficacy.

There are some noteworthy shortcomings and highlights in previous research. In terms of learning from disadvantaged groups, some studies overly emphasize the overall characteristics of the group and lack in-depth consideration of individual differences [10]. Some studies focus on subject learning [11-14], with relatively less attention paid to ideological and political education. In addition, the impact mechanism of social support on learning disadvantaged groups needs more in-depth research. However, some studies have also provided important insights for this study, particularly emphasizing the positive impact of personalized educational interventions on learning disadvantaged groups and the positive role of society in cultivating self-efficacy [15]. These insights provide useful experience and reference for future research.

# 3. Methods

#### **3.1 Control experiment method**

The control experiment method is a scientific research design that experimentally proves causal relationships [16]. In this experimental design, researchers evaluate the impact of a certain variable or treatment on the research results by comparing the experimental group with the control group. The control experiment method aims to eliminate other possible explanations and more accurately determine causal relationships. A control experiment includes an experimental group receiving treatment or intervention and an untreated control group. These two groups should maintain similarity in other factors that may affect the research results to ensure that the observed effects can

be attributed to treatment or intervention. In order to ensure similarity between the experimental group and the control group, researchers usually use a random allocation method to randomly assign research subjects to the two groups [17]. This helps to control for potential confounding variables, so that the two groups have similar characteristics at the beginning of the experiment. There will be an independent variable and a dependent variable in the experiment. Independent variables are variables that researchers can manipulate or introduce during experiments, while dependent variables are variables that researchers observe and may be influenced by independent variables. In controlled experiments, both researchers and participants may not know whether they belong to the experimental group or the control group, in order to eliminate subjective bias and expected effects [18].

## **3.2 Participant Selection and Process**

Firstly, identify the disadvantaged groups in learning through indicators such as academic performance and difficulty in understanding the subject. This can include students whose grades are below the class average, who have received subject tutoring or other supportive learning. After obtaining the consent of the school and the parents of the students, we recruit students from disadvantaged groups in the target school to participate in the experiment. We ensure that participants understand the purpose of the experiment and sign a consent form.

## **3.3 Experimental Design**

Randomly divide the learning disadvantaged group into two groups: the self-efficacy experimental group and the control group. The self-efficacy intervention group will receive specific educational and teaching methods to promote self-efficacy improvement, while the control group will maintain normal education, maintain normal teaching arrangements in the school, and not provide additional self-efficacy intervention.. The specific intervention measures of the experimental group include providing personalized subject guidance, guiding students to set feasible learning goals, and strengthening students' self-efficacy through regular feedback and reward mechanisms. This study selected two groups of learning disadvantaged students who met the requirements, with a control group of 34 students and an experimental group of 36 students.

#### 3.4 Data Analysis

Employing statistical methods such as T-test, we compare the differences in ideological and political literacy between the self-efficacy intervention group and the control group, and we examine the influence of individual differences.

#### 4. Results and Discussion

# 4.1 Pre experimental testing

To ensure comparability between the experimental group and the control group prior to the commencement of the experiment, we conducted an independent sample t-test to assess the average questionnaire scores of both groups. The results, as depicted in Table 1, include the mean, standard deviation, and t-value of the mean difference in predicted scores across various variables for the two groups. The obtained t-value suggests a high degree of homogeneity between the initial characteristics of the two groups in the experiment. In simpler terms, the properties of the samples were nearly identical before the experiment in both the experimental and control groups. Refer to Table 1 for the detailed statistical analysis data, where numerical representations are used for gender (1 for male, 5 for female), and a scale of 1 to 5 is employed for ideological and political literacy, with 5 being the highest score. For other variables, the scale from 1 to 5 denotes the level of depth.

|  | Test<br>group | Sample<br>quantity | Average | Mean standard<br>error | T-value | P-value |
|--|---------------|--------------------|---------|------------------------|---------|---------|
| Gender                                   | 1             | 34                 | 2.88    | .348                   | 242     | .405    |
|  | 2             | 36                 | 3.00    | .338                   | 243     |         |
| Age                                      | 1             | 34                 | 20      | .353                   | .298    | .304    |
|  | 2             | 36                 | 20      | .442                   | .298    |         |
| Score of                                 | 1             | 34                 | 54      | .204                   |         | .263    |
| ideological<br>and political<br>literacy | 2             | 36                 | 55      | .254                   | -1.18   |         |
| Learning                                 | 1             | 34                 | 3.58    | .252                   | -1.04   | .304    |
| attitude                                 | 2             | 36                 | 3.68    | .245                   | -1.04   |         |
| Knowledge                                | 1             | 34                 | 2.47    | .302                   | -1.21   | .235    |
| and Strategy                             | 2             | 36                 | 2.36    | .342                   | -1.21   |         |
| Self-efficacy                            | 1             | 34                 | 2.27    | .444                   | -1.01   | .318    |
|  | 2             | 36                 | 2.39    | .302                   | -1.01   |         |

Table 1 Pretest score differences - means, deviations, t-values comparison

## 4.2 Post test

Table 2 shows the average, standard deviation, and t-values of the predicted scores for two sets of variables. After the experiment, the test results of self-efficacy and ideological and political literacy scores of the experimental group and the control group are shown in Table 2. The score of the experimental group increased from 55 before the experiment to 75, while the score of the control group changed from 55 before the experiment to 60. Considering that students' scores will indeed improve with the progress of the course, the data of this experiment is valid. After the experiment, the scores of the experimental group were almost the same as those of the control group before the experiment, and they were 15 points ahead. Therefore, it can be said that the experimental group showed a significant improvement in self-efficacy compared to the control group, and there was also a significant improvement in the score of ideological and political literacy. The significant improvement indicates that the self-efficacy intervention received by the experimental group has a positive impact on ideological and political literacy. The control group did not receive the same self-efficacy intervention, so their ideological and political literacy scores did not significantly improve. This further supports the effectiveness of educational interventions. The results may indicate that the improvement of self-efficacy can enhance the ideological and political literacy of students from disadvantaged groups in learning. These findings have practical significance for educational decision-makers, educators, and researchers. The educational institution or the research team should provide successful experiences in educational strategies or curriculum design, and offer direction for further research.

Considering that the experimental group had a significant average standard error in the scores of ideological and political literacy after the experiment, it is speculated that individual differences may play an important role in the effectiveness of self-efficacy intervention.

Table 2 Means, standard deviations and t-values for mean differences between the two groups on pretest scores of variables.

|   | Test<br>group | Sample quantity | Average | Mean<br>standard<br>error | T-value | P-value |
|---|---------------|-----------------|---------|---------------------------|---------|---------|
| Score of<br>ideological and<br>political literacy | 1             | 34              | 60      | .215                      | 1.2.1   | .000    |
|   | 2             | 36              | 75      | .773                      | -4.24   |         |
| Efficacy  | 1             | 34              | 2.36    | .321                      | -3.74   | .001    |
|   | 2             | 36              | 3.56    | .331                      | -3./4   | .001    |

#### 4.3 Statistics and analysis of individual differences in the experimental group

Table 3 shows the statistical analysis of individual differences in the experimental group. It can be seen that the different sub factors of gender (t=. 457, p=. 001), cognitive style (t=. 402, p=. 000), learning attitude and interest (t=. 398, p=. 001), and social support (t=. 388, p=. 000) will affect the role of self-efficacy in improving ideological and political literacy. Among them, women, learning disadvantaged groups with cognitive style scores>80, learning attitude and interest scores>80, and social support scores>70 showed more significant improvement in ideological and political literacy after improving their self-efficacy.

| Related factors   | Category  | Ideology and<br>Politics | Improving scores in ideological and<br>political literacy<br>Correlation analysis between them |         |  |
|-------------------|-----------|--------------------------|--|---------|--|
|                   | C .       | Average                  |  |         |  |
|                   |           | score                    | T-value  | P-value |  |
| Gender            | Male      | 70                       | .457   | .001    |  |
|                   | Female    | 80                       | .437   |         |  |
| Cognitive Style   | Score>80  | 88                       | .402   | .000    |  |
|                   | Score <80 | 62                       | .402   |         |  |
| Learning attitude | Score >80 | 79                       | .398   | 001     |  |
| and interest      | Score <80 | 71                       | .398   | .001    |  |
| Social support    | Score >70 | 78                       | .388   | .000    |  |
|                   | Score <70 | 72                       | .300   | .000    |  |

Table 3 Statistics of individual difference factors in the experimental group

#### 5. Conclusion

In the intervention study of self-efficacy in the ideological and political education of learning disadvantaged groups, empirical analysis results show that through the improvement of self-efficacy intervention, the level of ideological and political literacy of learning disadvantaged groups is significantly improved. The intervention group showed higher understanding of core values, stronger identification with patriotism, and more positive ideological and political beliefs compared to the control group. This discovery provides empirical support for the positive role of self-efficacy in ideological and political education.

The research results provide useful insights for the practice of ideological and political education. Firstly, educators can enhance their motivation and active participation in the study of ideological and political subjects by intervening in self-efficacy targeting disadvantaged groups in learning. Secondly, personalized support and incentive measures can help enhance students' self-efficacy, thereby shaping positive ideological and political beliefs. This provides innovative strategies for educational practice, making ideological and political education more in line with the needs of students and more conducive to the cultivation of their comprehensive literacy.

Although this study has made some significant findings, there are still some limitations. Firstly, the research sample may be limited by factors such as geography and culture, and future research may consider expanding the sample scope to improve the external effectiveness of the study. Secondly, individual differences in the research process may not have been fully considered, and future research can explore these factors in more detail. Finally, the limitations in experimental design also require further improvement to enhance the internal effectiveness of the study.

#### References

[1] Drane C F, Vernon L, O'Shea S. Vulnerable learners in the age of COVID-19: A scoping review[J]. The Australian Educational Researcher, 2021, 48(4): 585-604.

[2] Chen H, Zhang Y. Exploration of the Value of Current Ideological and Political Education in the Context of Great Ideological and Political Views[J]. Adult and Higher Education, 2023, 5(18): 74-79.

[3] Eliyana A, Sridadi A R, Widiyana E U. The Role of Self-Efficacy On Self-Esteem and Entrepreneurs Achievement[J]. Systematic Reviews in Pharmacy, 2020, 11(8).

[4] Catalano A J, Torff B, Anderson K S. Transitioning to online learning during the COVID-19 pandemic: Differences in access and participation among students in disadvantaged school districts[J]. The International Journal of Information and Learning Technology, 2021, 38(2): 258-270.

[5] Van de Werfhorst H G, Heath A. Selectivity of migration and the educational disadvantages of second-generation immigrants in ten host societies[J]. European Journal of Population, 2019, 35(2): 347-378.

[6] Ainscow M. Promoting inclusion and equity in education: lessons from international experiences[J]. Nordic Journal of Studies in Educational Policy, 2020, 6(1): 7-16.

[7] Li M. A Data Mining-Based Method for Quality Assessment of Ideological and Political Education in Universities[J]. Mobile Information Systems, 2022.

[8] Wang L. A Data-Driven Optimization Model of Important Multidimensional Factors Affecting College Students' Cognitive Engagement in Ideological and Political Theory Course[J]. Scientific Programming, 2021, 2021: 1-12.

[9] Lera M J, Leon-Perez J M, Ruiz-Zorrilla P. Effective educational practices and students' well-being: the mediating role of students' self-efficacy[J]. Current Psychology, 2023, 42(26): 22137-22147.

[10] Orlov G, McKee D, Berry J, et al. Learning during the COVID-19 pandemic: It is not who you teach, but how you teach[J]. Economics Letters, 2021, 202: 109812.

[11] Ozkal N. Relationships between self-efficacy beliefs, engagement and academic performance in math lessons[J]. Cypriot Journal of Educational Sciences, 2019, 14(2): 190-200.

[12] Truong T N N, Wang C. Understanding Vietnamese college students' self-efficacy beliefs in learning English as a foreign language[J]. System, 2019, 84: 123-132.

[13] Thompson G, Aizawa I, Curle S, et al. Exploring the role of self-efficacy beliefs and learner success in English medium instruction[J]. International Journal of Bilingual Education and Bilingualism, 2022, 25(1): 196-209.

[14] Beatson N J, Berg D A G, Smith J K. The influence of self-efficacy beliefs and prior learning on performance[J]. Accounting & Finance, 2020, 60(2): 1271-1294.

[15] Walkington C, Bernacki M L. Appraising research on personalized learning: Definitions, theoretical alignment, advancements, and future directions[J]. Journal of research on technology in education, 2020, 52(3): 235-252.

[16] Gianicolo E A L, Eichler M, Muensterer O, et al. Methods for evaluating causality in observational studies: Part 27 of a series on evaluation of scientific publications[J]. Deutsches Ärzteblatt International, 2020, 117(7): 101.

[17] Viglia G, Zaefarian G, Ulqinaku A. How to design good experiments in marketing: Types, examples, and methods[J]. Industrial Marketing Management, 2021, 98: 193-206.

[18] Rühs F, Greve W, Kappes C. Inducing and blocking the goal to belong in an experimental setting: Goal disengagement research using Cyberball[J]. Motivation and Emotion, 2022, 46(6): 806-824.