

# Research on the Current Situation and Strategy of Take-out Garbage Disposal in College Campuses under the Concept of Green Development

-- Taking Bengbu City as an Example

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**Abstract:** With the development of the Internet, take-out ordering has become the first choice for more and more college students, but the current take-out garbage mixed with domestic garbage greatly hinders the green disposal of garbage. As a gathering place for cultivating talents, colleges and universities should become the forerunners in the reasonable disposal of take-out garbage. Through questionnaires, on-the-spot investigations, etc., this project conducts in-depth research on the reasons why college students order takeaways, how to deal with take-out garbage, and the problems existing in the classification of take-out garbage in colleges and universities, and puts forward sustainable and green improvement suggestions in order to change the current situation of take-out garbage disposal on campus reduces the burden of urban garbage disposal and provides a new way for major universities to deal with take-out garbage.

**Keywords:** Green development concept, College students, Take-out garbage, Strategy, Advice.

## 1. Introduction

With the rapid development of the Internet, its integration with the catering industry brings efficient and convenient services to people. The number of people placing orders for online takeout has increased dramatically, and the resulting take-out garbage has greatly increased the difficulty of garbage sorting. At present, most of the take-away waste in China is mixed with domestic waste and disposed of by landfill and incineration, without special treatment methods. The "white pollution" caused by take-away garbage is increasingly aggravated, and the phenomenon of take-out garbage "besieging the city" is also becoming more and more serious. Take Japan as an example. Japan has a very systematic project for garbage collection and is meticulous in garbage disposal. Classify garbage into burnable garbage, non-burnable garbage, plastic containers and packaging, bottles, cans, plastic bottles, waste paper, hazardous garbage, large garbage, etc. (there are meticulous garbage sorting boxes everywhere in the city). The garbage generated after ordering takeout can be matched to the above garbage sorting boxes one by one, and there are more perfect and advanced treatment and disposal measures.

Takeout waste mainly includes packaging, plastic bags, disposable chopsticks and leftover food. Under the concept of green development, the most controversial issue is the classification and treatment of take-out garbage. College students are the main group of online takeout orders. Facing the concentration of takeout groups in colleges and universities, how to correctly conduct garbage classification and train college students to form good habits of garbage classification awareness in the new era have become the key to effectively carry out garbage classification.

## 2. Descriptive Statistical Analysis of Questionnaire Data of College Students

The survey object is mainly for most colleges and universities in Bengbu City, including Anhui University of Finance and Economics, Bengbu College, Bengbu Medical College, Anhui Electronic Information Vocational and Technical College and other college students. The survey method mainly used online questionnaires. A total of 1,853 questionnaires were collected, 1,790 valid questionnaires were obtained, and the effective rate of the questionnaire was 96.6%.

### 2.1. Reasons for College Students to Order Takeout

Through on-the-spot research and interviews, college students order takeaways for the following reasons:

1. There are a lot of people in the cafeteria after class, and people are reluctant to line up, but ordering takeaway can save time, and it is very convenient to eat;
2. Like Meituan and Ele.me, there are often a lot of coupons;
3. Takeaways have abundant dishes, while canteen dishes have less variety and lack of attraction;
4. Strong inertia, do not want to walk more, takeaways can be placed directly under the dormitory or near the school gate.

### 2.2. The Use of Food Delivery By College Students

According to the statistics of the survey results, 72.34% of college students order takeout 1-3 times a week, 20.45% 4-7 times, and 7.21% more than 7 times. In addition, the team found through field research at Anhui University of Finance and Economics that the school's daily takeout volume is almost 1,000+, and each takeaway has an average of 2-3 packaging boxes, 1 pair of chopsticks and 1 plastic bag and

other take-out garbage.

### 2.3. Disposal of Leftover Food Taken Out By College Students

Most of the students' meals are in the dormitory. According to the analysis of the survey results, only 7.14% of the students sort and handle the packaged and leftover food after each meal, and 68.87% never handle it. Obviously, college students lack the awareness of take-out garbage classification and good behavior habits, which eventually leads to the mixing of take-out garbage and domestic garbage, and the treatment is not thorough enough.

Statistical analysis was conducted for all the take-out garbage disposal methods after meals. The vast majority of people (62.79%) chose to throw the remaining food into the garbage bin together with the packaging box, and a small number of people (20.17%) chose to throw it into the same packaging box. In the toilet, some people (10.62%) choose to throw the packaging box separately from the leftover food, which fully shows that college students are inappropriate for take-out garbage disposal methods (in Table 1).

**Table 1.** Disposal methods of take-out garbage for college students

Options	Frequency	Percentage
Throw leftover food directly into the trash with the box	1124	62.79
Throw it in the toilet with the box	361	20.17
Throw it away from the box	190	10.62
Other	115	6.42

### 2.4. College Students' Understanding of The Knowledge of Take-out Garbage Classification

According to the statistical results of the questionnaire, 22.46% have no knowledge of garbage classification at all, 50.14% know some, 20.32% know all about it, and only 7.08% know everything. It shows that most of the students have some understanding of garbage classification knowledge, but they have not accepted the deeper knowledge popularization of the country (in Table 2).

**Table 2.** University students' understanding of the knowledge of take-out garbage classification

Options	Frequency	Percentage
don't understand	402	22.46
know a little	898	50.17
probably know	364	20.33
all know	126	7.04

### 2.5. College Students' Perception of The Impact of Chinese Take-out Garbage on The Environment

According to the statistical results of the questionnaire data, 55.67% of the students believed that the take-out garbage was difficult to degrade, 28.44% of the students thought that the degradation of the take-out garbage was average, and 15.89% of the students believed that the take-out garbage was easier to degrade. It can be seen from this that college students are still aware of the difficulty of degrading take-out garbage, and it is not difficult to see the difficult nature of take-out garbage.

According to statistics, 86.75% of the students believed that the take-out garbage had an impact on air quality, 65.32%

of the students believed that the take-out garbage would pollute the water, and 58.86% of the students believed that the take-out garbage would pollute the soil.

It can be seen that most of the students have a good understanding of the air pollution caused by take-out garbage, the pollution of nearby water sources and soil, and the impact on personal vision, smell, taste and physical and mental health, but they have not taken Century action. Many students still only enjoy the convenience of food delivery, but ignore the concept of green and ecological development, and do not have a clear understanding of issues such as energy conservation and environmental protection, energy conservation and emission reduction, low-carbon actions, and plastic restrictions.

## 3. Problems Existing in the Classification of Take-out Garbage in Colleges and Universities

### 3.1. College Students Lack Awareness of Garbage Classification

When colleges and universities carry out the knowledge of garbage classification, most of the students still passively accept the teaching of knowledge, and it is difficult to actively learn the knowledge of garbage classification. Some students gradually formed the awareness of actively carrying out garbage classification, but they did not know how to classify them. In addition, campus cleaning staff are not familiar enough with garbage classification standards, especially when it comes to sorting take-out garbage.

### 3.2. The Waste Classification Work in Colleges and Universities Is Not Perfect

It is understood that most colleges and universities in Bengbu have also implemented relevant systems to restrain teachers and students. However, the school does not currently combine garbage classification with students' extracurricular activity credits. Students who do not classify take-out garbage are only verbally educated. Many students still disagree with the classification of take-out garbage, thinking that the cleaning staff will do the classification, and they can Randomly pack and throw away. There are very few students who put garbage in strict accordance with the standards of garbage classification. Such good behaviors have not been rewarded accordingly, which has seriously frustrated everyone's enthusiasm.

### 3.3. The Campus Garbage Sorting Facilities Are Not Complete

Take Anhui University of Finance and Economics as an example. Under each dormitory building of Anhui University of Finance and Economics, there is a unified large garbage can without garbage classification labels. Almost all garbage indiscriminately will be thrown into the garbage can, including all kinds of garbage. Clothes, plastic bags, dormitory garbage, waste paper, take-out lunch boxes, leftover soup, leftovers, etc., and the smell of garbage is very strong, causing many students to cover their noses or rush over when they pass the dormitory. Greatly affects the air quality and everyone's physical and mental health. Although there are some green garbage bins for recycling waste clothes on campus, they do not play a fundamental role and have little to do with the way take-out garbage is disposed of. Of course,

if we want to create a good campus environment and continue to focus on the concept of green development, we need the joint help of schools and students.

## **4. Suggestions on the Classification and Treatment of Take-out Garbage in Colleges and Universities**

### **4.1. Strengthen the Awareness of College Students to Actively Participate in Garbage Classification**

Today, in the construction of green ecological civilization, after the terms such as "plastic restriction order" and "double carbon" were put forward, everyone's awareness of garbage classification is not strong, and some students feel that it is fussing and meaningless. In the process of educating people in colleges and universities, we should not only pay attention to everyone's academic performance, but also pay attention to the development of good habits and conscious awareness of each student, strengthen and enhance college students' awareness of garbage classification, recognize the importance of garbage classification, and put garbage Correct classification is the duty of every student.

### **4.2. Increase the Use of Degradable Lunch Boxes**

Increase the use of degradable lunch boxes and shared lunch boxes, but these products are not yet qualified to replace disposable plastic lunch boxes, so they must be solved from the perspective of the whole supply chain, that is, takeaway platforms, merchants and consumers in the supply chain. At the same time, increase scientific and technological research and development efforts, vigorously support and encourage research and development of low-cost and more suitable environmentally friendly materials to replace traditional packaging materials.

### **4.3. Reducing the Output of Take-out Garbage**

In order to achieve the sustainability of green ecological civilization, the problem of take-out garbage can be solved from the root. Why has take-out garbage become a constant discussion in recent years? Because people now rely on the convenience of the Internet, compared to eating in offline restaurants, many people choose to order take-out, thus increasing the output of take-out waste. Colleges and universities should call on everyone to reduce the number of take-out orders, and at the same time, they can increase the variety of dishes in the cafeteria and attract students to eat in the cafeteria.

### **4.4. Increase Campus Garbage Sorting Facilities**

Colleges and universities should be equipped with more garbage bins with garbage signs. In addition, colleges and universities can set up garbage bins for take-out garbage under each dormitory building. One side is the remaining soup and rice, and the other side is clean takeaway packaging. This greatly saves the workload of logistics garbage sorting, and the recycled takeaway packaging boxes can be better used for waste utilization.

## **4.5. The Way to Realize "Cash Rebate + Point Exchange"**

According to the survey questionnaire, about half of the students support the cash rebate and point exchange method of recyclable takeaway lunch boxes, but the cost of cash rebate is too high. Therefore, in the early stage of implementation, the cost of this part can be shared by the merchants and the food delivery platform, and the government can improve the support of the merchants and the food delivery platform for recyclable lunch boxes by reducing corporate taxes.

## **5. Conclusion**

To build a moderately prosperous society in an all-round way, the importance of ecological civilization construction is further highlighted. As a development concept vigorously advocated by the state in recent years, "green development" is also what we will vigorously promote in economic and social development in the future. The emergence of take-out is the result of the efficient development of society, but the problem of take-out garbage disposal caused by it also exists objectively. It is not enough to rely on unilateral strength to create "green take-out", but also requires the joint efforts of platforms, businesses and even the whole society. Only when everyone works together and keeps the "green development concept" and "environmental protection concept" in mind, can the take-out garbage in colleges and universities be effectively alleviated, and our living environment can be gradually improved.

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