Construction of Statistics Course Integrated with Marketing Specialty Taking Xi'an Peihua University as an Example

Fang Qin *

Xi'an Peihua university Xi'an city shaanxi Province, China 710000

*corresponding author 8101786@qq.com

Keywords: Marketing Major; Integration; Statistics; Curriculum Construction

Abstract: This article takes the undergraduate majoring in marketing as an example. Starting from the analysis of the current status of statistics teaching, it emphasizes the integration of statistics teaching and marketing majors, and focuses on the practicality of the curriculum. Students 'certification, graduates' career development, etc., will be fully integrated with the marketing major in the construction of a statistical course, in order to achieve the statistical teaching based on the unified requirements of the professional basic courses, with distinctive professional characteristics and focus.

1. Introduction

In the context of the transformation and development of applied undergraduates in our school, statistics began to implement practical curriculum construction in July 2016. Looking at the reform process over the past few years, although teachers have concentrated on the curriculum reform, because of the lack of curriculum and specialty The combination of reforms has had very little effect. As a specialized basic course for each specialty, statistics only has the unified requirements of professional basic courses, does not reflect the integration and application of the specialty of the course, and lacks professional characteristics. This article discusses the curriculum construction from the perspective of the integration of statistics and the specialty.

2. Analysis of Statistics Teaching

2.1. Emphasize Theory and Despise Practice

In the current statistical teaching process, the teaching content is still systematically taught in accordance with the order of the textbook chapters, and there is basically no practice or application of related software. Teachers pay more attention to the interpretation of statistical principles and statistical analysis during the teaching process. For statistical analysis indicators, professors emphasize calculations instead of applications, which are limited to the analysis of topics in textbooks, and there are few practical applications.

This teaching mode that emphasizes theory and calculation has led to a tedious and tedious statistical classroom, students are afraid of studying statistics, and have little knowledge of the application of statistical analysis indicators. Because there is no application, teachers are easy to cover everything when teaching theoretical knowledge, and there is no primary, secondary and Minute points.

There are two reasons for the current status of teaching that emphasizes theory but not practice. One is that teachers have limited ability and lack of relevant work experience. It is not clear how statistical analysis indicators are applied in practice. The other is that they do not have enough practical hours.

2.2. Departure from Your Major Without Major Focus

The teaching of statistics is separate from the major, and lacks the combination with the talent training program of the specialty in which this course is located. For all majors offering this course,

the same teaching goals and requirements are formulated, which do not reflect the characteristics of the specialty in which the course is located, and there is no major focus. I don't know the status and role of the major of the course, and I don't know about the other courses in the specialty of this course. I don't know what skills and methods statistics can provide for subsequent courses.

2.3. Failing to Consider Help for Student Examination and Post Work

In the course of teaching the statistics course, I did not consider the help of this course for the future job work of the students, did not study the job content of the specialty of the course, and the application of statistics in the actual work. I also did not study with this course What are the relevant certificates and how are the exam content related to the content of this course, so there is no way to help students with their certifications and jobs.

3. Construction Basis of Statistics Course Integrated with Marketing Major

3.1. Clarify the Role and Status of the Statistics Course According to the Marketing Professional Talent Training Program

In-depth study of the talent training program of the marketing major, and clarify the positioning and graduation requirements of statistics in the marketing major training, as shown in the following table:

Table 1 Statistics graduation requirements

Graduation requirements	Graduation requirements	Weighting factor
Graduation Requirements 1	Knowledge requirements: master the methods and skills of statistical design, statistical investigation, statistical arrangement, and statistical analysis.	0.1
Graduation Requirements 2	Ability requirements; continuously improve the ability to apply statistics to solve practical problems.	0.1
Graduation Requirements 3	Ability to acquire knowledge and obtain relevant professional skills certificates.	0.1

3.2. Define the Teaching Content of the Curriculum in Accordance with the Needs of Students' Certification and Job Content

The certificate related to the statistics course is a junior statistician.The registration requirements are a bachelor's degree or higher, and there are no professional restrictions. Consistently, statistical practice provides a reference for the practical content of statistical teaching.

After a review of the national occupation code and an investigation of the job content of the company's related posts, it can be seen that the main job of a marketing worker is to continuously develop new customers for the company through market surveys, and to continuously improve the customer satisfaction and retain the old Customers can combine these tasks with teaching statistics.

Through research on the research and post work content, it can form practical content related to statistical knowledge such as market surveys, customer mining, customer satisfaction surveys, etc., and embed it in the teaching of statistics to achieve a combination of practice and professionalism. Study of theory.

3.3. According to the Marketing Professional Course Group, Determine the Help Statistics Can Provide for Subsequent Courses

Statistics is opened in the third semester, and the leading courses required are advanced mathematics and probability theory and mathematical statistics. There are six professional core courses that are opened after statistics, namely, introduction to e-commerce, consumer behavior, market research, and sales. With negotiation, network marketing, and sales management, of these six courses, market research is the most closely related to statistics, followed by network marketing.

The market survey course opens the fifth semester, and the required statistical knowledge and skills are available. Collection methods, market survey plans, questionnaires and measurement methods, sampling surveys, data collation, data analysis, report writing, forecasting; Internet marketing is set up in the sixth semester. The statistical knowledge required is information search, sampling methods, questionnaire surveys The study of these two courses requires statistical knowledge and methods.

In summary, the training objectives of available statistics courses include general goals and professional goals. Common goals include: Goal 1: Master statistics as the basic theory and basic concepts of each specialty; Goal 2: Ability to relate statistics Knowledge, methods, and skills are used in the analysis and understanding of statistical working principles; Objective 3: Can improve self-learning awareness and learning ability; Objective 4: Can improve team collaboration, communication and processing ability. Goals include: Goal 1: Be able to design professional related questionnaires, write survey plans and collect survey data; Goal 2: Be able to use statistical methods to organize data and use Excel software to form statistical charts; Goal 3 : Can use statistical descriptive analysis methods and inference analysis methods, use excel software to calculate index values, complete statistical analysis work, make scientific and reasonable inferences and predictions when necessary, and make reasonable suggestions for the researched issues, and finally form statistics analysis report.

4. The Construction Plan and Implementation of Statistics Course Integrated with Marketing Specialty

From the perspective of the integration of statistics and marketing majors, we pay attention to the practicality of the statistics course, combining the student's testimony, and the help for future job work, emphasizing student-centered, teacher-led, and integration of teaching.

4.1. Work Task Analysis

Combining research, students' future job needs, condensed three important practical tasks, namely market research, customer customer mining, and customer satisfaction survey.The three practical tasks are side by side.The completion of each practical task requires five implementation steps. The same is the implementation steps, the difference is the practice content. The following table:

Table 2 Practical tasks and implementation steps

Implementation steps / Practical tasks	Questionnaire design	data collect	data sort out	Descriptive analysis	Inferential analysis	Writing reports
				Statistical Analysis		
market survey	√	√	√	√		√
Customer mining	√	√	√	√		√
satisfaction survey	√	√	√	√		√

4.2. Correspondence Between the Implementation Process of Practical Tasks and Theoretical Chapters

The implementation process of practical tasks determines the learning of theoretical knowledge. Compared with the pre-reform, the total amount of theoretical knowledge has no change, only the order has shifted. According to the implementation process of practical tasks, the order of theoretical knowledge learning is determined, as shown in the following table:

Table 3 Mapping of implementation steps to theoretical knowledge

Serial number	Implementation steps	The main content of theoretical knowledge	Hour Suggestion	
			Theoretical hours	Practical hours
1	survey design	The concept of statistics, the basic concepts of statistics, the design of survey questionnaires;	3	1
2	data collection	The type of statistical investigation, the content of the statistical investigation plan, the method of the statistical investigation, and the organization of the statistical investigation;	3	1
3	Data collation	Statistical finishing plan, statistical data review, statistical grouping, distribution series, statistical charts, related applications of excel;	5	2
4	Descriptive analysis	Comprehensive indicators, time series, statistical indexes, correlation and regression analysis	8	5
5	Inferential analysis	Parameter estimation, hypothesis testing	8	5
6	Writing reports	Methods for writing statistical analysis reports;	5	2
total			32	16
total			48	

4.3. Course Implementation Method

In the course of implementing the course design plan, the student supermarket of Xi'an Peihua College is taken as the research object. In order to ensure everyone's participation and everyone has something to do, it can be divided into groups. The first step: the whole class is divided into groups of 10 people / group. One team leader is recommended; the second step is to claim a practical task; each group selects a practical task and divides the group's personnel according to the implementation steps of the practical task, each performing its own duties and taking its own responsibility; the third step: implementing Tasks, and complete the study of the corresponding theoretical knowledge, the relevant assessment methods are as follows.

Table 4 Course assessment related content

Serial number	Examination content		Assessment requirements	Recommended assessment the way	Complete time	Recommended score	Note
1	Attendance		Attendance no less than 10 times;	Roll call (cloud class)	3 minutes before class	10	Absences that exceed 1/3 of the final assessment will be treated as fail
2	Classroom performance		Active participation in the classroom;	Classroom Grab (Cloud Class)	in class	5	0-5 points based on student participation
3	Mid-term test		Master the basic principles and basic knowledge of statistics;	In-class test	in class	10	Get 0-15 points based on test results
4	operation		3 assignments, 5 points each;	Arrange according to class content	After class	15	Get 0-15 points based on completion and quality
4	practice + theory	Questionnaire design	Complete a specific questionnaire design for a research task	Group work to complete practical operations	After class	10	Get 0-10 points according to the design plan
5		data collection	Master the method of data collection; master the method of writing survey plan; be able to carry out division of labor and cooperation: conduct no less than 500 questionnaire surveys	Group work to complete practical operations	After class	10	Score 0-10 points based on task completion
6		Statistics	Master the content of data collation; be able to review the original data; master the	Group work to complete practical operations	After class + after class	5	Score 0-10 points based on task completion

			statistical grouping and distribution sequence; be able to make statistical charts with excel;				
7		Descriptive analysis	Comprehensive indicators; time series; statistical indexes; correlation and regression analysis; excel software applications	Group work to complete practical operations	After class + after class	10	Get 0-15 points based on task completion
8		Inferential analysis	Parameter estimation; hypothesis testing; excel software application	Group work to complete practical operations	After class + after class	15	Get 0-15 points based on task completion
9		write analysis report	Contents of statistical analysis report; writing method of statistical analysis report	Group work to complete practical operations	After class + after class	10	Score 0-10 points based on task completion
	total					100	

4.4. Task Implementation Results and Course Output

With the implementation of work tasks and the study of theoretical knowledge, students are required to have the following corresponding outputs: (1) a questionnaire design; (2) a statistical survey plan; (3) no less than 500 data collections; (4) Statistical finishing process and results; (5) Descriptive and inferential analysis processes and results; (6) Writing statistical analysis reports.

Students are required to put forward detailed and executable suggestions and opinions on the selected implementation tasks. In order to emphasize the practicality of statistics, each group's statistical analysis report is required to participate in the competition of the student supermarket. If adopted, it can be determined that the group of practical tasks is completed The result is excellent, and the other groups determine the implementation result level as appropriate. At this point, the students' learning and practice are over. As a teacher, they must further track the scheme adopted by the supermarket and understand how the statistical analysis report is good for the operation of the supermarket. What are the impetus of the promotion, what are the shortcomings, and what adjustments and improvements should be made in the future courses, in order to make the reform of statistics further and better integrate with the majors.

Conclusion

The full integration of statistics teaching with your major can make the teaching content and practical application more clear, making statistics teaching with distinctive professional characteristics, and providing help for the training of students' majors and the follow-up courses.

References

[1]. Du Zongxue. Research on Teaching Optimization Based on the Integration of Professional Courses——Taking the Course of Statistics as an Example [j]. Management and Technology of Small and Medium-sized Enterprises (Mid-Term), 2018 (12): 133-134.

[2]. Cheng Xin, Li Kuntai, Huang Lin. Practice of case-based teaching model based on the integration of professional courses: Taking biostatistics as an example [j] .University Education, 2018 (10): 93-95.

[3]. Yu Tingting. Teaching Reform of "Statistics" Course for Economics and Management Major under the Background of Big Data [J]. Modern Marketing (Business Edition), 2020 (01): 222.

[4]. Su Wenlong. Research on Teaching Reform Strategy of Statistics Course [j]. Journal of Kaifeng Institute of Education, 2019, 39 (11): 90-91.

[5]. Ainur Hükur. Research on Teaching Practice of Applied Statistics in Economics and Management Specialty [J]. Business News, 2019 (20): 125 + 127.