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A Study on the Influence of Curriculum Setting on Employment in Career Technical College

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Abstract—Vocational skills courses have a significant impact on the employment rate and income of graduates. By comparison, it can be found that vocational skills courses can make graduates get higher returns than academic ones. Students should be able to get a better job when they graduate, they should receive more vocational skills training courses at school. However, through the analysis and comparison of the data, we find that the benefits of vocational skills courses are diminishing. At the same time, there is a critical point in the reduction of academic courses. So how to choose the proportion of academic courses and vocational skills courses is an important direction of future research.

Keywords—vocational skills; academic skills; job market; short-term impact; medium-term impact

I. Introduction

The core task of modern vocational education curriculum is to lay the foundation for students' career success after graduation. In order to ensure that students have a certain advantage in the employment competition, they must accept the strict vocational skills training (such as automotive repair, website maintenance, e-commerce and building automation maintenance, etc.). The setting of academic courses does not have to be very strict. But there is another idea. The idea is that even if the workshop workers now also need higher academic skills, vocational skills can easily learn at work. Some education reformers even think that the work is becoming more and more common and academic. This concept may indeed increase the number of students from vocational and technical schools to undergraduate studies, but this concept affects the students' vocational skills (Engineering, programming, business management, nursing, etc.) [1,2,3,4]. In fact, at least at the workshop level employees do not require high academic skills. Research shows that the efficiency of doing the same job depends on the ability of the community (loyalty, communication skills) and specific skills for the position, but not directly related to reading, writing and math skills. Academic skills can help employees develop professional skills, but they can't replace them. When a student is determined to pursue a career in the future, he will ask for more professional training in the school, which will increase his chances of getting a job in the field. It has not been rigorously tested that general academic skills will have higher returns than specialized vocational skills. It is often just a scholar's reasoning. By comparing the employment situation of graduates over the past few years, there is indeed evidence that

an increase in vocational skills courses improves student employment opportunities $^{[5,6,7]}$.

This paper will focus on a number of factors related to the academic curriculum and vocational skills curriculum. Is it possible for vocational school students to get a higher salary job contract due to an increase in academic programs? Is it easier to get a job contract at the same time to increase the vocational skills courses? In order to find the answer, we managed to investigate the number of students graduating from different years (200820112015), according to the sampling data to analyze the impact of vocational skills courses and academic courses on the job market changes.

II. AN ANALYSIS OF THE INFLUENCE OF CURRICULUM SETTING ON EMPLOYMENT IN CAREER ACADEMY

On the influence of Career Technical College education on the labor market research is by comparing the occupation education students and ordinary students graduate employment rate and wage income difference analysis. According to the survey, it is found that vocational education students are more likely to be employed in the labor market.

According to the human resources data show that the average income of students who receive more vocational courses is 15% higher than that of students who do not receive specialized courses. These data show that vocational skills courses have a positive impact on students' higher salaries. In addition, the data also show that this difference in income will gradually decrease with the increase in graduation time. Experts point out that vocational courses and academic courses should be taken into account, although vocational courses show that graduates can get a better income immediately. But at the same time, it can be concluded that it is harmful to the longterm development of the students to fully participate in vocational education and ignore the basic academic training courses. Other studies have concluded that vocational education has a positive impact on annual income. But there is no obvious positive effect on the students who are aiming for a promotion, and even have an adverse effect due to the reduction of academic courses^[8,9].

In the process of data collection and analysis, we pay special attention to two key indicators of graduates' success in the job market. This paper analyzes the influence of the curriculum on the short and medium term of graduates in the employment market. Through the investigation of students in



mathematics, computer science, social science, English, business, marketing, technical and other vocational skills

training courses. Then, through the analysis of these data, some rules are deduced, and the data are shown in table 1.

TABLE I. STATISTICS ON THE NUMBER OF SEMESTERS OF VOCATIONAL TRAINING STUDENTS AND STUDENTS IN THREE YEARS

	2015 graduates		2011 graduates		2008 graduates	
	Students of vocational skills training	Ordinary students	Students of vocational skills training	Ordinary students	Students of vocational skills training	Ordinary students
English	3.03	3.07	3.02	3.04	3.67	3.52
computer	1.99	2.21	2.01	2.1	1.36	1.47
College Chinese	0.6	0.8	0.48	0.84	0.92	1.38
Mathematics	1.99	2.23	1.68	2.01	2.69	2.86
Social Sciences	2.29	2.37	2.66	2.66	3.18	3.09
Sum of academic courses	9.9	10.68	9.85	10.65	11.82	12.32
Business and sales	0.63	0.64	0.76	0.71	0.34	0.31
Trade and technology	1.43	1.22	1.38	1.07	1.15	0.69
Other vocational courses	0.79	0.69	0.61	0.48	0.79	0.55
Sum of vocational courses	2.85	2.55	2.75	2.26	2.28	1.55

The data in Table 1 represents the average of each course commencement number of semester. With the development of the teaching reform of the students according to the target classification, the number of vocational skills courses is increasing. But this situation isn't generalized. The specific courses should be dynamically adjusted according to the social issues and the relationship between supply and demand. For example, in 2015, the specific courses for graduates to learn business courses less than in 2011 graduates.

The satisfaction of graduate students is mainly based on three data sets: the information from different groups from the school to the society. All the students graduated in the same year (2008, 2011 and 2015). The school obtains data through the investigation of all aspects of graduate students. Table 2 shows the students' satisfaction with different choices.

TABLE II. EMPLOYMENT SATISFACTION

Graduation Time	Man	Female	Average	
2008	1440(54.7%)	1360(52.4%)	2800(53.6%)	
2011	1560(61.2%)	1502(53.7%)	3062(62.5%)	
2015	1690(68.9%)	1655(69.8%)	3345(69.4%)	

2008 and 2011 graduates choose a larger proportion of direct employment. 2015 graduates choose to increase the proportion of training objectives have increased, with the development of classification training, data can be seen from the table, and the degree of satisfaction of student employment is also gradually increasing.

III. ANALYSIS OF SHORT TERM EFFECTS

We looked at the relationship between the number of professional courses and the success of the three graduates in the labor market. With the increase of vocational courses, the corresponding academic courses tend to decrease. For the 2015 session of the graduates, vocational courses increased by three, a corresponding reduction in academic courses. If the students accepted the occupation course enough, more likely to obtain a stable salary high work, as shown in Fig. 1, this is an indisputable fact.

More vocational courses are closely related to high income after graduation, but the corresponding income curve is very flat at some stage. In most cases, the curve is gradually becoming flat. This shows that the benefits of vocational courses are diminishing.

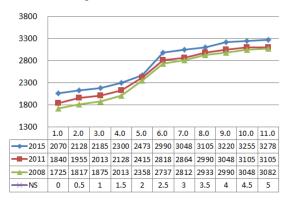


Fig. 1. The relationship between the monthly salary and the number of vocational courses

Fig. NS shows the number of semesters to receive vocational skills training. While ensuring that the total amount of professional courses, to accept more academic courses for students are also rewarded. But only for wage income, to accept the low level and quantity of academic courses does not affect the acquisition of a higher salary. The result of the analysis is that the role of vocational skills courses in the early job market is very positive. Those students who don't want continue to get bachelor degree accept attached academic courses, but will affect the short term employment market employment rate and starting salary. But it does not increase linearly with the increase in Vocational courses. The benefits of vocational courses gradually decrease with the increase of curriculum. The explanation of this nonlinearity is a reflection of the complementary role of Vocational and academic courses. Of course, correlation is not necessarily causal.

IV. ANALYSIS OF MEDIUM TERM IMPACT

The medium-term impact of graduates on the job market is also analyzed in terms of the relationship between the number of professional courses and the job market returns. The data tables reflect the average impact of graduates on the job market (1. Average employment rate. 2. Annual average income). To analyze the impact of the course on students' 6 years after



graduation, there is only an analysis of the sample data for 2008 graduates, as shown in Table 2 and Fig. 3.

TABLE III. VOCATIONAL SKILLS COURSES AND GRADUATION FROM 1 TO 6 YEARS OF EMPLOYMENT AND ANNUAL SALARY DATA SHEET

	NS	0	1	2	3	4	>4
Rate of employment	2008	80	82	83	82	83	84
	2009	83	85	82	84	84	85
	2010	83	85	82	85	84	85
	2011	88	86	87	87	86	88
	2012	90	86	87	89	89	90
	2013	90	87	89	92	90	90
Annual salary	2008	22425	24369	26163	35581	36553	38870
	2009	31476	32618	30856	32237	32395	34201
	2010	33559	34109	32776	35316	34805	36105
	2011	37422	37917	38330	38172	39124	40229
	2012	41023	41056	40925	40000	43319	42628
	2013	41203	43661	43308	43264	45516	43950

NS shows the number of semesters to receive vocational skills training. According to the data in the table, we can see that the influence of the number of the first year's vocational skills courses on the annual salary is very obvious. The first year income gap reached 12%, but with the passage of time, to the gap between the gradual declines in the past sixth years, the gap reduced to 4.5%. The analysis of individual regions and even the emergence of vocational skills courses less, but their income is more than vocational skills classes, which is complementary to the role of cultural skills classes. Under the premise of the same class, those who receive less skills courses will inevitably receive more academic skills courses. The data analysis shows that the short-term effect of vocational courses on graduates is significant, but the impact on the medium-term returns is gradually reduced.

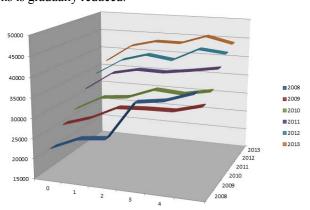


Fig. 2. Effect of different number of occupation class salary six years after graduating from the college

It is not difficult to see the influence of the number of professional courses and the number of years after graduation on the annual salary. Each year with increasing number of curriculum accept occupation, start salary is linearly rising to a certain number. The curve becomes flat, even U shaped, indicating that the occupation number of curriculum gains in decline. In 2008, the slope of this curve is the largest, which shows that the vocational curriculum has the most short-term impact on income. However, with the passage of time, the slope of the curve in 2013 is the smallest, indicating that the number of vocational skills courses on the impact of income gradually reduced trend. At the same time, with the passage of time, each curve is on the move, it just reflects the increase in

work experience, each of pay levels is raised. Of course, it is not the scope of our research[10,11,12].

To sum up, vocational education is a positive effect on both short-term and medium-term benefits. This effect is particularly significant for short-term benefits, and the impact on medium-term income decreases with graduation time. These results have proved the fact that the short-term benefits of vocational courses for graduates is very obvious, but it do not prove that long-term success is directly bound to help^[13,14,15].

V. SUMMARY AND PROSPECT

The main problem of this paper is to study the influence of students' academic skills and vocational skills on students' employment, and to analyze the relationship between shortterm and long-term effects. To study these problems were investigated in our school 2008, 2011 and 2014 years of graduates, through the sample data analysis of academic skills courses and occupation skills courses for graduates of the short-term impact and medium-term effects. The conclusion is that the short-term impact of occupation skill for graduates more students accept the occupation course proportion, regardless of graduation employment rate or salary level were significantly higher than that of accepting a greater proportion of the students' academic courses. Of course, for the long-term impact of the analysis, academic courses for those who are prepared to upgrade students will be more help. At the same time, the research shows that the benefits of vocational skills courses are decreasing. There is a critical point in the reduction of academic courses. There is also a tipping point for the reduction of academic courses. Cutting too much of the students' academic skills course means reducing their academic ability. This will weaken the advantages of students, but also may result in these students are different from ordinary students on social values and work attitude. This is also a question to be discussed. At present, one of the most important teaching reform measures in our college is to train students according to different aims. The total hours of the school is limited, the first is to guide students to do their own career planning, clear objectives of student training. According to the different types of training objects, the reasonable arrangement of the academic and vocational courses, so that the classification of training objectives can be effectively implemented in the specific curriculum planning work. The proportion of such courses is also dynamically adjusted. This ratio will continue to dynamically adjust with the social hot spots and changes in supply and demand. This is one of the key research directions in the future.

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