

Career Adaptability: Are There Differences Among Students in Different Types of Schools?

-- A Study of High School Students in Mainland China

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Abstract

The study used observation, questionnaires and quantitative analysis to compare the differences in students' satisfaction with school and students' career adaptability among three types of schools: public high schools, private high schools and international high schools in mainland China, with reference to Savickas' Career Maturity Scale. It was concluded that students in private high schools had the highest overall satisfaction with their schools. There was no significant difference in students' career adaptability among the three types of high schools, and the level of career counselling among international high school students lagged behind that of general high school students.

Keywords

Career adaptability; School differences; High school.

1. Introduction

In the context of China's economic and social transformation, there is more uncertainty about the development of the individual. This trend has a particular impact on students at the senior secondary level, who are faced with a variety of professional and career decisions and the risks that come with them. Therefore, making appropriate career decisions is a key issue for students in high school. Career adaptability is seen as a core indicator of the success of young people's 'career readiness'(Brown, 2016). In mainland China, the educational environment for general school students is quite different from that of international school students. Compared to the exam-oriented education in general schools, international schools focus more on the development of students' personal qualities, which can potentially contribute to their career adaptability. Although there are some differences between the two education and teaching models, there is no research on whether this is related to students' career adaptability. This paper explores the differences in career adaptability between international high school students and general high school students using a quantitative survey and discusses the findings.

2. Literature Review

According to the career development stages proposed by Super, high school students are in the age of career exploration, 15 to 24 years old, a stage where they are mainly able to make their career preferences concrete and specific (Yuening Li, 2016). For high school students, career exploration often means developing more of their talents and areas of expertise, and thus allowing for a more appropriate choice of university major.

In the 20th century, when the "post-modern" era began, career adaptability, studied by the American career psychologist Savickas, became a hot topic in the field of career psychology. Career adaptability is defined as "the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions" (Savickas, 1997). As of 2020, over 24 textbooks have been published in China, covering curriculum development in mainland universities, assessment program development, school-related evaluation, "follow-up" research, and career development education in universities in Taiwan, which are important for our research on career adaptability. In the 2020 edition of Career Development Education Research, research was conducted in high schools, junior high schools and primary schools on career issues, focusing on whether students had an understanding of career issues and then exploring and practising in areas such as curriculum learning and career consultation (Shanghai Student Affairs Center, 2020).

Currently, educators at home and abroad are aware of the importance of helping young people prepare for their careers, but the development varies relatively widely from country to country. A research jointly implemented by China, the United States, Japan and Korea in 2012 showed that career education for high school students in China lagged behind that of the United States, Japan and Korea across the board. The data shows that only 33.1% of students in China have received career planning guidance, while 78.2% of Japanese high school students have received career education. This results in 49.6% of high school students in China being confused and without a clear goal when considering where they want to go after graduation. This makes it particularly important to develop a career education programme in high school (Hongyan Sun & Nan Xiang, 2013).

This allowed us to focus on school differences and investigate the differences in career adaptability between students in general high schools and international high schools in mainland China. A study found that there were significant differences in the form of education between international high schools and general high schools. International high schools operate on a shift system, a system that is very beneficial to the individual development of students, who can organise their own class schedules according to their actual levels and preferences. At the same time, the Western format is varied and flexible, encompassing lectures, group discussions, observations and games, which allows students to maintain their enthusiasm for learning and gain knowledge more easily. In contrast, general secondary schools have a fixed classroom system and a homogeneous lecture format, leaving little opportunity for students to choose their own classes. This leads to problems: a heavy academic load for students, little enthusiasm for learning and less time and opportunity for students to explore their own interests. (Yun Jin, 2010)

In general, the existing research on "career adaptability" has a single approach, mainly literature research, lack of observational research, and research perspectives are mostly limited to small-scale surveys. It is possible to observe the differences in research in various schools, to compare the views of general and international schools, to consider the world view, the humanistic view, the learning view and the economic situation, so as to raise the attention and make more young people pay attention to this aspect of the topic.

3. Research Design

3.1. Research Question

3.1.1. Tables

By the time of the 2021 College Entrance Examination, 14 provinces in China had successfully implemented the new system of Gaokao in three batches. The new college entrance examination system is no longer based on the separation of liberal arts and science subjects, but on the 3+3 model. The first “3” represented the three core subjects of college entrance examination – Chinese, mathematics, and English. The second “3” was to select three of the six subjects – physics, chemistry, biology, politics, history, and geography. These changes brought new challenges to students, teachers, and schools. Students were faced with more choices, they can choose courses from their own interests, future development direction and other perspectives. Teachers’ teaching ability and class management ability would also be challenged. For schools, it was necessary to adjust the overall teaching objectives and strategies. For example, in response to different choices of the other three subjects, many schools began to implement optional class system. Meanwhile, an urgent need to add was to develop the students’ ability and to consider the curriculum and instruction related to their future, which meant that it is essential to hold a career adaptability course for students in schools. Therefore, adapting to the new college entrance examination policy in various ways was very helpful for the growth of students.

Policy changes increasingly emphasized students’ independent choices, and the trend of college selection diversification was strengthened as well, so it was imperative to carry out career planning education for students in high school. Also, it would help our country shift from exam-oriented education to quality-oriented education. If the training of career adaptability started from high school, it would be of great help for students to achieve their life goals and ideals. At the same time, good career adaptability can play an important role for them when they enter the university or even enter the society in the future.

In this case, China’s public high schools and private high schools had made corresponding measures, so what would students think about the teaching mode of their schools? Also, there was a large number of international high schools (including international department of high school) in China, so how did the students view their schools and current learning situation? What’s more, were there any differences between these three kinds of schools in terms of career adaptability? Therefore, the research questions of this study were as follows:

- 1) Is there a significant difference in students’ satisfaction with the “career planning” course carried out by the three kinds of schools?
- 2) Is there any significance difference in the degree of recognition of the teaching system among students of the three types of schools?
- 3) Is there any difference in the career adaptability of students from the three types of schools? What is the difference?

3.2. First Section (Sub-Heading 2.2)

The subjects of the study were students from grade one to grade three studying in domestic public high schools, private high schools, and international high schools (including the international department in high schools). In particular, the study focused on the students from areas where the new college entrance examination system was officially implemented. This survey adopted the form of online questionnaire filling, using Wenjuanxing to conduct random sampling survey.

According to the final data, a total of 271 questionnaires were collected in this survey, of which 270 were valid data. Most of the data came from Beijing, Hebei, Tianjin, Guangdong, and

Zhejiang. In addition, the distribution of participants and other specific information was shown in Table 1 Basic information of participants.

Table 1. Basic information of participants

Basic Information	Category	Sample Size	Proportion (%)
Gender	Male	76	28.15
	Female	194	71.85
High school type	Public high school	126	46.67
	Private high school	76	28.15
	International high school (including the international department)	68	25.19

3.3. Questionnaire Design

The structure of the questionnaire was shown in Table 2 Structure and content of the questionnaire, which was divided into three parts. Also, the five-point scale model was widely used in the survey, which used to ask the satisfaction degree of the participants.

The second part of the questionnaire was mainly to investigate the teaching system of three types of schools and the degree of students' satisfaction with the school. There were six questions in this part, which can also be divided into two dimensions. The first was to ask the participants about the teaching mode of their school by choosing the most consistent degree of agreement. Then, from a general perspective, participants were asked how satisfied they were with the schools' curriculum, guidance, educational environment, and management.

The third part of the questionnaire measures the students' career adaptability. This part adopted the career maturity questionnaire developed by Savickas and Porfeli (2011) to measure the career maturity of middle school students, which was adapted from the original career maturity questionnaire and assessed students in four dimensions: career focus, career curiosity, career confidence and career consultation (Savickas & Porfeli, 2011). Some of the questions from there, with some modifications based on the Chinese students, made up the third part of the questionnaire. Six questions were set for each dimension and 24 questions at total in this part to measure students' career adaptability.

After testing, the KMO value of the questionnaire was 0.86 and the Cronbach α was 0.88. Therefore, the validity and reliability of the questionnaire was high.

Table 2. Structure and content of the questionnaire

Parts of questionnaire	Content	Question number
Basic information	Gender, grade, school type	No.1-4
Teaching system and satisfaction	School curriculum Teaching mode	No.5-9
	Satisfaction with school curriculum, guidance, education environment, management	No.10-13
Career adaptability	career focus career curiosity career confidence career consultation	No.14

4. Results

4.1. Results of the Comparison of the Extent to Which Students Are Helped By 'Career Planning' Courses in Different Types of Schools

4.1.1. Section Titles

The results of the survey on the "The extent to which students are helped by 'career planning' courses" showed that 39.26% and 5.19% of students chose "somewhat helpful" and "very helpful" respectively. This indicated that the career planning courses in schools were helpful to less than half of the students. The one-way ANOVA analysis showed that there were significant differences in student satisfaction with the courses between public and private high schools ($p=0.001<0.01$) and between private and international high schools ($p=0.000<0.01$). This showed that the career planning programme in international high schools was the most helpful to the students, followed by public high schools and finally private high schools.

Table 3. The comparison of the extent to which students are helped by 'career planning' courses in different types of schools

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	99%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	.423*	.130	.001	.08	.76
	international high school	-.197	.135	.146	-.55	.15
private high school	Public high school	-.423*	.130	.001	-.76	-.08
	international high school	-.620*	.150	.000	-1.01	-.23
international high school	Public high school	.197	.135	.146	-.15	.55
	private high school	.620*	.150	.000	.23	1.01

*.The difference in means is significant at the 0.01 level.

4.1.2. The Comparison of Three Types of Schools with Respect to Educational Model and Students' Recognition

The survey on the "contribution of schooling to students' overall development" showed that 48.89% and 18.52% of students chose "relatively agree" and "strongly agree", which indicated that schooling contributed to the overall development of most students. The one-way ANOVA analysis showed that there were significant differences in the satisfaction of students with the overall development of their school education between public and international high schools ($p=0.000<0.01$), and between private and international high schools ($p=0.010$ is similar to 0.01). This showed that education in public high schools was most conducive to the all-round development of students, followed by private high schools and finally international high schools.

Table 4. The comparison of three types of schooling with respect to contribution to students' overall development

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	99%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	.105	.137	.444	-.25	.46
	international high school	.513*	.142	.000	.15	.88
private high school	Public high school	-.105	.137	.444	-.46	.25
	international high school	.409*	.157	.010	.00	.82
international high school	Public high school	-.513*	.142	.000	-.88	-.15
	private high school	-.409*	.157	.010	-.82	.00

*.The difference in means is significant at the 0.01 level.

The results of the survey on "students' satisfaction with the school's curriculum" showed that 52.96% and 5.93% of students chose "relatively satisfied" and "very satisfied" respectively. This indicated that the majority of students were satisfied with the school's curriculum. The one-way ANOVA analysis showed that there were significant differences in students' satisfaction with the curriculum between public and international high schools ($p=0.000<0.01$), and a significant difference in students' satisfaction between private and international high schools ($p=0.000<0.01$). This showed that the curriculum of private high schools was the most satisfying to students, followed by public high schools and eventually international high schools.

Table 5. The comparison of three types of school with respect to students' satisfaction of the school curriculum

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	99%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	-.152	.128	.235	-.48	.18
	international high school	.532*	.133	.000	.19	.88
private high school	Public high school	.152	.128	.235	-.18	.48
	international high school	.684*	.147	.000	.30	1.07
international high school	Public high school	-.532*	.133	.000	-.88	-.19
	private high school	-.684*	.147	.000	-1.07	-.30

*.The difference in means is significant at the 0.01 level.

The results of the survey on "students' satisfaction with the school's guidance on further education" showed that 51.48% and 8.52% of students chose "relatively satisfied" and "very satisfied" respectively. This indicated that the majority of students were satisfied with the

school's guidance on further education. The one-way ANOVA analysis showed that there were significant differences in the satisfaction of students with the school's guidance on further education between private high schools and international high schools ($p= 0.001 < 0.01$). This suggested that private high schools provided the most satisfactory guidance to students, followed by public high schools and international high schools.

Table 6. The comparison of three types of school with respect to student satisfaction of guidance on further education

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	99%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	-.237	.130	.070	-.57	.10
	international high school	.250	.135	.065	-.10	.60
private high school	Public high school	.237	.130	.070	-.10	.57
	international high school	.487*	.150	.001	.10	.88
international high school	Public high school	-.250	.135	.065	-.60	.10
	private high school	-.487*	.150	.001	-.88	-.10

*.The difference in means is significant at the 0.01 level.

The results of the survey on "students' satisfaction with the school curriculum" showed that 51.85% and 8.89% of the students chose "relatively satisfied" and "very satisfied". This indicated that most students were satisfied with the educational environment and management style of the school. The one-way ANOVA analysis showed that there were significant differences in students' satisfaction with the educational environment and management style between public and private high schools ($p=0.002<0.01$), and between private and international high schools ($p=0.000<0.01$). This showed that the educational environment and management mode of private high schools were the most satisfying to students, followed by public high schools and finally international high schools.

Table 7. The comparison of three types of school with respect to students' satisfaction of the educational environment and management model of the school

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	99%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	-.464*	.146	.002	-.84	-.09
	international high school	.292	.151	.054	-.10	.68
private high school	Public high school	.464*	.146	.002	.09	.84
	international high school	.755*	.167	.000	.32	1.19
international high school	Public high school	-.292	.151	.054	-.68	.10
	private high school	-.755*	.167	.000	-1.19	-.32

*.The difference in means is significant at the 0.01 level.

4.2. Results of the Comparison of Three Types of Schools with Respect to Students' Career Adaptability

The mean values of career adaptability of students in public, private and international high schools were 3.1961, 3.2270 and 3.2678 respectively, which indicated that the overall level of career adaptability of high school students in each type of school in this study was at an upper-middle level. The one-way ANOVA analysis showed that there was no significant difference between the career adaptability of high school students in each type of school ($p > 0.1$).

Table 8. The comparison of three types of schools with respect to students' career adaptability

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	90%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	-.03088	.07489	.680	-.1545	.0927
	international high school	-.07167	.07759	.356	-.1997	.0564
private high school	Public high school	.03088	.07489	.680	-.0927	.1545
	international high school	-.04080	.08607	.636	-.1829	.1013
international high school	Public high school	.07167	.07759	.356	-.0564	.1997
	private high school	.04080	.08607	.636	-.1013	.1829

*.The difference in means is significant at the 0.1 level.

Table 9. The comparison of three types of schools with respect to students' career consultation

(I) 4. Type of high school	(J) 4. Type of high school	Average variance (I-J)	Standard errors	Significance	90%Confidence interval	
					Lower limit	upper limit
Public high school	private high school	-.13798*	.08243	.095	-.2740	-.0019
	international high school	.02572	.08540	.764	-.1153	.1667
private high school	Public high school	.13798*	.08243	.095	.0019	.2740
	international high school	.16370*	.09474	.085	.0073	.3201
international high school	Public high school	-.02572	.08540	.764	-.1667	.1153
	private high school	-.16370*	.09474	.085	-.3201	-.0073

*.The difference in means is significant at the 0.1 level.

The mean values of career consultation for students in public, private and international high schools were 3.2831, 3.4211 and 3.2574 respectively, indicating that the level of career consultation of high school students in each type of school in this study was in the middle to upper range. The one-way ANOVA analysis showed that there were significant differences in students' career consultation skills between public and private high schools ($p=0.095<0.1$) and between private and international high schools ($p=0.095<0.1$). There were also significant differences in the students' career consultation skills between private high schools and

international high schools ($p=0.085<0.1$). This showed that students in private high schools have the highest level of 'career consultation' skills, followed by students in public high schools and finally students in international high schools.

5. Discussion and Conclusions

5.1. Discussion

The results of this study showed that international high schools had the most satisfying career planning courses compared to public and private high schools, reflecting to some extent the advantages of international high school career planning courses. As a typical example, Shanghai High School offered a series of career-oriented project-based learning programmes that provided students at all levels with scenarios for 'self-exploration', in which they could focus their interests and take training in relevant studies, thus preparing them for further study in higher education (Min Liu, 2020). In contrast, career education in most general high schools was mainly conducted in the form of "teachers explaining career theory and students receiving it", with a lack of career Scenarios, which may result in students not being able to deepen their self-understanding and make better career decisions. Therefore, general high schools should improve the design of the career planning curriculum by taking appropriate reference from international high schools (Suchan Lin, 2018).

However, the profile of international high school students' career adaptability did not exactly match the strengths of the career planning courses, with this study showing that international high school students' career adaptability did not differ significantly from that of general high students. Meanwhile, international high school students lagged behind general high students in terms of their level of career consultation. The extent to which international high school career planning courses impact on students' career adaptability is thus a topic worth considering in subsequent research. In past school development studies, the advantages of international high school were emphasised, but the results of this sample survey showed that international high school students' identification with education model of their school was the lowest, while the private high school the education and teaching model was the most satisfying for students, the reasons for which deserve to be explored in depth in subsequent studies, and research on the development of private high schools and their advantages need to be increased.

There were also some deficiencies in this study: the proportion of students in public schools was high than the proportion of private and international schools, which affected the representativeness of the sample and was likely to decrease in the accuracy of the comparative conclusions. This study used LSD as a method to conduct the one-way ANOVA analysis. For that of students' career consultation, we relaxed the significance level value to 0.1, so as to obtain the results of significant differences in student career consultation levels of the three types of high schools.

5.2. Conclusions

As a result of the research and discussion, the following conclusions were drawn.

- 1) International high schools had the highest level of student satisfaction with their career planning courses, and general high schools should take the initiative to learn from international high schools and improve the design of their career planning courses.
- 2) Private high schools had the most satisfying education and teaching models, the reasons for which are worth exploring in more depth in the follow-up study.
- 3) There was no significant difference in the career adaptability of students in the three types of schools, and international high school students had no significant advantage in career adaptability and were slightly behind in career consultation.

The findings of this study are expected to shed some light on the improvement of career education in various types of high schools, and at the same time, provide a basis for subsequent research on the differences in career adaptability among students in the three types of schools.

6. Appendix

High School Students' Academic and Career Adaptability Questionnaire

Welcome to fill in this questionnaire. This survey is to understand the students in school learning and the view of the teaching mode and specially designed, aimed at improving the school teaching ideas, so we hope you can answer seriously. This survey is anonymous, we will keep your information strictly confidential, you can rest assured to answer.

1. Gender

Male

Female

2. Grade (before the summer vacation)

Senior one

Senior two

Senior three

Other

3. Age

Less than or equal to 16 years old

17 years old

18 years old

More than 18 years old

4. Type of your high school

Public high school

Private high school

International high school (International department in high school)

Other

5. Does your school offer courses on "career planning"?

Yes

No

6. Your school offers career planning related courses in the form of:

Lecture

Competition

Club

Class based lesson

Other

7. Does the school's "career planning" courses help you?

Not at all helpful

Not much help

General

To some extent help

Be of great help

8. School curriculum or teaching system

College entrance examination system teaching/school-based curriculum

IB Course

A-Level Course

AP Course

Other

9.The education you receive at your school will promote you as a well-rounded person (moral, intellectual, physical, aesthetic, etc).

Strongly disagree

Relatively disagree

General

Relatively agree

Strongly agree

10.Overall, how satisfied are you with the school curriculum?

Strongly disagree

Relatively disagree

General

Relatively agree

Strongly agree

11.Overall, how satisfied are you with the university guidance?

Strongly disagree

Relatively disagree

General

Relatively agree

Strongly agree

12.Overall, how satisfied are you with the educational environment and management?

Strongly disagree

Relatively disagree

General

Relatively agree

Strongly agree

13.Which of the following choices would you most agree with regarding your school teaching mode?

Strongly disagree Relatively disagree

General Relatively agree

Strongly agree

The class is teacher-centred and mainly taught by the teacher. Students spend most of the time listening to the teacher and taking notes.

The teacher will guide students to participate in the class while teaching, and the students have the opportunity to show themselves.

The class is student-centred, the teacher is only the facilitator, and the class is dominated by students showing and expressing their opinions.

14.Which of the following is more relevant to your situation?

Strongly disagree Relatively disagree

General Relatively agree

Strongly agree

There is no point in deciding on a job when the future is so uncertain.

I know very little about the requirements of jobs.
I have so many interests that it is hard to choose just one occupation.
Choosing a job is something that you do on your own.
I can't seem to become very concerned about my future occupation.
I don't know how to go about getting into the kind of work I want to do.
Everyone seems to tell me something different; as a result I don't know what kind of work to choose.
If you have doubts about what you want to do, ask your parents or friends for advice.
I seldom think about the job that I want to enter.
I am having difficulty in preparing myself for the work that I want to do.
I keep changing my occupational choice.
When it comes to choosing a career, I will ask other people to help me.
I'm not going to worry about choosing an occupation until I am out of school.
I don't know what courses I should take in school.
I often daydream about what I want to be, but I really have not decided on a career direction yet.
I will choose my career without paying attention to the feelings of other people.
As far as choosing an occupation is concerned, something will come along sooner or later.
I don't know whether my occupational plans are realistic.
There are so many things to consider in choosing an occupation, it is hard to make a decision.
It is important to consult close friends and get their ideas before making an occupational choice.
I really can't find any work that has much appeal to me.
I keep wondering how I can reconcile the kind of person I am with the kind of person I want to be in my occupation.
I can't understand how some people can be so certain about what they want to do.
In making career choices, one should pay attention to the thoughts and feelings of family members.

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