



Factors Influencing Chinese College Students' Major Switching from the Perspective of Social Cognitive Career Theory

Xiaohong Du

¹Woosong University, Dong-gu, Daejeon 34606, South Korea.

²Nanjing Xiaozhuang College, Nanjing 211171, Jiangsu, China.

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Corresponding author: Xiaohong Du, Woosong University, Daejeon 34606, South Korea; Nanjing Xiaozhuang College, Nanjing 211171, Jiangsu, China.

Abstract

By employing the Social Cognitive Career Theory, this paper made a qualitative inquiry into the factors influencing college students' decisions to switch their majors and their decision-making processes. Seventeen students (11 in the follow-up) who succeeded in switching their majors reported their major-switching experiences through two-phase questionnaires. The first phase produced three major themes: employment prospects, academic interest, and self-efficacy encouragement. These themes involved five subthemes—positive employment prospects, career plan, interest in the major, academic performance, and parental modelling—that influence students' decisions to switch their majors. The second phase reconfirmed the crucial factor of employment prospects. Additionally, the study revealed that parents played a significant role in students' decision-making processes. This study provides valuable insights into students' decisions to switch majors, helping colleges better understand students' perceptions about major-switching, and consequently, colleges could play a more important role in guiding students in their decision-making processes and improving support systems to facilitate major switching.

Keywords

Social Cognitive Career Theory; major switching; Chinese college student; decision-making process

1. Introduction

In China, higher education policies allow college students to switch their majors in their first or second year of enrollment. Provisions on the Administration of Students in Regular Institutions of Higher Education (2017) by the Ministry of Education of China not only affirms college students' rights to switch their majors but also requires colleges to "establish fair and impartial standards and procedures" for major switching. It is further highlighted by China's Education Modernization 2035 Plan, issued by the CPC Central Committee and the State Council, emphasizing the establishment of institutionalized and standardized switching mechanisms to ensure students' flexible major switching.

Despite the policies, many colleges impose tough standards or barriers to major switching. For example, some universities set restrictions on students' qualifications to apply for major switching (Liu, 2022); some limit the number of students who can switch out of or into a major (Yang & Huang, 2019). In addition, the major-switching examinations can be highly competitive and challenging, and only a very small proportion of students can actually succeed (Liu, 2022).

Only a few colleges permit the free switching of majors.

From the perspective of students, motivations for major switching are diverse. The frequently cited factors include unsatisfactory reassignment of majors (*Tiaoji*), shifts in academic interest, career prospects, poor academic performance, high academic pressure, poor adaptability in the original majors, family expectations, societal preferences, influence from peer students (Dong, 2023; Luo et al., 2023; Su et al., 2015; Yang et al., 2018; Zhou, 2020), and positive institutional support and policies (Huang & Han, 2024).

Nevertheless, despite the significant influence of career prospects on major switching (Zhou, 2020), studies on major switching are seldom guided by Social Cognitive Career Theory (SCCT). According to SCCT, self-efficacy, outcome expectations, and external supports and barriers are critical in these decisions (Lent et al., 1994), which helps to understand the complex interplay of personal and environmental factors influencing major switching.

Guided by SCCT, this study aimed to explore the motivations and decision-making processes of Chinese college students regarding major switching. By understanding the factors influencing students' decisions to switch their majors, the study sought to rationalize students' desire to switch majors and provide some insights to colleges' major switching regulations. This understanding can help colleges better support students' academic and career development based on students' needs and societal changes.

This study was framed by the following research questions:

- 1) Why do Chinese college students want to change their majors?
- 2) How do Chinese college students make their decisions to change their majors?

To answer these questions, the study adopts a qualitative research approach, utilizing SCCT as the theoretical framework. The following sections will present a brief overview of SCCT and the research methodology. Subsequently, the data collected through thematic analysis will be discussed, leading to the conclusion and implications for future research.

2. Theoretical Framework

This study is guided by the Social Cognitive Career Theory (SCCT) developed by Lent et al. (1994). The theory, based on Bandura's (1986) social cognitive theory (as cited in Dos Santos, 2021b) was further extended to "highlight mechanisms that may help shape career-related interests and selections" (Lent et al., 1994, p. 80). It emphasized three key components "(a) self-efficacy beliefs, (b) outcome expectations, and (c) goal representations" (Lent et al., 1994, p. 83). These components are essential to understand how individuals shape their professional development.

In addition to the key elements, this study also incorporates theoretical developments done by Dos Santos (2021a), who extended Lent et al.'s (1994) model to include the following factors: "(a) interest in career development, (b) personal considerations, (c) financial considerations, (d) academic interest, (e) achievement of educational and career goals" (p. 326). With both, the study could offer a more comprehensive framework for understanding the factors influencing students' decisions to switch their majors in the context of this study.

3. Methodology

This section presents the research procedure.

3.1 Research Design

This study adopted a qualitative research approach, outlined by Merriam and Tisdell (2016) and developed by Dos Santos (2021b). The research was conducted in a normal college in Nanjing, focusing on students who applied to switch majors either at the end of the first semester or second semester of their freshman year.

Data collection involved two phases: an initial questionnaire and a follow-up questionnaire one year later. During the first phase, a questionnaire with open-ended questions was distributed to participants, exploring factors that led to their decisions to switch majors and their decision-making experiences. One year after the initial data collection, a follow-up questionnaire was distributed to the same group of students to examine their reflections on their decisions to switch majors.

The two-phase data collection was designed to more deeply address the research questions and to give insights to both the immediate and long-term rationales and outcomes of students' major-switching.

3.2 Participants and Recruitment

The participants were all from a normal college in Nanjing. To start, requests were sent to the relevant department offices, requesting for lists of students who had transferred departments. Students who succeeded in switching their majors were contacted and informed of the study's purpose and requirements. Interested students were invited to participate in the

study. To ensure confidentiality, it was explicitly stated that responses could be provided anonymously and personal data would be kept confidential. In addition, participants were also encouraged to invite their peer students who wished to switch their majors to take part in the study, whether succeeded or not. Ultimately, 17 students volunteered to participate in the initial phase. Noticeably, all these 17 students had succeeded in switching their majors and no students who failed to switch majors volunteered to participate in the study. One year later in the second phase of data collection, 11 of them completed the follow-up questionnaires on their reflections on their major-switching decisions.

3.3 Data Collection

The first phase of the study was conducted during the Covid-19 pandemic. Students were having classes online and preferred to respond anonymously, so a questionnaire was used instead of face-to-face interviews to gather data on students' experiences of switching majors. The questionnaire was designed with mainly open-ended questions to allow for more detailed and diverse responses (Willis, 2015). Following the questionnaire phase, some brief personal interviews were conducted to clarify some responses. A year after the initial data collection, a follow-up questionnaire was distributed to the same group of participants to reflect on their major-switching decisions. To encourage full expressions from the participants, both questionnaires were conducted in Chinese, and the responses were then translated into English for further analysis.

3.4 Data Analysis

Data collected in Chinese were translated into English for further analysis. The two coding techniques by Corbin and Strauss (1990) were employed to systematically analyze the data. Firstly, the open-coding technique was used to classify the collected data into groups of themes. Then, the axial coding technique was employed to create the relationships among these categories, aligning with elements from SCCT. This coding process provided a systematic interpretation of the data and revealed students' justifications for major-switching decisions.

4. Findings and Discussion

After the 17 participants (the second phase 11 participants) completed the two-phase questionnaires and brief face-to-face interviews for further clarification, the data were analyzed using the open-coding and axial-coding techniques. The analysis identified three main themes and five subthemes explaining students' motivations to switch majors. Table 1 outlines the major themes and subthemes.

Table 1. Themes and subthemes

Themes	Subthemes
Employment prospects	Positive employment prospects
	Career plan
Academic interest	Interest in the major
	Academic performance
Self-efficacy encouragement	Parental modeling

4.1 Analysis of Themes and Subthemes

Before further discussion, it is important to note that the 17 participants were not specifically selected, but rather they volunteered to participate in the study after receiving the questionnaires. Thus, it can be assumed that it was a random sample of students who had succeeded in switching their majors. This is important when we interpret the results and generalize the findings.

Another point worth noting is that these students all expressed strong determination to change their majors. Nine out of the 17 participants took the major-switching tests twice and succeeded on their second attempt. One particular student was so determined to change his major that after failing to switch his major in his freshman year, he decided to repeat the year in order to have another chance at taking the major-switching test (According to the school regulations, only freshman students were entitled to switch their majors). Given their strong determination to switch majors, the factors influencing students' decisions are indeed worth studying.

The three main themes and five subthemes identified will be further analyzed.

4.1.1 Employment Prospects

The most frequently mentioned factor that influenced students' major-switching decisions was employment prospects. This aligns with the SCCT concept of outcome expectations, which "is defined as a person's estimate that a given behavior will lead to certain outcomes" (Bandura, 1977, p. 193). In this context, students switch majors based on their expectations of better job opportunities and career outcomes. Among the 17 participants, 10 mentioned this factor, with 4 regarding it as the most important.

Positive Employment Prospects

These students believed that their new majors would offer better employment prospects. For example,

*...The employment prospects of the present major are good... (a few participants mentioned it)
...The employment situation of... [the present major] is relatively optimistic, and the professional advantages are obvious... (participant #8)*

These positive perceptions of the new majors were often accompanied by negative views on the employment prospects of their original majors.

*... I don't like the original major, and the employment prospects are poor... (participant #13)
...the prospects of the original major are not good, and I am not good at science, like, chemistry or physics... (participant #1)*

Another participant who switched her major referred to her academic performance of the original major in relation to employment prospects:

...I am not good at singing...and with the original major, I don't think it is possible for me to pass the examination for the officially budgeted posts (Kaobian)... (participant #12)

Almost all participants expressed very positive employment prospects for the new majors.

Career Plan

Some students had very clear career goals that influenced their decision to switch majors. This also relates to outcome expectations within the SCCT framework, as students' career plans reflect their expectations of future career success and job satisfaction. For example:

...The most important factor is that I want to be a teacher. I want to be a teacher, and my parents support my idea. And of course teaching, being a teacher is also very popular these years... (participant #16)

There were also gender-based perceptions that influenced career plans:

... I just feel that it is "safe" (stable) for a girl to be a teacher in the future... Moreover, the present major is a popular major in the school. I have always been good at learning English, so I wanted to change to this major... (participant #7)

These participants all demonstrated employment prospects to be a vital factor for major-switching decisions.

4.1.2 Academic Interest

Students' academic interest in a major was another important factor. This aligns with the SCCT aspects of self-efficacy (Lent et al., 1994), as students' interests in their new majors often reflect their belief in their ability to succeed in those fields and Dos Santos' (2021a) expansion of the theory. Notably, eight out of the 17 participants were students who were re-assigned to the original majors rather than the majors they had selected based on *Gaokao* (National College Entrance Examination). The reassignment, known as "Tiaoji" in Chinese, often resulted in low interest and poor academic performance, leading to students wanting to switch their majors to pursue their real interests.

Interest in the Major

A few participants expressed their strong personal interest in the new majors:

*I personally like English very much... The moment I knew I was reassigned to Japanese, I decided to change my major... (participant #11)
...my English is good. I like English and I am good at learning English... (participant #10)*

Some students changed their majors to pursue the better:

...My original major...required lower score in Gaokao...and I liked it too... But the present major is the ace major in this school...I made thorough research into the major on the school website... (participant #6)

One student switched her major after she discover her real passion during her first year in school.

...I chose my original major because of considering finding a good job after graduation. ... But, after a year of study, I found my real passion. So, after some discussion with my roommates and suggestions from my parents, I decided to change my major... (participant #9)

In addition, students' interests in majors often align with their academic performance.

Academic Performance

Students' academic performance also played a role in students' wishing to switch their majors. This relates to self-efficacy within the SCCT framework (Lent et al., 1994) as students' beliefs in their academic abilities influence their choice of major.

...I like English and I am good at learning English... (participant #10)

...I have always been good at learning English, so I wanted to change to this major... (participant #7)

Some students struggled academically in their original majors:

...I was interested in the original major, but I just couldn't work it out...I couldn't understand it ...The present major can meet my expectation... (participant #2)

...I just realized that the original major was not suitable for me. I am not good at singing, dancing, drawing or handcrafting, which are all required by the original major... (participant #10)

These participants also consulted their teachers about what was truly suitable for them before deciding to change their majors.

4.1.3 Self-efficacy Encouragement

Parental Modeling

Besides academic interest, parental modeling also appeared as a factor influencing students' selection of majors within the SCCT framework, particularly in the context of self-efficacy. According to Bandura (1977), self-efficacy was influenced by several sources, including vicarious learning, which occurred through observing others. In this study, students observe and internalize the behaviors and successes of their parents, thereby enhancing their own self-efficacy. This study revealed that parents' encouragement and example played a crucial role in students' major-switching decisions.

I have always wanted to be a teacher since I was a kid. My parents are teachers, and they set examples for me since I was a very small kid. I never quit my dream of becoming a teacher... and also the prospects of employment and my personal interest... (participant #10)

A significant number of students discussed their decisions with their parents. Ten out of the 17 participants reported that they had a discussion with their parents, with 7 stating that the first step of their decision-making process was to consult with their parents.

I had a discussion with my parents and made up the decision to change my major. After that, I began to pay attention to the school's information about major changing... (participant #16)

However, most students did not consult with professional staff or senior students, which resulted in misinformation about the new majors. For example, one student, when asked if her current major met her expectations, said: "...I don't think some courses offered by the school are helpful for improving professional ability, and there are some manual courses (which she said she was not good at, a reason why she quit the original major), which are a little different from what I had imagined...".

The lack of professional guidance and heavy reliance on parental advice highlight the need for better professional advising in schools.

4.2 Follow-up Questionnaire

The follow-up questionnaire conducted one year later revealed some additional points on students' major-switching decisions.

Firstly, the follow-up data demonstrated positive long-term impacts of switching majors. Generally, participants highlighted increased interest in and commitment to their new majors, which led to improvements in their academic performance, which is in accordance with previous studies (e.g., Zhang et al., 2021). The follow-up data revealed students' overall satisfaction with their major-switching decisions.

Secondly, the follow-up questionnaire did not produce new factors concerning students' major-switching decisions, but rather reconfirmed the primary factor of future employment prospects. All 11 participants responded that they still considered employment prospects as the most crucial factor despite the fact that 10 of them admitted that their majors did not align with their dream careers. It also indicates a strong career anxiety among students, which schools should really pay attention to.

Thirdly, despite students' overall satisfaction with their new majors, some participants expressed that certain aspects of the new majors did not fully meet their expectations. This finding is also in accordance with previous studies indicating that there is information asymmetry in major-switching (e.g., Yang et al., 2016). It suggests that switching majors can be very complex and highlights the need for more comprehensive professional guidance.

4.3 Implications

By examining factors influencing college students' major switching decisions from the perspective of SCCT, this study provides some important insights into why college students decide to switch majors. These findings could be valuable for both colleges and students.

Firstly, colleges should provide more comprehensive advisory services to students on switching majors. Many students made their major-switching decisions based on assumed career prospects without truly understanding what a major involved, which may not align with their academic interests and career development. By understanding students' decision-making processes, colleges can develop more helpful programs to better support students in aligning their academic interests with their long-term career development.

Secondly, colleges should provide more flexible major-switching regulations. More than half of the participants were students who were reassigned to their original majors, indicating a mismatch of students' academic interests and majors. Thus, schools should develop more flexible major-switching policies to allow students the opportunities to explore and pursue their real passions.

Thirdly, colleges should develop programs to address students' career anxiety. The findings indicate that nearly all the participants take employment prospects as the crucial factor for selecting or switching majors. It would be plausible for colleges to align their majors with the job market, taking both students' pursuit of their true passions and enhancement of employability into consideration.

Fourthly, students should adopt a comprehensive approach when switching their majors, balancing career prospects and their true passions to find the major which is truly suitable for them. Meanwhile, students should search for information from various sources to make well-informed decisions to switch their majors.

5. Conclusion

To conclude, the application of SCCT offers a new perspective to understanding factors influencing college students' major-switching and decision-making processes. Among the three major factors identified—future employment prospects, academic interest, and self-efficacy encouragement—career prospects emerged as the dominant factor. The study suggests more flexible major-switching regulations and a more enhanced advisory role of colleges to help students align their academic interests with long-term career expectations.

Nevertheless, the study has its limitations, including a small sample size, restricted face-to-face interviews due to the COVID-19 pandemic, and a lack of population diversity. Particularly, the study failed to recruit participants who failed to switch their majors or those who wished to switch but did not apply because of restrictions imposed on major-switching. Further research with a larger and more comprehensive sample is needed to generalize the findings.

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