A research on graphical representation teaching practice of university students’ career planning

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Abstract: The career planning for university students is a course that assists college students to set career aims and make vocational plans based on their own characteristic. In the teaching process, the pictorial method could realize the self-concept of students, which is developed from the schematism definition of Build Learning theory put forwards by Piaget. During the real practice, divergent thinking diagram, degree (logic) progressive diagram, classification and comparison diagram, interactive diagram and other methods could be adapted to achieve the teaching objectives. However, when designing graphic approaches, the principles such as students-orientation, exploring authenticity and designing open-ended questions should be followed, thus encouraging students to study with a clear goal.

1. Preface

With the development of national higher education, more and more high school graduates continue their study in university and the employment pressure of college graduates is growing. Under the background that the college education is disjointed with social needs, which attracts the concern of the pubic, the government has issued policies to encourage students to start their business. Moreover, the universities provide a large amount of courses relative to innovation and entrepreneurship. As one important part, career programming obtains more and more attention and the career coach occupation has emerged, whose goal is to address the situation that college students lack of objectives and feel confused when studying.

Most of the classroom teaching still focuses on the the traditional lecturing method, whose teaching effect is not good enough. In order to achieve teaching objectives, more teaching attempts that take students as the center need to be made. The pictorial method, one significant teaching method, is mostly applied in the domain of foreign language, history as well as fine arts. Although there are more research achievements in the academic field, China has lacked the researches on career planning teaching.

2. Career planning for university students and pictorial method

2.1 Career planning for university students

Simply say, career refers to the life of a man, including the length, width and thickness of career. Career planning refers to the whole personnel process of one person in his or her life. This process could be discontinuous or continuous. In addition, it includes the external changes of work, occupation, position as well as the internal change of working attitude and experience.

The career planning for university students is to assist college students to confirm their career objectives based on their own conditions, realistic environment, character, interest, ability and values. At the same time, it refers to the process that university students make the planning and take action to achieve the goals according to their career objectives and planning.

2.2 Schematism and pictorial method

Schematism is the core concept of construction learning theory, which is derived from the research concerning the development and structure of children knowledge of Piaget (cognitive, intellectual,
thinking, etc.). He thought that schematism not only is a method that individual perceives, understands and think about the world, but also is the framework or organizational structure of psychological activity and the foundation of the individual's understanding of things. A set of schematic system at first come from congenital heredity. Once it interacts with the environment, it could be developed and enriched during the process of adapting to the environment, thus finally forming a series of schema systems and the cognitive structure of people. Piaget thought that although schema was originally inherited, it would change, enrich and develop in the process of adapting to the environment and it will never remain at the same level after it contacted with the outside world.

Piaget explained the activity process of individual cognitive structure with schema, assimilation, adaptation and balance, those four basic concepts, thus forming his construction theory with his own characteristics. Schema is organized and repeatable behavior or mode of thinking; assimilation is the process that the subject incorporates and integrates information from the environment into the existing cognitive structure; adaptation is the process of changing the original schema or creating a new schema to adapt to the needs of the environment when the schema of the subject cannot adapt to the requirements of the object; balance is the psychological motive force of the subject development and the active development trend of the subject. Diagram form is a word that be used to illustrate the concept of schema.

Pictorial method is the new teaching method aiming at teaching career planning for university students on the basis of schema theory of constructivism put forwards by Piaget.

The core opinion of constructivism theory thinks that the process of study requires learners to study the knowledge forwardly instead of accepting knowledge passively. Although the world is objective, the understanding towards world for each individual is determined by his or her experience and cognition. Learning should not be that teachers directly impart knowledge to students and students should not accept the knowledge passively. On the basis of the information processing activities of students, learning should actively construct an understanding of the object. During the graphic teaching method, teachers promote students to reflect on themselves via organization, dialogue, communication as well as other methods and explore their career life during the process of interaction, questioning and dialectic. In the career planning teaching, teachers are the facilitators who assist consultants to solve the problems and puzzles in the domain of career planning. Instead of being the manager, teacher, solver, leader and arbiter, teachers are the promoter, companion, helper, leader, supporter, and developer. Teachers could construct their own schemata when establishing the schemata of students via using pictorial method.

3. Practical exploration of graphic teaching method in the teaching of college students’ career planning course

3.1 Application and practice of divergent thinking diagram

Divergent thinking diagram uses associative reaction, emotional rendering, competitive consciousness, personal desire and other method to inspire innovative thinking of participants. Moreover, Brainstorming, the method for secondary thinking which was put forward by the American creator A. F Osborne, focuses on the unlimited free association and discussion. The purpose of brainstorming is to generate new ideas or inspire innovative ideas.

During the teaching practice of exploring outside world (occupational environment), brainstorming activity, the divergent thinking diagram, could be adapted. The concrete steps are as follows.

For example, on the topic of the relevant occupation of mobile phone, the group discussion is conducted with a team of about six members. Then the team leader, recorder and timekeeper are selected who take the relative responsibility and control the situation. The winner will belong to the team that has obtained more answers within the prescribed time. The activity should follow the principles of free talk, delay of judgment, prohibition of criticism, pursuit of quantity and the brainstorming activity is organized as the following figure.
Besides opening up the brains and activating thinking and inspiration of students, brainstorming activity could set up the sense of team competition and increase team cohesion. This method not only helps students to know the current employment situation and future developing trend, but also assists teachers to know more about the career prospects of students in a more comprehensive way. At the same time, by the clear graphic teaching method, students could clearly understand the characteristics of the related industries of mobile phone, which lays the foundation for the next-step teaching.

3.2 Application and practice of degree (logic) progressive diagram

Degree (logic) progressive relationship is venation of promoting the development of things, which organizes thinking activity according to the degree of perception and the progressive relationship of logical association. This method could encourage students to solve the problems from point to face and from local to whole.

For instance, in the group class, when discussing those problems with students, the following policies can be adopted. By those policies, students could solve those kinds of problems: what measure they could take if they meet the major they don’t like after entering the university; what aspects they need to consider and what decisions they could make after weighing those factors.

Firstly, teachers should guide students to find out which factors needs weighing and how to weight those factors before students do the project. In the discussion, teachers need to guide the students to consider the factors needs weighing from the following aspects: ability (self), resources (external), and self expectation. After writing these factor on the horizontal coordinates that increase from left to right, the solutions could be obtained via discussion. The discussing results usually are transferring to other major, doing the part-time job, studying double degree, taking cross-major postgraduate entrance examination, dropping out of school. Finally, according to the degree of difficulty, that is, according to the internal and external conditions and the degree of self-expectation, those options are arranged in the order of transverse coordinates (as shown in the following figure).
By this activity, students could clearly know the flow path of solving those kinds of academy confusion. Via thinking, students not only could find the right choose to adapt to themselves, but also could establish schema in the mind. When meeting the relative problems in the future, the adaptable ability of students could be enhanced through assimilation, adaptation, balance. Therefore, students could use this method to think and solve the problems, thus drawing inferences about other cases from one instance.

3.3 Application and practice of classification and comparison diagram

Through making classification and comparison of the matters, this diagram could search for the common ground from the relationship between one type and other type and the characteristics from differences. The effect of classification and comparison diagram is more intuitive and clear than the text description, which could offer students more impact and deep-seated experience.

For example, when discussing the entry point for industry cycle with students, teachers could introduce the coordinate diagram of industry cycle and divide the industry into dawn period, sunrise period, steady period, sunset period, thus promoting students to think about the employment and the entry point of entrepreneurship. By group discussion, the characteristic of each period could be analyzed. Based on the current industries, students could think about the following questions: the developing prospects of one position in one industry; what actions should be taken to adapt to the characteristic of those industries; what characteristic do the representatives of each industry have?
On the basis of the four types of industries given by teacher, students could expand their vision towards current social economy trend as well as the employment situation of college students, understand the information of career, occupation, position deeply via searching information and group discussion. After bringing the information to the known field of brain and integrating the internal information, the neural network of students’ brain could be formed. The more content that the brain acquires, the more dotted structure, resulting in the richer schema.

3.4 Application and practice of interactive schema

Interactive schema requires teacher to internalize the process and externalize the problems during the individual consult. That is to say, teachers should establish the diagram for solving problems in their minds and strip the problems layer by layer via asking questions, thus finding the core of the problem.

For example, in the reality, students always struggle in taking the postgraduate entrance examination or finding the job. To those kind of questions, there are some strategies shown as follows.

Firstly, externalizing the problem. In fact, the problems that the students concern is the troubles instead of the real problems and those troubles could be striped and dismantled layer by layer via asking questions. For instance, what do you like and what thing are you good at? What about the opinions of your families? What aspects do you need to consider (such as the distance from home, growth space, pay and so on). The the problems are identified, thus finding the core of the problem and the current difficulties.

Secondly, internalizing the process. First, teacher needs to form a flow chart for solving the problems in his or her mind (as shown in the following figure).
In this section, the essence of the problem should be focused on, thus promoting students to solve the problems based on his or her diagram. It is worth noticing that what should be established is the schema of students, which promotes students to get through their own schema, establishes the their cognitive structure, and enhances their ability to solve problems. The richer the cognitive structure, the more content that students obtain. This process improves the adaptable ability of students.

When establishing the diagrams of students, the existing diagrams of the teachers could be expanded. Via listening and communicating, teachers could explore the unknown career paths. Therefore, this process benefits teachers themselves and the process communicating with questioners is the process of ideas collision and establishment of schemata.

The third one is making action plan. Specifically, it is necessary to find the difference between the expects and current situation of students (the height of difference represents the severity of problem). Teachers should help students to search for and minimize the difference. The gap between the present situation and the ideal is to promote students to make decisions and put the practical actions to solve problems.

4. Problems need attention in graphic teaching design of career planning for university students

4.1 Principle of taking students as center

The constructivist studying theory thinks that knowledge is the result of gradual construction in the process of interaction between individual and environment. The study quality of students depends on the ability of students to construct the knowledge based on their own experience instead of the ability of students to memorize and recite the teaching knowledge. Therefore, the purpose and foothold of teaching modes is lying in the individual of students. When making the teaching design, teachers should construct individual schemata of each student via multiple element teaching modes. The main teaching modes include lectures, reading, audiovisual, group discussions, senior lectures, group assignments, individual counseling and the degree of student participation increases sequentially in accordance with the previous sequence from the classroom feedback. Compared with other modes, the group discussion, senior lectures, group assignments and individual counseling are likely to promote students to think deeply in the field of self-exploration, external world exploration, decision-making and action, etc. And the schematism constructed in the individual of students are more wonderful and diverse. Apart from avoiding extensive theoretical instruction, teachers should connect the knowledge with the real situation, combine social pain spots and stu-
dents’ interest, render students the thinking time, discussion space as well as the answer of the questions, thus developing the thinking and innovation ability of students.

4.2 Principle of exploring the truth

There are many instructional modes in the course of the career planning for university students, including collective teaching mode, group guidance and individual counselling, but the purpose of all is to solve the individual problem of students. The collective teaching mode focuses more on popularizing the theory of career planning and stimulating students to think about their own career development. Group guidance could solve the common confusion and trigger the reflection of individual. The purpose of individual counselling is to solve the confusion of individual and promote the development of individual. The forms of those three modes are different, but all of them need to hear the true voice and appeal of the heart and any of distracting thought will influence the effects. Therefore, the classroom arrangement of teachers, the feedback of students’ assignments or the writing of career planning all are carried out around the principle of exploring the truth.

4.3 Open-ended question principle

When designing questions, teacher should use open-ended questions, the main reasons of which are as follows:

On the one hand, teacher should allow students to keep their curiosity. Instead of criticizing new things and ideas, teacher needs to “invite” different voices, which would become the presentation of value after producing effects. After integrating internal information of the brain, the incoming information becomes the brain neuron network. With the increasing of experience, there are more forming dotted structures, thus forming the network structure. When relaxing, the brain constantly creates links and the inspiration will occur as incoming information and existing information are linked to each other. Therefore, if the teacher dose not make judgments and talk about value, the incoming information will merge with the existing information, thus stimulating inspiration. If the teacher does not make the questions open-ended and welcome the new information, the link between the teacher and the students is broken. When the information is closed, the schematism losses opportunities to become rich and diverse. Teachers are required to astringe the known, keep curious, put forwards the open-ended questions and reduce notification.

On the other hand, teachers needs to take students as priority. The career planning is made for the career of students instead of teacher. If the teachers provide the answer directly or indirectly, the answers are offered according to the original schemata flow of the teachers instead of that of students. Therefore, teachers needs to encourage students to think and explore the knowledge independently, mobilizing the neurons in the brains and forming the links.

5. Conclusion

In fact, the courses of career planning for university students are the important driving power to assist students to find the learning goals and put them into the real practice. Different with other professional courses, this course requires teachers to totally exert the subjective initiative of students, thus realizing the self-cognition of students. Therefore, with this purpose, either the pictorial method or other teaching methods should help college students to obtain academic success and apply the learning knowledge.

Note:

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