Ponder on Conceptual Changes, Educational Environment and Professor’s Integrated Involvements in Bilingual Teaching

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Abstract. This article expounds the problems faced by the college students and the inevitable challenges for professors, who are engaging in the bilingual education. It’s obvious that the mode of bilingual teaching has been put into the spotlight. Nevertheless, such barriers have also been showed as conceptual changes in cultural differences, knowledge backgrounds as well as the mastery of the majors. The current situations and problems encountered by both graduates and professors would be focused on in this thesis. Meanwhile, targeted solutions would be taken into consideration.

Introduction

Nowadays, more and more colleges show their keen interests on bilingual education, aiming at such ability improvements as language mastery, professional knowledge reserves and competitiveness compared with those countries, native in English. There is no doubt that bilingual education implement could open up graduates’ horizons whether in academic learning or in daily life. Mastery of secondary language has become necessary for these youth, which could enhance competitive advantage in the future. The original purpose of bilingual education, for all-sided development and acquirement of essential language ability, is without rebuke. And it is the fundamental expectations from this kind of education system that both scientific acquirement and language improvements are carried out. However, in the present case, there still exist lots of problems needed to be solved, no matter from the professor’s aspect or graduates’. In addition, it also becomes the matter of great concern that what is the best way to carry out bilingual education. This thesis advances the problems existing in Chinese bilingual education at present and opinions on the mode and method of bilingual education in the engineering courses.

In normal approaches to science education, a key learning outcome is the achievement of conceptual changes in learners. As we know, students come to science lessons with everyday conceptions, which differ from the scientific ones that they are expected to acquire. As a result, teachers need to explore these conceptions and use these to build new understandings that students find intelligible and fruitful. The ratio of graduate’s conceptual comprehension and professor’s inputs is of great significance, and the slight variation would radically make an inevitable impact on the teaching quality. As a result, bilingual teaching would encounter such
difficulties that professors have to move the scientific key points from the specialized courses into the concrete explanations by using the easily dialogic expressions understood by the majorities, with English.

The Problems and Current Situations Exiting in the Bilingual Teaching System

When putting all the factors into consideration, there are three essential elements, which play a significant role to determine the quality and outcome of the bilingual teaching. Graduates’ involvements, professors’ inputs and teaching environment have an close interaction with each other, alike the chains on the bicycles. If any of them make a misfit, the whole system would be distorted to some extent. At present, this running operation does have some unknown issues to be solved.

The Allowable Teaching Environment Provided by the Colleges

In order to accommodate the bilingual teaching, the colleges would generally put the original foreign language books into account. Although the colleges want to solve the potential problems of supplement in original foreign reference books, the issue still exists that the original foreign exercises after lessons are somewhat less than the amount of what the normal classes does. Lacking of abundant tutoring materials, the quantity of graduates’ exercises would be decreasing, bringing about the non-proficiency in the related knowledge. The accumulation of inefficient exercises on every chapter knowledge would be like a chain reaction or a vicious cycle, resulting in the less solidification in the building of the whole knowledge system and the dissatisfaction in their examination performance.

Due to the bilingual teaching mode is still under study, the best and most suitable teaching methods have not demonstrated. In order to improve the bilingual teaching regulation, experts said English, professors with abundant professional knowledge as well as lecturers are supposed to be all involved in the perfection of this teaching system. But the fact is, not all colleges could spare large time and funds to synthesis all factors and figure out a rational implement scheme.

Conceptual Changes between the Cultural Differences

Apart from the inadequacy of guidance information materials, the conceptual changes between the domestic teaching mode and the education of foreign ideas could also carry a serious barrier on the bilingual learning. Due to the familiarity with the domestic sentence sequences, which youth have received in the early years, the English sentence order would be a hinder during their conceptual understanding. According to the grammar requirement in the English language constitution system, the language habit is to put the nouns or the objects in the first place, with the adjective terms and descriptive details behind them. However, it’s exactly contrary to what the Chinese does. The descriptive details are the firstly considered factors in the order of one sentence, which are put before the real central terms. So, if just reading the literature books as an entertainment, the difference of the sentences between the foreign language and native ones could be ignored in some way. But when it involves the professional learning, every single word does play a role. In other words, this would lead to graduates spending much more time figuring out what the every single word stands for, which comes along a problem that it’s really hard to understand what the original foreign books talk about.

As a result, another solution that looking through the Chinese reference books would be more likely to deal with the accumulated comprehension deviations. It’s just like an infinite viscous
cycle: misunderstanding in English textbooks leads to the puzzles accumulations, which result in the misguidance in Chinese teaching materials and the losses of the original meaning of the bilingual learning. Because of the difference of two kinds of cultural systems, the scientific understanding would become an inevitable issue to be taken seriously. Especially in the engineering subjects, when it comes to the varies of angles and reference dimensions, the usage of prepositions, such as in, on, beneath and over, could easily be confusing. What the graduates spend is not only the time, but also their extra efforts to figure it out. Conceptual changes during two language systems occupy their much time to think it over and over, which may be not paid much attention by those whose teaching materials are Chinese.

**Professors’ Integrated Involvement And Ability of Mastery In English**

Because the totally difference between the teaching mode in Chinese and English, using English to express the professional terms could also have an unavoidable impact on the outputs. Science teachers need not only to be aware of and able to use a range of instructional strategies, such as those based on constructionist ideas, but they also need to be able to use classroom talk effectively to meet the learning objectives they establish for their students. Because the key feature of any science lesson is the way that the teachers organize the communication with students in the classroom, in order to develop the scientific story being taught. However, the fact is that most domestic professors with rich professional knowledge may be not fluent in English expressions, which would put an invisible impedance on the way of teaching. Providing hiring the lecturers who specialize in English to convert the lecture meanings, it may be defectiveness in the field of such related scientific knowledge background. Supposing taking the major acquirement into the first place, the professors would spend too much time on explaining scientific meaning in classroom talk with their students, which would lead to the delay of their teaching plan and decline in quality of their teaching effect, even much harder for those who without the previous experiences to make sure which methods can be used to meet their pedagogic objectives. For example, professors need to know when it is appropriate to have a dialogue with students and ask them to articulate their views, and that not treat them in a judgmental manner. If teaching in an improper way, effectiveness on students’ responses would far from the expectation.

This potential issue would lead to a minimized desire to make majorities understand what the teachers want they know, the teaching contents are forced to be lessened, resulting in the decreasing of difficulty level of learning contents, which in some way, straying from the primary motivation in bilingual teaching. In addition, the original foreign textbooks are much easier than the domestic materials to some extent, which bringing to a likelihood that lecturers have to download the advanced materials by utilizing the digital libraries or network to analysis and handle these materials to be systematic and targeted, posed the extra quantity in teaching work.

**Students’ Participation And Reflection During The Learning Process**

The requirement of bilingual teaching is not just the knowledge-based commitment or the highly incumbency involvement of professors, but also the learning positivity of students, which including the ability of English listening, speaking, reading, writing and the cognition of the professional knowledge backgrounds, especially the courage to face the challenge of learning a secondary language courses. Nevertheless, the sole improvement in ability of English has little connection with the conceptual understanding in the scientific knowledge learning. What the professional learning thinks highly of is the all-sided comprehension both in
extrinsic and intrinsic aspects, understanding what the teacher talking about merely accounting for a relatively small portion, but figuring out what the words expressed in every single sentences taking up the comparatively large weight. The unfamiliar knowledge that the students have never thought before would result in the conceptual deviations, especially in the bilingual teaching, increasing the difficulties to overcome the misconceptions. Reflections from the students are closely connected with how much they have accepted, and the lack of a small percent of practical studying and participation easily bringing to the puzzles in the learning process. In bilingual teaching system, the topic that professors convert is new to youth, the English learning environment is strange to them, and the English accents of different professors is challenge to them. So the conceptual understanding, adaption to the bilingual surroundings and listening comprehension ability can guarantee the regular brain well-organized working. If any part of these three critical factors off the chain movement would reduce the speed of received signal as well as produce the students’ negative emotion.

The length of time receiving the information converted by lecturers depends on the students’ reflection and responses in their brain nerve system. Higher excitement degree of students generates the active responses to the lesson contents and lead to the easily understanding of the scientific knowledge. In contrast, passive reception resulting from the incomprehension of information in English is the root cause of the negative classroom participation and longer time to make a response. The bilingual teaching, especially the English contents in the scientific learning, increase the studying difficulties, and compose of the new knowledge acceptation and reflection to what the teachers are talking about. That is an inevitable barrier for those whose English ability and comprehension in new aspects are poor than their companions.

**Analysis And Conclusion**

In bilingual teaching, the different courses involve the wide ranges of different knowledge, which put forward the diverse requirements in the relevant course learning. Meanwhile, no matter whether it is on the connection within two similar courses or the grasp of the intrinsic understanding in itself, the all aspects of cognition play an essential role in the whole learning phase. Nevertheless, due to the limitation either in the bilingual educational symmetric imperfection or the students’ self-incapability in English learning, it seems that bilingual teaching has encountered such problems not easily solved. Especially in the engineering projects, various complicated conceptions set periodical obstacles along the way of the students’ knowledge acquirement, which making it more obscure on writing in English. Although the original intention is to become a better educational system, involving the scientific mastery and the improvement of abilities, bilingual teaching does affect the quality of teaching and the learning quantity, which lowering their original standards. Apart from it, because the regulation of college curriculum indicates the fixed numbers of courses every semester, all bilingual teaching would exert a huge pressure on those whose English is relatively poor. Comprehension as well as the pace with the teaching process would directly influence the student’s final performance.

**Conclusion**

As a result, considering the integrated conditions in the bilingual teaching, in order to form a better scientific comprehension, professors could teach the contents in English and with the help of Chinese explication in the specialized courses. Meanwhile, the original foreign teaching materials are supposed to be largely provided for the students and enhance the knowledge
understanding. By looking through the original documents and utilizing the digital library, students’ participation should be changed from the passive acceptation in traditional learning to the active exploration, which would open up their mind to take in more knowledge, and not be taught in the formal lessons. If only be trapped in what the professors convert, the bilingual teaching would be transformed into a lesson, whose significance is merely the learning of secondary language, nothing about the thirst for knowledge and curiosity about the advanced scientific researches.

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References


