Advanced Materials Research *Online: 2011-01-20*
ISSN: 1662-8985, Vols. 181-182, pp 792-798
doi:10.4028/www.scientific.net/AMR.181-182.792

"Nonintelligective Factors Inducing Scenario" Teaching Paradigm Developed and Applied Research

Guang XU, Chenguang Zhao, Yanli XU

School of Management, Harbin Normal University, 150025
Email：sara0220@sina.com

Keywords: nonintelligective factors, inducing scenario, teaching paradigm

Abstract: Nonintelligective factors inducing scenario, as a new teaching paradigm of teaching model, compared with the traditional teaching model is a kind of innovation and development, which is a more effective teaching model. This paper is based on scenario cognitive theory, which put forward the dynamic relationship model of the nonintelligective factors inducing scenario teaching paradigm, and emphasizing the teaching of both dynamic learning and the non-intellectual factors in learning, in order to stimulate strong interest of learners' and increase participation. In the teaching process, it emphasizes more on the creation of scenarios, learning motivation and feedback behavior of learners', in order to improve teaching effect.

Introduction

Education is facing with a more diversified environment. The differentiation between educational objects becomes increasingly significance. Traditional teaching means and methods in practical teaching process have been an unprecedented impact. It is urgent that teachers should learn pioneering professional knowledge continually, at the same time, grasp the changes in dynamic teaching practice[1]. Teachers should make full use of the advantages of nonintelligective factors inducing scenarios in classroom teaching to stimulate students' learning interest, and mobilize the initiative and consciousness of the students', in order to improve the teaching effect. Whether the teachers can change teaching means and methods quickly, and whether the teachers can master new teaching means to adapt to the modern environment, is the key to improve the quality of teaching.

In recent years, the inducing scenario teaching paradigm attracts extensive attention by the theory circle and the education circle. About inducing scenario, the scholars are more urgent to explain what the effect factors and model of actions are. From the perspective of nonintelligective factors to research inducing scenario teaching paradigm is an important area[2]. Currently, researchers focused on the relationship between nonintelligective factors and teaching, and the relationship between inducing scenario and teaching. But they didn't explore and reveal the nonintelligective factors inducing scenarios and teaching mechanism of action. This paper primarily discuss the applications of nonintelligective factors inducing scenarios in teaching process, especially focused on building nonintelligective factors scenarios to stimulate their motivation and produce the desired learning behavior. Based on this fundamental clues, we build nonintelligective factors inducing scenarios teaching paradigm. This model, from the perspective of nonintelligective factors, better explains and illustrates the impact of inducing scenarios factors as well as induction of its mechanism.

1. Literature Summary

1.1 Nonintelligective Factors

In 1935, the American psychologist Alexander WP in his paper "Intelligence: concrete and abstract", for the first time, proposed the concept of "nonintelligective factors". Domestic and foreign scholars have carried out extensive research in nonintelligective factors evaluation. Based on these studies, we found that the researches of foreign scholars revolved around “the relationship between intelligective factors and nonintelligective factors”, and domestic scholars revolved around “the relationship between nonintelligective factors and academic achievement”. In 1981, Professor Fuyuan Wu first proposed the concept of “nonintelligective factors” in Guangzhou psychology conference. Guo-Cai Yan in the "intellectual and learning" (February 1981 version) also proposed the problem of educating nonintelligective factors. Especially when Guo-Cai Yan published an article named “we pay attention to educate nonintelligective factors” in "Guangming Daily" (February 11, 1983), our education sector and psychology circles to attach importance to it. These studies revealed the objective laws in the process of learning activities and make people more aware to the important role of nonintelligective factors played in studying. They provided strong basis of psychology for specific education and teaching[3,4].

1.2 Inducing Scenario

"Webest Dictionary" defines scenario as the entire background or environmental which related to some thing. Catherine • A • Hansmann in the "Context-Based Adult Learning" presented the trait and core ideas of situated learning. The former Soviet Union famous educational theorists and practitioners, who was the principal of Pavlysh, Suhomlinski, use Pavlysh as a base to practice and develop his own educational belief. As a result, this remote rural school was made to be a world renowned education experimental center. His success benefits from teaching and education, extracurricular activities, school management and so on. All links were permeated with training and education of nonintelligective factors for students. From teaching concept, inducing scenario is a kind of teaching model, which means that teachers introduce or set up a certain mood on purpose which use image as the main body vividly and specifically, to induce certain attitude experience of students to help develop students’ psychological function. Its core is to stimulate students’ cognitive affective to study in learning process.

1.3 The Relationship Between Nonintelligective Factors and Inducing Scenario

Learning activities is a complex and arduous mental work. To complete the learning activities and become successful, it is necessary to comprehensively improve the level of participation of mental activity[5]. It means not only intelligective factors should involve, but also nonintelligective factors. Nonintelligective factors are different from intelligective factors, which are not innate but acquired. The formation of it is not spontaneous. The key to it is carefully cultivate and correct guidance. Once formed and through intensive, it can be internalized into their own quality. Inducing scenario through creating specific scenario to induce learners’ nonintelligective factors aim to improve learners’ motivation and enthusiasm, and ultimately improve learning outcomes and teaching effectiveness.

2. Theoretical Framework and Model

2.1 Theoretical Foundation

From the above literatures, the current study focus on the relationship between nonintelligective factors and teaching, which were confined to the teaching philosophy related with scenario or in a step or several steps to explore scenario and teaching in teaching process, but not do the further explanation for the whole operating system and mechanism of nonintelligective factors and teaching. It is research direction worthwhile to explore that through inducing scenario to stimulate teaching objects' nonintelligective factors, consequently trying to build up a nonintelligective factors inducing scenario teaching paradigm dynamic implementation of the process.

While there are diversity meanings and understandings of scenarios, it is not difficult to grasp the connotation of the concept of scenario as the following three basic characteristics: First, the scenario relates with the environment and the background of the occurrence; Second, scenario can be expressed both as a non-ideal structure and a psychological and social structure; Third, the scenarios can be applied to people's psychological changes.

The scenario model under nonintelligective factors inducing scenario teaching paradigm is conformed to these characteristics. The scenario cognition theory, which developed in the 1970s, provides a solid foundation to explain the connotation of nonintelligective factors inducing scenario teaching paradigm. The scenario cognition theory holds that all human knowledge is the product of human activity and the scenario interaction, which is an index of the world. The scenario cognition theory also requires learner participation in a genuine scenario. This requires in inducing scenario, it should focus on stimulating the learner's nonintelligective factors, embedding knowledge in a nature and real scenario. Through such kind of inducing scenario, it stimulates the learner's nonintelligective factors. Through the stimulation of learners' motivation, it stimulates the learners learning behavior. In this way, meaningful learning can take place, and the knowledge gained is the most real, most complete, most powerful and most accessible applications. Thus, the scenario cognition theory criticizes the current teaching methods in schools that traditional teaching can not help students to go into the real applications of knowledge. The ideal of teaching should provide students with real or simulated activities, by observing, tools applications, problems analog, concept solution to get the knowledge.

Compared with the traditional teaching model, nonintelligective factors inducing scenario teaching paradigm has the following four distinct specific features:

(1)**Practical.** The traditional teaching model focuses on professional knowledge teaching and learning. Teachers often remain in the interpretation of the concept and presentation of methods. Students only receive in a passive and comprehensive mechanically. The nonintelligective factors inducing scenario teaching paradigm more stick out the central role of learners and teachers play the main role in guiding the control in learning. Appropriate scenario for learners provides a platform for simulation practice, so that learners experience in the self-conscious combined theoretical knowledge with practical application, which with a strong acceptability.

(2) **Pertinence.** Learning is a process of personalization. Teaching object also has diversified and personalized features. The nonintelligective factors inducing scenario teaching paradigm creates scenarios specific to teaching content and learner-specific features to stimulate the enthusiasm of learners and enhance learning efficiency.

(3) **Dynamic.**In the nonintelligective factors inducing scenario teaching paradigm learners are

the main activities, and teachers play the role of organizations and guide. Learners need to observe, analyze and solve problems. They need mutual discussion, expression and communication. They need to make static knowledge vividly and change abstract theory visible fullness. This is completely different with the traditional static-based teaching.

(4) **Coordinate.**In today's society, it growing emphasis on teamwork and this is also acquired by the global economy. The nonintelligective factors inducing scenario teaching paradigm provides an effective way for educating learners' team awareness, enhancing the spirit of cooperation. In the nonintelligective factors inducing scenario teaching paradigm, through mutual discussions, complement each other, communicate with each other to jointly enhance the breadth and depth of learning, learners create a good interpersonal relationship.

2.2 Construction of Theoretical Models

The nonintelligective factors inducing scenario teaching paradigm concern to not only the way teachers teach, but also the way students learn. The famous educator Babanski students' achievement are more determined by the selection and practice optimal combination the skills and techniques of teaching paradigm. "The nonintelligective factors inducing scenario teaching method", through creating the problems' scenarios, inducing learners' mood and feelings, is a good method for them to consciously take the initiative to learn and get good results. It is also an effective method in stimulating interest, mold their sentiments, educating will and character in the process, and make the intellectual level of learners rapidly improved. Shown in Figure 1, through the scenarios created by teachers and learners of the scenarios experience, the learns' nonintelligective factors were inspired by scenarios, so as to enter the learning state. The individual learners based on the scenario act as a "valve" role, so that the creation of a scenario more in line with the needs of learners so as to enhance controllability of simulated teaching scenario, in order to provide for the possibility of teaching practice.

The nonintelligective factors inducing scenario teaching paradigm is divided into five main implementation steps, namely: scenarios concept establishment, scenarios creation, scenarios implementation, scenarios experience, and results evaluation. Teachers in the nonintelligective factors inducing scenario teaching paradigm play the role of the director, and the center of nonintelligective factors inducing scenario teaching paradigm is learners. Teachers in the creation of scenarios should fully take into account the needs of learners, and the learner's individual "choice", "self-efficacy", "feedback" , "expects", the four elements, play a stabilizing and regulation role for the creation and implementation of scenarios.

Driven by the teachers' guide of the scenarios and individual motivation of learners, learners experience the occurs scenario behavior. The size of experience behavior and the prior is directly related to the need of the strength of the scenarios creation. The strength of directly need determine the motivations of learning. Evaluation of the nonintelligective factors inducing scenario teaching paradigm is the overall assessment of knowledge acquisition by teachers and learners in teaching process. Figure 1, "Evaluation"

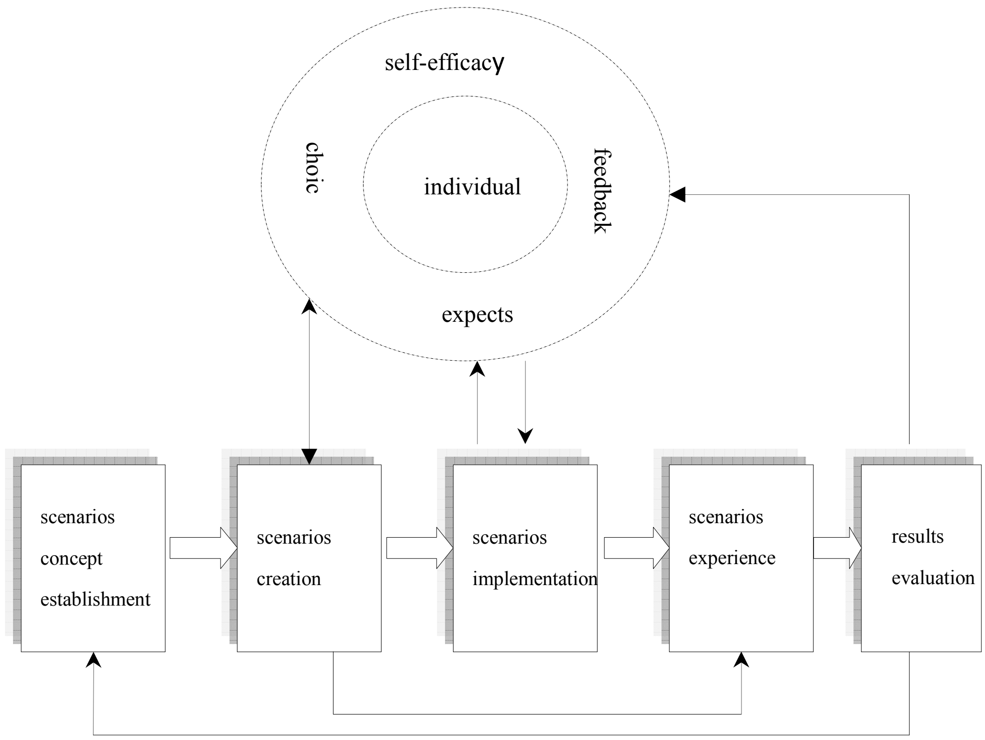

Fig.1 The Nonintelligective Factors Inducing Scenario Teaching Paradigm Dynamic Relationship

2.2.1 Scenarios Concept Establishment

In the nonintelligective factors inducing scenario teaching paradigm dynamic relationship model, first of all, teachers' and learners' scenarios concept were established. Under the guidance of scenarios concept, teachers design teaching process, and make specific plan to ensure the smooth development of scenarios learning activities. Teachers should stress the value of inducing scenarios teaching repeatedly to learners to motivate the interest and initiative of learners participate in inducing scenarios.

2.2.2 Scenarios Creation

Scenarios creation is to make use of certain material media, use innovative teaching methods, design teaching procedures, activate the teaching of cognitive drive to improve the learner's nonintelligective factors. This requires that teachers must study materials, excavated emotion and sentiment factors in the materials, depend on different teaching content to design teaching activities, base on different teaching activities and use different props to design different scenarios, use the best sound and light as factors to stimulate the learner's senses, so as to achieve the ideal of teaching effectiveness.

Scenario creation is the key in the nonintelligective factors inducing scenario teaching paradigm implementation model. To design scenario, it should comply with the following four principles:

(1)**Scenario Adaptability Principles.**To design scenarios, it should proceed from everyday cognition, the authenticity of the activities and knowledge transfer. Teachers should design the situations coincide with students own experience, design the activity which is similar to the daily practice of coherent, meaningful, and purposeful, designed the scenario which can promote students' knowledge migration to help students use the knowledge they have learned to solve problems in real-life scenarios.

(2)**Content Design Principles**.The design of content should consider the following two factors: First, students should not only acquire knowledge, but also know when and how to use the knowledge; Second, it should promote the different content used in different scenarios; Therefore, it should provide opportunities for learners when designed to carry out learning internalization; Third, it should create rich environment and realistic problems to encourage students to explore diversity views.

(3) **Incentive Design Principles.**The design of incentive elements should be conductive to internalize the learners' knowledge, thus contributing to improve higher-level cognitive skills and self-evaluation capacity. It should select those incentives which have a sustained and highly interactive.

2.2.3 Scenarios Implementation

In the process of scenario implementation, it should base the need of scenarios creation to prepare the related hardware-related facilities, so as to build harmony and necessary environment platform for scenario implement

(1)**Inclusive Environments support**. It means that theme interact with the environment, internal resources and external resources are blended, students' characteristics of and teachers' support are blended, static and dynamic environment creation are blended.

(2) **Experiential Environmental Support**.Respect means meet the need of students. Trust means open up the practical ability of students. The fully practical environment creation provides students a free comfortably space for them to explore.

(3) **Environments Coordination Support**.The environment required for scenarios should be coordinate with teachers' purpose, students' interests and hobbies, and he actual needs of the common co-ordination.

2.2.4 Scenarios Experience

Students under the guidance of teachers, through perception, experience, practice, participation and cooperation, etc., to enhance the role of student experience in the classroom, by the basic model of "lifting the engine - practical experience - experience internalization - feedback externalization" to practice, so as to achieve mission objectives. It should do the theory relate with the practice so that the "scenario experience education" can inform it. Optimize the classroom structure, and foster the modern teaching philosophy which is based on the development of students, through the autonomy of individual participation, self-discovery, self-experience, self-sentiment to deepen knowledge learning and promote self-study improvement. In this process, teachers and learners should experience in more lively and effective scenario, explore in efficient and effective activities to promote the understanding and grasp of knowledge in the thinking collision.

Conclusion

Propose the nonintelligective factors inducing scenario teaching paradigm helps students innovative learning ways, and develops the teachers teaching methods. It does not deny the outstanding contribution made by the traditional teaching ideology, but rather trying to be able to further compensate for past deficiencies in teaching ideas, in order to provide a broader perspective and more in-depth thinking to explore the nature of human learning activities.

What concept that the nonintelligective factors inducing scenario teaching paradigm advocate is "under inducing learners' nonintelligective factors, through scenario factors contribute to learn knowledge and grasp skill". Meanwhile, with the continuous reform and development of scenario cognitive theory and practice, nonintelligective factors inducing scenario teaching paradigm will be continuously enriched and improved.

References

[1] D, Keegan. The future of learning: From e-Learning to m-Learning[EB/OL]. http://learning.ericsson.net/mlearning2/project_one/index.html.

[2] T. Fritzlar. Sensitivity to complexity—an important prerequisite of problem solving mathematics teaching. ZDM ,vol.38(2006),p.436-444.

[3] Liao Jianxin, Wang Wenlin and Zhu Xiaomin. Consistency Control Algorithm for the Cache of Voice Platform Based on VoiceXML [C]. The Second International Conference on Networking and Services. (2006).

[4] A, Syvanen, R, Beale, M, Sharples, M, Ahonen, and P, Lonsdale. Supporting pervasive learning environments: adaptability and context awareness in mobile learning [C]. Proc. of Wireless and Mobile Technologies in Education.(2005).

[5] F. Pozzi. Evaluating the Social Dimension in Online Learning Communities. Lecture Notes in Computer Science.vol.5621(2009),p.498-506.