Theory of Constructivism and the Orientation of Hanoi Retraining College for Teachers and Educational Managers in Building a Model of Constructive School in Vietnam

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Abstract Theory of constructivism was suggested in the early 20th century by Jean Piaget (1896 – 1980, a Swiss psychologist and epistemologist); since then, it has been applied to many fields, especially in education. In many countries, including Vietnam, the theory of constructivism has become one of the main tendencies in reforming education. Building and managing schools based on constructivism, also known as model constructive schools, are becoming the orientation of developing modern education. To achieve this model, the utmost prerequisite is to have qualified managing and teaching staff that can fulfill the school developing requirements. Hanoi Retraining College for Teachers and Educational Managers has been given a very important task of “Strengthen professional knowledge and career service for staff and teachers who manage and teach in the educational institutions in Hanoi”. In this paper, orientational solutions to fulfill the requirements in developing institutions based on the theory of constructivism in Vietnam are proposed.

Keywords: constructivism, constructive educational institution, training, educate, educational reform

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1. Introduction

Educational institution is the utmost aspect in society, and the backbones of education happen within the institution. As a result, the changes in education lead to the change in educational institution. Thus, applying modern theory into rebuilding educational system is now focused by institutions. With the basis of promoting teaching through connection, connecting existing knowledge to construct new knowledge and bringing learners to different situations, using knowledge to form abilities, constructivism is becoming a direction which institutions aim for. Constructivism is formed mainly based on the work of two scientists, who researched on the development of system thinking in children and adolescents in the early 20th century. They were Piaget, a Swiss psychologist, and Bruner, an American psychologist. The research of the two brings a new perspective, a new way of looking at learning and knowledge [1]. Constructivism was born in response to the innate theory and behavioral theory. Constructivism concerns about the process of learning and science. Indeed, the concepts of constructivism often articulate together in response to model learning behaviors. Behavioral theory studies the changes at the behavior levels. According to the behavioral theory, teaching is seen as filling a jar; people are born, yet know nothing about the world characterized by learners’ effort to gain knowledge and teachers’ endeavor to pass knowledge. This is a passive way, mainly directed and controlled by teachers. In contrast, constructivism suggests that each learner creates their relative reality or at least understand it based on their knowledge and experience. According to constructivism, mastering a language uses the cognitive structure, which is built by the subject of the process. It is the process of exploring, discovering the world and reconstruct it under a form of diagram or cognitive structure. To learn is to apply knowledge. They learn something, which mean they do it proactively. That is the trigger and the application of knowledge.

Author Nguyen Quang Thuan in the research “From constructivism to social constructivism” also confirmed the importance of constructivism was that knowledge was created through activities and knowledge about activities. From there, the use of constructivism to build teaching and learning operations, emphasizing in developing knowledge and skills, bases on two basic activities: assimilation and adjustment. The process of construction and creation of new knowledge is a process, either assimilate or adjust, between new and old knowledge. From which, the author has given a number of important
characteristic of teaching and learning methods as people learn to create knowledge based on the knowledge that he gains earlier; learners will construct new knowledge based on personal experience; learners will create knowledge efficiently if the knowledge is strongly structured [2]; 137.

Besides, the other works such as The fundamental problems about the program and teaching process by Nguyen Huu Chau (2005), Teaching and teaching methods in school by Phan Trong Ngo (2005), Constructivism, a new direction of modern education by Bui Gia Thin (1995), Constructive approach in scientific teaching model by Nguyen Phuong Hong (1997)… also introduced about constructivism and the application of this theory in many aspects, including education.

After the process of learning and researching about constructivism, in this article, the author will inform about constructivism and requirements in teaching in educational constructive institutions in order to create solutions to strengthen knowledge and abilities for teachers and staff.

2. Content

2.1. Introduction, Development, and the Use of Constructivism in Educational Institutions

Constructivism was introduced at the end of XVIII century, based on a statement of an epistemologist named Giam Battista Vico. It stated that human can only clearly understand what they build for themselves. However, the first person who studied and applied constructivism into education was J. Piaget. According to Piaget, the foundation of education was to explore, and the structure of knowledge had to be created and developed in a dual-process: assimilation and application.

Another author who had many contributions to the development of constructivism is L. X. Vygotsky. He stated that learners learned science definition through the conflicts between our daily concepts and teachers’ definitions. Teachers introduced to learners many standard definitions, but at the same time, learners learned constructivism through their own understanding of the world.

Constructivism is a new perspective about teaching based on psychology study and research about learner’s cognitive process. This theory considers active learning as a process of cognitive change, actively building knowledge from the experience of learners. Constructivism is formed and derived from the ideology of cognitive activity by J. Piaget. And the psychological basis of this theory is Piaget’s advanced psychology and arguments about Vygotsky’s zone of proximal development.

L.X. Vygotsky (1896 – 1934) had many contributions to psychology and the application of psychology into teaching. Vygotsky’s two important theses are zone of proximal development theory and collaborative learning. According to Vygotsky, each individual has a zone of proximal development, showing their development potential. Zone of proximal development is the area developing correspondingly with a learner’s level which can be achieved with the help of teachers and friends. Therefore, if learning activities are established within this zone, better outcomes will be achieved. Furthermore, Vygotsky also stated that if a learner was put in a stimulus environment, he/she could reach the cognitive stage faster and more effective. In the process of teaching, the role of culture, language, and social interactions affect and impact on shaping the knowledge of individual, especially the relationship between teachers and learners, and among learners themselves [3]; 35.

According to Donaid P. Kauchak and Paul D. Eggen from Learner Centered Instruction, constructivism is a perspective of learning in which the learner learns through his experience from the meaningful accumulated knowledge rather than to acquire available knowledge. Therefore, constructive learning is the process of learning based on experience from dealing with scenarios to form new knowledge. From a teaching standpoint, teacher is not a one-way transmission of knowledge to learners, but the person who organizes, controls, and guides the learning activities for learners to build knowledge. Applying constructivism to teaching can promote the active role of learner in building new knowledge from the old knowledge and apply that knowledge to practical situations. Moreover, from the available knowledge and the application in learning scenarios, the interaction between learners and teachers, among people who study together, newer knowledge is formed. Therefore, constructive learning has shifted from teaching where teachers play a central role to considering teaching-learning as a central role [4].

Teaching with a constructive perspective is a teaching style focusing on the inner transformation of the cognitive process, understanding the mechanism of reception. Learners receive knowledge selectively and depend on the available capacity with the relationship between what they have and what they need for their reception. The constructive learning process is the process of transforming learners’ perceptions rather than the process of transferring knowledge in a certain model. However, in the process of forming knowledge, social interaction plays a vital role because the process of changing learners’ perception should take place in a suitable learning environment.

2.2. Some Basic Points of Constructivism Applying in Educational Institutions

According to researches, constructivism has some basic characteristics as following:

First, knowledge is constructed positively by the subject, not passively through outside environment.

Second, the perception is a process of adapting and reorganizing a person’s own world view.

Third, learning is a social process; learners have to immerse themselves in the intellectual activities of those around.

Forth, the new knowledge of individual is received from the adjustment of his/her view [3]; 31-32.

2.3. Characteristics of Teaching Activities in “constructive educational institutions”

2.3.1. Learning in Actions

Learning is a basis act of human, in which the learner is both the subject and the impacted object. The best way to learn is in and through actions.
Learning will be most effective when learners enter, experience practical work, and actively make tangible objects in the real world. The teachers should organize the learners’ scenarios to put them into work, through which learners construct knowledge, intellectual development, and personalities. Strengthening practice courses, harmonizing between theoretical lessons and practical lessons; forming factories, facilities within the institutions… are some of the approaches to constructivism in teaching ([5]; 79).

2.3.2. Learning is Overcoming Difficulties

The difficulty acts as a natural law to develop and advance in life. Difficulty in learning requires learners to overcome to express the mission, responsibilities and duties in the best way possible. Difficulty is the element that forms personalities, is the opportunity to grow and a condition for spiritual evolution. In the process of seeking knowledge, learners’ thinking ability will be urged.

Learners needs to operate continuously to progress towards the goals. This, in most cases, causes lots of stress and fatigue for learners; teachers need to know how to remind, motivate, encourage, help them though accurate assessment of their understanding and efforts ([5]; 79).

2.3.3. Learning in Interaction

According to theory of constructivism, learners receiving information is not because of the process of transferring information from teachers to learners’ brain, but through the interaction in the process of learning, the learners will create knowledge. Establishing conversation in teaching is the fundamental aspect for building lectures based on this theory ([5]; 79).

2.3.4. Learning through Problem-solving Activities

Learning through problem-solving activities emphasizes the view that learner must be self-reliant, eager to explore, discover learning objects to form principles, the basic ideas from specific learning situation. To teach through problem-solving, teachers must provide a variety of situations so that learners can ask questions, explore, and experiment to find out the principles, ideas, and the basic relationship in the course’s structure.

There is a need for learners to conduct learning actions corresponding to the appearance of structure (practical action, modeling action, and symbolized action), according to the general method is inductive inference, from action on specific material to general principles. This method contributes positively to strengthen critical thinking and creative thinking for learners. On the basis of using knowledge and experience, learners will review, evaluate, and find the problems ([5]; 80).

2.4. The Requirements for Educational Managers, Teachers, and Learners in Constructive Model Educational Institutions

After researching the theoretical and empirical analysis, the author shall propose some requirements for educational managers, teachers, and learners when applying constructivism in building educational institutions in Vietnam:

2.4.1. For the Educational Managers

Educational manager is the deciding factors to the process of developing constructive educational institutions because institutions’ educational directly engage in managing, constructing, and orientating.

First: Institutions’ administration must determine the vision and the mission of the institution with the motto that always put learners the center position. In other words, institution must determine everything because of learners. Learners need to be respected, proactive, and able to promote the role of individuals based on their own abilities. Teaching or educating will serve the interests of learners and make them feel safe and respected at the institution.

Second: The educational managers have to build a creative and innovative environment for the institution. This requires each constructive institution to create an active and positive learning environment, in which to create a learning atmosphere. The purpose of learners and what make learners interested are teachers’ priorities. Knowledge is customizable, not a copy or adaptation of the prototype. When learners learn, the experience will reflect personalities, using the knowledge and forming abilities. For learners to actually experience and create, the institution must have a progressive learning environment, in which the physical environment is a prerequisite, and mental environment is crucial to the academic activities of the institution.

Third: Encouraging the development of critical thinking. Institution’s educational managers, teachers, and staff must create opportunities for learners to express their own view; let them debate their perceptions. Principals and teachers debate, teachers and learners debate. From there, through ideas, learners manipulate the learning to form the thinking, creativity, and implementation. Critical thinking always helps learners to identify misconceptions, using their knowledge and abilities to create and build again. This is the true nature of constructivism.

Fourth: Build a bridge to connect education: family – school – community. Each educational force has advantages and disadvantages, but when they are linked together, they will create a comprehensive educational environment for learners to explore, study, and be able to express themselves. Education at school is the most important link to direct the other two links to create consensus in the educational process of learners. School education will focus and maximize the role of the resources for educational activities to confirm their roles of connection. To do that, each institution must affirm its role of constructivism in teaching and educating; must be a institution which has all the members focusing on constructing and connecting educational forces to put learners at the center position.

Fifth: Educational managers create opportunities to build an organizational culture. Organizational culture is a form of power to affirm the brand and the nature of the institution. The institution having the organizational culture is the institution build with a core value system. When the institution has a high level of organizational culture, it will have a favorable learning environment. According to theory of constructivism, learning is a social process, the learning activities of students not only takes place in the mind of each person but also takes place in the
relationship between teachers and learners, with fellow students, and other subjects. Organizing an institution needs to create an open-cultural and cooperative environment for learners to express and handle educational situations.

2.4.2. For the Teachers

The mission of teachers is to help learners discover knowledge, build their ability to create knowledge; build an environment and the need and the true motivation for learners to work with problems that they choose and discover in the process. Teachers should only play the role of the thinking guidance, job guidance, without forcing learners to follow. Teaching a constructive course will take more time and effort of the teachers than the traditional methods. There will be obstacles that are difficult to overcome such as the constraints of achievement, the lack of equipment, abilities to self-read and self-learn of learners... Yet it must be understood that it is not impossible to do. Currently, most of the learners, from their personal experience and books, know just when to find out the new knowledge, they can master that knowledge then put it into use. This can be difficult, but when learners have a way to acquire knowledge then the inspiration about procedure will make them actively solve problems that are brought by teachers.

In general, the main activities of teachers in a constructive course are not “presenting”, “preaching”, or writing. They are:

First, teachers must create a positive learning environment.

Second, teachers must create opportunities for learners to express their own views.

Third, teachers must be a decider when the debate does not end.

Fourth, facilitate and help learners realize misconceptions and overcome them.

Fifth, teachers establish test and ways to apply the gained knowledge.

Especially, teachers need to clearly define their responsibilities for orienting learners to find knowledge and forming abilities. Therefore, teachers must have a respecting attitude toward the ways that learners choose to commit on (according to the principle of conservation, let’s make them know the difficulties on each step advancing toward learning).

2.4.3. For the Learners

In a constructive class, learners will receive information from the teachers which is not yet clear, and the problems are not clearly identified. Therefore, the roles of the learners in building and developing constructive educational institutions are extremely important. Learners should:

First, learners must work together to find out how to proceed to solutions for the problems. Learners must have an active role, promoting their center position in the process of learning to control the knowledge.

Second, learners must uphold the purpose of turning the learning process at the institution into the process of self-study, self-exploration and discovery of the new knowledge.

2.5. Solutions of Hanoi Retraining College for Teachers and Educational Managers with the Mission of Building a Model of Constructive Educational Institution

Hanoi Retraining College for Teachers and Educational Managers is a public institution under Hanoi’s Department of Education and Training. As the institution which is responsible for improving the quality of administrative teachers and staff of Hanoi, the institution should take the first step in developing teachers and educational managers to meet the requirements of building a model school based on constructivism in a newly changed, comprehensive education in Hanoi and Vietnam as a whole. The proposed solutions are:

2.5.1. Raise Awareness for Teachers and Educational Managers about the Importance of Building the Model of Constructive Educational Institution in the Tendencies of Reforming Education

Awareness is the first step and crucial for every actions. Proper awareness will lead to proper actions and great outcomes. Therefore, awareness must be promoted correctly and fully for all teachers and educational managers about the importance of building a model institution based on constructivism nowadays.

The perspective of constructive institution is: self-study is required for thoroughly understanding. Study what is needed; then find ways to understand it. Therefore, each teacher and educational manager needs to be aware of their responsibilities in the process of building the model. The constructive institution is the opportunity for learners to show off their abilities, focusing on creativity, so it will create a generation of talented learners.

Teachers and educational managers must see that the constructive institution even though upholds learners’ role, it does not decrease the importance of teachers. On the contrary, teachers play a more important role and is converted from imparting knowledge to the role of organizers, controllers, guidance for activities. From which, there should be direction in building learning environment focusing on learners’ creativity. They also turn their roles into companion roles, leading the learners to search for knowledge. In constructive educational institutions, all members are creativity; promote their energy to advance to the same direction in developing abilities for learners. When teachers and educational managers are aware of the implications of the model constructive institutions, this is a great opportunity to effectively apply this model.

2.5.2. Building a Capacity Framework for Teachers and Educational Managers that Meet the Requirements of Building a Model of Constructive Educational Institution

To achieve the goal of building a model of constructive educational institution, the roles of teachers and educational managers are very important. To perform their roles, this team needs to have certain standards of competence. This is exactly what we need to set out the capacity framework – capacity requirement for staff and educational managers in the model institution. Based on constructivism and
model constructive institutions, we propose the capacity framework for teachers and educational managers as following:

* For teachers, the framework includes:
  - **The teaching ability**: the ability to design classes based on constructivism; organize teaching process based on constructivism; examine and evaluate learners; manage teaching environment; guide learners to create learning methods in a constructive environment.
  - **The educational ability**: manage learners; consult, support learners; orient ideas and professions for learners; ability to organize educational and creative activities.
  - **The scientific research ability**: choose the topic, build research outline, organize team to research, write report summary, host seminars, create and guide learners to research by themselves.
  - **The community social ability**: the ability to join the community in the institutions or other organizations.
  - **The individual ability**: career development, self-study, self-improvement and learning, collaborate and communicate with peers, experts, learners, parents; innovative, contrastive, and creative abilities.

* For educational educational managers, in addition to the core competencies, educational educational managers should have the following:
  - **Ability to orient strategy**: Forecasting, planning, summarizing.
  - **Commend and leadership**: vision shaping ability, planning, setting goals, creating trends, assigned responsibilities.
  - **Ability to perform**: professional work efficiency, promoting effective working environment; time and stress management.
  - **Ability to monitor**: monitoring activities of individuals and group; managing organizations.
  - **Ability to coordinate and guide**: managing information; effective communication; employee development.
  - **Ability to innovate**: accepting changes; innovation and adaptation; making a difference.

2.5.3. Building Assessment Tools for the Capacity Framework for Teachers and Educational Managers

On the basis framework, there needs to be a set of assessment tools. For each ability in the framework, it needs to have appropriate assessment criteria. The assessment tools in which the evaluation criteria should specify are the factors of the abilities needing to be assessed and to quantify the level of competencies that teachers and educational managers achieve. The evaluation criteria need to ensure qualitative and quantitative aspects. The ability assessment tools must have a clear system, ensuring the nature of evaluation.

The scientific assessment tools require the determination of evaluation. In order to assess the ability, we have to use a variety of methods such as self-assessment, evaluate by colleagues, evaluate through learners, and through educational managers.

Proofs are needed as data in the assessment tools. Assessment proof must be suitable for the standard abilities within the ability framework for teachers and educational managers. The use of proof serves the process of evaluate and assess.

In summary, the assessment tools must include the evaluation criteria, votes, scores respective to competencies, evaluation method and combination of proofs in the evaluation process. To measure the abilities of teachers and educational managers, besides building specific evaluation criteria, there needs to gather a team of experts which are enthusiastic and objective in the evaluation process.

2.5.4. Building the Program in the Module Format to Satisfy the Capacity Framework of Teachers and Educational Managers in Building a Model of Constructive Educational Institution

Training to enhance the abilities of teachers and educational managers about problems in the institutions based on the theory of constructivism is a suitable development orientation which meets the requirements of education and training. To build the program in the Module format is a solution that needs to be focused on because this is an open format. Each module will set out specific goals about the establishment and development of certain skills for teachers and educational managers to meet the goals of the institution.

Based on the framework of competencies, teachers and educational managers need to build a plan to strengthen the abilities of the subjects.

To build the program based on module, after each module, the subjects have to form abilities through evaluation. For example:

- Module 1: Improvement the qualities and general abilities
  - Module 1.1: The qualities of teachers and educational managers in the constructive institution;
  - Module 1.2: Social competence
  - Module 1.3: Individual competence
- Module 2: Improvement teaching ability
  - Module 3: Improvement educating ability

Training can be implemented in two forms: job training and focused training. With job training, the institution trains itself and applies the modules, then self-test and self-review. But for focused training, it needs time and space to perform in order to achieve high efficiency. Teachers and educational managers participate in extracurricular programs, workshops, scientific seminars, sharing knowledge among teachers, linking professional networks.

2.5.5. Surveys, Assessment, and Teacher Classification and Management Based on the Framework

This is an essential task to categorize teachers and educational managers in practice. Based on the results in teaching and educating of individuals as well as the results assessed through the evaluation tools based on the competency framework, the institution will classify teachers and educational managers.
We usually have standards for classification and evaluation of teachers based on seniority, levels, and abilities. However, when using the assessment tools based on the competence framework, survey, evaluate, and classify can be more specific, objective, and effective. Based on the framework, we will assess the abilities and quality of teachers and educational managers on how they meet the requirements in the constructive educational institution, from then classified into groups. This creates favorable conditions for trainings.

In plan, ability assessment of teachers and educational managers after a period of time working has been surveyed. Survey and evaluation need to ensure objectivity, education, and match the characteristics of the institution. For example, after the institution put out the framework for teachers and educational managers in the model of constructive educational institution, it must be common to all individuals and able to conduct evaluation based on competency. For examining the process, evaluating and classifying of teachers and educational managers to have high results, the coordination of all members is needed, especially teachers. They must be aware of the purpose of the survey and evaluation which is to focus toward classification for building activities. Institution’s educational managers need to set examples in these processes to obtain accurate results and objectives for the trainings in the future.

2.5.6. Planning, Training, Quality and Ability Training for Teachers and Educational Managers in Building a Model Institution Based on Constructivism

* For the planning of training activities: the institution needs to review the status of the institution itself, factors that affect the training operation for teachers. It is necessary to have the planning process to mobilize resources and control those resources for the training process. In the process of planning, the institution can determine the way of training: Focused training and improvement or self-training at the institution or linking training within others. Because the constructive institution is a new model requiring high standards in the implementation process, training and improvement are needed.

It is necessary to improve self-awareness, the initiative of teachers and educational managers in the registration process for training and improvement suitable for the model of constructive educational institution. Then, it is also necessary to sum up the number and plans for the school year.

* For the process of training and improving qualities and abilities for teachers and educational managers: the institution needs to perform:

Establishing training and improvement decision give the requirement to the process. Guiding and urging teachers and educational managers involve seriously and effectively the training course. Creating favorable conditions for educational managers and teachers participate in the courses.

Working with the organization of the training courses and evaluation, evaluate the abilities of teachers and educational managers in order to determine the level of their adaptation in the process of training and improvement. Reflecting improves future training courses. Most importantly, the abilities of teachers and educational managers after the courses about the model of constructive educational institution is applied into teaching and educating task at the institution to make the model become reality. When educational managers and teachers become who create the model in accordance with the right goals and methods, learners will have a chance to approach the constructive learning methods.

2.5.7. Building Environment, Motivating Teachers and Educational Managers to Improve Their Qualities and Abilities in the Context of Building a Model of Constructive Educational Institution

Exploit the latent abilities in each of the teachers and educational managers to “physical strengths”, promote the ability to perform tasks such as teaching, researching, social working…. to promote the creative aspect of each person. To build environment, motivate teachers and educational managers to develop qualities and abilities are the nature of building institutions based on constructivism.

First, it is necessary to improve self-motivation of teachers and educational managers. Each individual has his own professional motivation and development, which is what related to the interests of teachers and educational managers. In order to build a constructive educational institution, first and foremost, each teacher and educational manager needs to be aware of:

- Building teaching norms and standards, research, development of competences, career development.
- Building the quantified teaching norms, group activities, expertise, and scientific research for each teacher.

Second, it is necessary to build an institution that seek for learning and lifelong learning; therefore, teachers and educational managers can aim to form the abilities to teach in the constructive institution.

The working environment of teachers and educational managers in the institution must be standardized according to the standards, ensuring the academic culture of the institution, lifelong learning, and expertise. Besides, always develop space and facility conditions to perform the activities of teaching, educating, researching, professional developing, and social activities. At the same time, preserve and promote the culture factors in the institution are necessary. There is a need to define characteristics, requirements, and tasks of each individual in the institution to encourage their roles, implementing the principle “right person, right job” in the assignment and classification. At the same time, there is also a need to create a feeling of excitement in teaching, researching, and bring new challenges to them to create opportunities for them to grow.

Third, building policies, emulation, rewarding regulations accordingly.

In addition to academic activities, it needs to be proactive about salary policies, rewards, and timely assessment to promote the abilities of each teacher and educational manager to help them work their best. Each teacher and educational manager needs to have challenges in responsibility and rights to gain chances to be successful in their tasks, leading to a successful institution.
2.6. The Test for Necessity and Feasible Level of the Solution Proposed by Hanoi Retraining College for Teachers and Educational Managers with the Task of Building a Model of Constructive Educational Institution

- Create survey: each solution has its own necessity and feasible level, which are determined in four levels: essential/very feasible; necessary/feasible; less necessary/less feasible and not necessary/not feasible.

- The test subjects:
The survey is conducted in two subject groups with the total of 650 (400 are teachers, 250 are educational managers), including educational managers and teachers from kindergarten, elementary, middle, and high school in Hanoi

- Geographic:
Schools including kindergarten, elementary, middle, and high schools in Hanoi.

Table 1. Test results for necessity and feasibility level of the solutions

| Solutions | Necessity | Feasibility | Level offset (D) | $D^2$ |
|-----------|-----------|-------------|------------------|-------|
|           | $\Sigma \bar{X}$ Level | $\Sigma \bar{X}$ Level |                  |       |
| Solution 1 | 2196 3.85 5 | 2049 3.59 5 | 0 | 0 |
| Solution 2 | 2202 3.86 3 | 2166 3.80 2 | 1 | 1 |
| Solution 3 | 2228 3.92 1 | 2196 3.85 1 | 0 | 0 |
| Solution 4 | 2223 3.9 2 | 2328 3.77 3 | -1 | 1 |
| Solution 5 | 2202 3.86 3 | 2151 3.76 4 | -1 | 1 |
| Solution 6 | 2178 3.82 6 | 1886 3.27 6 | 0 | 0 |
| Solution 7 | 2109 3.70 7 | 1848 3.24 7 | 0 | 0 |
| Total     |            |             |                  | 3     |

Comments: Looking at the table, there is correlation between the necessity and feasibility of the solutions proposed by Hanoi Retraining College for Teachers and Educational Managers with the task of building a model of constructive educational institution. Solution 1, 3, 6, 7 are evaluated very closely when necessity and feasibility are the same. This is the basis for the process of implementation that can achieve high results. Applying the formula to calculate the correlation to reconfirm the correlation between necessity and feasibility of the solutions as follows:

$$r = 1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

$D^2 = 3; N = 7$

Apply to the formula, we have $r = 0.95$

$r = 0.95$ proves that the correlation is consistent between the necessity and feasibility of the solution proposed by Hanoi Retraining College for Teachers and Educational Managers with the task of building a model of constructive educational institution. This is the basis for practical solutions to conduct teacher and educational manager training courses for the constructive institution.

3. Conclusion

The argument that human enlightens and create himself was proved by J. Piaget, the founder of theory of constructivism, through the way human grow since birth. The constructive educational institutions are based entirely on those arguments and the profound lessons of the human society. Constructivism – a philosophy, knowledge, a theory of perception, an education-oriented policy, is dynamically created, not a result of passive acquisition.

Even though the institutions which use constructivism highly uphold the active role of learner, it does not lower the role of teacher. On the contrary, teachers play a more important role and is converted from imparting knowledge to the role of organizers, controllers, guidance for activities. This is an appropriate direction with the view of developing learners’ abilities. Overall, the constructive institution is an inevitable trend of modern education. Each institution itself should determine the orientation of training teachers and educational managers to conform to the trend of development.

To complete the mission: “To strengthen professional knowledge for staff; teachers, educational managers who educate and manage in educational institution in Hanoi”, Hanoi Retraining College for Teacher and Educational Managers needs to have breakthrough solutions to meet the requirement of a constructive educational institution.

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