

Approach of Competency - Based Training to Developing School Teacher's Competency of Professional Practice in Inclusive Education for Children with Disabilities : Theory and Practice in Vietnam

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Abstract

Competency - Based Training (CBT) is an approach in the field of career in the 1970s in the world and in Vietnam since 1995. In Vietnam, there have recently been a number of domestic researchers to study and develop the competencies of professional practice with the standards and criteria for the inclusive education of children with disabilities for school teachers. However, it has almost not published any findings on the application of CBT in developing the school teacher's competency of professional practice in inclusive education for children with disabilities, and then it has not become a national policy. The article refers to the results of further studies of the authors' earlier publications, at the same time, aims to introduce about CBT, CBT programs, contents and current situation of application of CBT in developing the school teacher's competency of professional practice in inclusive education for children with disabilities in Vietnam.

Key words : Competency, Competency-Based Training/CBT, children with disabilities, inclusive education, school teacher

1 . Introduction

Historical development of career training has a variety of different methods and training approaches to training and training programs development such as: content-based approach, goal-oriented approach, process-directed approach, or systematic approach, etc.

Competency - Based Training (CBT) is an approach to link the training with the needs of society and the labor market, which has been studied and applied in the field of career since the 1970s in the world and since 1995 in Vietnam. CBT includes many innovative elements, manifested in a very close association with the requirements in working position of the employers and the economic sector (Phan Van Nhan, 2011) [9].

In Vietnam, there has recently been a number of domestic researchers such as Nguyen Van Le, Nguyen Xuan Hai, Le Thi Thuy Hang, etc to study on the competencies of professional practice with the standards and criteria for the inclusive education of children with disabilities for school teachers. However, it has almost not published any findings on the approaches to CBT in training and training programs development. The article refers to the results of further studies of the authors' earlier publications.

2 . Competency - Based Training (CBT) *Brief on CBT*

CBT in vocational education formed and developed widely in the United States in the 1970s and flourished in a series of educational establishments and businesses in the US, UK, Australia, New Zealand, Wales, etc. (Kerka, 2001) [4].

CBT is used to describe a mainly standard-based approach to training for a profession and the training is based on those standards, rather than on the time durable as in traditional training. A central concept of

this training method is ‘competency’, which is used as a basis for program development, planning, implementation and evaluation of the process and the results of training (Phan Van Nhan, 2011) [9]. Therefore, the CBT will generate the mismatch between the training and the demands on competencies in the workplace (Harris et al, 2005) [3].

CBT has been widely developed with the System on National Vocational Qualifications – NVQs) in England and in Wales, New Zealand’s National Qualification Framework, and standards on competencies developed by Australia National Training Board – NTB and the national Skills Standards of the USA.

The advantages of CBT approaches include (Paprock, 1996; Kerka, 2001) [2][4] :

- (i) Allowing to individualize the learning, provide additional knowledge and skills to perform the specific duties of an individual.
- (ii) Focusing on the outcomes, taking the labor market’s demands on competencies as standards of quality training.
- (iii) Creating the flexibility in achieving the outputs in specific ways, in accordance with an individual’s characteristics and circumstances.
- (iv) Making a clear determination of the achievements and standards to evaluate them.

This is a special interest for policy makers in education, training and human resources development.

Some characteristics of CBT in the organization and management of the training

The research results of the authors (Nguyen Duc Tri, 2006; Phan Van Nhan, 2011; Boyatzis, 1982) [9] [1] show some characteristics of CBT in the organization and management of the training process as follows:

- (i) Focus on the final outcomes/output of the training process. This means that each learner can perform a certain task in a specific labor situation according to the output standard.
- (ii) In CBT, without any ‘hard’ regulation on the learning durable, students are allowed to accumulate knowledge, skills according to their own pace and abilities towards professional standards, not to repeat what they have learned if they are recognized as proficient, able to perform a task according to prescribed standards. This will allow learners to start and finish their learning at different times.
- (iii) CBT focuses on solving problems, building the competencies for learners rather than focusing on solving the contents of the curriculum.
- (iv) A training program towards CBT is designed with a variety of subjects, students can choose the contents on knowledge meeting the individual’s abilities and the requirements of practical work.
- (v) The learner’s outcomes are assessed based on Performance Criteria in Professional Standards. A systematic implementation of the criteria helps assess the learner’s meeting of professional standards.

3. Contents and current situation of the implementation of CBT in developing the competency of professional practice in inclusive education of children with disabilities for school teachers in Vietnam

In Vietnam, CBT has not been applied widely and officially in training of school teachers of IE for children with disabilities, but also mentioned in some recent studies, such as: “*Upgrading Competencies for Human Resources of Early Intervention on Education for Children with Disabilities in Vietnam*”, Timeframe of the research: 2 years, from 2009 to 2011, a Protocol Research between Vietnam and New South Wales, Australia do Nguyen Van Le et al thực hiện (Nguyen Van Le et al, 2012) [7], “*Lessons on Inclusive Education Quality Assurance for Children with Intellectual Disability in USA – Suggestions of Solutions for Vietnam*”, Timeframe of the research: 2,5 years, from 2012 to June 2014, a Protocol Research between Vietnam and USA by Nguyen Xuan Hai (Nguyen Xuan Hai, 2015) [5], etc. The studies did not give specific details on CBT but they pointed out: (i) the standards and criteria of teachers to implement early intervention for children with disabilities; (ii) the standards and criteria of school teachers as a core element of ensuring quality inclusive education for children with disabilities, so training should be directed to meet the standards and criteria for professional activities of teachers in inclusive education of children with disabilities.

With a purpose of assessing the situation of organizing the CBT for school teachers in inclusive education of children with disabilities in Vietnam, we conducted a study in some provinces in Vietnam such as Yen Bai, Hai Phong, Quang Binh, Ho Chi Minh city, Ninh Thuan in 2015 with a participation of 280 teachers, each

school with 20 teachers and 14 principals from 06 private and 8 public schools and 02 training facilities of special education teachers (Hanoi National University of Education–HNUE and Hanoi National Colledge of Education–NCE) with 35 lecturers and management boards, 136 students from in-service short time training programs (3 months) at HNUE and NCE. The key findings are shown as follows:

a) Current situation of the assessment on competency of professional practice in inclusive education of children with disabilities for school teachers towards CBT

Assessment is the process of collecting evidences and making judgments about the nature and extent of the progress under the performance requirements which have been identified in the vocational standards to determine about the achievement of a competence at a certain moment (Phan Van Nhan, 2011) [9].

CBT assessment is criteria-referenced assessment, which means measuring the implementation and achievement of the individual in a relation of comparison to the predetermined standards and criteria.

For this research task, we used the assessment results of the standards and criteria of competency of professional practice in inclusive education of children with disabilities for school teachers including: i) Standard 1. Assessing the child with disability's capacities and needs (05 criteria); ii) Standard 2. Developing the child with disability's individualized educational plan/program (05 criteria); iii) Standard 3. Specifying the child with disability's educational and instructional activities in IE plan (04 criteria); iv) Standard 4. Conducting directly the child with disability's educational and instructional activities in IE plan (07 criteria); v) Standard 5. Using the supporting equipments and materials for the child with disability in IE (04 criteria); vi) Standard 6. Evaluating the child with disability's progress (04 criteria) (Nguyen Xuan Hai et al, 2016) [6].

The assessment was implemented through a form of self-assessment for a teacher, the section's assessment and the principal's assessment for the teacher.

Table 1. Frequency of assessment of practice competence in IE of children with disabilities of school teachers towards CBT

N = 280

Frequency of assessment Assessment of standards/criteria	Often		Sometimes		Rarely		Never		n	Average	Ranking
	N	%	N	%	N	%	N	%			
Standard 1.	35	12,5	42	15,0	45	16,1	158	56,4	514	1,84	5
Standard 2.	38	13,6	46	16,4	51	18,2	145	51,8	537	1,92	2
Standard 3.	32	11,4	41	14,6	52	18,6	155	55,4	510	1,82	6
Standard 4.	43	15,4	55	19,6	62	22,1	120	42,9	581	2,08	1
Standard 5.	33	11,8	48	17,1	57	20,4	142	50,7	532	1,90	3
Standard 6.	24	8,6	51	18,2	66	23,6	139	49,6	520	1,86	4

** Often: once a month; Sometimes: once a semester; Rarely: once a year; No assessment.*

Table 1 showed that the average of 06 standards is low, 5 of 6 standards is below 2,0, only standard No. 4 with an average of 2,08; most of standards are 'rarely' and 'no assessment' with a high number and percentage (correspondingly, from 16,1% to 23,6% and 49,6 to 56,4%). Thus, the frequency of assessment of practice competence in IE for children with disabilities of school teachers towards CBT was not implemented regularly.

During the survey and data analysis of forms from school teachers and managers, we found that most of the answers 'often/once a month times' to do assessment are from the teachers of private schools. The assessment in months almost takes no place in public schools.

The main cause of this limitation we knew, through direct interviews with school teachers and managers, that due to the policy mechanism to use the teaching staff of the schools. While the assessments for teachers and learner's achievement at private schools take place regularly (or even weekly, monthly); at public

schools, the assessment of the students' learning outcomes often takes place at the end of the semester and the school year, and teachers are assessed according to the standards and criteria once a year. At the same time, the standards and criteria of competency assessment of professional practice in the inclusive education of school teachers have just been the results of research and pilot application in some cases, not yet officially become the policy of the education sector and schools.

b) Application of CBT in developing training program towards competency of professional practice in inclusive education of children with disabilities for school teachers

The development of training programs towards CBT includes the steps and contents as follows:

(i) *Analysis of standards, criteria*: This is the first step, and the most important prerequisite for the development of a training program. The analysis of standards, criteria to compare with the requirements for a specific duty and task for competence of professional practice in IE of children with disabilities will review and determine the training needs of teachers as well as the objectives, contents of knowledge, skills of the training programs provided for teachers.

(ii) *Job/work analysis*: In fact, this aims to determine the model of activity or the model of the school teacher's competency of professional practice, including the requirements for duties and tasks that teachers must do. Job analysis according to the method DACUM (Develop A Curriculum) developed by Norton, Robert E., 1985 (second edition in 1997 and overview in 2000) [8] is the model most commonly used today, as well as decades in the world according to CBT. With the advantages of DACUM, the analysis of requirements for the duties and tasks is proved to be suitable to develop training programs towards competency of professional practice in inclusive education of children with disabilities for school teachers.

(iii) *Regulatory impact analysis for developing training programs on competency of professional practice in inclusive education of children with disabilities towards CBT*: This is a step before issuing policy (Ex-Ante Assessment), to analyze and forecast the possible impacts of the policy which is about to be issued, as a basis for policy-makers to choose the optimal scheme for issuing policies.

(iv) *Developing framework of knowledge, skills and modules of CBT programs*

This step should be based on the following basis:

- Determined from the analysis of standards, criteria and the comparison with the requirements for a specific duty and task for competence of professional practice in IE of children with disabilities. This analysis should be carried out strictly, accurately and fully.
- Presented in the forms of practical works that teachers do in practice of inclusive education and teaching for children with disabilities, and in behavioral forms, cognitive behavior directly related to the standards and criteria for competence of professional practice in IE of children with disabilities.
- All the *framework of knowledge, skills and modules of CBT programs* should be provided with adequate and clear information to learners before they participate in the program.

The framework of knowledge, skills is structured into blocks or a list of modules to help learners to choose their own appropriate training needs. CBT training programs can help students start new modules or possibly select a number of modules in the curriculum to supplement and update their knowledge and skills to meet the requirements of their specific duties and tasks in their practice of inclusive education for children with disabilities.

The current training programs in two training institutions, HNUE and NCE include: (i) formal training program (4 and 3 years); in-service training program (2,5 years); certification retraining program (3 months); amended program (3-5 days).

(v) *Implementing the developed CBT programs*

The implementation of CBT programs need to be designed and implemented so as to:

- Teaching/Instruction to individualized the learner's abilities. Recognize that each individual learner has a different learning speed and ways.
- Knowledge of theories (regarded as Enable Objective) should at a sufficient level to support skills formation and development (considered as Terminal Performal Objective).
- Theory and practice of teaching and learning are integrated together. The materials have been drafted and prepared suitable for the formation and development of learners' competencies.

- Each learner must get specific feedback on the formation and development of their competencies.
- Learners must have necessary learning conditions, especially conditions of professional practice and time.
- Learners can learn all the program or optional modules with different results upon their individual capacities and working conditions.

(vi) *Assessment of CBT programs based on the performance criteria of professional standards*

The standards and criteria used to assess in CBT programs are required at a minimum level to ensure that learners have enough competencies to work after their program completion and to ensure the following points:

- There is no significant difference between the competencies trained in CBT programs with practical requirements of the teachers' performance. This means that the learners are able to participate in the professional practice after participating in CBT programs.
- Separately assess the teacher's competency of professional practice in learning to implement and complete the job.
- Assessment of knowledge, skills, behaviors and attitudes associated with the process to do the teacher's specific tasks and duties in practice.
- The criteria and indicators used in the assessment of the CBT program should be announced for learners before their participation into the program as well as in the whole process involved in the program.

To study in developing training programs for school teacher's competency of professional practice in IE for Children with Disabilities based on CBT, we conducted a survey with 35 lectures from two faculties of Special Education at HNUE and NCE in Hanoi. The data collected in the Table 2 below:

Table 2. Frequency of application of CBT in developing training programs for competency of professional practice in inclusive education of children with disabilities

N = 35

Frequency of application Assessment to factors of CBT programs	Often		Sometimes		Rarely		Never		n	Average	Ranking
	N	%	N	%	N	%	N	%			
1. Analysis of standards, criteria	5	14,3	12	34,3	15	42,9	3	8,6	89	2,54	5
2. Job/work analysis	6	17,1	16	45,7	11	31,4	2	5,7	96	2,74	4
3. Regulatory impact analysis	2	5,7	5	14,3	7	20,0	21	60,0	58	1,66	6
4. Developing framework of knowledge, skills and modules of CBT programs	14	40,0	19	54,3	2	5,7	0	0,0	117	3,34	2
5. Implementing the developed CBT programs	33	94,3	2	5,7	0	0,0	0	0,0	138	3,94	1
6. Assessment of CBT programs based on the performance criteria of professional standards	3	8,6	22	62,9	10	28,6	0	0,0	98	2,80	3

**Often: once a month; Sometimes: once a semester; Rarely: once a year; No assessment.*

The data shown in Table 2 indicated that the factors of CBT programs in developing training programs for competency of professional practice in inclusive education of children with disabilities were paid much attention with the average points of 5 in 6 factors increased from 2,54 to 3,94, among them two factors with the most frequently assessed level including: developing framework of knowledge, skills and modules of CBT programs, and implementing the developed CBT programs, with the correspondingly average point is 3,34 and 3,94.

In developing training programs of any scientific field, program policies have important implications, regarding the written statement of the legal regulations, criteria, guidelines, ... to facilitate the support and control the entire steps of program development. However, the research results showed that the analysis and assessment of the policy impacts of the program before issuing the program had not really been focused, which

indicated in 21 opinions, accounted for 60,0% of surveyed participants to determine that both of these tasks had not been done in developing training programs for competency of professional practice in inclusive education of children with disabilities ($X_{TB}=1,66$).

Developing a training program in Vietnam is usually considered as the work of the training facility. With the results obtained in this study, the training program of two training institutions about special education has met the demands for the teacher's competency development of professional practice in IE of children with disabilities. However, the biggest shortcoming is not really focused on analyzing the policy impact evaluation of the program before issuing and using it in practical training at the two facilities.

c) Forms of implementing CBT programs to develop the school teacher's competency of professional practice in IE for children with disabilities

Training forms have been implementing at HNUE and NCE including: (i) Training at HNUE and NCE (Hanoi); (ii) at the locals; (iii) at the job trainings; and (iv) On tivi (in a distance training) with the training programs such as: (i) Pre-service training programs (4 and 3 years); (ii) In-service training programs (2, 5 years); (iii) In-service short time (3 months); (iv) Amended programs (3-5 days). The statistics on the forms of implementing CBT programs in 2 training facilities at HNUE và NCE in 3 years (2003-2016) show in Table 3 below:

Table 3. Statistics on the forms of implementing CBT programs in 2 training facilities at HNUE and NCE in 3 years (2003-2016)

Forms of training Training programs	At HNUE and NCE		At the locals		At the job trainings		On television (in a distance training)	
	N	%	N	%	N	%	N	%
1. Pre-service training programs (4 and 3 years)	6	10,0	0	0,0	6	7,1	0	0,0
2. In-service training programs (2,5 years)	7	11,7	0	0,0	7	8,3	0	0,0
3. In-service short time training programs (3 months)	15	25,0	3	3,1	0	0,0	0	0,0
4. Amended training programs (3-5 days)	32	53,3	93	96,9	71	84,5	2	100,0
Total	60	100,0	96	100,0	84	100,0	2	100,0

The data in Table 3 indicate that the HNUE and NCE have developed 04 training programs and used 04 different forms of training to develop the learner's competency of professional practice in IE for children with disabilities in general, and the school teachers' competency of professional practice in this field in Vietnam.

The organization of pre-service training programs (4 and 3 years) and in-service training programs (2, 5 years) often take place in 2 training facilities (HNUE and NCE) and the professional practices are implemented in the form 'at the job trainings'. For in-service short time training programs (3 months), the form 'at the job trainings' is not implemented because the learners are in-service teachers and managers working with children with disabilities at schools; currently, most of this form are mainly implemented at 2 training facilities (HNUE and NCE) but some are implemented at locals. Besides the above programs, amended training programs (3-5 days) and other forms are implemented in various ways, particularly the forms 'at the locals' and 'at the job', the form 'on television' (in a distance training) has been recently implemented for children with hearing impairment and intellectual disabilities.

It can be recognized that the training programs and forms of training developed and implemented at 2 training facilities (HNUE and NCE) have been meeting the requirements of CBT in developing the teachers' competency of professional practice in inclusive education of children with disabilities in Vietnam.

d) Outcomes and shortcomings of the implementation of CBT in developing the school teachers' competency of professional practice in IE for children with disabilities

To do this study task, we selected 136 students of in-service short time training programs (3 months) in

the forms of training in HNUE and NCE and 14 their school principals. The teachers were evaluated according to the standards and criteria at the times of the beginning and the end of the course. The data collection is shown in Table 4 below:

Table 4. Assessment of the school teachers' competency of professional practice on IE for children with disabilities

N = 136

Standard	Total of criteria	Teacher's Self-Assessment and Ranking (n=136)			School Principal's Assessment and Ranking (n=14)		
		Total score of n (at the starting course)	Average of total score (at the starting course)	Average of total score (after completing the course)	Total score of n (at the starting course)	Average of total score (at the starting course)	Average of total score (after completing the course)
Standard 1	5	4.284	31,5	33,0	420	30,0	31,0
Standard 2	5	4.624	34,0	34,5	483	34,5	35,0
Standard 3	4	4.284	31,5	32,5	448	32,0	33,0
Standard 4	7	4.148	30,5	33,0	406	29,0	32,0
Standard 5	4	4.080	30,0	31,0	413	29,5	31,0
Standard 6	4	3.944	29,0	31,0	406	29,0	31,0
Total score	29	25.364	186,5	195,0	2.576	184,0	193,00
Average score of standard			6,43	6,72		6,34	6,66
Ranking			Average	Good		Average	Good

Then, after the end of the training course, there is a positive correlation between the average scores achieved and the competency of professional practice in inclusive education of children with disabilities in self-assessment for teachers and principal's assessment for school teachers (correspondingly, increase from 6,43 to 6,72 and from 6,34 to 6,66). This suggests, CBT programs met the developed standards and criteria at a certain level, simultaneously, the implementation of CBT programs helped the competency development of professional practice in the inclusive education of children with disabilities in the study area.

4 . Conclusion

Inclusive education has been recently promoted in Vietnam to meet the learning needs and learning with the increasing quality of children with disabilities and their families. Along with the standardization of general school teachers in education levels, it is also paid an increasing attention to addressing the standardization of school teachers in IE for children with disabilities by the researchers, practitioners at all levels of education and educational administration.

Developing the competency of professional practice on IE for children with disabilities is a vital requirement to meet the urgent demands of education and care practice for children with disabilities at schools now. CBT approach is regarded as an effective method to implement the goals and standards and criteria of the school teachers' competency of professional practice in IE for children with disabilities. The implementation of CBT in educational facilities (such as HNUE, NCE) has initial findings to determine the effectiveness of CBT approach and CBT programs for for training classes and with other forms of training. Along with the continued study and completion of the set of standards, criteria for school teacher's competency of professional practice in IE for children with disabilities, we believe that the application of competency - based training should also be working to extend, supplement or make adjustment towards its completion.

In order to apply effectively the CBT programs, it should be ensured the implementation of the activities of this process as follows: (i) evaluating the meeting the standards of the school teachers' competency of

professional practice in IE of children with disabilities; (ii) developing the training programs towards the approach of CBT; (iii) setting up a core team of teachers to implement the training programs; (iv) preparing the conditions to ensure and organize teacher training; (v) promoting the monitoring and evaluation of applying CBT programs to developing the school teacher's competency of professional practice in IE for children with disabilities towards the approach of CBT.

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