

**MINISTRY OF EDUCATION AND TRAINING
THE VIETNAM INSTITUTE OF EDUCATIONAL SCIENCES**

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**MANAGEMENT OF TRAINING LINKAGE BETWEEN
VOCATIONAL COLLEGES WITH ENTERPRISES IN VINH
PHUC TO MEET THE MANPOWER DEVELOPING
REQUEST**

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1. Reason to choose subjects

- High manpower is considered as the most important factor to developing economic and social of any nation. In the context of globalization, high manpower is more and more given prominence.

- According to modernization, training human has to meet the need of social, laboured market and enterprises. The co-operation, linkage between training places with human using places in market mechanism is suitable rules, increases human training quality.

- In the fact, activity of training linkage activity between *vocational colleges* (VCs) and enterprises is noticed but its effect is not high and considered as seasonal work.

- Management of training linkage between VCs and enterprises is not studied full and systematically. Especially, Vinh Phuc is one of three first cities in Viet Nam about economic increasing speed but the proportion of simple labourers in Vinh Phuc is high, almost human in laboured age does the agrarian or simple work, it's lack of skill labourers and high manpower. The Provincial Competitiveness Index in 2013 is short (point: 58.86 – level: under good) ranks: 26/63 cities in Viet Nam.

- From practical need and theoretical basic, the author chose the topic: “*Management of training linkage between vocational colleges and enterprises in Vinh Phuc to meet manpower developing request*” with hoping this thesis will contribute to increasing manpower quality, Provincial Competitiveness Index, meeting manpower developing request in Vinh Phuc.

2. Purpose of research

Through studying theory and practice, propose the managing solution of training linkage between VCs and enterprises in Vinh Phuc province to contribute to developing Vinh Phuc's manpower quality, meet society's need and industrialization – modernization and International Integration.

3. Object and subject of research

3.1. Object of research:

The activity of training linkage between VCs and enterprises in Vinh Phuc to meet manpower developing request.

3.2. Subject of research: The²management of training linkage between VCs and enterprises to meet manpower developing request.

4. Scientific hypotheses

Nowadays, the activity of training linkage between VCs and enterprises is spontaneous, its management is still loose, if the management of training linkage between VCs and enterprises is approached the model CIPO to meet manpower developing request, the training quality of VCs, enterprises' manpower quality in Vinh Phuc will be increased.

5. Tasks of the study

5.1. Research theoretical basic: Definitions about training, training linkage, the management of training linkage, manpower development, vocational college human; Science and theoretical basic for management of training linkage between VCs and enterprises to meet manpower developing request.

5.2. Research practical basic: Survey and evaluate the reality of the management of training linkage between VCs and enterprises in Vinh Phuc.

5.3. Propose solutions for the management of training linkage between VCs and enterprises in Vinh Phuc.

5.4. Survey, experiment and test of the necessity, feasibility and propose the management measures.

6. The contents and the scope of research

6.1. The contents of research: the management of training linkage between VCs and enterprises through two specialities: Electricity – Electron and mechanics at VCs in Vinh Phuc province. Solutions improve efficient of management to develop manpower quality in Vinh Phuc.

6.2. Scope of sites: in 4 VCs and 38 enterprises (18 foreign enterprises, 6 state - managed enterprises, 14 private enterprises) which use manpower of VCs in Vinh Phuc.

6.3. Scope of time: from 2009 to 2013.

7. Accessing and Research Methods

7.1. Accessing methods: The following accessing methods are used during the study: CIPO model, systematic, function, developing human and market access.

7.2. Research methods: The³following research methods are used during the study: theory research, survey, reality evaluation, expert advice, experiment, mathematical statistics.

8. Theoretical Points

- Point 1: Training management, especially vocational training now has to be managed through training linkage between VCs and enterprises on Grasping thoroughly the principle: Learning by practice, Education combined with productive labor in the first place in vocational education.

- Point 2: The management of training linkage between VCs and enterprises is indispensable, objective and meets social's need and industrialization – modernization and International Integration, but in fact, the linkage with enterprises is loose, spontaneous which leads to seasonal management, not systematical, VCs and enterprises haven't still brought into play each position of strength yet (VCs haven't established the linkage to enterprises solidly; Enterprises haven't made use of VCs' talent and efficiency).

- Point 3: The management of training linkage between VCs and enterprises according to CIPO model – managing quality on process from input to outcome through managing 4 factors: C – context; I – input; P – process; O – outcome will contribute to improving vocational training, product quality at the same time increasing the VC manpower's Competitiveness in enterprises.

9. New Implications of the study

In Theory: Systematizing the theoretical basis on the training linkage and the management of training linkage between VCs and enterprises to meet social's request in the context that is affected by market mechanism by the way of process accessing in training management through managing 4 factors: C – I – P – O.

The thesis still mentions dialectical relationship of training linkage, management of training linkage between VCs and enterprises and college manpower using practice at enterprises.

In practice: Evaluate the reality of the training linkage and the management of training linkage between VCs and enterprises in Vinh Phuc nowadays, at the same time defining the level of meeting college manpower request of VCs in provinces and ability to participate in training linkage of enterprises.

Propose the solution for⁴the management of training linkage between VCs and enterprises. Build the model of the management of training linkage between VCs and enterprises to meet manpower developing request in Vinh Phuc from 2011 to 2020.

10. Structure of thesis

The thesis includes: introduction, three chapters, conclusions and recommendations.

Chapter 1. Theoretical base for the management of training linkage between VCs and enterprises to meet manpower developing request.

Chapter 2. Reality of the management of training linkage between VCs and enterprises in Vinh Phuc to meet manpower developing request.

Chapter 3. Solutions for the management of training linkage between VCs and enterprises in Vinh Phuc to meet manpower developing request.

Chapter 1

THEORETICAL BASE FOR THE MANAGEMENT OF TRAINING LINKAGE BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES TO MEET MANPOWER REQUEST

1.1. Overview of the Research

1.1.1. Researches about the benefits of training linkage with enterprises

1.1.1.1. Foreign researches: Study works concentrate on two benefit groups: short-term benefit and long-term benefit and assert to have three objects that are received directly: persons; enterprises and social.

1.1.1.2. Domestic researches: The authors define four benefit groups: Government's benefit; Enterprises' benefit; vocational training institutions' benefit; Learners' benefit.

1.1.2. Researches about the promoting solution of management of training linkage

1.1.2.1. Foreign researches: Many effective managing solutions have been mentioned such as: training at factory; training at enterprises with major role belonging to the places which use human labour.

1.1.2.2. Domestic researches: Three solution groups: Increase awareness of training linkage between vocational schools and

enterprises; Management of innovating vocational training target, content, programme, methods to meet social's need; Solution for student enrolling, evaluating graduated results and informing about training and employment.

1.1.3. Researches about the policy of management of training linkage between vocational schools and enterprises

1.1.3.1. Foreign researches: Many works concentrate on enterprises' responsibility, role and the rules of duties, training expense sending to the human training, developing fund.

1.1.3.2. Domestic researches: Defining the policies to promote vocational training as: Policy group for vocational training institutions; Policy group for teachers; Policy group for learners; Policy group for enterprise; Policy group for training investment.

1.1.4. Researches about the model of training linkage and management of training linkage

1.1.4.1. Foreign researches: Many linking models have been experimented and applied as: Dual System of Germany; Alternation of France; Three in one of China; 2 + 1 system of Korea; ... each model has strength and weakness but generally, those models proved the superiority in training linkage with enterprises in each nation at the period of time.

1.1.4.2. Domestic researches: Existing three models: Vocational training at enterprises; Vocational training at vocational training institutions; Vocational training at vocational training institutions and enterprises with three managing models: Enterprise in school; School in Enterprise; School out Enterprise.

To sum up, about training linkage between schools and enterprises, all study works, scientific articles unite:

- Training linkage between VCs and enterprises is necessary, symmetrical to trending developing of social, bring real benefits.

- Nowadays, training linkage is loose, coped, unsystematic and seasonal, not be activity of schools and enterprises.

- Based solution to improve the relationship with enterprises is: innovating linking methods; building the system of mechanism, policy; innovating training content, programme and method; establishing organizations, services attaching training linkage between vocational training institutions and enterprises.

About the problem: Management of training linkage between vocational training institutions with enterprises, especially management

of training linkage between VCs⁶ and enterprises to meet manpower developing request have not been mentioned up to now.

1.2. TRAINING LINKAGE BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES TO MANPOWER DEVELOPING REQUEST

1.2.1. Concepts

1.2.1.1. *Training linkage*

- Linkage is linking amongst participating objects about one or many aspects with defined way to conduct activities together to get the targets.

- Training linkage is activity linking between vocational training institutions and enterprises or other vocational training institutions to build plan, organize, conduct together on the principle: two sides unity about responsibility and benefit to get the defined target

1.2.1.2. *Manpower developing*: is developing the human quality, makes human have enough essential competence to participate in labour process.

1.2.1.3. *College manpower*: is high human that has professional knowledge, practical competence and able to conduct complicated work oneself and has good attitude, skill of life.

1.2.1.4. *Enterprise*: is a social organization which has legal personality, conduct productivity, provide, change goods in the market according to the principle maximizing benefits of consumers by maximizing economic benefits of owners about enterprise's property at the same time jointing logically social aims.

1.2.2. Request of developing college manpower nowadays

1.2.2.1. *Need of college manpower*: Framework of labour changes, needing many high labourers. At present, college labourers have not met social's request about every aspect: quantity, quality and framework.

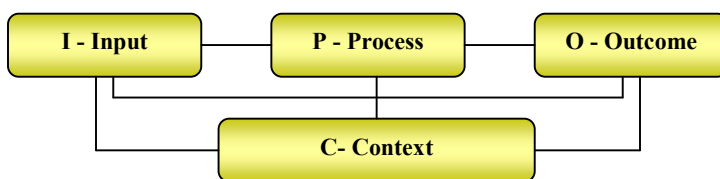
1.2.2.2. *Relationship between need – training – using colleges labourers*: Economics and social develop, which will take shape the market of labour need, it ratios with increasing, developing speed of economic – social, which opens a big opportunity for vocational training institutions. The VCs are the places which provide human training service. The dialectic relationship between providing service and using product is established by supply – demand relationship. Meaning, human demanding – training – using is an isosceles triangle

to be built by ensuring quality,⁷ enough quantity, comprehensive framework, meet the user's request.

1.2.3. The contents of training linkage between VCs and enterprises: Linking in student enrolling; Linking in building training target, content, programme according to meeting enterprise's request; Linking in ensuring sources; Linking in innovating the methods of practical teaching and learning; Linking in innovating the methods of testing, evaluating according to enterprise's request; Linking in ensuring the training quality and employment for learners after graduating.

1.2.4. Model of organizing training linkage between vocational colleges and enterprises: Enterprises in colleges; Colleges in Enterprises; Colleges out Enterprises.

1.2.5. Organizing of training linkage according to CIPO model



1.2.6. Principle of establishing training linkage activity with enterprises: voluntary; equal; win – win; condition; fast adaptation; enterprise's social responsibility.

1.3. MANAGEMENT OF TRAINING LINKAGE BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES TO MANPOWER DEVELOPING REQUEST

1.3.1. Concepts

1.3.1.1. Training management: is managing every activity concerned with the process of human training and developing.

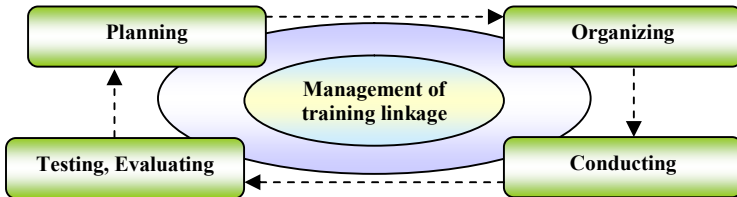
1.3.1.2. Training linkage management: is process that organizes, conducts training linkage between objects participating on basic of voluntary and consensus about linking content, form, limit to get the expected target.

1.3.2. Condition of conducting training linkage management: Establishing the relationship of training linkage; Management according to agreement of linkage content and form; Management according to government's mechanism, policy, documents, rules, introductions about organizing, conducting training linkage between

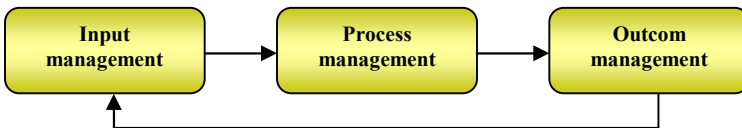
vocational colleges and enterprises; Management according to ensuring partners' benefits.

1.3.3. Model of training linkage management

1.3.3.1. Model of training linkage management following function



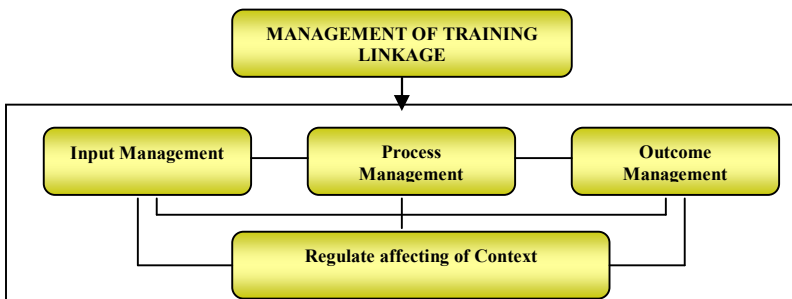
1.3.3.2. Model of training linkage management following process



1.3.3.3. Model of training linkage management following target



1.3.3.4. Model of training linkage management following CIPO



1.3.3.5. Comparing the managing⁹ models in the management of training linkage

Comparative results reflected by many affecting factors, especially being context affirmed essentialness to have to choose the CIPO model in management of training linkage between VCs and enterprises. In order to promote CIPO model's effectiveness, it's necessary to have sponsors of state offices on the spirit: appreciating the autonomy right, take ones responsibility.

1.3.4. Contents of the management of training linkage according to CIPO model: Input management, Process Management, Outcome Management, Regulate affecting of Context.

1.3.5. Relationship between training linkage and management of training linkage between VCs and enterprises: If training linkage is theoretical content, management of training linkage is a way or a method which can convert theory into reality. Through managing activity, the contents of training linkage are described with variety of colourful parts.

1.3.6. Factors affecting to management of training linkage: Market mechanism, policy mechanism and the ability of the partners participating in linking.

1.4. THE LESSON FOR VIET NAM FROM SOME COUNTRIES' EXPERIENCE OF MANAGEMENT OF TRAINING LINKAGE IN THE WORLD

1.4.1. Some European countries' experience: Firstly, vocational training is for enterprises themselves. Secondly, It's necessary to establish the vocational training sponsor fund. Thirdly, it's important to innovate training form and method. Fourthly, it's essential to appreciate learners. At last, it's important to classify secondary education.

1.4.2. Some Asian countries' experience: Firstly, human developing follows real need. Secondly, it's necessary to oblige enterprise's responsibility. Thirdly, it's essential to increase knowledge of vocational teaching and learning practically.

1.4.3. The lessons for Viet Nam: In vocational training, it's vital to give priority to training linkage between VCs and enterprises; heighten enterprise's responsibility in linking to define training target, build content, programme, plan for excursion, practice at enterprises; Developing the number of skill technical staff participating in vocational teaching, practical introducing; Building the mechanism, policy which make enterprises aware their responsibility when they use

trained labours, joining¹⁰ mechanism that encourages learners; Renewing mind about management of training linkage, opinion about training to meet social's request.

Conclusion to chapter 1

In chapter I, thesis mentioned the contents: The activity of training linkage between VCs and enterprises is necessary and suitable to manpower developing trend. CIPO model includes 4 factors: C - context; I – input; P - process; O – outcome. Approaching CIPO model to manage of training linkage will be one of effective ways at the same time innovate the linkage between VCs and enterprises to meet manpower developing request for our country. Regulate affecting of Context, Input management, Process Management, Outcome Management. Managing process of 4 factors combined with 4 basics functions of management allows management of training linkage between VCs and enterprises being operated well and brought real effectiveness, increased partners' competences.

To conduct the theory of management of training linkage, it's essential to begin from linking relationship with the benefit target. VCs' benefit is the educational quality and effectiveness. Enterprises' benefit is profit and capital. Thus, when establishing linking relationship, it's important to appreciate the principles: voluntary, benefit equal, linking condition, fast adaptation.

Chapter 2

REALITY OF THE MANAGEMENT OF TRAINING LINKAGE BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES IN VINH PHUC TO MEET MANPOWER DEVELOPING REQUEST

2.1. PROCESS DESCRIPTION AND SURVEY METHODS

On basic of theoretical framework built in chapter 1, the author chose problem and criteria that need to be surveyed, then plan the survey, conduct survey to collect information, handle it, get experts' advice, compare managing theory with practice, from that, define the strength or weakness, changes or challenges for management of training linkage between vocational colleges and enterprises in Vinh Phuc to meet manpower developing request.

2.2. OVERVIEW OF VINH PHUC

2.2.1. Natural conditions and¹¹ administrative organization affecting manpower developing request in Vinh Phuc: Vinh Phuc is a part of industrial development of belt of Northern provinces, affecting strongly from big industrial zones and municipalities of Ha Noi such as: Bac Thang Long, Noi Bai, Soc Son. Vinh Phuc has many industrial zones; Economic restructuring follows the trend: increasing the proportion of the industry and conduction.

2.2.2. Characteristics of the population: In 2010, the population of working age was the rate 65,2% per all of Vinh Phuc, estimately, in 2015, it has 752.000 labourers (adding 91.000 labourers compared in 2010), in 2020, it will have about 832.000 labourers (adding 80.000 labourers compared in 2015). It's necessary to solve employment and labour restructuring.

2.2.3. Economic developing and employment request: Rising the population of working age makes large pressure to vocational training and solving employment for labourers. On the other hand, agrarian labourers due to shortage of arable land is more and more, it's essential to open vocational training for labourers to meet developing request.

2.2.4. Enterprises of Vinh Phuc

2.2.4.1. The types of Vinh Phuc enterprises – Characteristics and abilities participating in training and developing manpower: By the end of September 2013, Vinh Phuc has 5.838 enterprises, separated into 3 groups: foreign enterprises, state-managed enterprises, private enterprises.

According to the surveyed results, Vinh Phuc enterprises has potential and ability to take part in training linkage with VCs. The average score is 2.8/5 point, in that, content 2: Ability of providing the place for career internship is evaluated 3.4/5 point. Content 3: Ability of sponsoring about finance, machinery, teaching equipment is evaluated the shortest 2.1/5 point. To sum up, about potential and ability to take part in training linkage of each group:

- Group of private enterprises : 2.6/5 point
- Group of state-managed enterprises : 2.7/5 point
- Group of foreign enterprises : 2.9/5 point

2.2.4.2. The activity of training linkage in enterprises

- Activity of training linkage in state-managed enterprises: There are many limitations, right now, there is only relationship of providing the place for career internship.

- Activity of training¹² linkage in private and foreign enterprises: In group of private enterprises, due to limitation of operating range, so level of investment for manpower training is limit. Group of foreign enterprises develop rather strongly with their high productivity and output, hen attract many labourers. Therefore, some activities of training linkage have been conducted but still limit.

In brief, In Vinh Phuc, there is no training linkage model of VCs in enterprises or enterprises in VCs. The relationship of training linkage according to model of VCs separated enterprises has begun to be operated but limitation in small scope with voluntary and spontaneous spirit when having partner's needs. Not having developing plan sustainably. Not having the system of management of training linkage between vocational colleges and enterprises.

2.2.5. Competence and reality of Vinh Phuc vocational colleges manpower

2.2.5.1. Vinh Phuc's competence: PCI of Vinh Phuc in 2012, 2013 was much shorter than five last years. Average of five years (from 2007 – 2011) Vinh Phuc's PCI was 65.28/100. Owing to affecting strongly of market economics and obstacles of local, its PCI decreased (in 2012: 55.15/100; in 2013: 58.86/100). Nowadays, its PCI ranks pretty.

2.2.5.2. Reality of Vinh Phuc vocational colleges manpower: For the quality of VCs manpower, from the surveyed results of 38 enterprises can affirm that students' vocational skill is still limit. 46% enterprises evaluated the students' vocational skill was short and only got the level 2 – shorter quality, 18% evaluated in level 1 – no quality. Students' teamwork skills and communication skills were limit. There were few students who got quality to meet enterprise's request.

2.3. THE REALITY OF TRAINING LINKAGE BETWEEN VCs AND ENTERPRISES IN VINH PHUC TO MEET MANPOWER DEVELOPING REQUEST

To affirm the reality of it, the author of the thesis surveyed the contents: Reality of the linkage in student enrolling; Reality of the linkage in building training target, content, programme according to meeting enterprise's request; Reality of the linkage in ensuring sources; Reality of the linkage in innovating the methods of practical teaching and learning; Reality of the linkage in innovating the methods of testing, evaluating according to enterprise's request; Reality of the linkage in ensuring the training quality and employment for learners

after graduating; Reality of¹³context affecting to training linkage. The results after surveying were limit.

2.4. THE REALITY OF THE MANAGEMENT OF TRAINING LINKAGE BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES

2.4.1. Reality of input management: was studied through contents: Reality of the linking management in student enrolling; Reality of the linking management in building training target, content, programme according to meeting enterprise's request; Reality of the linking management in ensuring sources. Conducted results of each content were limit and defined the occasional level.

2.4.2. Reality of process management: was studied through 3 contents: Reality of the linking management in vocational practice at enterprises; Reality of the linking management in innovating teaching contents and methods to meet enterprise's request; Reality of the linking management in testing, evaluating the teaching process. Generally, surveyed objects affirmed this activity was not conducted regularly, even almost students didn't know its existence.

2.4.3. Reality of outcome management: was studied through 3 contents: Reality of the linking management in ensuring the output quality; Reality of the linking management in making employment for learners after graduating; Reality of the linking management in vocational counselling. The results of this activity were limit. Therefore, it's necessary to conduct the programme "following student's trace" or make a website "VC student's voice".

2.4.4. Reality of regulating context affecting: was studied through: Reality of conducting the policy about training linkage; Reality of regulating the market mechanism affecting. In general, VCs also enterprises have not taken care of this content, have not linked to estimate about the influence from context.

2.5. GENERAL ASSESSMENT OF REALITY

2.5.1. Strengths: Activity of training linkage between vocational colleges and enterprises to meet manpower developing request serving Vinh Phuc's industrialization – modernization has begun to be conducted. Owing to the affecting of labour market, educational competitiveness, VCs have started to look for relationship with enterprises. Meeting, linking, making the training contracts or productive contracts... Hen, the management of training linkage has

begun to be cared. Almost¹⁴ vocational colleges established the Center of Enrollment and Employment.

2.5.2. Weakness: Linking contents and forms have had much limitation, management of training linkage has been vicious and not had managing model. Managing activity have been seasonal, so effective evaluating's hard. Enterprises have not cared for human developing training activity.

2.5.3. Cause of limitation and the problems need to be solve

- Simple labourers are abundant.
- Limitation of training disambiguation and estimating of manpower need.
- There has been any activities to *premise for management of training linkage*.
- Vocational colleges are not truthfully dynamic and active. Enterprises do not appreciate activity of training linkage as well as do not care for developing strategy.

Conclusion of Chapter 2

Activity of training linkage between VCs and enterprises in Vinh Phuc has been superficial, fragmented, and seasonal, temporary. Linking contents have been discrete. Linking forms have mainly followed defined address conducted by training contracts if each partner has demand. There is no system to manage the training linkage together with the managing model. To promote the training linkage between VCs and enterprises, it's necessary to innovate in awareness of responsibility and voluntary in linking in order to look for the model of linking and management of training linkage that obtains the target: developing competence, being stable for position in market mechanism. Management of training linkage according to CIPO model with the spirit: managing process overall from input to outcome jointing regulating affecting context is defined to be a suitable managing model that promotes training linkage between VCs and enterprises to develop effectively.

**SOLUTIONS FOR THE MANAGEMENT OF TRAINING LINKAGE
BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES
IN VINH PHUC TO MEET MANPOWER DEVELOPING REQUEST****3.1. ORIENTATION OF DEVELOPING MANPOWER IN VINHPHUC**

3.1.1. Expanding sphere, increasing the quality of vocational training

3.1.2. Developing the training of vocational college manpower

**3.2. THE REQUEST OF THE PROPOSED SOLUTION TO IMPROVE THE
EFFECTIVENESS OF MANAGEMENT**

3.2.1. Request of ensuring the unity

3.2.2. Request of ensuring the suitability of supply – demand

3.2.3. Request of ensuring benefit equal and responsible separation

3.2.4. Request of ensuring self-control right

3.2.5. Request of ensuring training quality and effectiveness

**3.3. SOME SOLUTIONS OF THE MANAGEMENT OF TRAINING LINKAGE
BETWEEN VOCATIONAL COLLEGES AND ENTERPRISES****3.3.1. The solutional group to premise for management of
training linkage*****3.3.1.1. Choosing the training linkage and management of
training linkage model***

- Purpose of solution: Ensuring the orientation and suitable to each vocational college.

- Contents of solution: Enterprises discuss VCs to evaluate about the strength and weakness of each partner when taking part in training linkage. After that, joining unite the model of training linkage on the principle win – win, promoting partner’s strength and ensuring defined target (Enterprises have suitable manpower that can approach the chain of producing; VCs have students, prestigious in training to develop manpower).

- Way of implementing solution: Organizing prior to training linkage, uniting to choose model of training linkage; Building the mechanism of linking. This is the mechanism flexibility, lissomness, fast adaptation with changing of social. The mechanism is operated by information connecting VCs to enterprises by the Center of Enrollment and Employment.

3.3.1.2. Uniting the criteria to¹⁶ delimit each partner's responsibility in training linkage and management of training linkage between vocational colleges and enterprises

- Purpose of solution: Joint responsibility, increase self-control right, promote partner's strength and advantage. Orientate the work which needs doing by each side. Separate specifically partner's responsibility according to approaching market need, orientation of input management from outcome standard below state's leading.

- Contents of solution: the criteria to delimit each partner's responsibility in training linkage:

Criteria 1: Increase partner's responsibility.

Criteria 2: Define self-control right.

Criteria 3: Conduct the policy for enterprises participating manpower training.

- Way of implementing solution: Organize conferences to discuss the criteria separating partner's responsibility. Establish the functional office that includes vocational college's representatives and enterprise's ones. This office's duty realistic activity direction. Co-write documents that assign, pledge training linkage responsibility. Manage with signed documents.

3.3.2. The solutional group to manage input in training linkage

3.3.2.1. Linking management to build training programme

- Purpose of solution: Up date vocational knowledge, skill matching with changing of science and technology to meet enterprise' request and learner's need.

- Contents of solution: Training programme has to be built according to enterprise' request and reality of producing. Therefore, it's necessary to define occupational area that needs to train and field of work connecting to task that needs to conduct.

- Way of implementing solution: Enterprises send experts who co-build training programme, define training need. Base on enterprise's manpower need, link to surveying social need to define the vocation which enterprises and the labour market is needing, is going to need with calculating the equal of manpower line-up, expenses and effect. Vocational analysis is conducted "Defining task, working list, steps of working each and condition to conduct that work", analyzing the work and vocational skills.

3.3.2.2. Linking management¹⁷ to build the system of student enrolling and labour supplying information

- Purpose of solution: Establishing the informative system that activates professionally; Up date labour market and working change. Analyzing, evaluating the reality and foretelling trend of developing to adjust training plan, programme timely to student enroll close to enterprise's request; Supplying to enterprises about information of training ability (college's vocation, training quantity and quality and developing potentiality...); Supplying truthfully vocational information to learners.

- Contents of solution: building the system of student enrolling and labour supplying information.

- Way of implementing solution: Establishing the office that links information; Assigning responsibility, function, task and authority of this office; Organizing the activities to approach student linking information; Approaching enterprises to survey manpower need near the vocations that college is training to adjust timely, planning student enrolling, Searching for assistance from enterprises and social organization. Linking to enterprises conduct student enrolling plan, linking information to plan labour supplying for enterprises.

3.3.3. The solutional group to manage process in training linkage

3.3.3.1. Linking management to renovate the method of teaching and learning

- Purpose of solution: Meeting vocational activities according to made standard. Increasing training effect, defining college's position, brand name. Helping learners to familiarize with realistic condition in production quickly, having enough ability to meet manufacturing action at once.

- Contents of solution: Managing process of training linkage to meet enterprise's request include: Management of teaching and learning process according to enterprise's request

- Way of implementing solution: For teaching activity: linking to enterprises to define requests needing to be attained. Managing every teacher's teaching activity. For learning activity: having to monitor, supervise and speed up, direct the implementation, instruct, find out positive or optimistic manifestation to overcome timely, adjust and orient students so that they can attain the best results in learning.

3.3.3.2. Linking management¹⁸ to renovate the method of learning processing test and evaluation

- Purpose of solution: Defining learner's level and ability which was at beginning period of the process of training linkage. Comparing with the request of knowledge, skill, attitude to announce the happening of learner's process timely. Impulsing, renovating the activity of teaching at the same time defining learner's attained abilities. Finding out the cause of folds to adjust timely.

- Contents of solution: Choosing some regular testing and evaluating ways. However, it's necessary to define clearly: knowledge, skill, attitude are basic criteria to evaluate the quality of training product. Testing and evaluating according to enterprise's requests permits defining the conductive level according to the defined criteria and evaluating according to requests.

- Way of implementing solution: Defining the criteria, situations to evaluate in training programme; Establishing the evaluating methods and instruments, if it's possible to test the evaluating process; Announcing the principles, formations and testing and evaluating to students; Organizing to test and evaluate.

3.3.4. The solutional group to manage outcome in training linkage

3.3.4.1. Linking management to evaluate the graduated results according to the output standard

- Purpose of solution: Evaluating the attained level of the targets compared with output standard about knowledge, skill, attitude which enterprises have requested. Defining the effect of training process. Comparing with the fact abilities that learners attained with the expected results that were defined according to ability standards.

- Contents of solution: The output standard is defined on enterprise's request. To manage the linkage of evaluating the graduated results according to the output standard, it's essential to learn the factors: student quality; teacher quality; program quality; teaching quality; sources quality that serve training linking activities.

- Way of implementing solution: establishing the council to test and evaluate graduated results includes: College members (college managing board and specialized faculties); Enterprise members (managing representatives and technical officers); Building the evaluating process according to defined indexes, criteria, paying special attention to the targets of vocational knowledge, skill and

attitude. Supplementing to¹⁹ develop the soft skills such as: communicate skill, capacity of collecting and solving information, capacity of foreign... Synthetizing the whole of evaluated results and then making petition, proposing and submitting to council.

3.3.4.2. Linking management to offer vocational advice and receive information about graduated students

- Purpose of solution: The linkage of vocational advice helps students feel assured to practise chosen and trained profession. Receiving information reflected from the labour market about the quality of student-product to confirm vocational college's position in the competative background of education. It's essential to seize the thing that labour market lacks, request that labour market needs. Adjusting, supplementing, changing the training plan and programme meets enterprise's request.

- Contents of solution: the collected information from students include: The time finding the first job; Working place; Working position at enterprises is compared with trained level and profession; Working condition; Plan in the future...

- Way of implementing solution: Build the vocational advice plan, manage the information of graduated students; Confirm the enrolling – serving – employing department's responsibility; Choose the form to collect information; Solve collected information through the detail contents; Report the level of attained aim and targets; Promote the new development.

3.3.5. The solutional group to regulate the impacts of background

3.3.5.1. The policy appriating enterprise's responsibility and policies encouraging the training linkage

- Purpose of solution: Increase enterprise's responsibility for training linkage. Change the opinion considering the trained labours as free and public goods source. Encourage to train vocation basic on enterprises' needs. Develop the activity of training linkage with enterprises. Create the condition of employment according to trained profession for students graduating.

- Contents of solution: Change enterprise's recognition and awareness about its interest, responsibility and obligation when using trained labourers by approaching and conducting the policies of using labourers at an enterprise.

- Way of implementing²⁰ solution: Unite to manage in Vinh Phuc province on basic conducting the policies of encouraging the training linkage between colleges and enterprises. Organize conferences, knowledge improval classes of training and human developing, training linkage with colleges, enterprise's responsibility when using trained labourers... Build the criteria to promote enterprise's responsibility depending on the characteristic of location and that of the enterprise groups (foreign enterprises, state-managed enterprises, private enterprises) in Vinh Phuc province.

3.3.5.2. Using the manpowers after graduating

- Purpose of solution: Promote the effect in training linkage with enterprises. Create the jobs for trained labourers.

- Contents of solution: Change information about the need of manpowers and training ability zealously, assure each student when graduating can find a suitable job. Link with enterprises to find united voice about the correspondence between training and enterprise's using request both professional scale and framework. Increase the practical time in enterprises; Expand linking forms and contents between vocational colleges and enterprises on basic three partners having benefits.

- Way of implementing solution: Promote the strength of the enrolling – serving – employing department. Organize the customer conference twice a year. Enterprises make the plan to take part in the customer conferences held by VCs, the working festivals held by Vinh Phuc province or group of enterprises annually. Base on the enterprise's developing prospect, offer VCs to train the manpower product meeting enterprise's request. Make the plans to get students having good results and going through the experience-practice in enterprises.

3.3.5.3. Increasing the linkage of professional and manpower need foretelling

- Purpose of solution: the linkage of professional and manpower need helps leaders make right decisions that suit rules of the training linking policies, resources and scale, developing strategy, active to approach the manpower supply – need market in area.

- Contents of solution: VCs together with enterprises link, unite the methods and contents affecting the training linkage

- Way of implementing²¹solution: link, plan to predict professional manpower need in the next time. List asked experts. Build the questionnaire and send it to the experts. Receive the ideas from the experts. Solve the data, conduct to predict and evaluate. Give the predicted results to managers to help them make decision timely.

3.4. THE RELATIONSHIP AMONG MANAGING MEASURES

The managing measures based on CIPO model detailed through four factors: Input; Process; Outcome and Context, associating to two premising solutions to link one another to establish the wholly managing system about every side of training linkage between VCs and enterprises. On the other hand, each solution has relatively independent quality. This is an advantage helping both VCs and enterprises in Vinh Phuc to active to choose the linking content which is suitable to each solution in managing the linkage having notice about the fact condition of attending partners in detail period of time.

3.5. EXPERIMENT AND SURVEY THE NECESSITY AND FEASIBILITY OF PROPOSED SOLUTIONS

3.5.1. Experiment the necessity and feasibility of proposed solutions

3.5.1.1. Experimental purpose

In order to consult the opinion of VCs, enterprises which use student labourers graduating from the surveyed VCs, helping to evaluate the necessity and feasibility of proposed solutions.

3.5.1.2. Experimental contents

Confirm the necessity and feasibility of proposed managing solutions in training linkage through two professional groups: Electric – Electron and Mechanic in the market economy between VCs and enterprises. The thesis author confirmed the ideas of:

- The group of vocational colleges’ managers : 120
- The group of lecturers : 240
- The group of students : 1.200
- The group of enterprises’ managers : 150
- The groups of labourers having VC quality : 720

3.5.1.3. Experimental forms

The ankets were designed to question of the necessity and feasibility of proposed managing solutions. Evaluating by make the point according to the scale devided into five degrees. The necessity of proposed managing solutions was evaluated from 1 to 5. Level 1: no

necessity; level 2: little necessity;²² level 3: rather necessity; level 4: necessity; level 5: very necessity. The feasibility was evaluated from 1 to 5. Level 1: no feasibility; level 2: little feasibility; level 3: rather feasibility; level 4: feasibility; level 5: very feasibility.

3.5.1.4. Experimental results

The author received 2.430 reply coupons. The number of them was solved multiple of 3 (meaning: they were marked from 1 to end and the ankets having numbers 1, 3, 6, 9, 12, 15, 18, 21, 24, 27, ... were solved). The detail results were performed in the lists PL2.9 and PL2.10.

3.5.1.5. Analyzing, evaluating the experimental results

a. The necessity of proposed managing solutions: The datas in PL2.9 and table 3.2 confirmed that they have been extremely necessity. The results of average score of solutions are high (4.57/5 point).

b. The feasibility of proposed managing solutions: About this, the groups confirmed from 62.5% to 87.5%. Overall, solutions 1, 2, 3 were evaluated the most feasible.

3.5.2. Testing some solutions

3.5.2.1. Purpose of testing: in order to demonstrate the necessity and feasibility of proposed managing solutions. Through the results of testing, the scientific theories have been confirmed as well as the experience lesson from the fact have been found, the solutions of linking management with enterprises have been perfected.

3.5.2.2. Contents of testing: Owing to the feature conditions of enterprises in Vinh Phuc province, and the scope of this thesis, the author chose to test some proposed solutions.

3.5.2.3. Limit of testing

- About the contents:

+ *Linking management to build the system of student enrolling and labour supplying information* (The solutional group to manage input in training linkage)

+ *Linking management to organize the activity of professional practice in enterprises* - one content of the solution: Linking management to renovate the method of teaching and learning to meet enterprise's request (The solutional group to manage process in training linkage).

- About time and place of testing:

+ Time of testing: From²³February, 2012 to December, 2013 and divided into two periods: Periods 1: From February, 2012 to April, 2012. Period 2: From October, 2013 to December, 2013.

+ Place of testing: The vocational college of agricultural mechanics belonging to Ministry of agriculture and rural development; Vietnam precision industrial no 1 co.,LTD.

3.5.2.4. Testing

Solution 1: *Linking management to build the system of student enrolling and labour supplying information*

Based on the training results, the team of information – supplying – employment approached 22 enterprises and introduced about 250/608 students to work there with stable salary from 2,1 to 4,5 million dongs per person per month. Expanding the relationship with 48 enterprises continually. Build the plan of labour supplying in 2013 with 700 labours, increasing nearly 3 times in 2012.

Solution 2: *Linking management to organize the activity of professional practice in enterprises.* The testing results have confirmed: The students' practical skill has been improved, especially, hard skills and professional attitudes. From 36% in 2012 to 62% in 2013. Other criteria were evaluated well but foreign capacity.

Conclusion of Chapter 3

Chapter 3 proposed the solutions to manage training linkage between VCs and enterprises in Vinh Phuc province to meet manpower developing request. The proposed solutions based on the intend to develop local's economics – society associated with the fact of training linkage with enterprises has been performing through out regions of Vietnam and characteristics of VCs, enterprises in Vinh Phuc. The thesis proposed 5 solutional groups.

In order to confirm the necessity and feasibility of proposed managing solutions, the author surveyed 11 solutions, tested 2 solutions. The experimental and testing results demonstrated the right of solutions at the same time suggested the way to manage training linkage between VCs and enterprises in Vinh Phuc province, contribute to increasing manpower quality.

1. Conclutions

The training linkage between vocational colleges and enterprises impacts directly to VC manpower quality. The intend of training linkage between VCs and enterprises has been considered as a breakthrough solution in the strategy of development manpower.

The thesis built the theoretical basis on the training linkage and the management of training linkage between VCs and enterprises to meet social's request in the context that is affected by market mechanism by the way of process accessing in training management through managing 4 factors: C – I – P – O.

The thesis surveyed, evaluated the reality of the training linkage and the management of training linkage between VCs and enterprises in Vinh Phuc to meet manpower request. In the survey process, the thesis pointed weakness of management of training linkage and looked for causes, suggested the solving way.

The thesis proposed 5 solutional groups to manage training linkage between VCs and enterprises. Surveyed, experimented and tested to confirm the necessity and feasibility of proposed managing solutions.

2. Recommendations

- To the government, ministries and braches.
- To Vinh Phuc province.
- To vocational colleges.
- To enterprises.

LIST OF SCIENTIFIC WORKS

TT	Names of scientific works
1	Nguyen Tuyet Lan (2012), <i>“Some Models of the vocational training linkage in the world”</i> , Journal of Education, No 296 (Term 2 – 9/2012), Page 61 – 63.
2	Nguyen Tuyet Lan (2013), <i>“Approaching the CIPO model of quality management to training linkage activity between vocational schools and enterprises”</i> , Journal of Education, No 307 (Term 1 – 4/2013), Page 14 – 15.
3	Nguyen Tuyet Lan (2014), <i>“Science basement of the training linkage activity between vocational colleges and enterprises”</i> , Journal of Educational Science, No: Special – 1/2014, Page 36 - 39
4	Nguyen Tuyet Lan (2014), <i>“Approaching the Competence in management of training linkage activity between vocational schools and enterprises”</i> , Journal of Educational Equipment, No 107, July 2014, Page 27 - 29
5	Nguyen Tuyet Lan (2014), <i>“Activity of linkage in enrolling new students between vocational colleges and enterprises in Vinh Phuc”</i> , Journal of Educational Equipment, No 109, September 2014, Page 8 – 11.
6	Nguyen Tuyet Lan (2014), <i>“Management of training linkage between vocational colleges and enterprises”</i> , Journal of Educational Equipment, No 112, December 2014, Page 4-6.
7	Nguyen Tuyet Lan (2015), <i>“Programme of Experiential Practice and the training linkage activity between vocational colleges and enterprises”</i> , Journal of Educational Equipment, No 113, January 2015, Page 32-33,54.