



THE FACT OF TRAINING MANAGEMENT AT COLLEGE LEVEL IN MEETING HUMAN RESOURCE REQUIREMENTS OF ENTERPRISES IN VIETNAM

 Pham Xuan Thu¹

 Vo Thi Nhu
Uyen^{2*}

¹National Institute for Vocational Education and Training, Vietnam.

Email: pham.xuanthu74@gmail.com Tel: +84904256336

²Hanoi University of Industry, Vietnam.

Email: vothinhuuyen@hau.edu.vn Tel: +84904084445



(+ Corresponding author)

ABSTRACT

Article History

Received: 5 April 2021

Revised: 7 May 2021

Accepted: 1 June 2021

Published: 29 June 2021

Keywords

Training management
College level
Vocational training
Human resource requirements
Enterprises in Vietnam
Close cooperation
Development vocational training.

The purpose of this research is to find out the fact of training management at college level in meeting the human resource requirements of enterprises in Vietnam. Questionnaire survey method was applied for 3 groups of respondents, including the quantitative (390 questionnaires) and the qualitative (18 interviews) in the northern, central and southern regions. Gathered data were processed using SPSS 22.0 software with tools: Cronbach's alpha to assess the reliability; EFA to measure the (convergence or discriminant) validity; Descriptive Statistics to rank the level of vocational training at college level so as to meet the human resource needs of enterprises. The study demonstrates the limitations of training management at college level to meet the needs by analyzing the current situation of: (i) planning for training process; (ii) conducting; (iii) monitoring and supervising; (iv) improving and developing; (v) controlling context. This is also the basis for proposing specific solutions in the following research.

Contribution/Originality: The study has provided survey results, indicate the limitations on the training management at the college level to meet the human resource needs of enterprises. This is also the basis for proposing policy that clearly define the roles and responsibilities of parties (businesses, colleges, learners and employees) in Vietnam.

1. INTRODUCTION

Close cooperation between colleges and businesses is the key for training so as to meet the human resource needs of companies. According to [Government \(2013\)](#) the existing legal documents created a legal corridor for the vocational training institutions to establish relationships with enterprises for training activity implementation. In fact, the institutions understand that the integration with enterprises in training management activities is indispensable and orientated throughout the process of developing vocational training institutions. However, in order for enterprises to participate effectively in, it is necessary to have proposals for policy that clearly define the roles and responsibilities of parties (businesses, colleges, learners and employees) consistent with existing policy. The following is an overview of training to meet the enterprises' human resource demand in Vietnam.

a. Network of Vocational Training Institutions

According to a report by [National Institute of Vocational Education and Training Education and Training \(2019\)](#), the total number of vocational training institutions is 1,907 (1,277 of public, 680 of private and 7 of foreign investment sector). It includes 400 colleges, 463 intermediate colleges and 1,044 vocational training centers [Figure 1](#).

Unit: Number of institutions

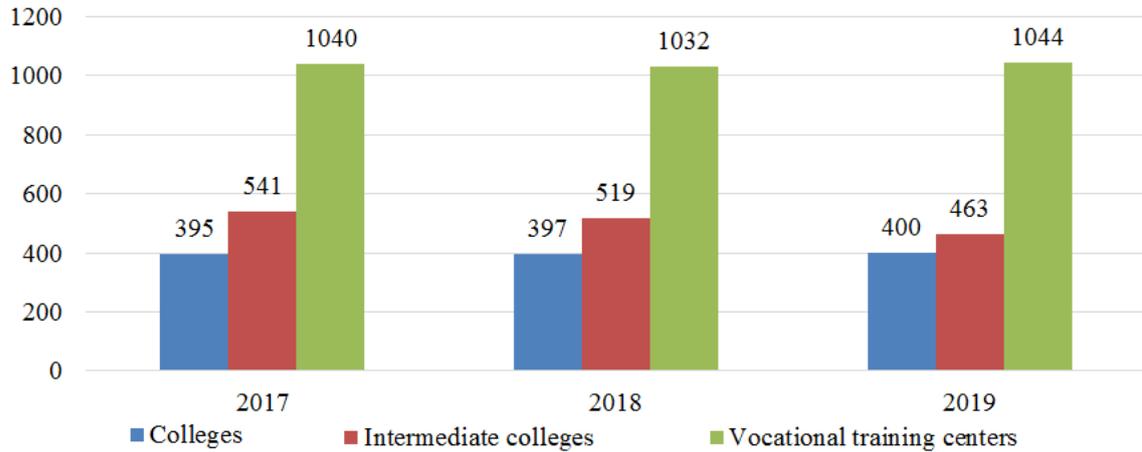


Figure-1. Number of vocational training institutions, 2017 to 2019.

b. Enrollment and Graduation

According to National Institute of Vocational Education and Training Education and Training (2019), Ministry of Labor War Invalids and Social Affairs & General Statistics Office (2019) there were 2,338,000 people to be enrolled and approximately 236,000 of them went to colleges, accounting for 10% of the total enrollment in 2019 (Figure 2).

Unit: people

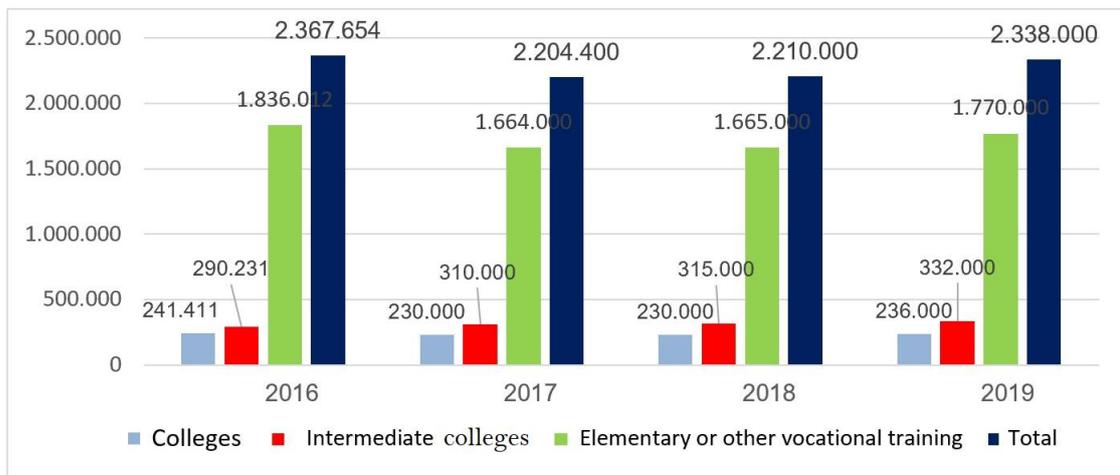


Figure-2. Enrollment, 2016 to 2019.

According to National Institute of Vocational Education and Training Education and Training (2019), Ministry of Labor War Invalids and Social Affairs & General Statistics Office (2019) there were about 2,200,000 people to be graduated, in which 236,000 were at college level (Figure 3). 85% of these associate students had jobs right after graduation.

C. Teachers and Managers

Report of the General Directorate of Vocational Training (2019) also reveals that the total number of teachers in vocational training institutions is 84,302, including 37,633 in college (accounting for 44.64%), 14,727 in intermediate college (accounting for 17.47%), 20,344 in vocational training center (accounting for 24.13%), and 11,598 in other institutions (accounting for 13.76%) (Figure 4).

The number of teachers in public vocational training institutions are 50,681 (60.12%), while there are 33,621 in

non-public sector (accounting for 39.88%) The total teachers in the vocational training institutions managed by the Government are 19,047 (22.59%). In addition, the number of female teachers is 21,317 (accounting for 25.29%) and the teachers from ethnic minorities are 1,669 (accounting for 1.98%).

Unit: people

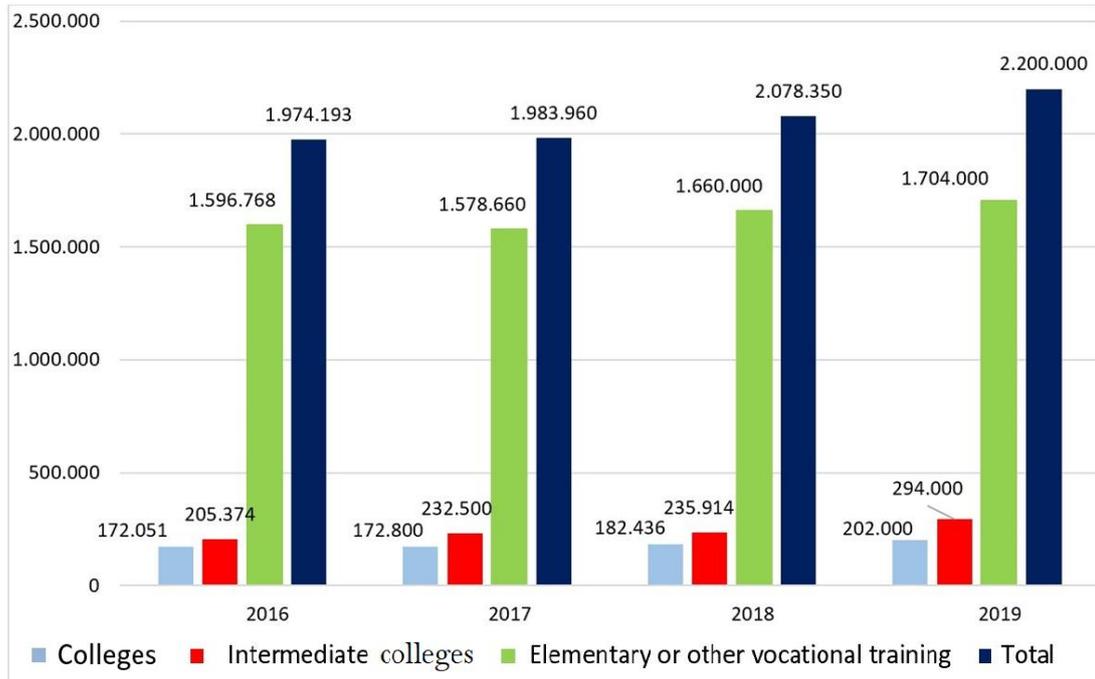


Figure-3. Graduation, 2016 to 2019.

Unit: people

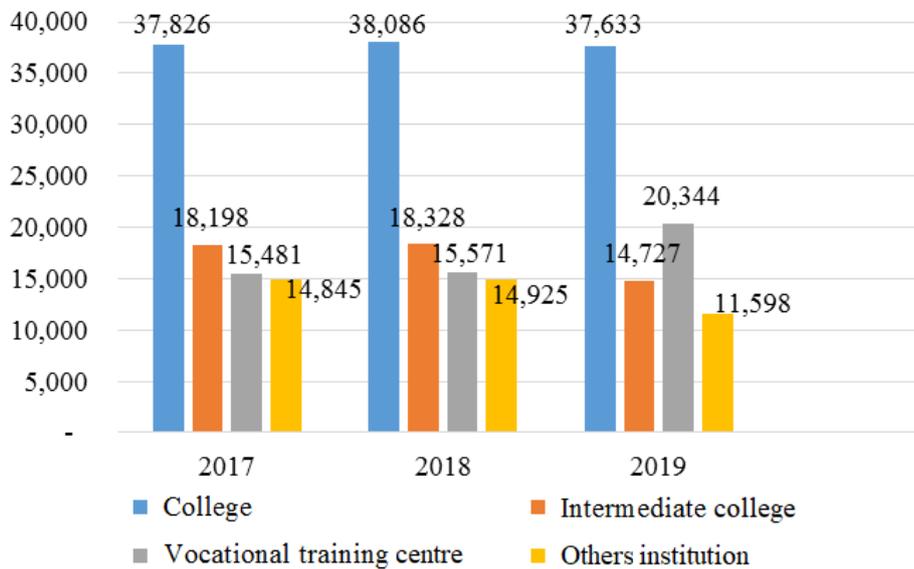


Figure-4. Teachers in vocational training institutions, 2017 to 2019.

According to Tien (2019) up to June 1, 2019, there were 20,627 vocational training managers nationwide, 1,438 of them (corresponding 6.97%) work in state officials, including: 179 (12.45%) in ministries, departments, groups, corporations, associations; 458 (31.85%) in the Division of Vocational Education and Training under the Department of Labor, Invalids and Social Affairs; 801 (55.7%) in the Division of Labor, Invalids and Social Affairs at district level. 19,189 managers work in vocational training institutions (including: 10,312 in the colleges, 5,169 in the intermediate colleges and 3,708 in the vocational training centers).

d. Training Program

The Law on Vocational Training (2014), training program is developed based on the standards of occupational skills according to the DACUM method by analyzing the jobs and works with the tasks and the results to be achieved. Enterprises and employers are also involved in the development of training programs to select the necessary basic knowledge, skills and attitudes into the program accordingly. After the Law on Vocational Training to be valid, the institutions may actively develop, evaluate and issue training programs for applying to their institutions based on the minimum amount of knowledge and requirements for competencies that learners must gain after graduation. By-law document (Ministry of Labor War Invalids and Social Affairs, 2018a, 2018b, 2018c, 2018d, 2018e, 2018f, 2018g, 2018h, 2018i, 2018j, 2018k), in the two years of 2017 and 2019, the General Directorate of Vocational Training coordinated with the ministries, departments and colleges to build and evaluate the regulation on the minimum amount of knowledge, the capacity requirements that learners must achieve after the graduation (Outcome Standard) at intermediate and college level for most of the major and popular career being trained in vocational training institutions (about 210 occupations).

2. RESEARCH CONTENT

2.1. Research Purpose

With an aim of interpreting the fact of college level training management as well as being a practical basis for proposing training management solutions to meet the human resource requirements of the enterprises in Vietnam.

2.2. Methodology

The study used the questionnaire method.

The questionnaire is used to survey and assess the fact of college level training management activities to meet the human resource needs of enterprises in Vietnam.

The questionnaire was anonymized in order to reach objectivity, sent to the three groups of respondents, as below:

- (i) 90 lecturers and managers at colleges, including college boards, heads/deputy heads of Training departments, Student affairs, Employment service center; lecturers (who are responsible for theory, practice and integrating modules) at 9 colleges (2 private and 7 public colleges) in 3 the northern, central and southern regions.
- (ii) 150 managers and trainers in the enterprises.
- (iii) 150 employees in 30 enterprises (10 in each region) with a scale of more than 100 employees or more graduated from colleges. The enterprises currently employ associate-degree workers.

Data collected are processed and validated using SPSS 22.0 software. The study determines the ranges at each level based on the questionnaire criteria: 1,0 – 1,8 : Poor; 1,81 – 2,6: Below average; 2,61 – 3,4: Average; 3,41 – 4,20: Good/Strong; 4,21 – 5,0: Very good/strong. Thus, the study chooses the score of 3.4 to be the acceptable level of meeting the requirements.

3. RESULT AND DISCUSSION

3.1. Fact of Planning for Training Process

a. Fact of Planning for Input Factors

Survey results indicate that colleges focused on enrollment planning; expertise improvement of lecturers, managers and trainers at companies; training program development; investment in and use of facilities and equipment; mobilization and use of financial resources. Evaluation results achieved an average score of 3.11. In particular, the planning-enrollment factor is assessed as meeting the requirements with the average score of 3.49. The other factors all scored below 3.4, which means that it is not satisfactory. In which plan to increase capability for lecturers, managers and trainers at the enterprises is rated lowest among the input factors [Figure 5](#).

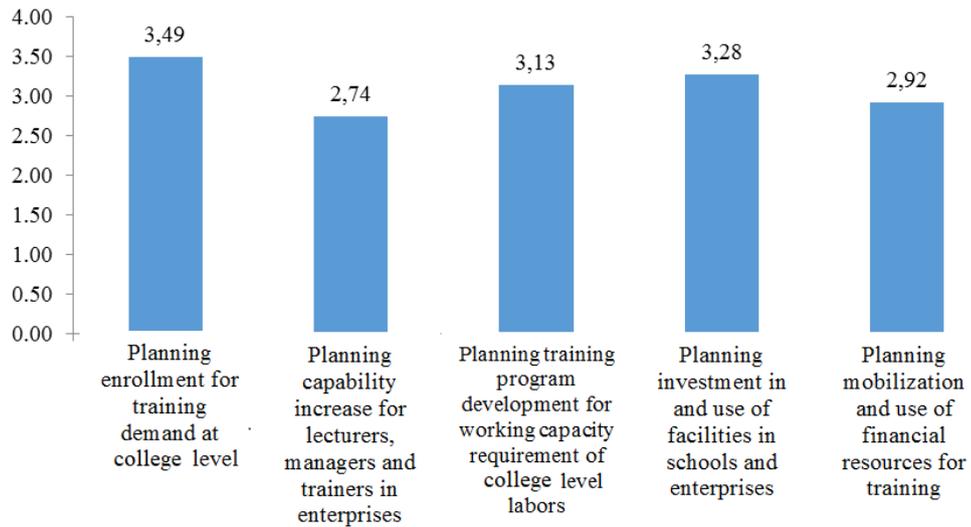


Figure-5. Management of planning for input factors.

Table 1 demonstrates that only the enrollment planning factor is recognized at a very good level. Two factors of planning capability increase for lecturers, managers and trainers in enterprises and mobilization and use of financial resources for training is only considered at average and below average. This shows that it is necessary to improve the quality of management for the two factors.

Table-1. Evaluation of the fact of planning for input factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Planning enrollment for training demand at college level	5	5.56	34	37.8	51	56.67					3.49
Planning capability increase for lecturers, managers and trainers in enterprises					67	74.44	23	25.6			2.74
Planning training program development for working capacity requirement of college level labors			17	18.9	68	75.56	5	5.56			3.13
Planning investment in and use of facilities in colleges and enterprises			34	37.8	47	52.22	9	10			3.28
Planning mobilization and use of financial resources for training					83	92.22	7	7.78			2.92
Average		1.1		18.9		70.2		9.78			3.11

b. Fact of Planning for Process Factors

Through the survey, it can be seen that the planning for process factors is generally assessed to an average level with an average score of 3.03. However, the factor "Planning to achieve specific training objectives of each profession" is rated at 3.38, close to the meeting requirements, shows that the colleges nearly reach the objectives in planning. Other factors are only rated below 3, showing many limitations in planning for training process Figure 6.

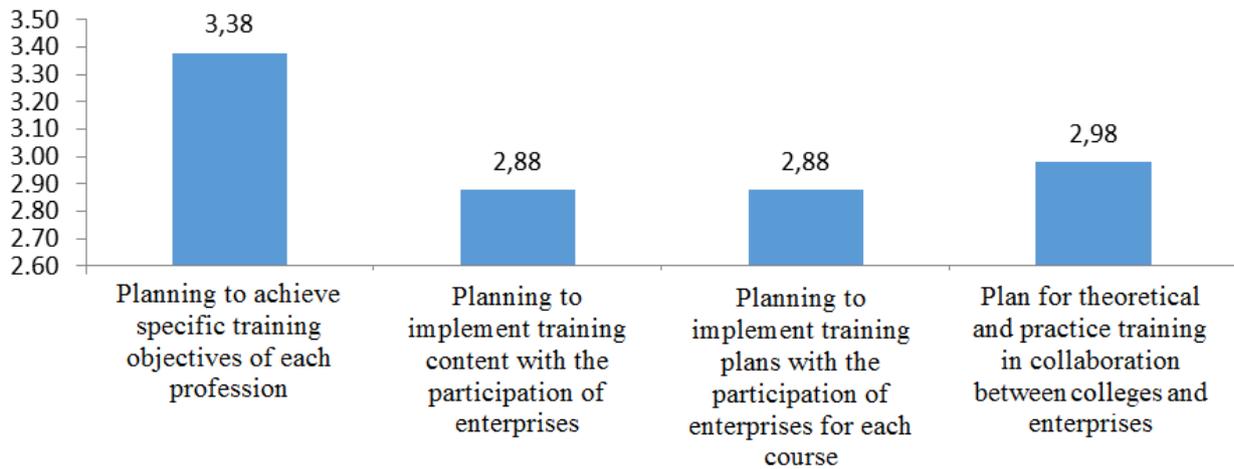


Figure-6. Planning for process factors.

Table 2 reveals that the factors "Planning to implement training content with the participation of enterprises" and "Planning to implement training plans with the participation of enterprises for each course" had a rate of assessment as weak to be relatively high (nearly 30%). Thus, the college needs to further have the join of businesses in the implementation of training content and plans for each course.

Table-2. Evaluation of planning for process factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Planning to achieve specific training objectives of each profession			34	37.8	56	62.22					3.38
Planning to implement training content with the participation of enterprises			15	16.7	49	54.44	26	28.9			2.88
Planning to implement training plans with the participation of enterprises for each course			14	15.6	51	56.67	25	27.8			2.88
Plan for theoretical and practice training in collaboration between colleges and enterprises			13	14.4	62	68.89	15	16.7			2.98
Average		0		21.1		60.6		18.3			3.03

c. Fact of Planning for Outcome Factors

An assessment plan of students' learning is developed together with a training plan. However, colleges actively do this with little participation of experts from enterprises. Survey results demonstrate that the assessment plan of students' learning with the experts from businesses joining is rated average.

The colleges already planned to collect and use feedback, employment information of alumni and collect assessment information of students graduated from enterprises on the meeting-needs level. However, the plans are often not clear, specific and less feasible. Many colleges just prepare the plan or collect the information and assessment every 2 to 3 years. The survey results show that all three outcome factors are assessed at the average and below average level Figure 7.

Table 3 reveals that planning for outcome factors had a rate of assessment as average and below average. Rate of rating is quite low, no reviews at a very good level. Thus, 'Planning to collect and use feedback, employment information of alumni' and 'Planning to collect assessment information of students graduated from enterprises on the meeting-needs level' only under 6% rated at a good level.

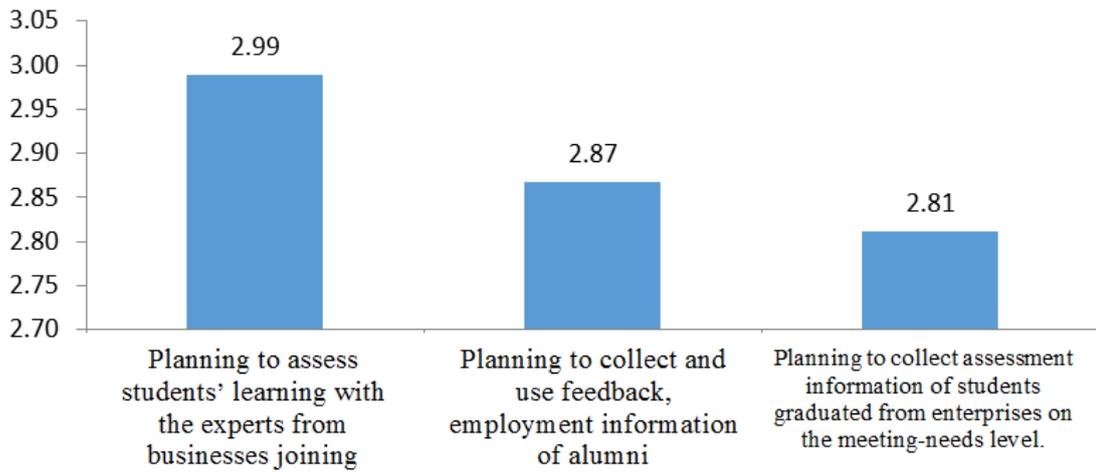


Figure-7. Planning for outcome factors.

Table-3. Evaluation of planning for outcome factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Planning to assess students' learning with the experts from businesses joining			22	24.4	45	50	23	25.6			2.99
Planning to collect and use feedback, employment information of alumni			5	5.56	68	75.56	17	18.9			2.87
Planning to collect assessment information of students graduated from enterprises on the meeting-needs level.			4	4.44	65	72.22	21	23.3			2.81
Average				11.5		65.9		22.6			2.89

3.2. Fact of Training Plan Implementation

a. Fact of Implementing Input Factors

The implementation of the inputs is rated average. The factor of program development with the participation of businesses is assessed at the highest level with an average score of 3.28, nearly to meet the requirements. The lowest evaluation score is the capability increase for lecturers, managers and trainers in the enterprises with the participation of the enterprises Figure 8.

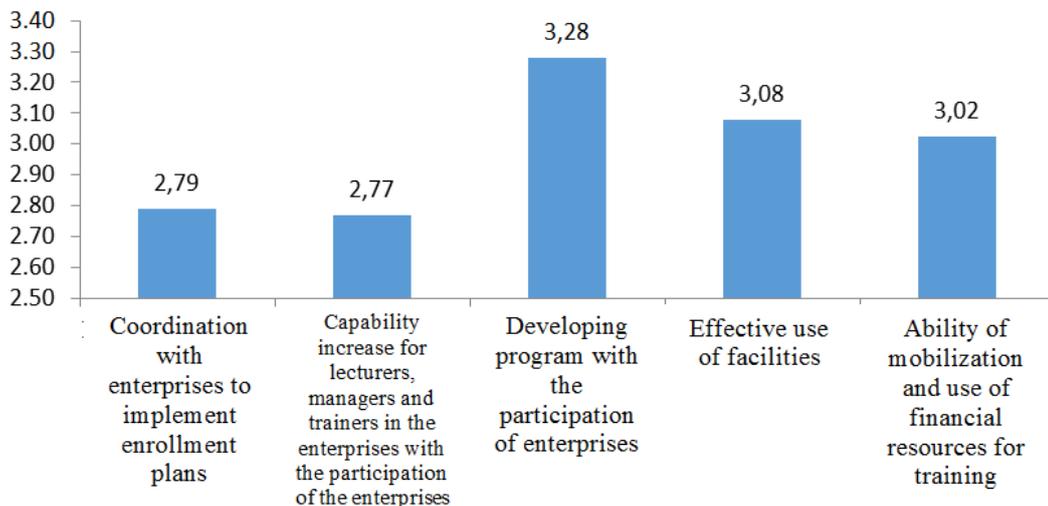


Figure-8. Planning for input factors.

The results in Table 4 show that two factors “Coordination with enterprises to implement enrollment plans” and “capability increase for lecturers, managers and trainers in enterprises with the participation of enterprises” are just assessed at average and below average level. Other factors are defined at a good level but the rate of that assessment is not high. This indicates that it is necessary to have a more effective management solution to improve the performance of input factors.

Table-4. Evaluation of the fact of implementing input factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Coordination with enterprises to implement enrollment plans					71	78.89	19	21.1			2.79
Capability increase for lecturers, managers and trainers in the enterprises with the participation of the enterprises					69	76.67	21	23.3			2.77
Developing program with the participation of enterprises			25	27.8	65	72.22					3.28
Effective use of facilities			13	14.4	71	78.89	6	6.67			3.08
Ability of mobilization and use of financial resources for training			7	7.78	78	86.67	5	5.56			3.02
Average				10		78.7		11.3			2.92

b. Fact of Implementing Process Factors

Vocational training must meet the needs of employers, especially businesses. Therefore, the connection between colleges, companies and the labor market is necessary. The training target is determined according to the needs of the labor market, enterprises and students trained based on the target are probably easy to find jobs after graduation while the risk of unemployment is fairly low. As a result, the training objectives should be based on the needs reflected by the market.

The most concern of employers is the employees' acceptable ability to perform tasks of their work effectively based on what they learned from colleges. However, the training objectives need to include other contents as prescribed by law (for example, compulsory subjects or knowledge required for continuous learning, lifelong learning...).

In fact, employment and education always differ in priorities, motives and purposes. In other words, it's the logical distinction between them. Hence, “determining capability requirements of labor with associate degrees in the enterprise and transforming them into training objectives” is the first basis for efficiency of training management activities. However, according to the survey results (Figure 9), this factor is only assessed at an average level (2.98), of which 27.8% rated it below average Table 5.

Because of the meaningfulness of accurately identifying the needs of the employers as mentioned in order to transform them into the training goals, colleges need to devote lots of resources to “identifying capability requirements of labor with associate degrees in the enterprise and transforming them into training objectives”.

The survey results in Table 5 also show that “Organizing theoretical training at the colleges and internships and practices for students in the businesses, inviting “trainers of the enterprises” to teach at the colleges and guide students in the enterprises” and “Organize training alternate between training at college and internships in the enterprises” are rated below average. None of the factors are assessed as meeting the expectation. Thus, the colleges need solutions to improve the quality of implementing process factors.

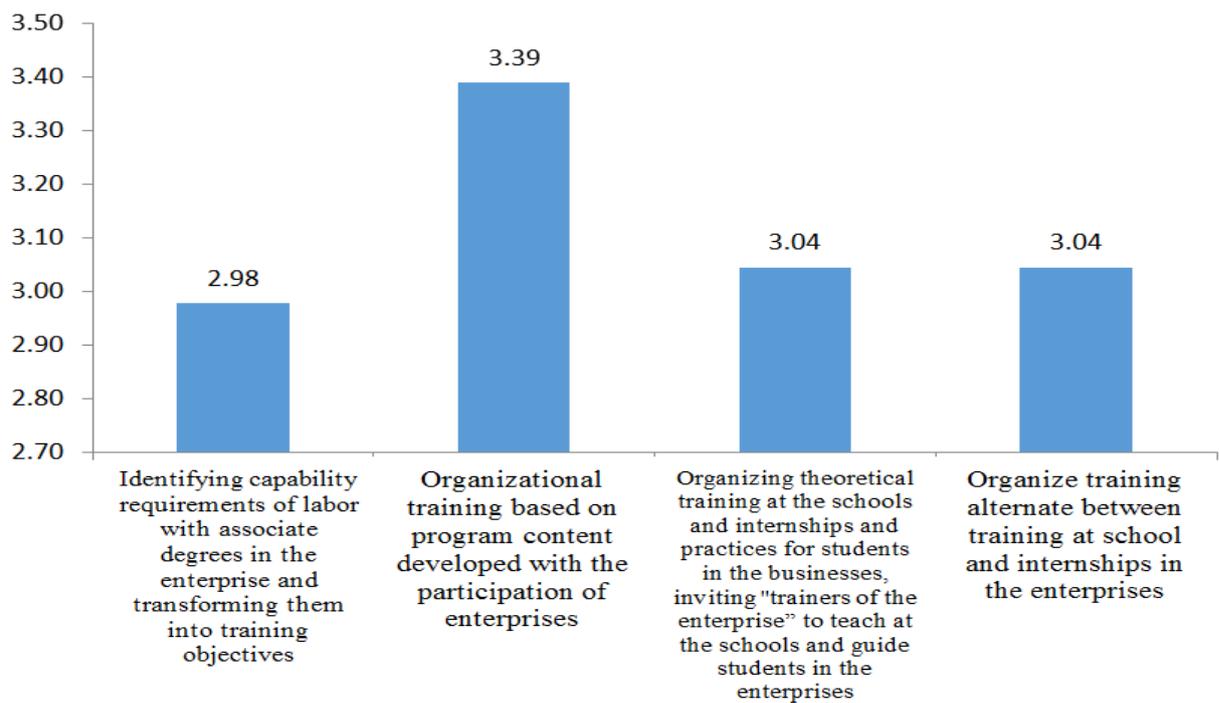


Figure-9. Implementing process factors.

Table-5. Evaluation of Implementing process factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Identifying capability requirements of labor with associate degrees in the enterprise and transforming them into training objectives			23	25.6	42	46.67	25	27.8			2.98
Organizational training based on program content developed with the participation of enterprises.			35	38.9	55	61.11					3.39
Organizing theoretical training at the colleges and internships and practices for students in the businesses, inviting "trainers of the enterprise" to teach at the colleges and guide students in the enterprises			21	23.3	52	57.78	17	18.9			3.04
Organize training alternate between training at college and internships in the enterprises			19	21.1	56	62.22	15	16.7			3.04
Average				27.2		56.9		15.8			3.11

c. Fact of Planning for Outcome Factors

The survey results indicate that “Activities of evaluating students’ learning with the participation of enterprises” are defined to meet the needs (Figure 10). However, Table 6 reveals that there is still a below-average assessment and its rate is relatively high, 43.33%. Therefore, it is still necessary to increase the participation of the businesses in assessing students' learning.

Table 6 shows that most of the assessments for “Organization of collecting feedback, employment information of alumni” and “Organization of collecting information with support from enterprises about the meeting-requirement level of students graduated” is average and below average. Thus, these two factors need to be focused and managed by colleges so as to collect feedback from the alumni and businesses as a basis for adjusting other training management activities accordingly.

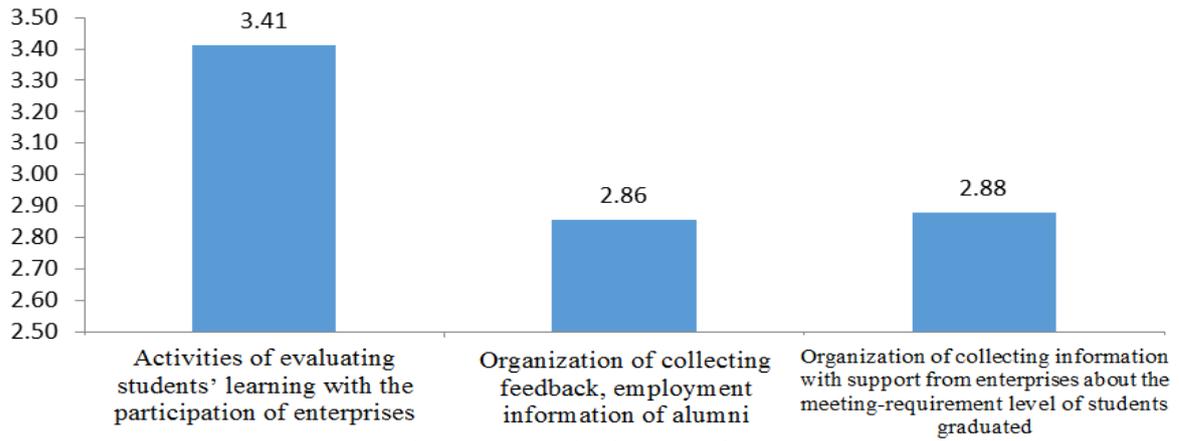


Figure-10. Organizing for outcome factors.

Table-6. Evaluation of organizing for outcome factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Activities of evaluating students' learning with the participation of enterprises			44	48.9	39	43.33	7	7.78			3.41
Organization of collecting feedback, employment information of alumni			3	3.33	71	78.89	16	17.8			2.86
Organization of collecting information with support from enterprises about the meeting-requirement level of students graduated			6	6.67	67	74.44	17	18.9			2.88
Average				19.6		65.6		14.8			3.05

3.3. Fact of Monitoring During Training Process

a. Fact of Inspecting Input Factors

Even though the average score of 5 activities for assessing the input factors are rated average (3.21) Table 7, however, the factor "Examining implementation of the enrollment plan" is defined at 3.62, which is acceptable for requirements. Other factors also have a score above 3 and close to the level of meeting the requirements Figure 11.

The results from Table 7 reveal that only the factor "Examining the implementation of the enrollment plan" has 5.56% of very good assessment and no below-average evaluation. On the contrary, four other factors have no very good assessment and all are rated below average. Thus, colleges need to focus more on improving the management efficiency of the four factors with below-average evaluation.

b. Fact of Inspecting Process Factors

The survey results indicate that "Cooperation of colleges and enterprises to inspect and supervise the implementation of training content" is assessed at the acceptable level, followed by "Cooperation of colleges and enterprises to examine and monitor the progress, training results at the college and practice in enterprises" are also rated closely to required level. The remaining factors are only average (Figure 12).

Table 8 demonstrates that only "Cooperation of colleges and enterprises to inspect and supervise the implementation of training contents" has no below-average assessment. The remaining activities are defined at a below-average level with a relatively high rate. Especially, "Examining and monitoring the process of identifying enterprises' needs of college level labor and transforming them into training objectives" has a below-average

assessment with the rate of 30%. Thus, the colleges need to concentrate on managing these activities more effectively.

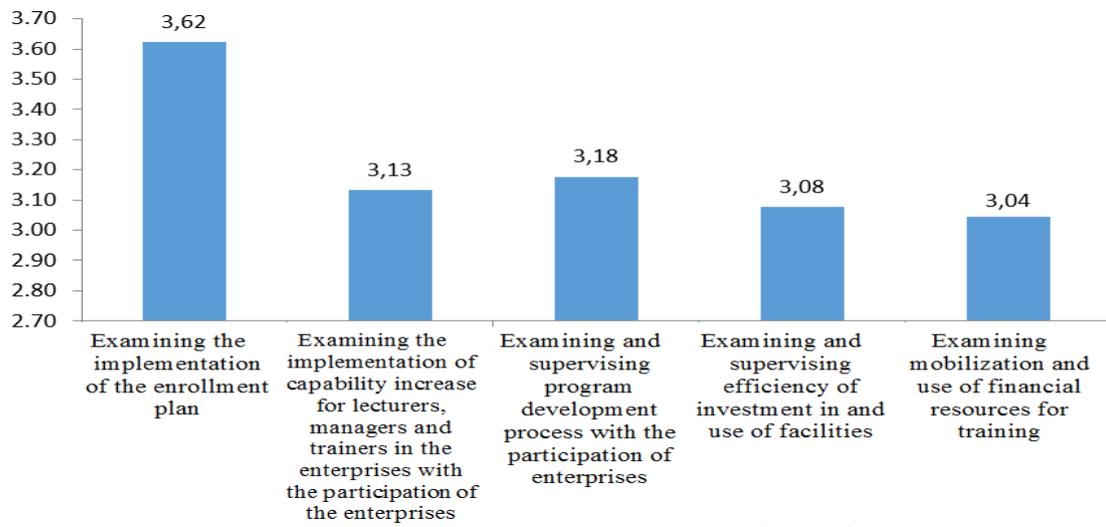


Figure-11. Management of inspecting implementation results for input factors.

Table-7. Evaluation of inspecting implementation of input factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Examining the implementation of the enrollment plan	5	5.56	46	51.1	39	43.33		0			3.62
Examining the implementation of capability increase for lecturers, managers and trainers in the enterprises with the participation of the enterprises		0	25	27.8	52	57.78	13	14.4			3.13
Examining and supervising program development process with the participation of enterprises			21	23.3	64	71.11	5	5.56			3.18
Examining and supervising efficiency of investment in and use of facilities			13	14.4	71	78.89	6	6.67			3.08
Examining mobilization and use of financial resources for training			9	10	76	84.44	5	5.56			3.04
Average		1.1		25.3		67.1		6.44			3.21

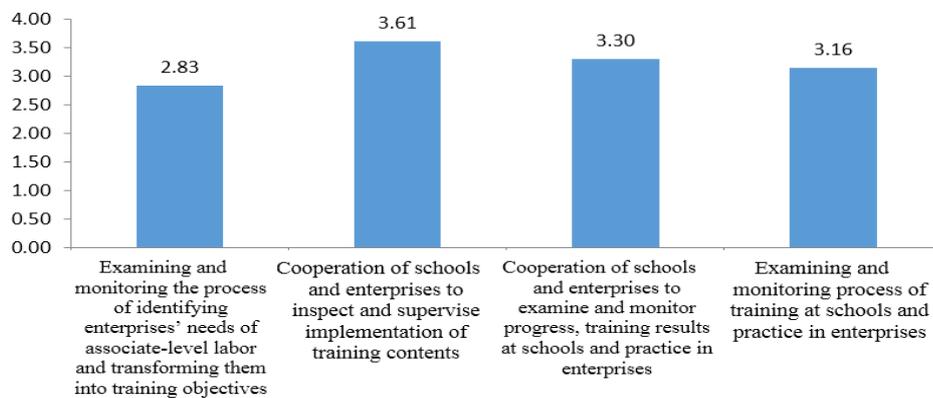


Figure-12. Management of inspecting implementation of process factors.

Table-8. Evaluation of inspecting implementation results for process factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Examining and monitoring the process of identifying enterprises' needs of college level labor and transforming them into training objectives			12	13.3	51	56.67	27	30			2.83
Cooperation of colleges and enterprises to inspect and supervise implementation of training contents			55	61.1	35	38.89					3.61
Cooperation of colleges and enterprises to examine and monitor progress, training results at colleges and practice in enterprises			38	42.2	41	45.56	11	12.2			3.30
Examining and monitoring process of training at colleges and practice in enterprises			23	25.6	58	64.44	9	10			3.16
Average				38.3		51.4		13.1			3.34

c. Fact of Inspecting Outcome Factors

The survey results reveal that “Activities of evaluating examination of students’ learning” are defined at 3.61, which is acceptable Table 9 . Hence, cooperation of colleges and enterprises in evaluating examinations of students’ learning is effective (Figure 13).

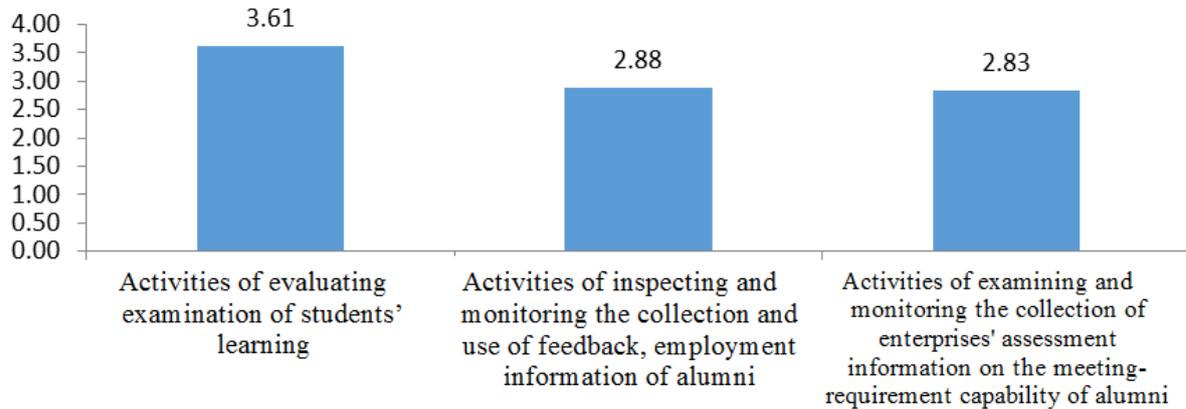


Figure-13. Organization of inspecting implementation outcome factors.

“Activities of inspecting and monitoring the collection and use of feedback, employment information of alumni” and “Activities of examining and monitoring the collection of enterprises’ assessment information on the meeting-requirement capability of alumni” are only defined at average and the below-average evaluation rate of 28.9% and 16.7%, respectively, are relatively high (Table 9). Thus, colleges need solutions to improve the effectiveness of these two activities.

3.4. Fact of Improving for Training Process

a. Fact of Improving for Input Factors

Table 10 shows that the “Activities of improving, diversifying college level enrollment methods” are performed fairly well by the colleges. There are 11% of the very good, 60% of the good and no below-average evaluation. The other factors are assessed mainly at the average level and about 10% rated below average.

Table-9. Evaluation of inspecting implementation of outcome factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Activities of evaluating examination of students' learning			55	61.1	35	38.89					3.61
Activities of inspecting and monitoring the collection and use of feedback, employment information of alumni			15	16.7	49	54.44	26	28.9			2.88
Activities of examining and monitoring the collection of enterprises' assessment information on the meeting-requirement capability of alumni					75	83.33	15	16.7			2.83
Average				25.9		58.9		15.2			3.11

Table-10. Evaluation of improving for input factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Activities of improving, diversifying college level enrollment methods	10	11.1	54	60	26	28.89		0			3.82
Improving the implementation of capability increase for lecturers, managers and trainers in the enterprises with the participation of the enterprises			11	12.2	67	74.44	12	13.3			2.99
Innovating training program with the participation of enterprises			19	21.1	65	72.22	6	6.67			3.14
Innovating activities to effectively use training facilities.			6	6.67	69	76.67	15	16.7			2.90
Improving mobilization and use of financial resources for training			5	5.56	74	82.22	11	12.2			2.93
Average		2.2		21.1		66.9		9.78		0	3.16

Figure 14 demonstrates that “Activities of improving and diversifying college level enrollment methods” achieved satisfactory level, followed by “Activities of innovating the training program with the participation of enterprises”, close to acceptable level. The other factors are only average.

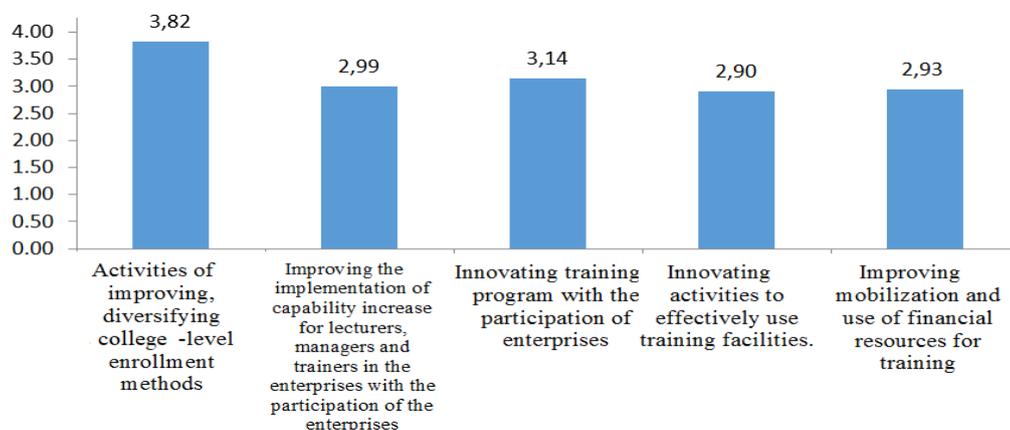


Figure-14. Improving for input factors.

b. Fact of Improving for Process Factors

Training based on the needs of enterprises and labor market is indispensable for enterprises' requirements. However, the training that only meets the current needs may make the skills of the learners quickly out of date, then the risk of unemployment increases due to the improvement of science and technology, the production models, the economy structure, the changes of legal framework, etc. Therefore, it is necessary to regularly renovate and improve the management activities in the training process.

However, the survey results show that the improvement and renovation activities of 4 factors are only rated average. There are no factors that meet the requirements (Figure 15).

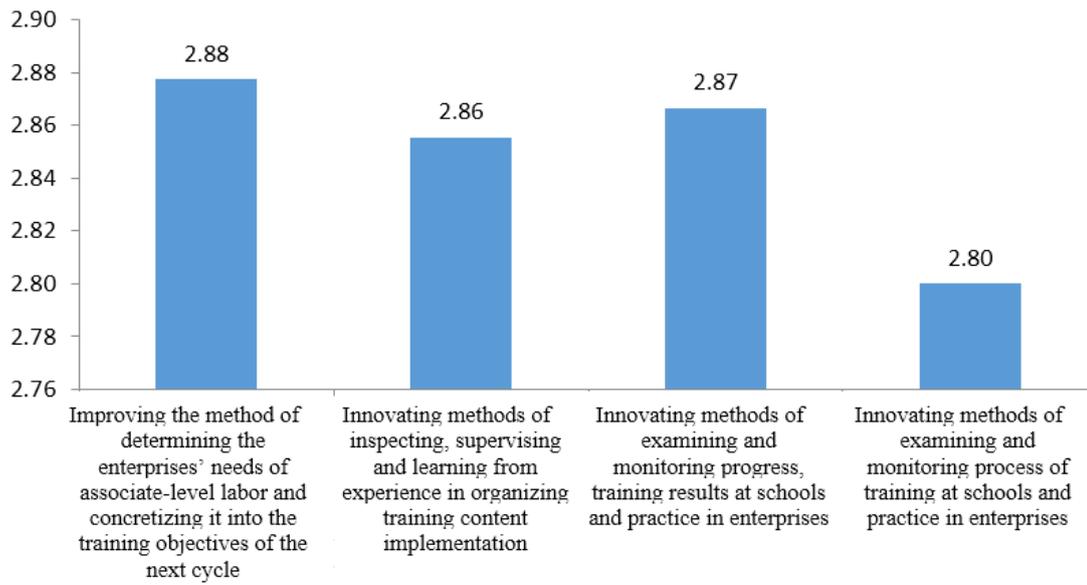


Figure-15. Improving for process factors.

Table 11 shows that the improvement and innovation of all process factors are only rated average and below average. In other words, that is not paid attention or implemented by the college. Meanwhile, the impact of the context factors requires continuous improvement and innovation in training management activities. Thus, the colleges need to choose appropriate models and solutions so as to apply and implement the improvement and innovation of training management activities.

Table-11. Evaluation of improving for process factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Improving the method of determining the enterprises' needs of college level labor and concretizing it into the training objectives of the next cycle					79	87.78	11	12.2		0	2.88
Innovating methods of inspecting, supervising and learning from experience in organizing training content implementation					77	85.56	13	14.4			2.86
Innovating methods of examining and monitoring progress, training results at colleges and practice in enterprises					78	86.67	12	13.3			2.87
Innovating methods of examining and monitoring process of training at colleges and practice in enterprises					72	80	18	20			2.80
Average						85		15			2.85

c. Fact of Improving for Outcome Factors

The improvement activities of the outcome factors do not meet the requirements (Figure 16).

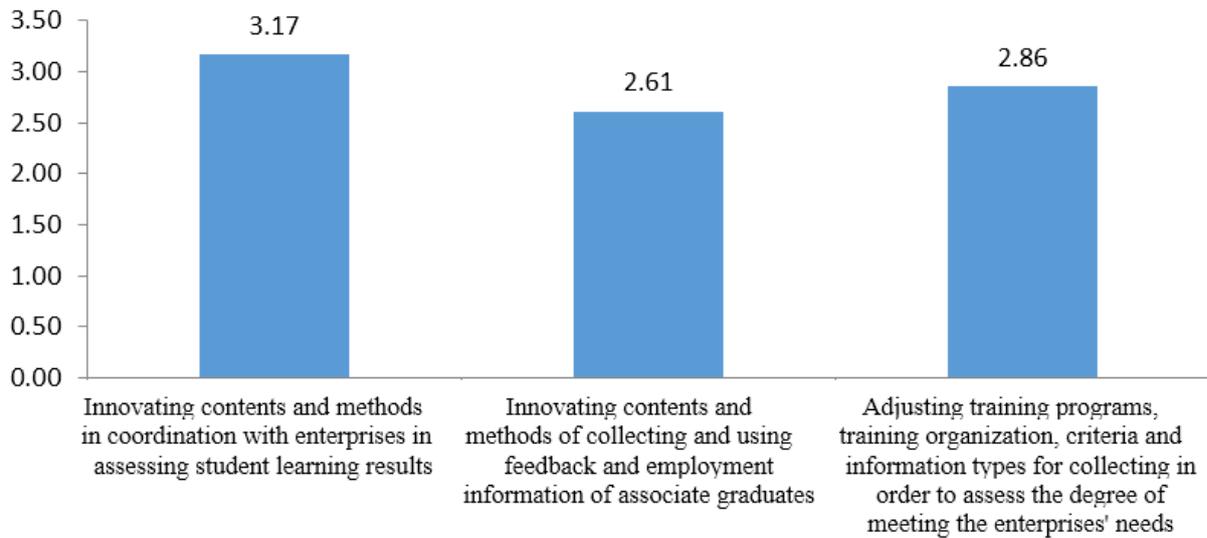


Figure-16. Management of improving for outcome factors.

Table 12 shows that innovating contents and methods of collecting and using feedback and employment information of associate graduates is assessed the lowest and has a fair rate (44.4%) of below-average level. This shows that the colleges do not properly recognize the importance, leading to inadequate attention to collecting and use of feedback and employment information of alumni.

Table-12. Evaluation of improving for outcome factors.

Factors	Evaluation levels										Average score	
	Very good		Good		Average		Below average		Poor			
	N	%	N	%	N	%	N	%	N	%		
Innovating contents and methods in coordination with enterprises in assessing student learning results			15	16.7	75	83.33	0					3.17
Innovating contents and methods of collecting and using feedback and employment information of associate graduates			5	5.56	45	50	40	44.4				2.61
Adjusting training programs, training organization, criteria and information types for collecting in order to assess the degree of meeting the enterprises' needs					77	85.56	13	14.4				2.86
Average				7.41		73		19.6				2.88

3.5. Fact of Controlling Context Factors

Controlling context factors are determined at a low level, not meeting the requirements (Figure 17).

Through in-depth interviews, the colleges stated that they do not often actively organize discussing sessions to identify and analyze opportunities and challenges for the college's development.

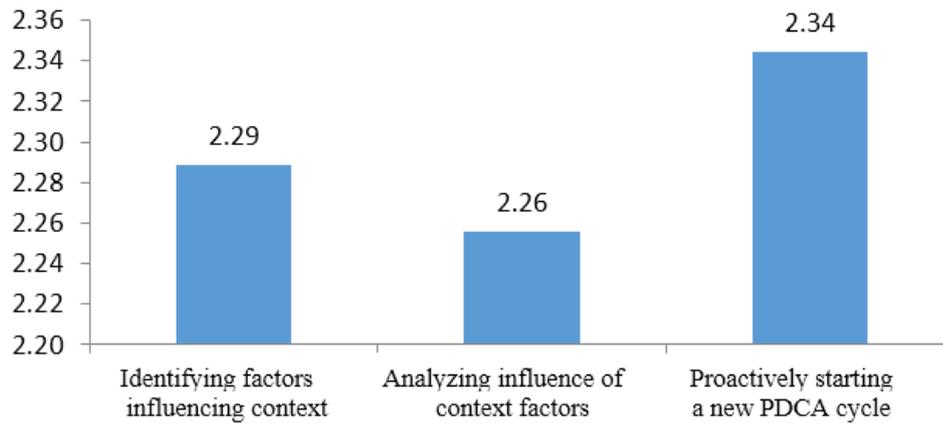


Figure-17. Controlling context factors.

The survey results in Table 13 reveal that a very high rate (over 65%) only assesses the below average for all three activities of controlling context factors.

In-depth interviews also reveal that colleges heard the PDCA cycle before. However, the colleges believe that PDCA is mainly applied in businesses.

Table-13. Evaluation of controlling context factors.

Factors	Evaluation levels										Average score
	Very good		Good		Average		Below average		Poor		
	N	%	N	%	N	%	N	%	N	%	
Identifying factors influencing context					26	28.89	64	71.1			2.29
Analyzing influence of context factors					23	25.56	67	74.4			2.26
Proactively starting a new PDCA cycle					31	34.44	59	65.6			2.34
Average						29.6		70.4			2.30

4. CONCLUSION

The survey results demonstrate that: All colleges have an enrollment strategy and the number of students to be enrolled is increasing every year for human resource needs. The managers and teachers at the colleges have relatively good teaching capacity and managers and investors at the enterprises have high vocational skills and are willing to take part in lectures. The businesses actively participate in building lists of facilities for training and scholarships for students. The colleges connect to businesses in many ways which are flexibly changed in accordance with the reality of businesses. Planning and strategic plans are paid attention by the colleges and are available to share with stakeholders. The colleges are also interested in collecting feedback from associate graduates and assessing the degree of meeting to the needs from businesses. The learners have a good assessment of the college's training results. The capability of the alumni is evaluated by the enterprises to be acceptable.

However, coordination with enterprises to increase the capability for lecturers and trainers in enterprises seems not good. The colleges and businesses do not have a mechanism to support lecturers for participating in learning, practice and technology awareness in enterprises; not coordinate in pedagogy training for in-company trainers. The managers at enterprises do not join in guiding lecturers to complete their learning tasks in the enterprises. The enrollment at college only focuses on students from high colleges, not employees yet. The career counseling as well as cooperation with businesses are not good during enrollment. The management skills of the college managers do not meet the requirements. The training programs of the colleges are still far from the reality in enterprises. The activities of improving and innovating input - process - outcome factors are not adequately paid attention and their

steps are not available to apply in the colleges. The collection of feedback from volunteer students and the assessment of the enterprises are not carried out regularly; methods and indicators are not updated for having timely, accurate information and keeping up with the changes in demand of the enterprises. The identification and analysis of context factors are not accurate and frequent.

The survey results indicate the limitations on the training management at the college level to meet the human resource needs of enterprises in (i) planning for the training process; (ii) conducting during the training process; (iii) examining and supervising the training process; (iv) improving and developing the training process; (v) controlling context factors. This is also the basis for proposing specific solutions in the following research.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

- General Directorate of Vocational Training. (2019). Summary report of department of organization and personnel (pp. 63). Vietnam: Thanh Nien Publishing House.
- Government. (2013). *Resolution No. 29-NQ/TW dated November 4, 2013 on fundamental and comprehensive renovation of education and training*. Paper presented at the Meeting the Requirements of Industrialization and Modernization in the Socialist-Oriented Market Economy and International Integration Conditions.
- Ministry of Labor War Invalids and Social Affairs. (2018a). Circular No. 40/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Art, Fine arts and Language. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018b). Circular No. 41/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Journalism, Business and Management. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018c). Circular No. 44/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Computer and Information Technology. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018d). Circular No. 45/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Architecture Engineering Technology, Construction, Mechanics, Electricity, Electronics, Communications and Chemistry. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018e). Circular No. 46/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Materials, Metallurgy, Manufacturing and other Engineering Technologies. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018f). Circular No. 48/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Electrical Engineering, Electronics and Telecommunications. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018g). Circular No. 50/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Mining Engineering and Others. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018h). Circular No. 52/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Agriculture, Forestry, Fisheries and Veterinary. Vietnam.

- Ministry of Labor War Invalids and Social Affairs. (2018i). Circular No. 54/2018/TT-BLDTBXH dated December 28, 2018 on Promulgating the Minimum Amount of Knowledge and the Capacity Requirements for Learners at Intermediate and College Levels in the Fields of Health Care and Social Service. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018j). Circular No. 55/2018/TT-BLDTBXH dated December 28, 2018 on promulgating the minimum amount of knowledge and the capacity requirements for learners at intermediate and college levels in the fields of tourism, hospitality, sports and personal services. Vietnam.
- Ministry of Labor War Invalids and Social Affairs. (2018k). Circular No. 56/2018/TT-BLDTBXH dated December 28, 2018 on promulgating the minimum amount of knowledge and the capacity requirements for learners at intermediate and college levels in the fields of transport, environment and security services. Vietnam.
- Ministry of Labor War Invalids and Social Affairs & General Statistics Office. (2019). Vietnam's Labour Market Update Newsletter. Volume 20, 21, 22, 23, quarter 1, 2, 3, 4.
- National Institute of Vocational Education and Training Education and Training. (2019). Report assessment of enrollment, training and job creation in 2019 and tasks and solutions in 2020 (pp. 46,54,58,63). Vietnam: Thanh Nien Publishing House.
- The Law on Vocational Training. (2014). No. 74/2014/QH13. Vietnam: 13th National Assembly.
- Tien, M. V. (2019). *State management, governance reform for vocational education institutions*. Paper presented at the Proceedings of Vietnam Education Conference 2019, Hanoi.

Views and opinions expressed in this article are the views and opinions of the author(s), World Journal of Vocational Education and Training shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.