

## **VET in Secondary & Higher Secondary Schools leads to increased employability**

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### **Abstract**

*Employability is crucial for every society and needs to be addressed through its education system especially the higher education system nevertheless with its foundation in the secondary and higher secondary schools. Students need to possess employability skills to get a job and retain it. This pilot study is to study the link between the National Skill Qualification Framework (NSQF) introduced in the secondary & higher secondary schools of India to increase the employability.*

**Key words:** *Employability, NSQF, Domain Skills and Generic Skills, Vocational Education & Training*

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### **I. Introduction**

Significant changes in primary education have resulted in improvements in literacy and enrolment rates over the last two decades in India. However, there remain millions of young people who missed this evolution in the education system and remain unskilled for the labor/ employment market today. Providing Vocational Education & Training (VET) to these citizens or the young people getting ready for employment is critical to the future success of India in the global economy.

The Ministry of Human Resource Development (MHRD), Government of India introduced vocational courses from Class 9th onwards under the Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education which has revised the scheme under Vocational Secondary Education SamagraSiksha (VSESS). The MHRD also developed National Skills Qualifications Framework (NSQF) in 2013 on the lines of NQF (National Qualification Framework). The NSQF organizes qualifications according to a series of levels of knowledge and skills. These levels are defined in terms of learning outcomes i.e. the competencies (knowledge, skills and attitude) which the learners must possess through education and training system.

MHRD brought out a revised Centrally Sponsored Scheme for Vocationalisation of Secondary and Higher Secondary Education (CSS for VSHSE) to integrate employability education into School Education in September 2011. In 2018, this scheme got further revised and brought under the integrated initiative (Samagra Shiksha) by MHRD and termed as Vocationalization of School Education (VSE). The revised norms allow a student to complete training in one Job Role in 9<sup>th</sup> and 10<sup>th</sup> standards; followed by another Job Role in 11<sup>th</sup> and 12<sup>th</sup> standards.

The scheme is operated within the NSQF (National Skill Qualification Framework), which establishes a system of educational pathways from school to higher education while providing certification of vocational skills.

Apart from basic education, which includes reading, writing, analytical skills, a number of other skills are essential like life skills, vocational skills and technological skills. To acquire jobs. Vocational education is one of the important modes of accessing such skills. Meant to emphasize skill development, which includes skills and knowledge.

Employability aims at giving people access to the skills they need to gain and retain a fulfilling job or transfer to a new, better, job (Hillage and Pollard, 1998). Thus employability through education can be the crucial factor to move towards a job and retain it.

Employability in this context therefore relates to ability of a trainee to acquire an entry-level job in the specific sector and refers to individual level jobs. This ability of a trainee to exhibit attributes that employers anticipate will be necessary for effective functioning of the position.

Employers seek to recruit entry-level positions that can lead to productivity and delivery of value to the organisation, without having to undergo extended induction & further training programmes. Such expectations requires new recruits to display qualities that will enable them to “hit the ground running” and stay abreast of the latest developments in a changing work environment (Barthorpe & Hall, 2000:165).

**Objective of the study**

- 1) To evaluate the link between VET (NSQF) and employability amongst students from Secondary & Higher Secondary levels.
- 2) To identify the domain and generic skills acquisition in relation to the NSQF courses from level 1-4 (Secondary & Higher Secondary levels).
- 3) To analyse the impact of the Vocationalisation of education on employability and employment.
- 4) To recommend measures for the proper utilization of Vocational Education for vocationalisation.

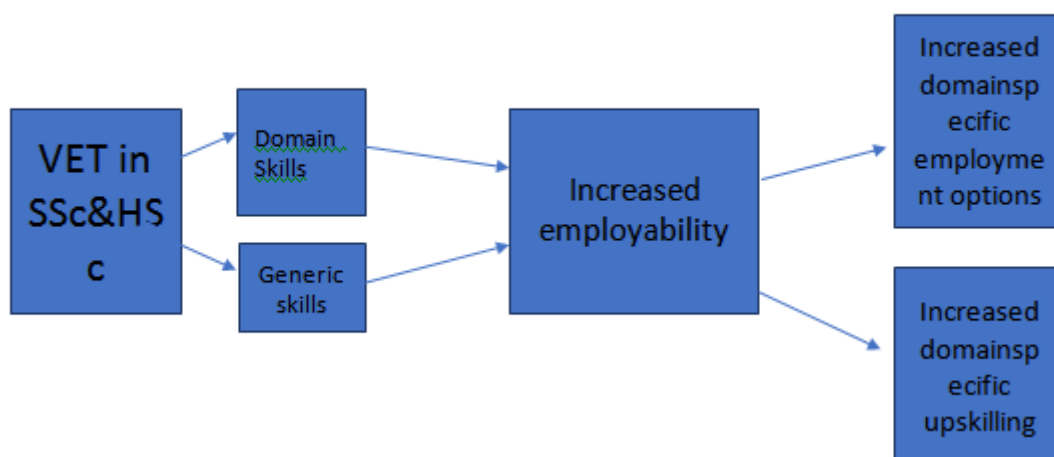
**Framework of the study:**

**Theoretical Framework:**

Vocational Education & Training (VET) is a mode of acquiring domain skills leading to employability.

**Conceptual Framework:**

The Conceptualisation of this study revolves around the vocational skills intake during the secondary & higher secondary schools education. Given the importance of the construct to School education in general and higher secondary students in particular, the purpose of the study was to understand if the intake of VET would lead to employability for Higher Secondary (HSc) level. A conceptual model was constructed and an in-depth literature review provided direction in determining the variables that employability consists of and tools were developed to conduct a pilot study. The study was therefore exploratory-pilot in nature and is part of a larger study.



**Fig 1: Conceptual Framework**

**II. Methodology**

For the purpose of this research, data has been collected from specific towns in Karnataka, &Andhra Pradesh, states of India. While the Central and State department, Vocational Training Providers who are responsible for the execution of the program pan India also involved in the study. A detailed literature review was done from all the available materials as a basis for secondary data.

The study groups consisted of the following cohorts based on the feasibility, time and ease of data collection and through stratified sampling.

1. A group of cohorts undergoing level 1-4 VE in schools it was introduced:
2. Continued level 1 to 4 versus discontinued after 2 levels.
3. A group of Cohorts undergoing no VE in the same schools. (opting out)
4. A group of Cohorts where no VE has been introduced.
5. All schools are from the same areas/ cities with same category of population.
6. 5 Principals and Vocational Trainers
7. 5 HR Mangers of companies.

**Participants:**

1. Questionnaires were administered to Total of 25 respondents for Health Care vocational training in General Duty Assistant and 25 respondents in IT/ Media studies.
2. 10 Companies who hired trained students were interviewed.

3. 10 Vocational Trainers were interviewed partially (a part of the questions related to placements will be done after the students are placed).
4. 10 Principals of schools were interviewed.

**Methodology**

**Data collected from Schools**

The pilot study will explore only two courses VET subjects/ course namely General Duty Assistant (GDA) under the Health Care Sector and Media & Communications under Media & Entertainment Sector.

The pilot study included the initial information from various sources to get authentic data of the CSSVSHSE in schools. Strategically chose the two states of implementation and observe the impact on employability across 8 schools in AP and 4 Schools in Karnataka. Here the study areas are Andhra Pradesh and Karnataka.

Primary data collection through structured questionnaires and personal interviews, were done as a part of the pilot study. The pilot study is a mix of Quantitative & Qualitative data. The questions were mostly close-ended questions.

Baseline collection of data from level 1 to level 4 (Secondary & Higher Secondary students) from Schools which have completed 1, 2, 3, 4 levels of training was taken from 14 schools in Karnataka & Andhra Pradesh (AP) undergoing GDA courses.

- Level 1- 9<sup>th</sup> std students
- Level 2- 10<sup>th</sup> std students
- Level 3- 11<sup>th</sup> std students (1<sup>st</sup> Year Pre-University Student)
- Level 4- 12<sup>th</sup> std students (2<sup>nd</sup> Year Pre-University Student)
- Students who didn't take any VET from the same school.

The questionnaire had mainly closed questions and less of open-ended questions.

The students' questions were to understand their aspirations and if they were able to understand the course, did the course bring in the interest among the students? Did it improve their knowledge in health care course, did they improve their soft skills and life skills?

**Baseline data collected from National Skill Development Corporation (NSDC).**

Under Centrally Sponsored Scheme for Vocationalisation of Secondary & Higher Secondary Education (CSSVSHSE) upto 2018 data.

Total number of Schools where the Govt. schools have implemented the scheme

1. States / UTs: 28
2. Schools catered: 7691
3. States already completed their 4-year batch and appeared for placement: 2 (Haryana – 100 schools and Himachal Pradesh – 200 schools).
4. Placement offered: Haryana (640/781) which amounts to 82% placements HP (912/1017) is 90% over the last 3 years.

**Table 1: Data shared by School Project Team NSDC on implementation of schools**

States implemented	28
CSSVSHSE in India	7691
Schools Completed their placements after their 4th year completion of level 4	300
Total no. of students completed training	1798
Number of students placed	1552
Placements offered	86%
States implemented	28
CSSVSHSE in India	7691
Completed their placements after their 4th year completion of level 4	300
Placements offered	86%

**Table 2: Age & Gender distribution of sample**

	Karnataka								Total	AP								Total
	Levels									Levels								
	1		2		3		4			1		2		3		4		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
<b>Age</b>																		
14			0	1					1		3	0					3	
15			4	4					8		0	2	2	5	2		11	
16				2	1	2	0	2	7				3	1	0	3	7	
17						2		5	7							1	1	
18,19,20								3	3									
Total			4	7	1	4	0	9	26		3	2	2	8	3	0	4	22

M- Male

F-Female

68% are females

32% are males

**Table 3: Data Analysis & Interpretation**

Healthcare-Bangalore			
Total respondents in Bangalore		28	
Average age of students undergoing the course	15.10714286	STD deviation	1.410467295
Completed level 1		23	
Completed level 2		23	
Completed level 3		20	
Completed level 4		14	
MESC- AP			
Total respondents in AP		30	
Average age of students undergoing the course	15.13636364	STD deviation	1.037187339
Completed level 1		6	
Completed level 2		7	
Completed level 3		7	
Completed level 4		10	

**Table 4: GDA & MESC percentages**

Students questionnaire	GDA	MESC	Total	percentages
Choice of healthcare as a top three career	22	23	45	77.59%
Will VET help them in their dream jobs:	21	22	43	74.14%
After 12th std. Preferred job is in the chosen sector	24	24	48	82.76%
Higher studies they were open to same sector	18	20	38	65.52%

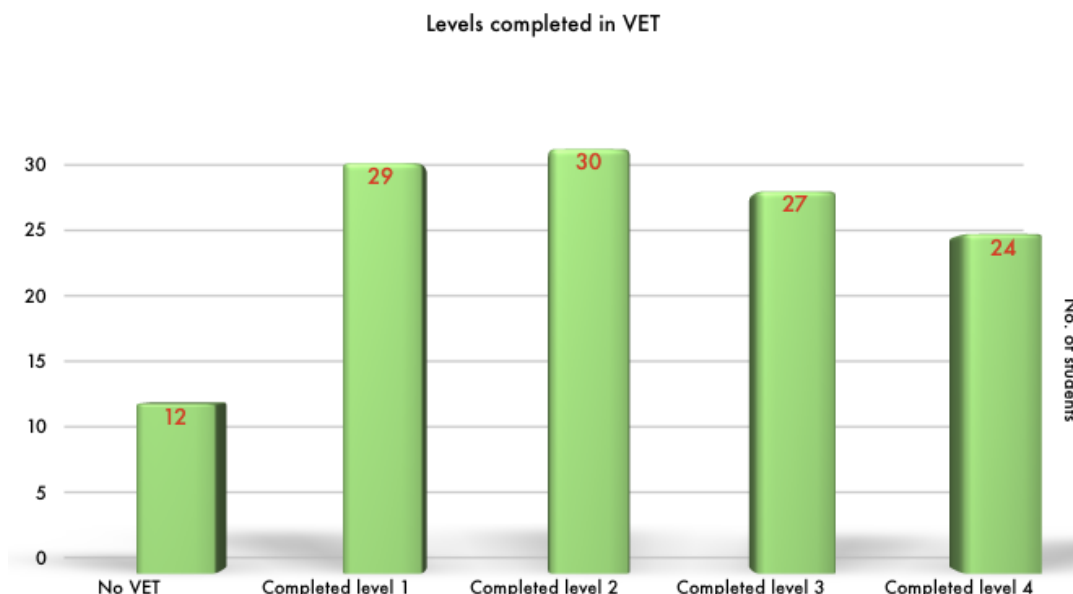


Fig 2: VET levels completed

Age of the students varied from 15 years to 18 yrs with an average age of 15 years this is a crucial year to decide on the vocation the student would like to build their skills. 77.59% 3 of the students were confident on the VET sector as the top choice to build a career. 74.14% of them felt VET would help them in their dream jobs. 82.76% believed that they would secure jobs in their chosen sector. 65.52% believed that they would take up higher studies in the same sector. Thus, it can be concluded that students who have taken VET believed that it could lead them to their selected sector wise job/ career.

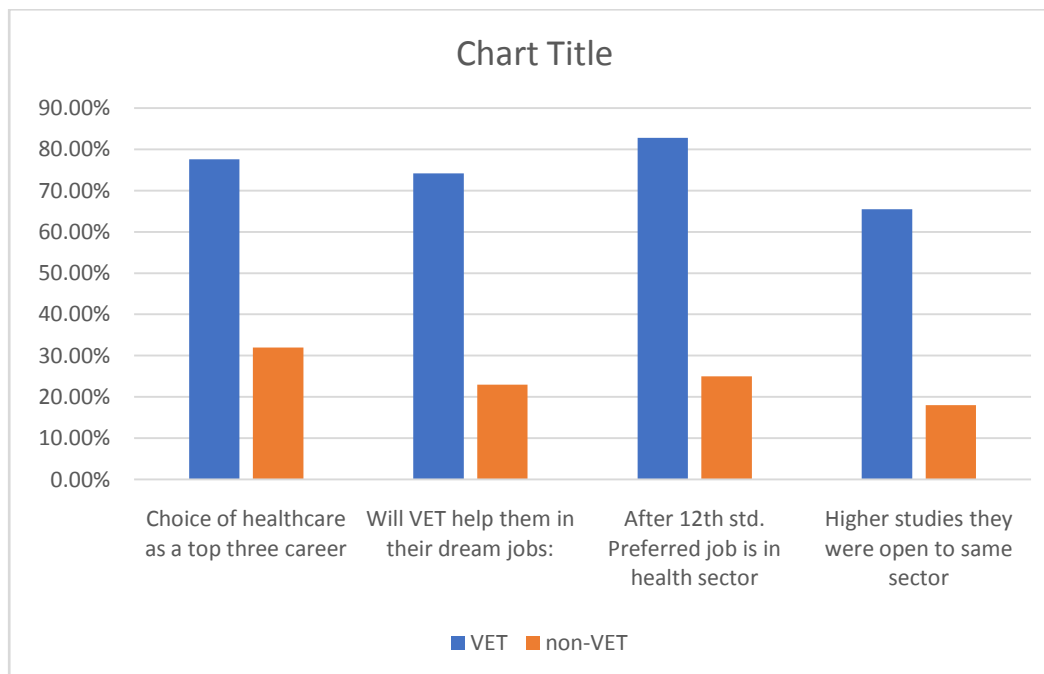
Pedagogy of VET to ensure the standardised, modular curriculum as per the levels from level 1-4 are implemented leading to increase of knowledge, skills and competency. most commonly understood as the approach to teaching, refers to the theory and practice of learning, and how this process influences, and is influenced by, the social, political and psychological development of learners.

Table 5: Health Care students' data

Healthcare-Bangalore				
Total respondents in Bangalore	28			
Average age of students undergoing the course	15.10714286	STD deviation	1.410467295	
Completed level 1	23			
Completed level 2	23			
Completed level 3	20			
Completed level 4	14			
Choice of healthcare as a top three career	22	78.57%		
Will VET help them in their dream jobs:	21	75.00%		
After 12th std. Preferred job is in health sector	16	57.14%		
But for higher studies they are open to all sector	19	67.86%		
IT – AP				
Total respondents in AP	22			
Average age of students undergoing the course	15.13636364	STD deviation	1.037187339	
Completed level 1	14			
Completed level 2	12			
Completed level 3	4			
Completed level 4	3			
Choice of IT as a top three career	No trend identified			
Will VET help them in their dream jobs:	14	63.64%		
After 12th std. Preferred job is in IT	9	40.91%		
But for higher studies they are open to all sector	8	36.36%		

**Table 6: VET versus non-VET Students**

Students questionnaire	VET	non-VET
Choice of healthcare as a top three career	77.59%	32%
Will VET help them in their dream jobs:	74.14%	23%
After 12th std. Preferred job is in health sector	82.75%	25%
Higher studies they were open to same sector	65.50%	18%



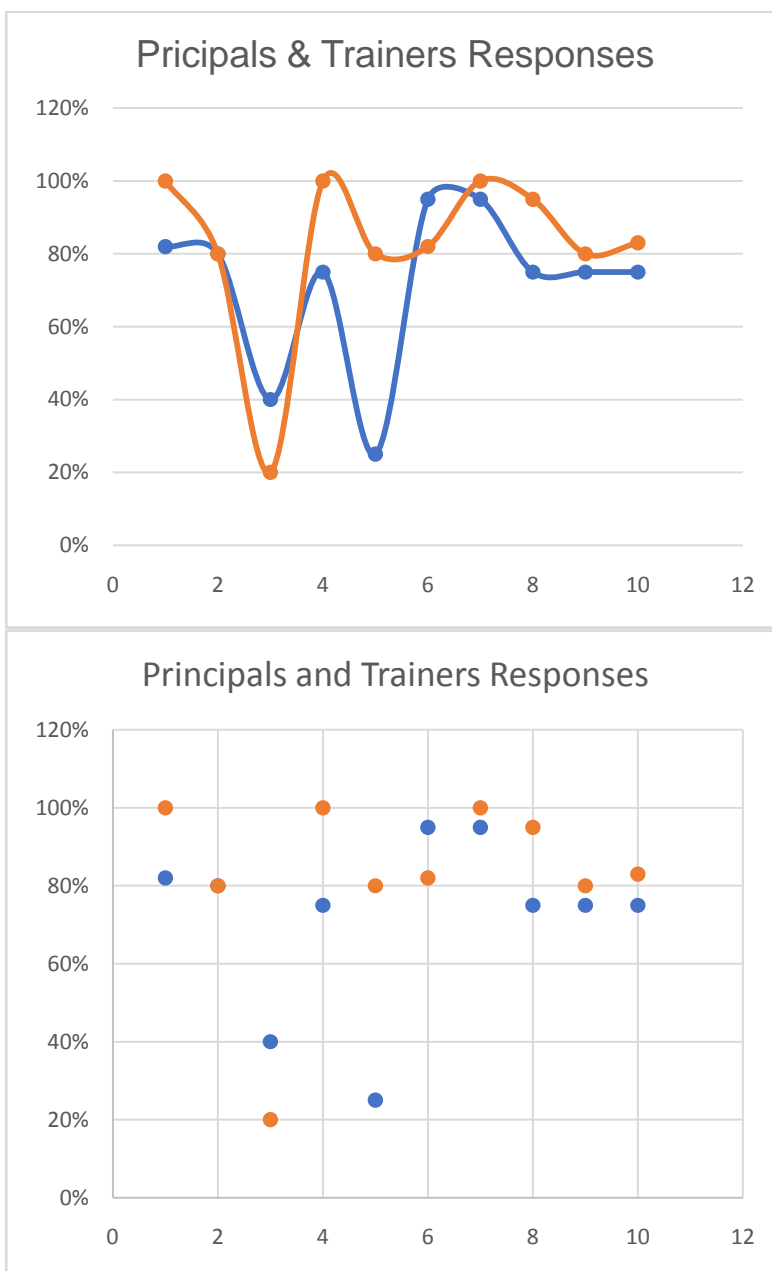
**Fig 3- VET versus Non-VET students**

**Table 6: Vet Versus Non VET**

	<b>Taken VET</b>	<b>Not taken VET</b>
<b>Seeking Job after 12th std</b>	Majority would prefer to take up jobs in their area of vocational training	Students opting for working at this stage were not clear of the options available to them
	Students showed clarity in the domains they would like to specialise or work in	Students had no clarity on their choice of work. Were not aware of job-oriented vocational courses
	This may indicate that VET builds a sense of belonging, confidence in that particular stream.	70% were not clear about the kind of employment they would seek
	Students were aware of career prospects, career opportunities and scope of specialisation at the age of 18.	70% had no clarity on career prospects, career opportunities and scope of specialisation
	One positive aspect, is that they have their options and goal in site and an informed choice or an option that can be cultivated	Students were not clear on the sectors and were not having any options to informed choices
<b>Going for higher studies</b>	A noticeable fraction of appx. 40% would prefer taking up career in the domain related studies the underwent	Majority of the students said they would go for coaching classes as an option for banking jobs or civil services. Many said their schools didn't help them to decide the kind of job opportunities available. About 40% said they were preparing to join engineering college and 1 would like to write the joint entrance for medical exam.
	VET defiantly assisted the students to either select or reject a particular career.	
	But 60% are willing to explore.	
<b>Long term career</b>	63% believed that the 4 years spent was good enough to prepare them to move in the right career direction	Most were not clear about their career goals or clarity of options available to them after 12th. Some said they will take up any job and most said they were not sure if they would prefer any sector for a long-term career.
	There is a surprising drop in the % of people who want to undergo special coaching class for career. They believe, their VET was sufficient	
Internship in 12th	All the students in level 4 were exposed to internship	None of the students were exposed to Internships
Practical exposure	All the students had practical lab sessions every week	Students of non-science stream were not exposed to any practical's
Industry visit	All the students were exposed to Industry visits	None of the students were exposed to Internships

**Table 7: Data from Principals & Vocational Trainers:**

Sl.no.	Principals & Vocational Trainers	Principals	Trainers
1	VET courses can be recommended to all students	82%	100%
2	agree that courses are rightly introduced in 9th std;	80%	80%
3	prefer the VET courses introduced in 5th std	40%	20%
4	are sure the competency levels have increased	75%	100%
5	not sure if the competency levels have increased	25%	80%
6	exposure to work increased in level 4	95%	82%
7	agreed that the Trainers were well qualified and get adequate training to upgrade their skills in their subject as well as their teaching methodologies.	95%	100%
8	feel the students opting for the specific courses are able to understand the course and their relevant job opportunities	75%	95%
9	believe that students like the course because of the Field visits, interaction with companies through guest lectures and field visits & internships and practical exposure.	75%	80%
10	said they need more training in soft skills to increase their employability	75%	83%

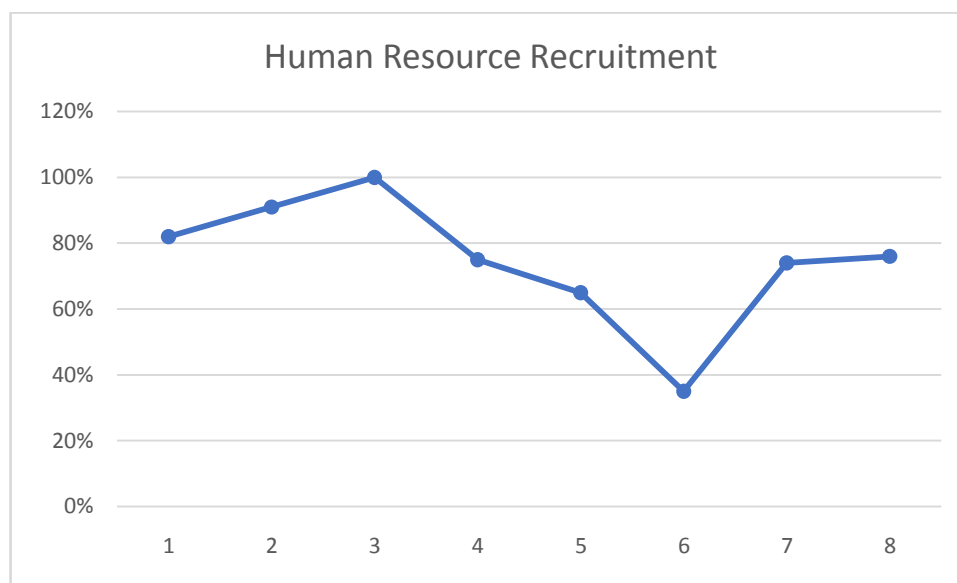


Questions

**Figure 4: Principal and Trainer's Response**

**Table 8: Employers hiring**

Agreed that the VET candidates had better knowledge and competencies than those who didn't under VET.	82%
They wanted more exposure to practical exposure with the trainers.	91%
They will provide additional training to the trainees before the work commencement.	100%
respondents said they would prefer to hire students with valid certificates than no certificate.	75%
respondents said the VET exposure had helped them to achieve 50% Skills, Knowledge and competency.	65%
VET exposure had helped them to gain 75% Skills, Knowledge and Competency.	35%
The students of Level 4 were able to get entry-level jobs in their career.	74%
respondents said the employability of VET students increased by 5 folds than those with no VET in the specific sector.	76%



Questions

### III. Summary of Data

The overall data received administered to Students, Trainers, Principals & Human Resource Managers from Companies conducted during the pilot study was analysed. A qualitative approach showed a trend of accepting the VET and its role in increasing employability. The qualitative approach of interpretation of data was more exploratory in nature. All Principals and Trainers showed that the VET can increase the employability of the students at Secondary level. Here employability would mean ability to get employed after the completion of 4<sup>th</sup> level in a specific sector at the entry-level. Quantitative approach showed that there were some deviations in what students said example some students said Health Care was their second choice of job while IT/ITES students said that IT and ITES/ Media were their first choice of jobs.

A larger scale of study with larger sample size could help in the identifying the contributing factors that determine employability skills. The analysis will also have a qualitative approach for the larger study.

### IV. Analysis & Recommendations

Overall, the study shows that inculcation of foundational level vocational skills in secondary and higher secondary levels will lead to employability at domain level. The employers have validated that they would prefer to hire a VET candidate at the entry-level than a Non- VET student from Higher Secondary level because of their increased domain knowledge and competency. The findings also shows that factors such as knowledge, skills and work readiness improve with the exposure of VET leading to better employability.

Students agree that it matches with their aspirations and interest in higher studies or employment. The principal's and parents agree that personality/ soft skills improve due to the pedagogy adopted for the VET courses.

It is important that educational Institutes and all boards (CBSE/ State Boards and ICSE) offer VET in the prescribed format of 4 levels with regular curriculum updates and pedagogical interventions and reviewing as per the market needs and employment opportunities available locally. Therefore, educational institutions must take certain steps such as reviewing, planning, and implementing strategies for improving and developing the employability skills of their students. So that students can either chose those domains for higher studies else take up employment opportunities available because of their increased employability.



## **V. Conclusion**

The Ministry of Human Resources and Ministry of Skill Development wants to address employability issues through multi-pronged approach. The quality of the higher education system can be evaluated based on students' success in getting jobs immediately after completing school or after having had an opportunity to pursue higher education or training. Thus stakeholders such as the Ministries, SamagraSiksha, Vocational Training Companies should ensure that the models are adopted appropriately in their States and implemented as per the mandate.

It may also be noted that the contributions from Vocational Training Providers to conduct the training for the Govt. aided schools where education is free works out as a more accountable proposition than hiring the teacher's directly by the school. The agencies are more accountable and resourceful to conduct skill development courses in it's true form and can provide the last milage of linking the students to employment opportunities.

From this study it was found that vocational students undergoing secondary & higher secondary schools in India had a moderately high level of employability skills, which was influenced by the VET courses intake in their industrial training, and their participation in career development activities.

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