VOCATIONALIZATION OF SECONDARY EDUCATION

AN EVALUATION STUDY

U.P. DEVELOPMENT SYSTEMS CORPORATION LTD.
9, Sarojini Naidu Marg, Lucknow-226001

VOCATIONALIZATION
OF
SECONDARY EDUCATION

An Evaluation Study

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01.1 Introduction

The National Council of Educational Research and Training (NCERT) document "Higher Secondary Education and its Vocationalisation" was presented in 1976. It provided a model conceptual framework for implementation. The programme for vocationalisation of higher secondary education was initiated in 1976. however, it was done in a very limited scale. It was implemented by 1986, in 10 States and 5 Union Territories. That year the national intake in the vocational stream was an order of 72,000. It was equivalent to approximately 2.5% of students population entering higher secondary state is covered by vocationalisation so far.

Reiterating the the importance and need for diversification of secondary education, including its vocationalisation, the Ministry of Human Resource Development, Government of India and NCERT initiated many actions including undertaking evaluation of on going vocationalization activities.

These evaluation studies and others concluded that there had been a host of factors responsible for the slow progress in the past such as:

- Absence of a well coordinated management system,
- Unemployability of vocational pass outs,
- Mis-match between demand and supply,
- Reluctance in accepting the concept by the society,

- Absence of proper provisions for professional growth and career advancement for the vocational pass outs etc.

The National Policy on Education 1986, therefore, stressed the need of renewed efforts to implement vocationalization of education at various stages, including secondary level of education.

01.2 The Concept

An examination of the determined demands in relation to the source of manpower available for replacement and expansion purposes projected over a range of years - a requirements-and- resources analysis defines the training problem. Subtracting the training potential of the private sector, the result indicates the scope of the programme to be provided through public vocational education.

Arousing the community to a degree of concern for the manpower posture of the community is the first step in the development of an active manpower policy. An active manpower policy contributes to the economic growth of the community by increasing the quality and improving the adaptability of manpower and by providing the mechanisms needed for effective matching of qualified workers with jobs. In turn, economic growth helps provide the expansion of employment opportunities needed for an expanding population.

Regarding the programme in vocational education, there are some principles to be observed :

(1) Vocational education should occur as close to the time of application as possible. On the secondary level, vocational courses should be concentrated in eleventh and twelfth grades.

(2) There must be sufficient concentration of work in each area to enable the student to develop sufficient competence to hold an entry job in a given occupation upon the completion of the curriculum.

(3) A well-planned vocational programme integrates vocational education and general education. The vocational development should be built on a sound base of general education.

(4) Some diversity of curriculum offerings is needed to provide for individual needs and to give flexibility to the programme.

(5) All aspects of an occupational area cannot be included in the curriculum. Those skills which form the core of the occupation and which are necessary for entry into the occupation should be taught.

Some individuals have suggested that vocational education is the education or training of workers. This concept implies that any type of education or training in which a worker participates is vocational education. It doubtless had its origin in early apprenticeship programs in which all educational activities, both general and vocational, were under the supervision of the master craftsman and were included in the apprenticeship program. Individuals who hold this concept are inclined to be critical of pre-employment courses and to suggest that the

cost of vocational education should be paid by industry and business.

Another concept held by some individuals is that vocational education is education for manual work, which suggests that vocational education is not concerned with work involving mental activity. This concept had its origin in the nineteenth century school for underprivileged children and has resulted in the present day practice of placing mentally and socially handicapped students in vocational courses without regard to the learner's interest or ability. The concept that practical art is vocational education emphasizes the importance of the idea of the transfer of training by suggesting that one or two basic courses will provide the needed competencies in vocational education. This point of view had its origin in the manual training movement which some individuals suggested was a feasible way of teaching vocational competencies. This point of view has resulted in the designation of industrial arts courses by some individuals as vocational education.

Another concept is that of education for production, in which vocational education is contrasted with liberal education. Vocational education is designed to make a person an efficient producer, and liberal education is designed to make a person an efficient consumer. Other concepts of vocational education involve the use of such words as utility and practicality in which vocational education is confined within narrow limits to subject matter looked upon with less favour than that of a cultural nature. Then, too, there are those who declare that no distinction between vocational and general education should be made, and, as a consequence, no special programs of public education should be maintained for vocational education.

Most vocational educators suggest that the distinction between vocational and general education is based on purpose. If a learner engages in the study of subject matter of other activities for the purpose of increasing his vocational efficiency, he is engaged in vocational education. Similarly, if the content of a course or curriculum is designed for the purpose of enabling the learner to increase his vocational efficiency, such content is classified as vocational. One characteristic of these interpretations is that both of purpose of the learner and the content of the course can be classified as socially useful.

This concept suggests that a specified course or curriculum may be vocational to one individual and non-vocational to another enrolled in the same course, depending upon the purpose for which each is enrolled. This concept implies that a person, to be properly enrolled in vocational education, should have made a choice of a socially useful vocation and be making a conscious effort to prepare for or improve in the vocation of his choice. This means that vocational education does not become a part of the educational program of an individual until he makes a decision to prepare for or upgrade himself in his chosen vocation. Vocational education is not designed to take the place of general or non-volitional education but to supplement it. It is not limited to specific subjects or activities, nor is it confined to training for manual dexterity. It has both cultural and utility values and includes the knowledge, skills and attitudes that fit an individual for entering or progressing in a socially useful vocation.

01.3 The Programmes

At the primary state of education from class 1 to 5 Socially Useful Productive Work (SUPW)/Work Experience (WE) forms an integral part of the curriculum in many states. Inspite of its good intentions of developing proper attitudes, the actual implementation both in coverage and quality leaves much to be desired.

At the middle school state SUPW/WE programmes aim at developing confidence and sufficient psychomotor skills to students to enter the world of work directly or through certain occupational training courses.

The SUPW/WE programmes for the secondary stage are viewed as a linear extension of that for the middle stage. These activities at secondary stage are also expected to enable students to opt for vocational programmes at the +2 level with better appreciation and undertaking. It may also be mentioned that a significant number of students drop out after this stage. Hence the programmes of SUPW/WE are expected to ensure to modest preparation for students before they leave the school, to enable them to choose an occupation. Such pre-vocational courses are to be handled by teachers with specific skills and competence. These programmes also need proper resources within the school. The vocational course at higher secondary stage are to be regarded not as a preparation for the college, but as a period for preparing an increasingly large number of school - leavers for different vocations in life. The need for vocationalisation of higher secondary education has been conceded by all, but the problems in its implementation may be appreciated by the fact that only a small percentage of students population has been covered by vocationalisation in the earlier for a period of nine years (1976-85). Commenting

on its inadequacy, the NPE observed: "The estimated number of students seeking admission to +2 in 1985 is of the order of 25 lakhs. Even if 10% of this population was to be diverted for vocational courses, the number should have been over 2.50 lakhs, against the present intake of 0.72 lakhs. The problem can be further appreciated, if this data is seen against the Kothari Commission's recommendation, expecting a diversion of 50% of 10+ students for vocational education."

01.4 The stream:
Secondary Stage

The Vocational stream is generally terminal. The Vocational stream enables the students to become more employment worthy, when they leave the higher secondary school. Singh (1976) in his article on "Some clarifications on vocation scheme" clarifies that the vocational education would provide ample opportunity to a child to pursue his inclination and still not lose the chance of attending a college. Singh points out that the vocational education at the +2 stage is to help the student become 'self-employed' ladder, it is also a meaningful terminal stage for those who would not go beyond the plus two and would like either to get gainfully employed or enter self employment".

Vocationalisation means training in a particular vocation at the school stage, secondary and higher secondary and this vocational training may be of the terminal stage. In the second sense, vocationalisation means training in some vocation at the higher secondary stage along with general education. This is the most acceptable meaning of vocationalisation. In this connection the Indian Education Commission has observed, "We visualise the future trend of school education to be towards a fruitful mingling of general and vocational education - general education

containing some elements of pre-vocational and technical education and vocational education in turn, having an element of general education (1966, p.9).

In the vocationalisation particularly at the plus two stage, the important aim is to change the educational system from one which was oriented to knowledge for knowledge's sake and clerkdom in a colonial administration to process which specifically prepares children for a wide range or avenues in work life. The goal is not that of meeting specific manpower planning needs. It is rather to orient pupils to a range of work areas in technical, commercial, agricultural, pre-primary teaching, home management, paramedical and other areas and to determine the range in response to local employment needs.

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02. The study profile: Objectives, Methodology and Limitations.

2.0 Objectives

Against this backdrop, the present study was undertaken with the objectives of:

(a) Examining the status of implementation of vocational education at the secondary level in terms of availability of funds, trained teachers, instructional aids and other physical inputs;

(b) Understanding the difficulties in its implementation as perceived at various levels, viz, District level officers, principals of the institutions, and teachers;

(c) Assessing the awareness and acceptance of the programme among the students and the difficulties encountered by them;

(d) Examining the role of various educational agencies (Annexure 2.1) in supporting the programme; and

(e) Assessing the placement problems of the trained students.

02.2 The Sample

In the study, fourteen districts from five economic regions of UP were selected. Further, from each selected district, two intermediate colleges having vocational education courses were identified.

In this two tiered selection, due representation was given to the management of the college (viz. Government, Non-Government) , trades in which vocational courses were being offered, and sex (boys and girls). Thus the sample colleges included:

Government Colleges,
Non-Government (Private) Colleges,
Girls Colleges and
of twenty two courses or trades.

Separate questionnaires were prepared for district level officers, principals, teachers and students.

Regionwise classification of sample intermediate colleges is abbreviated overleaf.

	Reasons	Selected Intermediate Colleges
i.	Eastern	10
ii.	Western	10
iii.	Bundelkhand	2
iv.	Central	4
v.	Hills	2
	Total	28

Out of the 28 selected intermediate colleges, 12 were Government colleges and the remaining 16 were private colleges. Three of the Government colleges were exclusively Girls colleges and three of the Private colleges were exclusively for girls.

The list of the colleges surveyed is given below:

Colleges Surveyed:

Eastern Region:

1. Government intermediate College, Faizabad.
2. H.T. Inter College, Tanda, Faizabad.
3. Sri Hanumant Inter College, Sultanpur.
4. C.L. Inter College, Chittepatti, Sultanpur.
5. Govt. Inter College, Basti.
6. National inter College, Haraiya, Basti.
7. Govt. Inter College, Chakia, Varanasi.
8. Vasant Kanya Inter College, Varanasi.
9. Dwarika Prasad Girls Inter College, Allahabad.
10. Jagat Taran Girls Inter College, Allahabad.

Western Region:

11. Govt Inter College, Agra.
12. S.R. Inter College, Firozabad.
13. Govt Inter College, Aligarh.

14. Babulal Jain Inter College, Aligarh.
15. Raghunath Girls College, Meerut.
16. Jain Girls Inter College, Baraut, Meerut
17. Modi Science & Commerce Inter College, Modinagar, Ghaziabad
18. Seth Mukundlal Inter COllege, Ghaziabad.
19. Govt. Inter College, Etawah.
20. Janata Inter College, Ajitmal, Etawah.

Bundelkhand Region:

21. Govt. Inter College, Jhansi.
22. Govt. Inter College Samthar, Jhansi.

Central Region :

23. Govt. Inter College, Fatehpur.
24. Ramdin Singh Inter College, Ghazikhera, Fatehpur.
25. Govt. Inter College, Kanpur.
26. Vidyamandir Girls Inter College, Kanpur.

Hills Region:

27. Govt. Inter College, Dehradun.
28. Sri Bharat Mandir Inter College, Rishikesh, Dehradun.

Besides District Inspector of School (DIOS) and Principals, teachers of all the selected trades were also interviewed and about five students from each selected trade in each college were canvassed questionnaires. Teachers and students of 21 trades were covered in the study and their regional dispersal is indicated in the following table.

Table-2.1 : Number and name of trades covered in the survey

	Name of Trade	Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
1	Knitting technique	2	-	-	1	-	3
2	Photography	5	5	1	2	2	15
3	Fruit Preservation Technology	2	1	-	-	-	3
4	Crop Protection Technology	2	1	-	-	-	3
5	Library Science	4	3	1	2	-	10
6	Radio & T.V. Technique	2	2	1	2	-	7

Name of Trade	Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
7 Food Preservation Technology	2	3	-	1	-	6
8 Dress Designing	2	-	-	1	1	4
9 Textile Designing	2	2	-	-	-	4
10 Bakery and Confectionery	1	1	-	-	-	2
11 Automobiles	2	2	-	2	-	6
12 Typing	2	2	-	-	1	5
13 Seed Multiplication Technology	1	-	-	-	-	1
14 Washing & Dyeing	1	-	-	-	-	1
15 Bee Keeping	-	1	-	-	-	1
16 Cookery	-	1	-	1	1	3
17 Accountancy & Audit	-	3	1	1	1	6
18 Stenography & Typing	-	1	2	-	-	3
19 Multi-purpose Health Worker (Male)	-	1	-	1	-	2
20 Banking	-	1	-	-	-	1
21 Marketing Technique	-	1	-	-	-	1
22 Nursery Teaching and Child Care	-	1	-	-	-	1

02.3 Limitations:

(a) The study was initiated in the beginning of 1990, and shelved after six months during which about sixty per cent of field work almost completed. Once again it was started after a gap of ten months approximately. The examination periods followed by summer vacations for two intervening years also led to time lag in completion of the study.

(b) The programme was expected to take off in 1986-87 in a phased manner. Its first batch , however, did not came of the colleges in 1990, the year the study was initiated. Even when the study was resumed, the first batch was barely trickling out. It was therefore, difficult to follow the student to their self employment stage.

(c) Similarly, various changes and modifications were made after 1990 survey had been completed. These however, were recapitulated in the second round.

Annexure 02.1 :
Supportive Organizations.

At national level, the post-secondary vocational education (vocationalisation) and vocational education for the out-of-school population are being looked after by many organisations under different ministries (like Agriculture, Health, Rural Development, Human Resource Development etc.) without having proper coordination and linkages. Vocational programmes cover a wide range of disciplines. These include agriculture, business and commerce, engineering and technology, health and paramedical services, home science, humanities and others.

At state level the system do not have a full time Directorate, but have middle level officials looking after the vocationalisation programme in addition to other responsibilities. No mechanism other than DIOS is available to coordinate the vocational programme at district levels and to undertake activities like, district level need surveys for identification of manpower requirements, for developing need based vocational courses etc. In addition, provision made for activities like curriculum design, resource material preparation, training of vocational teachers etc. are inadequate considering the massive nature of the task.

Keeping in view the variety of functions to be performed in planning and implementing programmes of vocational education and the scale of operations commensurate with the desired changes at post-primary, post-secondary and post-higher secondary states, it is necessary to organise an effective management system. The following strategy has been proposed by the National Policy on education.

Developing Organisational Structure :

A Joint Council for Vocational Education (JCVE) will be set up by the MHRD, to be the apex body for policy planning and coordination of vocational education at national level. In addition a Bureau for Vocational Education will be established in the Ministry of Human Resource Development (MHRD).

A Central Institute of Vocational Education (CIVE) under the NCERT will be set up to perform research and development, monitoring and evaluation functions.

State Governments will set up appropriate bodies/ organisations like State Council of Vocational Education (SCVE), State Institutes of Vocational Education (SIVE), Departments of Vocational Education, and district-level coordination committees as per their needs and requirements.

Organisations like NCERT, CIVE, Regional Colleges of Education (RCEs), SCERTs, SIVEs, Technical Teachers' Training Institutes (TTIs) etc., will be strengthened by providing additional infrastructure and faculty positions to perform their functions effectively for the development of vocationalisation.

State Councils of Vocational Education will organise disltrictwide needs assessment of vocational manpower, through area vocational surveys. NCERT will work out a scheme for need assessment, in collaboration with organisations like SCERTs, SIVEs, RCEs, TTTIs, Industry and other technical institutions.

Curriculum Development Cells/Centres will be set up in SIVEs/SCERTs and other selected professional institutions in specialised fields to design vocational programmes to meet identified needs and develop curricula. NCERT will develop model curricula and guidelines.

Training of personnel for Instructional Resource Development will be organised by NCERT, SCERTs, TTTIs, RCEs, CDCs etc. The activity will be coordinated by CIVE at national level and SIVEs at state level.

District Vocational Training Centres will be set up by MHRD with adequate facilities to impart skill training to vocational students in diverse vocations. Such institutions will have highly trained and skilled instructors. The facilities and faculty resources at these centres will be shared by vocational students from a number of schools in the area according to a coordinated plan.

Developing Linkages :

National Council of Educational Research and Training/Central Institute of Vocational Education will prepare a guideline document, listing the various organisations/agencies at National/Regional/State/District levels and indicating broadly the nature of their functions and responsibilities, to develop the right kind of linkage at state and at district levels.

NCERT/CIVE, in collaboration with State Institutes of Vocational Education/State Councils of Educational Research and Training will evolve an information system for vocational education to ensure constant communication between the central and state governments, nodal agencies, directorates, district level authorities and the institutions along with participating employer organisations.,

MHRD will take steps to prepare a guideline document indicating the nature and functions of linkages between policy making bodies including Joint Council of Vocational Education, NCERT/CIVE, RCEs, TTTIs, SCERTs/SIVEs, District Coordination Committees, Research and Development Organisations in education and training, District Vocational training centres, etc., the Ministry of Human Resource Development, the Board of Apprenticeship Training, Examination and various Certification bodies including Boards of Examination.

State Departments of Vocational Education will give directives and guidelines to vocational institutions to develop linkages between schools, employers nd voluntary organisations in the community, to facilitate successful implementation of vocational programmes ensuring optimum resource utilisation as well as effectiveness. State departments of vocational education will prepare the scheme for the same.

Section II
SURVEY FINDINGS:
Statistical Profiles, Perceptions and Views.

03. Students : Statistical Profile, Perception and View

03.1 Enrolment Pattern

The table given below recapitulates the colleges offering various courses, the intake capacity of them, and actual enrolment. The attempt is to assess the course orientation of the students and the utilization status of intake capacity. The utilization is above sixty per cent in Cookery, Stenography, and Crop Protection Technology. On the other hand, it is below twenty per cent in Fruit Preservation Technology.On average, in the sample colleges only 46 per cent utilization of seats was reported. This per cent utilization is one of the indicators of limited interest of students in getting admission in vocational courses. There are but notable exceptions. In two college of western and eastern region i.e., Modi Science and Commerce College, Modinagar, and Tanda , Faizabad the students were more than or equal to the capacity in Banking and Seed Multiplication trades respectively. The reported reason is that the students of these trades are expected to get admission in B.Com. and B. Sc. (Ag.).

Table-3.1: Details of trade on the basis of seats and students

	Trade	No.of Collages having the trade	Seats	Total Students	% Students to Total seats
1	Knitting technique	3	75	30	40
2	Photography	14	350	76	22
3	Fruit Preservation Technology	3	75	13	17
4	Crop Protection Technology	3	75	45	60

	Trade	No.of Collages having the trade	Seats	Total Students	% Students to Total seats
5	Library Science	10	250	103	41
6	Radio & T.V. Technique	7	175	86	49
7	Food Preservation Technology	6	150	108	72
8	Dress Designing	4	100	59	59
9	Textile Designing	4	100	44	44
10	Bakery and Confectionery	2	50	21	42
11	Automobiles	6	150	39	26
12	Typing	4	100	49	49
13	Seed Multiplication Technology	1	25	25	100
14	Washing & Dyeing	1	25	10	40
15	Bee Keeping	1	25	6	24
16	Cookery	3	75	52	69
17	Accountancy & Audit	5	125	76	61
18	Stenography & Typing	3	75	49	65
19	Multi-purpose Health Worker (Male)	2	50	27	54
20	Banking	1	25	28	More Than 100%
21	Marketing Technique	1	25	7	28
22	Nursery Teaching	1	25	7	28
	TOTAL	85	2125	973	46

A breakup of trades and number of students opting for them are abbreviated in the following table. The data is staggered on the basis of different economic regions. This table shows , if absolute number is considered, it would appear that amongst the trades, photography is a commonly opted subject in the colleges followed by library science. Bee-keeping, washing and dyeing, and fruit preservation technology are the trades having lowest number (below ten) of students.

Table-3.2: Absolute number of the students (Trade wise distribution)

	Name of Trade	Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
1	Knitting technique	19 (2)	-	-	11 (1)	-	30
2	Photography	26 (5)	20 (5)	10 (1)	8 (2)	12 (1)	76
3	Fruit Preservation Technology	13 (2)	- (1)	-	-	-	13
4	Crop Protection Technology	40 (2)	5 (1)	-	-	-	45
5	Library Science	40 (4)	27 (3)	8 (1)	28 (2)	-	103
6	Radio & T.V. Technique	30 (2)	26 (2)	10 (1)	20 (2)	-	86
7	Food Preservation Technology	41 (2)	50 (3)	-	17 (1)	-	108
8	Dress Designing	37 (2)	-	-	6 (1)	16 (1)	59
9	Textile Designing	9 (2)	35 (2)	-	-	-	44
10	Bakery and Confectionery	6 (1)	15 (1)	-	-	-	21
11	Automobiles	4 (2)	25 (2)	-	10 (2)	-	39
12	Typing	10 (2)	39 (2)	-	-	-	49
13	Seed Multiplication Technology	25 (1)	-	-	-	-	25
14	Washing & Dyeing	10 (1)	-	-	-	-	10
15	Bee Keeping	-	6 (1)	-	-	-	6
16	Cookery	-	19 (1)	-	24 (1)	9 (1)	52
17	Accountancy & Audit	-	46 (3)	20 (1)	10 (1)	-	76
18	Stenography & Typing	-	24 (1)	25 (2)	-	-	49
19	Multi Purpose Health Worker(Male)	-	17 (1)	-	10 (1)	-	27

Name of Trade	East-ern (No.)	West-ern (No.)	Bundel-khand (No.)	Cent-ral (No.)	Hills (No.)	Total (No.)
20 Banking	-	28 (1)	-	-	-	28
21 Marketing Technique	-	7 (1)	-	-	-	7
22 Nursery Teaching and Child Care	-	20 (1)	-	-	-	20

(Figures in bracket show number of colleges having the trade)

03.3 Sample Respondents

From the universe described above, a sample segment was drawn for detailed inquiry. These students were selected from the roll list for each trade. They were interviewed and their replies were recorded on a structured protocol. In total 341 students were contacted whose regionwise breakup in various trades is given below.

Table-3.3: Tradewise number of students interviewed

	Trades	East-ern	West-ern	Bundel-khand	Central	Hills	Total
1	Typing	9	10	-	-	3	22
2	Photography	14	18	5	4	6	47
3	Library Science	19	14	5	10	-	48
4	Food preservation	10	10	-	5	-	25
5	Dress Designing	12	-	-	5	5	22
6	Crop protection	10	4	-	-	-	14
7	Seed multipli-cation technology	5	-	-	-	-	5
8	Knitting technique	5	-	-	5	-	10
9	Fruit preservation	5	-	-	-	-	5
10	Radio & TV technique	5	10	5	8	-	28
11	Textile designing	3	5	-	-	-	8
12	Bakery & Confectionery	3	-	-	-	-	3

Trades	Eastern	Western	Bundelkhand	Central	Hills	Total
13 Washing & Dyeing	5	-	-	-	-	5
14 Accountancy & audit	-	15	5	4	3	27
15 Automobile	-	10	-	3	-	13
16 Multipurpose health worker(Male)	-	5	-	5	-	10
17 Steno & typing	-	5	10	-	-	15
18 Bee keeping	-	5	-	-	-	5
19 Nursery teacher's training	-	4	-	-	-	4
20 Marketing	-	5	-	-	-	5
21 Banking	-	5	-	-	-	5
22 Cookery	-	5	-	5	5	15
Total Students	105	130	30	54	22	341

03.4 Salient Points

The interview of the sample students led to certain observations, such as their choice, difficulties, assessment of their future prospects etc. These are summarized here:

(i) Students' interest :
Opting a particular trade

The following table suggests that 94.43 per cent students have opted the trade willingly. Most of the students (73.91 per cent) had selected the trade to get employment in future. Only 7.14 per cent students selected the trade as the trade was related to their family occupation. Out of 341 students, only 19 (5.57 per cent) did not opt the trade willingly. They opted for the trade :

(i) on the advise of principal/teachers/parents (63.16 per cent of this segment) ;

(ii) because no other suitable choice was available (26.31 per cent) and;

(iii) because of poor marks in high school examinations they could not get admission in general education stream (10.53 per cent).

Table-3.4: Student's Interest in Selection of the Trade

(No.)

Details	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
Students Interest						
1 Yes	102 (97.14)	130 (100.00)	24 (80.00)	48 (88.89)	18 (81.82)	322 (94.43)
2 No	3 (2.86)	-	6 (20.00)	6 (11.11)	4 (18.18)	19 (5.57)
BASE	105	130	30	54	22	341
If yes, reason for opting the same						
1 Traditional occupation	5 (4.90)	9 (6.92)	4 (16.67)	3 (6.25)	2 (11.11)	23 (7.14)
2 To get employment in future	71 (69.61)	106 (81.54)	18 (75.00)	38 (79.17)	5 (27.78)	238 (73.91)
3 Only interest	26 (25.49)	15 (11.54)	2 (8.33)	7 (14.58)	11 (61.11)	61 (18.94)
1. BASE	102	130	24	48	18	322
If no, reason for opting same trade						
1 Advise of principal/ teachers/ parents	3 (100.0)	-	5 (83.33)	3 (50.00)	1 (25.00)	12 (63.16)
2 No other choice was available	-	-	1 (16.67)	1 (16.67)	3 (75.00)	5 (26.31)
3 Poor marks in HS exam	-	-	-	2 (33.33)	-	2 (10.53)
2. BASE	3	-	6	6	4	19

(Figures in bracket show percentage to base)

(ii) Participation in practicals

Instead multiple factors or inputs such as instructional materials, space, availability of trained teachers etc., a summary indicator i.e. time for participating in practicals, was taken. The reason is obvious: the practicals play a crucial role in vocational education, for education in vocational trade has no meaning if only theory is taught. As is evident from the table below, about 42 per cent of the students did not get adequate opportunity of participating in practicals or "hands-on", because of one or the other reason. The important reasons stated by the students were lack of equipments (53.15 per cent), lack of teachers (39.86 per cent) and lack of proper laboratory (29.37 per cent). The regionwise details are as follows:

Table-3.5: Participation in Practicals: Adequacy (No.)

Details	Eastern	Western	Bundel-khand	Central	Hills	Total
Adequacy of practicals						
1 Yes	74 (70.48)	78 (60.00)	10 (33.33)	24 (44.44)	12 (54.54)	198 (58.06)
2 No	31 (29.52)	52 (40.00)	20 (66.67)	30 (55.56)	10 (45.46)	143 (41.94)
BASE	105	130	30	54	22	341
If no, why						
1 Lack of space	-	-	-	2	1	3
2 Lack of equipment	26 (83.87)	12 (23.08)	7 (35.00)	23 (76.67)	8 (80.00)	76 (53.15)
3 Lack of time	-	4 (7.70)	6 (30.00)	3 (10.00)	2 (20.00)	15 (10.48)

Details	Eastern	Western	Bundel-khand	Central	Hills	Total
4 Lack of teachers	4 (12.90)	23 (44.23)	9 (45.00)	18 (60.00)	3 (30.00)	57 (39.86)
5 Lack of laboratory	1 (3.23)	23 (44.23)	-	12 (40.00)	6 (60.00)	42 (29.37)
6 No response	-	6 (11.53)	-	-	-	6 (4.19)
BASE	31	52	20	30	10	143

(Figures in bracket show percentage to base)

(iii) Suggestions from Students: making the course self-employent oriented

One of the aims of vocational education at the plus two stage is to prepare students for self reliance and employment. Students too have their own perception as how the course can be made effective. True, it is based on their limited understanding of the complexities of educational system as well as the labour market. Yet, it throws some light on the areas for improvement. It is inferred from the table below that about one third of them, i.e., 120 students have some suggestions. Out of these, 42.50 per cent suggested that better facilities (proper laboratories, sufficient equipments and more practical classes) should be provided for conducting practicals. They argued that these would enhance their practical skill and confidence, both, required for self employment. This is in congruenty with the above table on the adequacy of practical classes. About 20 per cent students desired addition of latest technology in the existing syllabus for example, repairs of coloured television, video cassette recorders etc. However, 25.83 per cent students could not give proper response.

Table-3.6: Suggestions for making course self employment oriented (No.)

	Suggestions	Eastern	Western	Bundelkhand	Central	Hills	Total
1	Facilities for conducting more practicals (includes proper lab, sufficient equipment and more time)	20 (71.43)	16 (26.67)	1 (50)	10 (66.67)	4 (26.67)	51 (42.50)
2	Clear syllabus	8 (28.57)	9 (15.00)	-	-	7 (46.67)	24 (20.00)
3	Addition in existing syllabus (latest technology of each trade)	4 (14.28)	10 (16.67)	2 (100.0)	3 (20.0)	10 (66.67)	29 (24.17)
4	Regular trained teachers	-	5 (8.33)	-	-	1 (6.7)	6 (5.00)
5	Knowledge of marketing	1 (3.57)	-	-	-	-	1 (0.83)
6	No proper response	2 (7.14)	27 (45.00)	-	2 (13.33)	-	31 (25.83)
	BASE:	28	60	2	15	15	120

(Figures in bracket show percentage to base)

(iv) Comparative status of the ITI students

As the vocationalization of education is broader field, a comparison with ITI is inescapable. More than half of the students (55.72 per cent) were of the view that ITI students have better prospects of getting employment, while about 43 per cent of the students had no comment.

The reasons given for the better prospects of ITI students were:

(i) more practical classes and better equipments (stated by 20 per cent);
(ii) comprehensive syllabus and more concentration on vocational trade (stated by 14.73 per cent);
(iii) regular classes/regular qualified teachers (stated by 14.21 per cent) and;
(iv) ITI being recognised (stated by 7.90 per cent).

Regionwise details have been given as under:

Table-3.7: More employment opportunities to ITI students

Details	REGIONS					
	Eastern	Western	Bundel-khand	Central	Hills	Total
More employment opportunities to ITI students						
1 Yes	69 (65.71)	57 (43.85)	17 (56.67)	34 (62.96)	13 (59.10)	190 (55.72)
2 No	11 (10.48)	26 (20.00)	6 (20.00)	6 (11.12)	-	49 (14.37)
3 Don't know	25 (23.81)	47 (36.15)	7 (23.33)	14 (25.92)	9 (40.90)	102 (29.19)
BASE	105	130	80	54	22	341
If yes, reason						
1 More time given to vocational trade (comprehensive syllabus)	5 (7.25)	3 (5.26)	8 (47.06)	12 (35.29)	-	28 (14.73)
2 More practicals/better equipment	1 (1.45)	12 (21.05)	5 (29.41)	7 (20.59)	13 (100.00)	38 (20.00)
3 Regular classes/ Regular qualified teachers	15 (21.74)	11 (19.29)	1 (5.88)	-	-	27 (14.21)
4 ITI is recognised	-	8 (14.03)	1 (5.88)	6 (17.65)	-	15 (7.90)
5 No proper response	48 (69.56)	23 (40.35)	2 (11.76)	9 (26.47)	-	82 (43.16)
BASE	69	57	17	34	13	190

(Figures in bracket show percentage to base)

(v) Supportive Provisions for students at completion of courses

Although it has been mentioned in the special features of vocational education at the +2 stage that provisions of inplant/on-the job training facilities and apprenticeship facility will be given to the students. However, such inputs are not available at the completion of the +2 level examinations. Besides, they also felt that the studies at intermediate level of the vocational trade would not be sufficient to start an independent occupation. They therefore, desired that provisions should also be made to study the trades at higher/degree/diploma level. It is significant that the suggestions of the students are not unambiguous, and therefore, they have given multiple answers. the reason is obvious: lack of definite choice after completion of the course at + 2 level. Suggestions of students on the supportive provisions are abbreviated in the following table:

Table-3.8: Supportive Provisions.

(No.)

Incentives	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
1 Paid apprenticeship	24 (22.86)	30 (23.08)	6 (20.00)	11 (20.37)	4 (18.18)	75 (21.98)
2 Preference in getting admission in diploma	52 (49.52)	47 (36.15)	10 (33.33)	20 (37.04)	18 (81.82)	147 (43.11)
3 Facility of degree/diploma courses for passed out students in Vocational Trade	46 (43.81)	47 (36.15)	13 (43.33)	37 (68.52)	19 (86.36)	162 (47.51)

Incentives	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
4 Preference in jobs	66 (62.86)	96 (73.85)	25 (83.33)	32 (59.26)	10 (45.45)	229 (67.15)
5 Facility for starting self employment	45 (42.86)	70 (53.85)	15 (50.00)	21 (38.89)	8 (36.36)	159 (46.63)
BASE	105	130	30	54	22	341

(Figures in bracket show percentage to base)

Thus, 67.15 per cent students wanted preference in jobs, 47.51 per cent desired facilities of degree/diploma course after completion of vocational trade at +2 stage, 46.63 per cent required infrastructure (credit etc.) for starting self employment and 43.11 per cent wanted preference in getting admission in diploma courses after passing +2 stage.

04. Teachers: Perception, Opinion and suggestions.

Ascending higher within an educational institution, the next level of response was screened from the teachers. In the educational production function, the teacher is invaluable instructional input. To get a larger coverage, all of the teachers of various trades of the sample colleges were interviewed. Their views and suggestions/problems are shown as below:

4.01 Completion of courses

About two third teachers informed that they could complete the course in the prescribed time .About 25 per cent of them pointed out that they had to face difficulties as they were teaching the subjects of general education as well. These teachers had to take additional classes after college hours to complete the course of vocational trade. Regionwise details in the following table indicate that in Eastern region, almost all teachers (96.30 per cent) could complete the course in time, whereas in Central region only half of the teachers fell in this group.

Table-4.1: Timely Completion of Courses : Teachers Responses

(No)

Complete the Course in time	REGIONS					
	Eastern	Western	Bundel-khand	Central	Hills	Total
Yes	26 (96.3)	22 (70.97)	5 (83.33)	6 (50)	4 (57.14)	63 (75.90)
No	1 (3.7)	9 (29.03)	1 (16.67)	6 (50)	3 (42.86)	20 (24.1)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

4. 02 Trades selection: According to Need

Most of the teachers (89.16 per cent) were of the view that the various trades in the colleges had been selected according to the need of the area. Regionwise details are indicated in the following table:

Table-4.2: Trades Selection According To The Need

(No.)

Views about the trades	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
Yes	23 (85.19)	27 (87.1)	6 (100)	12 (100)	6 (85.71)	74 (89.16)
No	4 (14.81)	4 (12.90)	-	-	1 (14.29)	9 (10.84)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

4. 03 Basis of trade selection

An assessment was made to know whether the teachers were aware of the planning method adopted. they were therefore, enquired whether they were aware of the mode of selection of the trades being taught in their colleges. Out of the 83 teachers interviewed, 37 (44.58 per cent) informed that the trades were selected by the U.P. Board or Departmental Authorities. Of them 18 (21.69 per cent) informed that the selection of trades was made by DIOS/Principals/teachers. About one fifth of the teachers either did not report or had no knowledge about the selection procedure. The following table gives regionwise details:

Table-4.3: Basis of selection of trade in the college

(No.)

Details	REGIONS					
	Eastern	Western	Bundel-khand	Central	Hills	Total
1 U.P. Board or Departmental Authorities	21 (77.78)	10 (32.26)	-	2 (16.67)	4 (57.14)	37 (44.58)
2 Interest of local students	1 (3.7)	1 (3.23)	-	-	-	2 (2.41)
3 No fixed criterion	-	1 (3.23)	-	-	-	1 (1.20)
4 Available resources & need of the district	1 (3.7)	3 (9.67)	-	3 (25)	-	7 (8.44)
5 Selected by DIOS/Principal/Teachers	-	8 (25.8)	6 (100)	3 (25)	1 (14.29)	18 (21.69)
6 Selection committee	-	1 (3.23)	-	-	-	1 (1.20)
7 Not reported/ not known	4 (14.82)	7 (22.58)	-	4 (33.33)	2 (28.57)	17 (20.48)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total teachers)

4.04 Selection of students

Teachers were asked to record their assessment of the students selected, whether the students were really keen on getting trained in the trades they opted for etc. As is clear from the table below, according to the teachers , the interest of students was the main cause (forty per cent) for opting a particular trade. It was also informed by about eighteen per cent of the teachers that an assessment of individual's ability also acted as a basis consideration in

selection the students for trade. On the contrary, a very small segment , approximately five per cent, of the teachers revealed, that students unable to get admission in general education category generally came for the vocational trade. About twenty seven per cent of them indicated absence of any proper system for selecting students in a trade:

Table-4.4: Basis of selection of students for a certain course (No.)

Details	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
1 No proper system	22 (81.48)	-	-	-	-	22 (26.51)
2 Interest of students	2 (7.41)	20 (64.51)	4 (66.67)	7 (58.34)	1 (14.29)	34 (40.96)
3 Ability and interest of students	3 (11.11)	7 (22.58)	2 (33.33)	3 (25)	-	15 (18.07)
4 Choice of principal	-	1 (3.23)	-	-	-	1 (1.20)
5 Test performance	-	1 (3.23)	-	-	-	1 (1.20)
6 Consideration of subjects taken in high school	-	2 (6.45)	-	1 (8.33)	-	3 (3.62)
7 No idea	-	-	-	1 (8.33)	2 (28.57)	3 (3.62)
8 Weak students are selected for the course	-	-	-	-	4 (57.14)	4 (4.82)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

4.05 Suggestion: Selection of students

Most of the teachers (60.24 per cent) either expressed their inability to suggest an adequate method to be adopted for selecting students for vocational trade, or they made no comment. However, 19.28 per cent of them suggested that the selection of students should be done on the basis of merit/ability of the students. Other suggestions were also made, but ultimately, they all point towards informal or informal aptitudinal test of the intended students. These suggestions , staggered on the basis of regions of the state, are shown in the table given below:

Table-4.5: Suggestions about method of selection of students (No.)

Details	REGIONS					
	Eastern	Western	Bundelkhand	Central	Hills	Total
1. On the basis of family condition	-	1 (3.23)	-	-	-	1 (1.20)
2. Interest of students	-	3 (9.68)	-	-	2 (28.57)	5 (6.02)
3 Those students who are willing to opt self employment	-	-	-	1 (8.33)	-	1 (1.20)
4 Merit/ability of students	6 (22.22)	5 (16.13)	1 (16.67)	2 (16.67)	2 (28.57)	16 (19.28)
5 Those who have family trade (Traditional)	-	1 (3.23)	-	-	-	1 (1.20)
6 Preference in trades related to subjects taken in high school	5 (18.52)	-	-	2 (16.67)	1 (14.29)	8 (9.64)

	Details	REGIONS					Total
		Eastern	Western	Bundelkhand	Central	Hills	
7	There should be some fixed criterion	5 (18.52)	-	-	-	-	5 (6.02)
8	No response	11 (40.74)	25 (80.65)	5 (83.33)	7 (58.33)	2 (28.57)	50 (60.24)
	BASE	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

4.06 Suggestions:
Creating Interest in Vocational Trade

Though the larger policy demand is to step up the vocational courses in terms of subject as well as student coverage, it had earlier been observed that students were not taking keen interest in studying vocational trades. Its one of the telling indicator lies in the fact that the number of students enrolled in almost all trades was less than the actual capacity of seats. On analysing the suggestions of teachers, it appears that absence of sufficient practical training/field visits, lack of opportunity for jobs and absence of regular trained teachers were the important deterrents. various suggestions made by the teachers for generating interest in students for vocational trades, are abbreviated below.

Table-4.6: Suggestions for Generating Interest of Students
(No.)

	Details	REGIONS					Total
		Eastern	Western	Bundelkhand	Central	Hills	
1	Degree/Higher course in the trade	1 (3.70)	4 (12.90)	-	-	-	5 (6.02)

	Details	REGIONS					
		Eastern	Western	Bundelkhand	Central	Hills	Total
2	Job guarantee	2 (7.41)	6 (18.35)	1 (16.67)	-	4 (57.13)	13 (15.66)
3	Availability of text books	-	5 (16.13)	-	-	-	5 (6.02)
4	Regular trained teachers	1 (3.7)	5 (16.13)	3 (50)	3 (25)	-	12 (14.46)
5	Sufficient practical training/ field visits	3 (11.11)	7 (22.58)	-	4 (33.33)	1 (14.29)	15 (18.07)
6	Availability of raw material	2 (7.41)	3 (9.68)	-	2 (16.67)	-	7 (8.43)
7	More recurring funds	-	1 (3.23)	-	-	-	1 (1.20)
8	Better equipments (eg. electronic typewriter/ computer typing)	-	-	-	-	1 (14.29)	1 (1.20)
9	Positive role of teachers	-	-	-	-	1 (14.29)	1 (1.20)
10	Recognition of the course	-	1 (3.23)	-	-	-	1 (1.20)
11	Publicity	-	2 (6.45)	-	-	-	2 (2.41)
12	Syllabus should be short and easy	-	-	-	1 (8.33)	-	1 (1.20)
13	No response	19 (70.37)	9 (29.03)	2 (33.33)	4 (33.33)	-	34 (40.96)
	TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

In other words, the teachers indicated need to strengthen the entire programme in terms of finances,

equipments, syllabus preparation, employment guarantee, etc. On the other hand, a significant fraction of them , 40.96 per cent, refrained from making any suggestions.

4.07 Adequacy of Courses

The litmus test of the success of the course is its judged adequacy. Of the sample teachers, 66.27 per cent were of the view that present training was sufficient for students to start independent occupation. The remaining teachers were not satisfied with the present training and they also cited reasons as itemized in the table below:

Table-4.7: Adequacy of Training

Details	REGIONS					
	Eastern	Western	Bundelkhand	Central	Hills	Total
(A) Sufficient Training						
1 Yes	21 (77.78)	19 (61.29)	5 (83.33)	6 (50)	4 (57.14)	55 (66.27)
2 No	6 (22.22)	12 (38.71)	1 (16.67)	6 (50)	3 (42.86)	28 (33.73)
BASE	27	31	6	12	7	83
(B) If no then why (Reason)						
1 No job guarantee	-	4 (33.34)	1 (100)	-	-	5 (17.86)
2 No proper arrangement for teaching the trade	-	1 (8.33)	-	-	-	1 (3.57)
3 Insufficient training	4 (66.67)	6 (50)	-	2 (33.33)	2 (66.67)	14 (50.00)
4 Premature age of students	2 (33.33)	-	-	-	-	2 (7.14)

Details	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
5 Trade not suited for independent occupation (eg. library science)	-	-	-	1 (16.67)	-	1 (3.57)
6 Lack of financial assistance	-	1 (8.33)	-	3 (50)	-	4 (14.29)
7 No response	-	-	-	-	1 (33.33)	1 (3.57)
BASE	6	12	1	6	3	28

(Figures in bracket show percentage to base)

4.08 Availability of Teachers

During survey, it was found that there was no problem in finding guest teachers locally in the urban areas. But an important constraint springs up from low level of honorarium. In fact, the skill workers tend to get more wages and salaries in comparison of the honorarium offered to them for teaching in the colleges. The problem further multiplied in remote areas, where there availability of skilled persons who could act as guest teachers for concerning trade were reported . Since there is no provision for travelling allowances, boarding and lodging, it would not be possible to arrange guest teachers from neighbouring urban areas. Regionwise details of availability of teachers from the local area have been shown in the table given below:

Table-4.8: Local availability of teachers

(No.)

Details	REGIONS Eastern	Western	Bundelkhand	Central	Hills	Total
Availability of Teachers						
a. Yes	26 (86.30)	23 (74.18)	6 (100)	12 (100)	6 (85.71)	73 (87.95)
b. No	1 (3.70)	7 (22.58)	-	-	1 (14.29)	9 (10.84)
c. To some extent	-	1 (3.23)	-	-	-	1 (1.21)
TOTAL	27	31	6	12	7	83

Figures in bracket show percentage to total number of teachers.

4.09 Suggestion: Teachers Availability

About 45 per cent teachers emphasised the need of regular and trained teachers .In the present system, most of the trades had been taught by the teachers after undergoing a very short term training for the trade, which does not equip them with reasonable expertise. These responses are captured below:

Table-4.9: Suggestions on availability of teachers

(No.)

Problems related to training	REGIONS Eastern	Western	Bundelkhand	Central	Hills	Total
1 Regular trained teachers should be appointed	5 (18.52)	13 (41.93)	4 (66.67)	9 (75.0)	5 (71.42)	36 (43.38)
2 Incentives for teachers should be given	-	3 (9.68)	-	-	-	3 (3.62)

Problems related to training	REGIONS					
	Eastern	Western	Bundelkhand	Central	Hills	Total
3 Honorarium should be increased for guest teachers	-	2 (6.45)	-	1 (8.34)	-	3 (3.62)
4 Experts from different concerning institutions should be invited	2 (7.41)	1 (3.23)	-	1 (8.33)	1 (14.29)	5 (6.02)
5 Lodging arrangements for guest teachers in remote areas	1 (3.70)	-	-	-	-	1 (1.20)
6 Proper training for school teachers	1 (3.70)	-	-	-	-	1 (1.20)
7 No response	18 (66.67)	12 (36.71)	2 (33.33)	1 (8.33)	1 (14.29)	34 (40.96)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

To reinforce the above fact, a question was asked about the teacher's own view about the type of teachers that should be involved in the course. As mentioned in the following table, most of the teachers (66.27 per cent) suggested that for teaching a trade both regular teachers and guest teachers should be involved. In their opinion, in the present system, it is very difficult to teach theory as well as practicals by regular teachers alone. The guest teachers are supposed to be expert of that trade and can be invited in the colleges by giving suitable amount of honorarium for teaching either theory or practical or both. Presently regular teachers are not competent in handling theory and practicals both. However 32.53 per cent of

teachers were of the opinion that the trades should be taught exclusively by regular teachers by giving their sufficient training in the concerned trade.

Table-4.10: Opinion about type of teachers

(No.)

Opinion about type of teachers	REGIONS					
	Eastern	Western	Bundel-khand	Central	Hills	Total
1 Guest teachers	-	1 (3.23)	-	-	-	1 (1.20)
2 Regular teachers	5 (16.52)	16 (51.61)	1 (16.67)	4 (33.33)	1 (14.29)	27 (32.53)
3 Both	22 (81.48)	14 (45.16)	5 (83.33)	8 (66.67)	6 (85.71)	55 (66.27)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

4.10 Teachers' Training Center at District level

All the interviewed teachers suggested the need to establish a teachers' training center at district level for giving knowledge about the various trades from time to time.

4.11 Special Training for Teaching trade

Out of 83 teachers 50 suggested the need of special training for teaching trade. There were three main reasons for the demand of special training. One, the teachers felt that their training level so far had been inadequate; two, they did not feel confident to handle practical classes; and three, they felt the need of refresher courses. The details are as under:

Table-4.11: Special training required for teaching trade

(No.)

Details	Eastern	Western	Bundel-khand	Central	Hills	Total
Requirement for special training						
a. Yes	16 (59.26)	21 (67.74)	1 (16.67)	7 (58.33)	5 (71.43)	50 (60.24)
b. No	11 (40.74)	10 (32.26)	5 (83.33)	5 (41.67)	2 (28.57)	33 (39.76)
BASE	27	31	6	12	7	83
If yes then reasons						
a. Refresher	1 (6.25)	3 (14.28)	-	1 (14.28)	1 (20.00)	6 (12.00)
b. Training already received inadequate, and short.	8 (50.0)	10 (47.62)	1 (100)	3 (42.86)	1 (20.0)	23 (46.00)
c. Knowledge Updation	5 (31.25)	3 (14.28)	-	-	1 (20.0)	9 (18.00)
d. Less Knowledge for conducting practicals	-	-	-	3 (42.86)	-	3 (6.00)
e. No response	2 (12.50)	5 (23.81)	-	-	2 (40.0)	9 (18.0)
BASE	16	21	1	7	5	50

(Figures in bracket show percentage to base)

4. 13 Suggestions :Practical Training in ITIs

Out of 83 teachers, 38 (45.78 per cent) were of the view that practical training from ITI would not yield significant benefits to the students. Infact, ITIs offer, except certain trades, trades of entirely different nature in comparison of the vocational trades. Hence there is no

use of giving practical training from ITI in all the trades. The responses are abbreviated below:

Table-4.12: Response: Practical training from ITI would benefit students

Details	Eastern	Western	Bundel-khand	Central	Hills	Total
1 Yes	9 (33.33)	21 (67.74)	1 (16.67)	8 (66.67)	6 (85.71)	45 (54.22)
2 No	18 (66.67)	10 (32.26)	5 (83.33)	4 (33.33)	1 (14.29)	38 (45.78)
Base	27	31	6	12	7	83
If yes, the reasons						
1 More Practical Knowledge	7 (77.78)	12 (57.14)	-	3 (37.50)	2 (33.33)	24 (53.33)
2 Better experts available	1 (11.11)	2 (9.52)	-	2 (25.0)	1 (16.67)	6 (13.33)
3 Better equipments & facilities	-	4 (19.05)	-	3 (37.50)	3 (50.0)	10 (22.22)
4.Preference in job	-	1 (4.76)	-	-	-	1 (2.22)
5 No response	2 (22.22)	3 (14.29)	1 (100.0)	-	-	6 (13.33)
BASE	9	21	1	8	6	45

(Figures in bracket show percentage to base)

4.14 Difficulties faced by the teachers

About 82 per cent teacher stated that they were facing difficulties in either teaching theory or conducting practicals , or both. In theory non-availability of proper books and syllabus not known/not clear are the main difficulties. In practicals main difficulties were lack of

equipments and raw-material. Regionwise details are given below:

Table-4.13: Response : Difficulties in theory teaching and conducting practicals

Details	REGIONS Eastern	Western	Bundel-khand	Central	Hills	Total
1 Yes	24 (88.89)	24 (77.42)	5 (83.33)	9 (75.0)	6 (85.71)	68 (81.93)
2 No	3 (11.11)	7 (22.58)	1 (16.67)	3 (25.0)	1 (14.29)	15 (18.07)
BASE	27	31	6	12	7	83
If yes, the difficulties in						
(A) In Theory						
1 Books not available	6 (25.0)	12 (50.0)	1 (20.0)	6 (66.67)	5 (83.33)	30 (44.12)
2 Related trained teachers not available	-	5 (20.83)	1 (20.0)	-	1 (16.67)	7 (10.29)
3 Syllabus not known/not clear	16 (66.67)	5 (20.83)	1 (20.0)	1 (11.11)	2 (33.33)	25 (36.76)
4 Lack of time	1 (4.17)	-	-	-	1 (16.67)	2 (2.94)
(B) In Practical						
1 Lack of equipments	3 (12.5)	8 (33.33)	2 (40.0)	1 (11.11)	1 (16.67)	15 (22.06)
2 Lack of raw material	2 (8.33)	4 (16.67)	-	2 (22.22)	-	8 (11.76)
3 No proper laboratory	2 (8.33)	3 (12.5)	-	-	-	5 (7.35)
4 Lack of furniture	-	1 (12.50)	-	-	-	1 (1.47)
BASE	24	24	5	9	6	68

(Figures in bracket show percentage to base)

4. 15 Suggestions: making the subject more useful and employment oriented

Varied suggestions were given by the teachers to make the subject/trade more useful. According to them the students in the present circumstances would not be capable enough to start their own work independently. An intensive and comprehensive training was required to prepare the students for self employment, which is not being imparted in present system of training. Out of the 83 teachers 25.30 per cent suggested the appointment of regular trained teachers in the colleges, 20.48 per cent suggested degree/higher level course of the concerned trade, 16.87 per cent suggested proper change in syllabus, 15.66 per cent stressed the need of relevant text books and the same number of teachers demanded better co-ordination between different vocational colleges. The details of the suggestions have been appended below in the table.

Table-4.14: Suggestions to make the subject more useful and employment oriented

(No.)

Suggestions	REGIONS					
	Eastern	Western	Bundelkhand	Central	Hills	Total
1 Degree level course/higher level course	8 (29.63)	5 (16.13)	-	2 (16.67)	2 (28.57)	17 (20.48)
2 Refresher course for teachers	-	1 (3.23)	1 (16.67)	-	-	2 (2.41)
3 Audio-visual publicity	-	1 (3.23)	-	-	-	1 (1.20)
4 Recognition of the course	-	4 (12.9)	-	3 (25.0)	-	7 (8.43)

Suggestions	REGIONS					
	Eastern	Western	Bundelkhand	Central	Hills	Total
5 Availability of relevant books	3 (11.11)	6 (19.35)	-	4 (33.33)	-	13 (15.66)
6 Regular trained teachers	9 (33.33)	7 (22.58)	3 (50.0)	2 (16.67)	-	21 (25.30)
7 Visit to other concerning institutions	-	1 (3.23)	-	2 (16.67)	1 (14.29)	4 (4.82)
8 Paid apprenticeship in Mills/ Factories	-	3 (9.68)	-	-	1 (14.29)	4 (4.82)
9 Incentive to school teachers	-	-	-	1 (8.33)	-	1 (1.20)
10 Proper change in syllabus	10 (37.04)	1 (3.23)	-	2 (16.67)	1 (14.29)	14 (16.87)
11 Motivation and guidance to students	-	-	-	-	1 (14.29)	1 (1.2)
12 Coordination in different vocational colleges	-	-	-	-	1 (14.29)	1 (1.2)
13 Financial assistance to students for self employment	10 (37.04)	3 (9.68)	-	-	-	13 (15.66)
14 Practicals should be more	2 (7.41)	5 (16.13)	1 (16.67)	1 (8.33)	-	9 (10.84)
15 Availability of raw material	3 (11.11)	2 (6.45)	1 (16.67)	1 (8.33)	-	7 (8.43)
16 No suggestions	1 (3.7)	2 (6.45)	-	-	2 (28.57)	5 (6.02)
TOTAL	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers)

05. Principal: Problems and Perception

The critical task of implementing the programme ultimately hinges on the head of the institution, the principal. He or she is the nodal officer entrusted with the supervision of the programme at the college , from admission of the students to submitting compliance to the higher official. In the present study , they constituted the third tier of the enquiry within the college premise. In all 27 Principals of different colleges were contacted with the objectives of ascertaining their views on the programme as a whole package, problems faced by them in implementation of vocational education programme,and to collect their suggestions. These are recapitulated and abridged below:

5.01 Problem Statement:

As mentioned earlier, the Principal is the incharge of the vocational education course. He or she does the work related with the course in addition to his/her normal duties concerning general education which is also imparted in the colleges. It is his or her responsibility to do justice to the students who have opted vocational trades; to arrange guest teachers and other teachers for teaching theory and practicals of the trades available in the college.

Most of the principals were of the view that absence of regular trained teachers is a major constraint in smooth functioning of this programme. This view was subscribed by as many as 66.67 per cent of the principals. The survey identified 21 problems as listed in the table given below. It is evident that in addition to the single most important problem related to lack of regular trained teachers, other of importance were: ambiguous syllabi (37.04 per cent), lack

of relevant books (33.33 per cent), absence of laboratory attendant/ chowkidar (33.33 per cent), lack of publicity of the programme (22.22 per cent) and non-availability of subject experts (22.22 per cent). The details have been presented in the following table:-

Table-5.1: Problem Statement of the Principals

Problem	Eastern	Western	Bundelkhand	Central	Hills	Total
1 Syllabus not clear	5	4	-	-	1	10 (37.04)
2 Sheds not proper (not according to trades)	2	1	-	-	-	3 (11.11)
3 Lack of books	5	4	-	-	1	10 (37.04)
4 Future prospects not bright	1	-	-	-	-	1 (3.70)
5 Lack of publicity of vocational edu.	3	2	-	-	1	6 (22.22)
6 Subject experts not available	4	1	-	1	-	6 (22.22)
7 Lack of regular trained teachers	3	10	2	2	1	18 (66.67)
8 Lack of lab. attendant/ chowkidar	2	5	1	1	-	9 (33.33)
9 No powers to principals about use of finances	1	-	-	-	-	1 (3.70)
10 No provision for raw material	1	1	-	1	-	3 (11.11)
11 Lack of equipments	1	-	-	3	-	4 (14.81)

Problem	Eastern	Western	Bundelkhand	Central	Hills	Total
12 Syllabus yet not received	1	1	-	-	-	2 (7.41)
13 No proper training arrangements for teachers	2	-	-	-	-	2 (7.41)
14 Lack of interest in students	2	-	-	-	-	2 (7.41)
15 No scope for higher training	1	-	-	-	-	1 (3.70)
16 Trained teachers transferred	1	-	-	-	-	1 (3.70)
17 Lack of funds (recurring)	1	1	1	-	1	4 (14.81)
18 Lack of practical training	-	1	-	-	-	1 (3.70)
19 No admission in degree courses	-	1	-	-	-	1 (3.70)
20 No incentive for trained teachers	-	-	-	-	1	1 (3.70)
21 No provision for furniture	-	-	-	-	1	1 (3.70)

(Figures in bracket show percentage to total number of Principals)

5.02 Funds: Timely availability

Out of 27 principals interviewed, 19 (70.37 per cent) were of the view that the funds are being received timely, but 8 (29.63 per cent) were dissatisfied and indicated the contrary as shown in the table below:

Table-5.2: Availability of fund

Timely availability of subsidy	Eastern (No)	Western (No)	Bundelkhand (No)	Central (No)	Hills (No)	Total (No)
1	2	3	4	5	6	7
1 Yes	8 (80)	7 (70)	1 (50)	3 (75)	-	19 (70.37)
2 No	2 20)	3 (30)	1 (50)	1 (25)	1 (100)	8 (29.63)
TOTAL	10	10	2	4	1	27

(Figures in bracket show percentage to total number of Principals)

5.03 Suggestions : Finances

More than half of the principals did not suggest anything about the finances for vocational education programme. The availability of funds for recurring expenditure was suggested by five principals and the suggestion about the amount of subsidy to be granted in the beginning of the session was also made by five principals. Some of the problems identified by them and others as well, did not find adequate mention in their suggestions. For example, the difficulty in finding the guest teachers at the present rate of honorium cropped up several times yet only one principal made suggestions under this head. These suggestions of principals are given in following table:

Table-5.3: Suggestions of principals for finances (No)

	Suggestions	East-ern	West-ern	Bundel-khand	Central	Hills	Total
1	Funds for recurring expenditure should be available	1 (10)	2 (20)	1 (50)	1 (25)	-	5 (18.52)
2	Subsidy should be received in the beginning of the session	1 (10)	2 (20)	-	1 (25)	1 (100)	5 (18.52)
3	Honorarium for guest teachers should be raised	-	-	-	1 (25)	-	1 (3.70)
4	Provision of honorarium for school teachers	-	-	-	-	1 (100)	1 (3.70)
5	Other suggestions	-	2 (20)	-	1 (25)	1 (100)	4 (14.81)
6	No suggestions	8 (80)	4 (40)	1 (50)	1 (25)	-	14 (51.85)
	TOTAL PRINCIPALS	10	10	2	4	1	27

(Figures in bracket show percentage to total number of Principals)

5.04 On Student's Enthusiasm :

Most of the principals (85.18 per cent) were of the view students had not shown adequate interest in vocational education programme. On enquiring the reasons of this apathy, 15 principals (65.22 per cent) did not make any response, but the remaining principals cited various reasons such as, no scope for admission in degree course (17.39 per cent), lack of publicity (8.70 per cent), relatively new nature of the programme, lack of necessary momentum (8.70 per cent), course not recognised by the Government (4.35 per

cent) and lack of regular teachers, equipments etc (4.35 per cent). Regionwise description is being given as followed:

Table-5.4: Views of principals about inadequate enthusiasm

(No)

Views	Eastern	Western	Bundelkhand	Central	Hills	Total
a. Yes	8 (80)	10 (100)	1 (50)	3 (75)	1 (100)	23 (85.18)
b. No	-	-	1 (50)	1 (25)	-	2 (7.41)
c. No response	2 (20)	-	-	-	-	2 (7.41)
Total	10	10	2	4	1	27
Reasons of being students not much enthusiastic in VE						
a. First batch	2 (25)	-	-	-	-	2 (8.70)
b. Course is not recognised by the Government	1 (12.5)	-	-	-	-	1 (4.35)
c. No scope for admission in degree course	1 (12.5)	2 (20)	-	1 (33.33)	-	4 (17.39)
d. Lack of publicity	-	1 (10)	-	-	1 (100)	2 (8.70)
e. Lack of regular teachers, equipments, no proper syllabus	-	-	-	1 (33.33)	-	1 (4.35)
f. No response	5 (62.5)	7 (70)	1 (100)	2 (66.67)	-	15 (65.22)
BASE	8	10	1	3	1	23

(Figures in bracket show percentage to base)

5.05 Future requirements of students

The suggestions of the principals about the requirements of students after completion of the course were of varied nature. Out of 27 principals, 21 (77.78 per cent)

suggested that there should be priority for students in getting employment, 19 (70.37 per cent) suggested the provision of special degree course be made for vocational education programme. The details of the suggestions made have been shown in the following table:

Table-5.5: Suggestions about future requirements

(No)

Suggestions	Eastern	Western	Bundelkhand	Central	Hills	Total
a. Special diploma course	5 (50)	3 (30)	1 (50)	1 (25)	1 (100)	11 (40.74)
b. Special degree course	6 (60)	8 (80)	1 (50)	3 (75)	1 (100)	19 (70.37)
c. Special vocational course	4 (40)	4 (40)	2 (100)	2 (50)	1 (100)	13 (48.15)
d. Priority in getting employment	8 (80)	7 (70)	2 (100)	3 (75)	1 (100)	21 (77.78)
e. Paid apprenticeship	4 (40)	4 (40)	1 (50)	3 (75)	1 (100)	13 (48.15)
BASE	10	10	2	4	1	27

(Figures in bracket show percentage to total number of principals)

5.06 Administrative/Academic Provisions in Eighth Plan

In the present system, most principals were of the view that there should be administrative/academic provisions in the Eighth Plan for vocational education programme. The percentage of these principals was 85.19. The suggested various administrative/academic provisions for the Eight Plan were as tabulated below:

Table-5.6: Suggeted Administrative/Academic Provisions for Eighth Plan

(No)

Details	Eastern	Western	Bundelkhand	Central	Hills	Total
Views of Principals						
a. Yes	8 (80)	8 (80)	2 (100)	4 (100)	1 (100)	23 (85.19)
b. No	2 (20)	2 (20)	-	-	-	4 (14.81)
BASE	10	10	2	4	1	27
Views of Principals						
a. VE in higher classes	3 (37.5)	-	-	-	-	3 (13.04)
b. Involvement of Principals/ Teachers in taking decision in the Plan	1 (12.5)	-	-	-	-	1 (4.35)
c. Monitoring and evaluation of the programme	1 (12.5)	1 (12.5)	-	-	-	2 (8.70)
d. Separate faculty and staff for teaching trades	2 (25)	5 (62.5)	2 (100)	1 (25)	1 (100)	11 (47.83)
e. Trained school teachers should not be transferred for atleast 5 yrs. (Govt. colleges)	1 (12.5)	-	-	-	-	1 (4.35)
f. Incentive to principals/ teachers	1 (12.5)	-	-	-	-	1 (4.35)

Details	Eastern	Western	Bundelkhand	Central	Hills	Total
g. Regular seminars and discussions for making VE more effective	-	1 (12.5)	-	-	-	1 (4.35)
h. Separate authority at district level	-	1 (12.5)	-	-	-	1 (4.35)
i. Separate cell in deptt. to remove problems	-	-	-	2 (50)	-	2 (8.70)
j. No Specific Suggestion	-	-	-	1 (25)	-	1 (4.35)
BASE	8	8	2	4	1	23

(Figures in bracket show percentage to the base)

As is clear from the above table, out of the 23 principals who desired for some administrative/academic provisions in Eighth Plan, about half (47.83 per cent) were of the view that in Eighth Plan, the provision should be made for separate faculty and staff for teaching the trade of vocational education programme. The other suggestions for inclusion in Eighth Plan were: Vocational Education should also be imparted in higher classes, separate authority at district level to look after this programme, systematic monitoring and evaluation cell for this programme etc.

5.07 Effect on General Education

A question was raised whether the running of vocational and general courses within the same college would have adverse consequences. More than 75 per cent of the principals were of the view that the colleges having general

education courses did not have any adverse effect because of the vocational courses in the same college. Only 18.52 per cent of the principals feel that both type of courses in the same college would effect adversely the course of general education as generally the same teachers were teaching this trade after getting a short term training in that particular trade. Evidently, there would be no disagreement on running of both the courses on pedagogical reasons, would both compete for resources with each other.

The principals therefore, primarily suggested that either there should be a provision for separate, trained and regular teachers. Other suggestions were too given to avoid unnecessary dilution of the programme as indicated below:

Table-5.7: Effect on General Education (No.)

Details	Eastern	Western	Bundelkhand	Central	Hills	Total
Adverse effect on G.E.						
a. Yes	-	4 (40)	-	1 (25)	-	5 (18.52)
b. No	10 (100)	6 (60)	2 (100)	3 (75)	1 (100)	22 (81.48)
BASE	10	10	2	4	1	27
Solutions for eliminating effect on G.E.						
a. Separate institution for vocational education	-	1 (25)	-	-	-	1 (20.00)
b. Separate regular teachers for VE	-	3 (75)	-	-	-	3 (60.00)
c. No response	-	-	-	1 (100)	-	1 (20.00)
BASE	-	4	-	1	-	5

(Figures in bracket show percentage to base)

5.08 Employment for Students

As stated in the limitaions of the study, in most of the colleges, this course had started approximately two years back and thus either the first batch was appearing in the final examination, or the result were just declared at the time of the survey. Consequently, the principals had no positive feedback on absorption of the students. However, approximately, twenty per cent of them had made a contact with the employment exchange, though nothing concrete had happened till then.

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06. Opinions and Views: District Inspector of Schools (DIOS)

Ascending higher within the educational hierarchy, the District Inspector of the Schools ,DIOS, of the sample districts were contacted to obtain their views on the programme of Vocational Education.

6.01 Need based survey

The need based survey is the primary step towards the planning for vocationalization of the secondary education. All the concerning district level officers maintained that need based survey for identifying the trades had been conducted though there was no set method for conducting the same. Thus, the methods to identify the demand for different skills in the district varied. While in certain places a feed back is taken from Employment Exchange, others contacted District Industries Center.

But it can be inferred that no proper manpower demand assessment technique was adopted in finding out the actual demand and the type of trades to be taken up in the district. The observations are abbreviated below:

Table-6.1: Methods of Identifying Demand for Skills

Method	REGIONS					
	Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
1. Through employment Exchange	1 (20)	-	-	-	-	1 (7.14)
2. Through DIC and Employment Exchange	1 (20)	1 (20)	-	-	-	2 (14.29)

Method	REGIONS East-ern (No.)	West-ern (No.)	Bundel-khand (No.)	Cent-ral (No.)	Hills (No.)	Total (No.)
3. Through mutual discussion/feed back	1 (20)	-	-	-	-	1 (7.14)
4. No scientific method	-	-	-	2 (100)	-	2 (14.29)
Survey	-	4 (80)	1 (100)	-	-	5 (35.71)
6. No proper answer	2 (40)	-	-	-	1 (100)	3 21.43)
TOTAL	5	5	1	2	1	14

(Figures in bracket show percentage to total number of DIOS)

6.02 Suggestions :Improving The Programme

A wide range of suggestions emerged from discussions with the DIOSs. These suggestions given for the improvement of vocational education programme are as shown in the table given below:

Table-6.2: Suggestions for the improvement of Vocational Education Programme

Suggestions	REGIONS East-ern (No.)	West-ern (No.)	Bundel-khand (No.)	Cent-ral (No.)	Hills (No.)	Total (No.)
1 Course at higher level	1 (20)	-	-	-	-	1 (7.14)
2 Job guarantee	1 (20)	-	-	-	-	1 (7.14)
3 Regular trained teachers	1 (20)	3 (60)	1 (100)	2 (100)	1 (100)	8 (57.14)
4 Provision of raw material	1 (20)	-	-	-	1 (100)	2 (14.29)

Suggestions	REGIONS					
	Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
5 More power to principals for purchasing	1 (20)	-	-	-	-	1 (7.14)
6 Change in syllabus (only trades should be taught)	1 (20)	1 (20)	-	-	-	2 (14.29)
7 Increase in remuneration of guest teachers	1 (20)	-	-	-	-	1 (7.14)
8 Linkage with supporting agencies e.g. KVIC	1 (20)	-	-	-	-	1 (7.14)
9 Adequate training for school teachers	1 (20)	-	-	-	-	1 (7.14)
10 Selection of trades according to need	1 (20)	1 (20)	-	-	-	2 (14.29)
11 Availability of books according to syllabus	-	2 (40)	-	-	1 (100)	3 (21.43)
12 Recognition of the course	-	1 (20)	-	-	-	1 (7.14)
13 Lab. attendant should be available	-	1 (20)	-	-	-	1 (7.14)
14 Funds for maintenance	-	1 (20)	-	-	-	1 (7.14)
15 Separate officers at district level for V.E. Programme	-	1 (20)	-	-	-	1 (7.14)
16 Sheds according to necessity	-	1 (20)	-	-	-	1 (7.14)
Base (No. of DIOS)	5	5	1	2	1	14

(Figures in bracket show percentage to total number of DIOS)

It is clear from the above table that most of the DIOS (57.14 per cent) pointed out the need of regular trained teachers as an essential condition to improve this programme. Some DIOS (21.43 per cent) were of the view that presently the available books were not according to the requirements of the prescribed syllabus . Availability of books for theory as well as for practicals is also an essential item which will definitely reflect in the improvement of this programme. Provision of raw material should also be provided for conducting practicals. Presently the students are supposed to bring the raw material from their own for practicals which did not prove and effective method. Also it entailed hardship on the parents, particularly to those belonging to the weaker section of the society.

6.03 Modification/Reorientation of Present Syllabus

Some of the concerning district level officers were of the view that the present syllabus should be modified. However 35.72 per cent officers could not suggest anything as they maintained that the scheme had just started and it would be too early to give any suggestion. About 21.43 per cent officers pointed out the need to modify the course in such a way that the intermediate students of vocational courses could get admission in polytechnics. This anxiety stems from the fact that there is no system of absorbing a student of vocational courses after intermediate level either in formal education or further vocational courses. Regionwise suggestions have been given in the following table:

Table-6.3: Suggestions: Modification/ Reorientation of Syllabus

Suggestions	REGIONS					
	Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
1. Course of VE at higher level	1 (20)	-	-	1 (50)	-	2 (14.29)
2. Modified in a way to give job guarantee	1 (20)	-	-	-	-	1 (7.14)
3. Only trade is taught and no other subject	1 (20)	-	-	-	-	1 (7.14)
4. Recognition of vocational course	1 (20)	-	-	-	-	1 (7.14)
5. No suggestions/its too early to give suggestions	1 (20)	4 (80)	-	-	-	5 (35.72)
6. Modified in a way that passed outs may get admission in polytechnics	-	1 (20)	1 (100)	-	1 (100)	3 (21.43)
7. Syllabus not received hence no comments	-	-	-	1 (50)	-	2 (14.29)

(Figures in bracket show percentage to total number of DIOS)

6.04 Organisations at District Level

Since there is always a possibility that voluntary organizations and others too could be functioning at the district level with an objective of imparting need oriented vocational courses. But on enquiring from DIOS about such organizations, a negative reply emerged at all the places.

Table-6.4: Knowledge : Other Organisations at the District Level

Details	REGIONS					
	East-ern (No.)	West-ern (No.)	Bundel-khand (No.)	Cent-ral (No.)	Hills (No.)	Total (No.)
1. None	2 (40)	5 (100)	-	2 (100)	1 (100)	10 (71.43)
2. No knowledge	3 (60)	-	1 (100)	-	-	4 (28.57)

(Figures in bracket show percentage to total number of DIOS)

6. 05 Functional Relation: IIT and Others:

Out of the 14 DIOS, 13 were of the view that there should be coordination with local Industrial Training Institutes (ITIs) which would help significantly the students studying in various trades in Vocational Education Colleges. Regionwise details have been indicated below :

Table-6.5: Coordination with ITIs

Coordination with local ITIs helpful	REGIONS					
	East-ern (No.)	West-ern (No.)	Bundel-khand (No.)	Cent-ral (No.)	Hills (No.)	Total (No.)
Yes	5 (100)	5 (100)	1 (100)	2 (100)	-	13 (92.86)
No	-	-	-	-	1 (100)	1 (7.14)

(Figures in bracket show percentage to total number of DIOS)

A large number of DIOS was of the view that the working of vocational education courses would improve vastly, if the services of teachers from ITIs and polytechnics were taken for running vocational classes. Only 21.43 per cent did not agree with it. The following table gives regionwise views:

Table-6.6: View: Availing the services of Teachers from ITIs and Polytechnics.

Details	REGIONS Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
Yes	3 (60)	4 (80)	1 (100)	2 (100)	-	10 (71.43)
No	1 (20)	1 (20)	-	-	1 (100)	3 (21.43)
No response	1 (20)	-	-	-	-	1 (7.14)
Total	5	5	1	2	1	14

(Figures in bracket show percentage to total number of DIOS)

6.06 Inspections

About three fourth DIOSs did not inspect the colleges for appraising implementation of vocational courses for more than five days in last six months. It seems that there is no uniform pattern in inspecting these courses. The table indicates regionwise details of inspections made by DIOS during the period of six months:

Table-6.7: Number of inspections during last six months

Number of inspections during last six months	REGIONS Eastern (No.)	Western (No.)	Bundelkhand (No.)	Central (No.)	Hills (No.)	Total (No.)
1. Nil	-	-	-	1 (50)	-	1 (7.14)
2. Less than 5	4 (80)	3 (60)	-	1 (50)	1 (100)	9 (64.29)
3. 5 < 15	-	-	1 (100)	-	-	1 (7.14)
4. 15 < 30	1 (20)	-	-	-	-	1 (7.14)
5. Not visited specifically for vocational education as visits are not fixed	-	2 (40)	-	-	-	2 (14.29)
TOTAL	5	5	1	2	1	14

(Figures in bracket show percentage to total number of DIOS)

Section III
SUMMARY

The Summary

The present study was undertaken with the objectives of:

(a) Examining the status of implementation of vocational education at the secondary level in terms of availability of funds, trained teachers, instructional aids and other physical inputs;

(b) Understanding the difficulties in its implementation as perceived at various levels, viz, District level officers, principals of the institutions, and teachers;

(c) Assessing the awareness and acceptance of the programme among the students and the difficulties encountered by them;

(d) Examining the role of various educational agencies in supporting the programme; and

(e) Assessing the placement problems of the trained students.

The Sample:

In the study, fourteen districts from five economic regions of UP were selected. Further, from each selected district, two intermediate colleges having vocational education courses were identified.In this two tiered selection, due representation was given to the management of the college (viz. Government, Non-Government), trades in which vocational courses were being offered, and sex (boys and girls). Thus the sample colleges included:Government Colleges, Non-Government (Private) Colleges, Girls Colleges and covered twenty two courses or trades offered in these colleges. Out of the 28 selected intermediate colleges, 12 were Government colleges and the remaining 16 were private colleges. Three of the Government colleges were exclusively Girls colleges and three of the Private colleges were exclusively for girls.

The list of the colleges surveyed is given below:

Colleges Surveyed:

Eastern Region:

1. Government intermediate College, Faizabad.
2. H.T. Inter College, Tanda, Faizabad.
3. Sri Hanumant Inter College, Sultanpur.
4. C.L. Inter College, Chittepatti, Sultanpur.
5. Govt. Inter College, Basti.
6. National inter College, Haraiya, Basti.
7. Govt. Inter College, Chakia, Varanasi.
8. Vasant Kanya Inter College, Varanasi.
9. Dwarika Prasad Girls Inter College, Allahabad.
10. Jagat Taran Girls Inter College, Allahabad.

Western Region:

11. Govt Inter College, Agra.
12. S.R. Inter College, Firozabad.
13. Govt Inter College, Aligarh.
14. Babulal Jain Inter College, Aligarh.
15. Raghunath Girls College, Meerut.
16. Jain Sthanakvasi Girls Inter College, Baraut, Meerut.
17. Modi Science & Commerce Inter College, Modinagar, Ghaziabad.
18. Seth Mukundlal Inter COllege, Ghaziabad.
19. Govt. Inter College, Etawah.
20. Janata Inter College, Ajitmal.

Bundelkhand Region:

21. Govt. Inter College, Jhansi.
22. Govt. Inter College Samthar,Jhansi.

Central Region :

23. Govt. Inter College, Fatehpur.
24. Ramdin Singh Inter College, Ghazikhera, Fatehpur.
25. Govt. Inter College, Kanpur.
26. Vidyamandir Girls Inter College, Kanpur.

Hill Region:

27. Govt. Inter College, Dehradun.
28. Sri Bharat Mandir Inter College, Rishikesh, Dehradun.

The Method: Separate questionnaires were prepared for district level officers, principals, teachers and students.

Besides District Inspector of School (DIOS) of the each sample district and Principals of the selected colleges of the each districts , teachers of all the selected trades were also interviewed and about five students from each selected trade in each college were canvassed questionnaires.

Limitations:

(a) The study was initiated in the beginning of 1990, and shelved after six months during which about sixty per cent of field work almost completed. Once again it was started after a gap of ten months approximately. The examination periods followed by summer vacations for two intervening years also led to time lag in completion of the study.

(b) The programme was expected to take off in 1986-87 in a phased manner. Its first batch , however, did not came of the colleges in 1990, the year the study was initiated. Even when the study was resumed, the first batch was barely trickling out. It was therefore, difficult to follow the student to their self employment stage.

(c) Similarly, various changes and modifications were made after 1990 survey had been completed. These however, were recapitulated in the second round.

Main Survey Findings:

01. Enrolment Pattern:

An attempt was made to assess the course orientation of the students and the utilization status of intake capacity. It was found that the utilization was above sixty per cent in Cookery, Stenography, and Crop Protection Technology. On the other hand, it is below twenty per cent in Fruit Preservation Technology. On average, in the sample

colleges only 46 per cent utilization of seats was reported. The per cent utilization is one of the indicators of limited interest of students in getting admission in vocational courses. There are but notable exceptions. In two college of western and eastern region i.e., Modi Science and Commerce College, Modinagar, and Tanda ,Faizabad the students were more than or equal to the capacity in Banking and Seed Multiplication trades respectively. The reason reported was the possibility to get admission in B.Com. and B. Sc. (Ag.). for the students of these trades.

If absolute number or total enrolment is considered, it would appear that amongst the trades, photography is a commonly opted subject in the colleges followed by library science. Bee-keeping, washing and dyeing, and fruit preservation technology are the trades having lowest number (below ten) of students.

02. Students responses:

The students were selected on random basis from each trade being offered in the selected colleges. The following is their regional distribution:

	Eastern	Western	Bundelkhand	Central	Hills	Total
Total Students	105	130	30	54	22	341

(02.A) Students' interest : Opting a particular trade

It was found that 94.43 per cent students had opted the trade willingly. Most of the students (73.91 per cent) had selected the trade to get employment in future. Out of

341 students, only 19 (5.57 per cent) did not opt the trade willingly. They opted for the trade :

(i) on the advise of principal/teachers/parents (63.16 per cent of this segment) ;

(ii) because no other suitable choice was available (26.31 per cent) and;

(iii) because of poor marks in high school examinations they could not get admission in general education stream (10.53 per cent).

(02.B) Participation in practicals

Instead multiple factors or inputs such as instructional materials, space, availability of trained teachers etc., a summary indicator i.e. time for participating in practicals, was taken. The reason is obvious: the practicals play a crucial role in vocational education, for education in vocational trade has no meaning if only theory is taught. As is evident from the table below, about 42 per cent of the students did not get adequate opportunity of participating in practicals or "hands-on", because of one or the other reason. The important reasons stated by the students were lack of equipments (53.15 per cent), lack of teachers (39.86 per cent) and lack of proper laboratory (29.37 per cent).

(02.C) Suggestions from Students: making the course self-employent oriented

One of the aims of vocational education at the plus two stage is to prepare students for self reliance and employment. Students too have their own perception as how the course can be made effective. True, it is based on their limited understanding of the complexities of educational system as well as the labour market. Yet, it throws some

light on the areas for improvement. It is inferred from the table below that about one third of them, i.e., 120 students have some suggestions. Out of these, 42.50 per cent suggested that better facilities (proper laboratories, sufficient equipments and more practical classes) should be provided for conducting practicals. They argued that these would enhance their practical skill and confidence, both, required for self employment. About 20 per cent students desired addition of 'latest technology in the existing syllabus for example, repairs of coloured television, video cassette recorders etc.

(02.D) Comparative status of the ITI students

As the vocationalization of education is broader field, a comparison with ITI is inescapable. More than half of the students (55.72 per cent) were of the view that ITI students have better prospects of getting employment, while about 43 per cent of the students had no comment.

The reasons given for the better prospects of ITI students were:

(i) more practical classes and better equipments (stated by 20 per cent);

(ii) comprehensive syllabus and more concentration on vocational trade (stated by 14.73 per cent);

(iii) regular classes/regular qualified teachers (stated by 14.21 per cent) and;

(iv) ITI being recognised (stated by 7.90 per cent).

(02.E) Supportive Provisions for students at completion of courses

Although it has been mentioned in the special features of vocational education at the +2 stage that provisions of inplant/on-the job training facilities and

apprenticeship facility will be given to the students. However, such inputs are not available at the completion of the +2 level examinations. Besides, they also felt that the studies at intermediate level of the vocational trade would not be sufficient to start an independent occupation. They therefore, desired that provisions should also be made to study the trades at higher/degree/diploma level. It is significant that the suggestions of the students are not unambiguous, and therefore, they have given multiple answers. the reason is obvious: lack of definite choice after completion of the course at + 2 level.

03. Teachers: Perception, Opinion and suggestions.

03.A Completion of courses

About two third teachers informed that they could complete the course in the prescribed time .About 25 per cent of them pointed out that they had to face difficulties as they were teaching the subjects of general education as well. These teachers had to take additional classes after college hours to complete the course of vocational trade.

03.B Trades selection: According to Need

Most of the teachers (89.16 per cent) were of the view that the various trades in the colleges had been selected according to the need of the area.

03.C Basis of trade selection

An assessment was made to know whether the teachers were aware of the planning method adopted. they were therefore, enquired whether they were aware of the mode of selection of the trades being taught in their colleges. Out of the 83 teachers interviewed, 37 (44.58 per cent) informed

that the trades were selected by the U.P. Board or Departmental Authorities. Of them 18 (21.69 per cent) informed that the selection of trades was made by DIOS/Principals/teachers. About one fifth of the teachers either did not report or had no knowledge about the selection procedure.

03. D Selection of students

Teachers were asked to record their assessment of the students selected, whether the students were really keen on getting trained in the trades they opted for etc. According to the teachers , the interest of students was the main cause (forty per cent) for opting a particular trade. It was also informed by about eighteen per cent of the teachers that an assessment of individual's ability also acted as a basis consideration in selection the students for trade. On the contrary, a very small segment, approximately five per cent, of the teachers revealed, that students unable to get admission in general education category generally came for the vocational trade. About fifty twenty five per cent of them indicated absence of any proper system for selecting students in a trade.

03.E Suggestion: Selection of students

Most of the teachers (60.24 per cent) either expressed their inability to suggest an adequate method to be adopted for selecting students for vocational trade, or they made no comment. However, 19.28 per cent of them suggested that the selection of students should be done on the basis of merit/ability of the students. Other suggestions were also made, but ultimately, they all point towards formal or informal aptitudinal test of the intended

students. These suggestions , staggered on the basis of regions of the state, are shown in the table given below:

Table Suggestions about method of selection of students

(No.)

Details	R E G I O N S Eastern	Western	Bundelkhand	Central	Hills	Total
1. On the basis of family condition	-	1 (3.23)	-	-	-	1 (1.20)
2. Interest of students	-	3 (9.68)	-	-	2 (28.57)	5 (6.02)
3 Those students who are willing to opt self employment	-	-	-	1 (8.33)	-	1 (1.20)
4 Mental ability of students	6 (22.22)	5 (16.13)	1 (16.67)	2 (16.67)	2 (28.57)	16 (19.28)
5 Those who have family trade (Traditional)	-	1 (3.23)	-	-	-	1 (1.20)
6 Preference in trades related to subjects taken in high school	5 (18.52)	-	-	2 (16.67)	1 (14.29)	8 (9.64)
7 There should be some fixed criterion	5 (18.52)	-	-	-	-	5 (6.02)
8 No response	11 (40.74)	25 (80.65)	5 (83.33)	7 (58.33)	2 (28.57)	50 (60.24)
Base	27	31	6	12	7	83

(Figures in bracket show percentage to total number of teachers

03.F Suggestions:
Creating Interest in Vocational Trade

Though the larger policy demand is to step up the vocational courses in terms of subject as well as student

coverage, it had earlier been observed that students were not taking keen interest in studying vocational trades. Its one of the telling indicator lies in the fact that the number of students enrolled in almost all trades was less than the actual capacity of seats. On analysing the suggestions of teachers, it appears that the lack of recognition of the course, lack of further training leading to a diploma or degree, absence of sufficient practical training/field visits, lack of opportunity for jobs and absence of regular trained teachers were the important deterrents.

Q3.G Adequacy of Courses

The litmus test of the success of the course is its judged or perceived adequacy. Of the sample teachers, 66.27 per cent were of the view that present training was sufficient for students to start independent occupation. The remaining teachers were not satisfied with the present training and they also cited reasons as itemized in the table below:

Table: Adequacy of Training

Details	Eastern	Western	Bundel-khand	Central	Hills	Total
(A) Sufficient Training						
1 Yes	21 (77.78)	19 (61.29)	5 (83.33)	6 (50)	4 (57.14)	55 (66.27)
2 No	6 (22.22)	12 (38.71)	1 (16.67)	6 (50)	3 (42.86)	28 (33.73)
BASE	27	31	6	12	7	83

Details	Eastern	Western	Bundel-khand	Central	Hills	Total
(B) If no then why (Reason)						
1 No job guarantee	-	4 (33.34)	1 (100)	-	-	5 (17.86)
2 No proper arrangement for teaching the trade	-	1 (8.33)	-	-	-	1 (3.57)
3 Insufficient training	4 (66.67)	6 (50)	-	2 (33.33)	2 (66.67)	14 (50.00)
4 Premature age of students	2 (33.33)	-	-	-	-	2 (7.14)
5 Trade not suited for independent occupation (eg. library science)	-	-	-	1 (16.67)	-	1 (3.57)
6 Lack of financial assistance	-	1 (8.33)	-	3 (50)	-	4 (14.29)
7 No response	-	-	-	-	1 (33.33)	1 (3.57)
BASE	6	12	1	6	3	28

(Figures in bracket show percentage to base)

Q3.H Availability of Teachers

During survey, it was found that there was no problem in finding guest teachers locally in the urban areas. But an important constraint springs up from low level of honorarium. In fact, the skill workers tend to get more wages and salaries in comparison of the honorarium offered to them for teaching in the colleges. The problem further multiplied in remote areas, where there availability of skilled persons who could act as guest teachers for

concerning trade were reported . Since there is no provision for travelling allowances, boarding and lodging, it would not be possible to arrange guest teachers from neighbouring urban areas. About 45 per cent teachers emphasised the need of regular and trained teachers .In the present system, most of the trades had been taught by the teachers after undergoing a very short term training for the trade, which does not equip them with reasonable expertise.

An additional question was asked about the teacher's own view about the type of teachers that should be involved in the course. Most of the teachers (66.27 per cent) suggested that for teaching a trade both regular teachers and guest teachers should be involved. In their opinion, in the present system, it is very difficult to teach theory as well as practicals by regular teachers alone. The guest teachers are supposed to be expert of that trade and can be invited in the colleges by giving suitable amount of honorarium for teaching either theory or practical or both. Presently regular teachers are not competent in handling theory and practicals both. However 32.53 per cent of teachers were of the opinion that the trades should be taught exclusively by regular teachers by giving their sufficient training in the concerned trade.

03.I Teachers' Training :

All the interviewed teachers suggested the need to establish a teachers' training center at district level for giving knowledge about the various trades from time to time.

Out of 83 teachers 50 suggested the need of special training for teaching trade. There were three main reasons for the demand of special training. One, the teachers felt

that their training level so far had been inadequate; two, they did not feel confident to handle practical classes; and three, they felt the need of refresher courses.

03.J Suggestions :Practical Training in ITIs

Out of 83 teachers, 38 (45.78 per cent) were of the view that practical training from ITI would not yield significant benefits to the students. Infact, ITIs offer, except certain trades, trades of entirely different nature in comparison of the vocational trades. Hence there is no use of giving practical training from ITI in all the trades.

03.K Difficulties faced by the teachers

About 82 per cent teacher stated that they were facing difficulties in either teaching theory or conducting practicals , or both. In theory non-availability of proper books and syllabus not known/not clear are the main difficulties. In practicals main difficulties were lack of equipments and raw-material.

03.L Suggestions: making the subject more useful and employment oriented

Varied suggestions were given by the teachers to make the subject/trade more useful. According to them the students in the present circumstances would not be capable enough to start their own work independently. An intensive and comprehensive training was required to prepare the students for self employment, which is not being imparted in present system of training. Out of the 83 teachers 25.30 per cent suggested the appointment of regular trained teachers in the colleges, 20.48 per cent suggested degree/higher level course of the concerned trade, 16.87 per cent suggested proper change in syllabus, 15.66 per cent stressed

the need of relevant text books and the same number of teachers demanded better co-ordination between different vocational colleges.

04. Principal: Problems and Perception

The critical task of implementing the programme ultimately hinges on the head of the institution, the principal. He or she is the nodal officer entrusted with the supervision of the programme at the college , from admission of the students to submitting compliance to the higher official. In all 27 Principals of different colleges were contacted.

Most of the principals were of the view that absence of regular trained teachers is a major constraint in smooth functioning of this programme. This view was subscribed by as many as 66.67 per cent of the principals. The survey identified 21 problems as listed in the table given below. It is evident that in addition to the single most important problem related to lack of regular trained teachers, other of importance were: ambiguous syllabi (37.04 per cent), lack of relevant books (33.33 per cent), absence of laboratory attendant/ chowkidar (33.33 per cent), lack of publicity of the programme (22.22 per cent) and non-availability of subject experts (22.22 per cent).

Table: Problem Statement of the Principals

Problem	Eastern	Western	Bundelkhand	Central	Hills	Total
1 Syllabus not clear	5	4	-	-	1	10 (37.04)
2 Sheds not proper (not according to trades)	2	1	-	-	-	3 (11.11)

Problem	Eastern	Western	Bundelkhand	Central	Hills	Total
3 Lack of books	5	4	-	-	1	10 (37.04)
4 Future prospects not bright	1	-	-	-	-	1 (3.70)
5 Lack of publicity of vocational edu.	3	2	-	-	1	6 (22.22)
6 Subject experts not available	4	1	-	1	-	6 (22.22)
7 Lack of regular trained teachers	3	10	2	2	1	18 (66.67)
8 Lack of lab. attendant/ chowkidar	2	5	1	1	-	9 (33.33)
9 No powers to principals about use of finances	1	-	-	-	-	1 (3.70)
10 No provision for raw material	1	1	-	1	-	3 (11.11)
11 Lack of equipments	1	-	-	3	-	4 (14.81)
12 Syllabus yet not received	1	1	-	-	-	2 (7.41)
13 No proper training arrangements for teachers	2	-	-	-	-	2 (7.41)
14 Lack of interest in students	2	-	-	-	-	2 (7.41)
15 No scope for higher training	1	-	-	-	-	1 (3.70)
16 Trained teachers transferred	1	-	-	-	-	1 (3.70)
17 Lack of funds (recurring)	1	1	1	-	1	4 (14.81)

Problem	East-ern	West-ern	Bundel-khand	Central	Hills	Total
18 Lack of practical training	-	1	-	-	-	1 (3.70)
19 No admission in degree courses	-	1	-	-	-	1 (3.70)
20 No incentive for trained teachers	-	-	-	-	1	1 (3.70)
21 No provision for furniture	-	-	-	-	1	1 (3.70)

(Figures in bracket show percentage to total number of Principals)

Out of 27 principals interviewed, 19 (70.37 per cent) were of the view that the funds are being received timely, but 8 (29.63 per cent) were dissatisfied.

More than half of the principals did not suggest anything about the finances for vocational education programme. The availability of funds for recurring expenditure was suggested by five principals and the suggestion about the amount of subsidy to be granted in the beginning of the session was also made by five principals. Some of the problems identified by them and others as well, did not find adequate mention in their suggestions. For example, the difficulty in finding the guest teachers at the present rate of honorarium cropped up several times yet only one principal made suggestions under this head.

Most of the principals (85.18 per cent) were of the view that students had not shown adequate interest in vocational education programme. On enquiring the reasons of this apathy, 15 principals (65.22 per cent) did not make any response, but the remaining principals cited various reasons such as, no scope for admission in degree course (17.39 per

cent), lack of publicity (8.70 per cent), relatively new nature of the programme, lack of necessary momentum (8.70 per cent), course not recognised by the Government (4.35 per cent) and lack of regular teachers, equipments etc (4.35 per cent).

The suggestions of the principals about the requirements of students after completion of the course were of varied nature. Out of 27 principals, 21 (77.78 per cent) suggested that there should be priority for students in getting employment, 19 (70.37 per cent) suggested the provision of special degree course be made for vocational education programme. The details of the suggestions made have been shown in the following table:

Table: Suggestions about future requirements

(No)

Suggestions	Eastern	Western	Bundelkhand	Central	Hills	Total
a. Special diploma course	5 (50)	3 (30)	1 (50)	1 (25)	1 (100)	11 (40.74)
b. Special degree course	8 (60)	8 (80)	1 (50)	3 (75)	1 (100)	19 (70.37)
c. Special vocational course	4 (40)	4 (40)	2 (100)	2 (50)	1 (100)	13 (48.15)
d. Priority in getting employment	8 (80)	7 (70)	2 (100)	3 (75)	1 (100)	21 (77.78)
e. Paid apprenticeship	4 (40)	4 (40)	1 (50)	3 (75)	1 (100)	13 (48.15)
BASE	10	10	2	4	1	27

(Figures in bracket show percentage to total number of principals)

In the present system, most principals were of the view that there should be administrative/academic provisions

in the Eighth Plan for vocational education programme. The percentage of these principals was 85.19. The suggested various administrative/academic provisions for the Eight Plan were as tabulated below:

Table : Suggeted Administrative/Academic Provisions for Eighth Plan (No)

Details	Eastern	Western	Bundelkhand	Central	Hills	Total
Views of Principals						
a. Yes	8 (80)	8 (80)	2 (100)	4 (100)	1 (100)	23 (85.19)
b. No	2 (20)	2 (20)	-	-	-	4 (14.81)
BASE	10	10	2	4	1	27
Views of Principals						
a. VE in higher classes	3 (37.5)	-	-	-	-	3 (13.04)
b. Involvement of Principals/ Teachers in taking decision in the Plan	1 (12.5)	-	-	-	-	1 (4.35)
c. Monitoring and evaluation of the programme	1 (12.5)	1 (12.5)	-	-	-	2 (8.70)
d. Separate faculty and staff for teaching trades	2 (25)	5 (62.5)	2 (100)	1 (25)	1 (100)	11 (47.83)
e. Trained school teachers should not be transferred for atleast 5 yrs. (Govt. colleges)	1 (12.5)	-	-	-	-	1 (4.35)
f. Incentive to principals/ teachers	1 (12.5)	-	-	-	-	1 (4.35)

Details	East-ern	West-ern	Bundel-khand	Central	Hills	Total
g. Regular seminars and discussions for making VE more effective	-	1 (12.5)	-	-	-	1 (4.35)
h. Separate authority at district level	-	1 (12.5)	-	-	-	1 (4.35)
i. Separate cell in deptt. to remove problems	-	-	-	2 (50)	-	2 (8.70)
j. No Specific Suggestion	-	-	-	1 (25)	-	1 (4.35)
BASE	8	8	2	4	1	23

(Figures in bracket show percentage to the base)

A question was raised whether the running of vocational and general courses within the same college would have adverse consequences. More than 75 per cent of the principals were of the view that the colleges having general education courses did not have any adverse effect because of the vocational courses in the same college. Only 18.52 per cent of the principals feel that both type of courses in the same college would effect adversely the course of general education as generally the same teachers were teaching this trade after getting a short term training in that particular trade. Evidently, there would be no disagreement on running of both the courses on pedagogical reasons, would both compete for resources with each other.

As stated in the limitations of the study, in most of the colleges, this course had started approximately two years back and thus either the first batch was appearing in the final examination, or the result were just declared at the time of the survey. Consequently, the principals had no positive feedback on absorption of the students. However,

approximately, twenty per cent of them had made a contact with the employment exchange, though nothing concrete had happened till then.

05. Opinions and Views: District Inspector of Schools (DIOS)

Ascending higher within the educational hierarchy, the District Inspector of the Schools ,DIOS, of the sample districts were contacted to obtain their views on the programme of Vocational Education.

05.A

The need based survey is the primary step towards the planning for vocationalization of the secondary education. All the concerning district level officers maintained that need based survey for identifying the trades had been conducted though there was no set method for conducting the same. Thus, the methods to identify the demand for different skills in the district varied. While in certain places a feed back is taken from Employment Exchange, others contacted District Industries Center.

But it can be inferred that no proper manpower demand assessment technique was adopted in finding out the actual demand and the type of trades to be taken up in the district.

05.B Suggestions :Improving The Programme

A wide range of suggestions emerged from discussions with the DIOSs. The most of the DIOS (57.14 per cent) pointed out the need of regular trained teachers as an essential condition to improve this programme. Some DIOS (21.43 per cent) were of the view that presently the

available books were not according to the requirements of the prescribed syllabus . Availability of books for theory as well as for practicals is also an essential item which will definitely reflect in the improvement of this programme. Provision of raw material should also be provided for conducting practicals. Presently the students are supposed to bring the raw material from their own for practicals which did not prove and effective method. Also it entailed hardship on the parents, particularly to those belonging to the weaker section of the society.

05.C Modification/Reorientation of Present Syllabus

Some of the concerning district level officers were of the view that the present syllabus should be modified. However 35.72 per cent officers could not suggest anything as they maintained that the scheme had just started and it would be too early to give any suggestion. About 21.43 per cent officers pointed out the need to modify the course in such a way that the intermediate students of vocational courses could get admission in polytechnics. This anxiety stems from the fact that there is no system of absorbing a student of vocational courses after intermediate level either in formal education or further vocational courses.

05.D Functional Relation: IIT and Others:

Out of the 14 DIOS, 13 were of the view that there should be coordination with local Industrial Training Institutes (ITIs) which would help significantly the students studying in various trades in Vocational Education Colleges. A large number of DIOS was of the view that the working of vocational education courses would improve vastly, if the services of teachers from ITIs and

polytechnics were taken for running vocational classes. Only 21.43 per cent did not agree with it.

Emerging Issues

The statistical profile described in foregoing pages has revealed some of the major problems. However, various efforts are already been made, and some interventions are additionally required.

1. The selection of the colleges where the vocational courses can be introduced and the trades that need be taught both, are the first two steps towards the the programme formulation. this planning step had initially made in somewhat ad hoc manners. Many factors interfered with the selection procedure. For instance, the provision of construction grant is said to be the reason of certain colleges lobbying fro their selection and so on.

The Directorate has forged a working relationship with the Pedagogical institute/ SCERT and others for undertaking more systematic need survey. This is a definite welcome step. While CPI is entrusted with the task of monitoring the selection of trades through DIOS, the educational divisions are allocated to Constructive LT Colleges (Agra, Meerut, Kanpur, Allahabad, Jhansi, pauri, Moradabad, Bareilly, Lucknow, Varanasi, Faizabad, Kumaon, Gorakhpur) and Government CPI, Allahabad, Basic Training College, varanasi for remaining divisions. The survey is designed to assess scope of a particular skill need and the instructinal facilities existing in an area both. This will definitely strike a match between the demand and supply potential of a locality.

The approach, however, assumes immobility of manpower, as the equilibrium between local demand and supply is sought to be established. However, the demand of a particular skill may be abnormally large in other areas. For instance, the potential of weaving in Tanda region, Calico printing in Mathura or Kanpur, and so on. This is the main reason of manpower planning exercises. For instance the first ever exercise of this kind undertaken by Organization for Economic Cooperation and Development, called the Orange Book,had covered an area as heterogeneous and vast as Mediterranean region. In our country, All India Manpower Planning Institute has developed methods of integrating economic planning with educational planning, in which the skill requirements are related with skill formation. In long run, the educational policy should be based on a more comprehensive regional plans for most critical of the manpower: secondary level.

2. The provision of text books is also being tackled, by both, writing of the books required by the Directorate's Technical counterparts, and selection of the books nearest to the prescribed syllabus. However, the text book programme need to be strengthened and one of the methods be shortlisting the publishers of educational textbooks and undergoing conditional contracts with them. The publishers should be asked to prepare manuscripts themselves according to the syllabi of different trades and publish them after technical approval of the nodal office. In return, the Directorate may decided to give lumpsum grant or buy back certain no of copies at a price lower than sale price.

3. The problem of trained instructors will continue to be difficult one. It will not be possible to either recruit additional staff on the scale this programme warrants, nor it will be possible to maintain lodging facilities etc. in

far flung areas, as suggested. However, a scheme of mobile instructures could be developed for different educational division. Manzoor Ahmed and Philips Coombs have documented such schemes, evolved and implemented for educational development in the rural areas of various countries.

4. The issue of student's interest had cropped up frequently, but this can not be resolved easily. It will be worthwhile to develop a career counseling service at this stage. The bureau of Psychology has developed a three corner guidance and an exhaustive battery for the same. The verbal and non-verbal faculties of student are identified and recommendations are is made for cognitive or non-cognitive persuits.

One can come to quick review at the end. It is amply evident that one of the factors responsible for the slow progress of vocationalisation of secondary education is lack of opportunities for the students for both, their professional growth and career advancement. The current indifference towards vocational education will continue as long as a reasonable chance of worthwhile employment or an advantage in moving upwards into a professional or general programme of education is not provided to the students of vocational courses at the secondary level.

Such programmes could include Diploma, special degree courses, general degree courses, professional degree courses. At present opportunities for further education for students of vocational stream in +2 are almost non-existent. Hence suitable strategies are to be evolved for providing opportunities for the vocational products to enter appropriate 'Tertiary level' programmes.

Apprenticeship: The products of the vocational stream at +2 level are quite distinct from those from the ITIs and Polytechnics who have been covered under the Craftsmen and Technician Apprenticeship training schemes. It has been strongly recommended by several committees connected with vocational education that vocational students of the +2 stage should be brought under the umbrella of apprentice scheme as an important catalyst for the promotion of vocational education. At present a few of the 120 vocational courses offered at the +2 level in the country are selected for the special vocationalised education training scheme launched by MHRD. Appropriate actions are to be taken for introducing apprentice scheme to as many vocational courses as required.

Other Vocational Programmes: The vocational courses currently offered at secondary and other levels as well cater only to the requirements of organised sector of the economy. However, it is the unorganised sector which absorbs the bulk of work force. Consequently one sees the phenomenon of mounting unemployment among the educated at one end and shortage of plumbers, car mechanics, electricians, carpenters and manpower in numerous other trades at the other end.

In this regard, the NPE stated: "Tertiary level programmes like Diploma in Vocational subjects, Advanced Diploma Programmes, and Degree Programmes will be introduced in selected polytechnics, affiliated colleges and universities, as well as in special Institutes set up for this purpose. JCVE and SCVEs shall develop schemes for creating such tertiary level vocational education facilities at non-university institutions. For the university level courses, the universities will develop model curriculum in collaboration with NCERT/CIVE for starting programmes in

vocational education at university departments and affiliated colleges."

The overview: It is estimated that about 80% of the student population do not go beyond class 10. The drop outs upto and inclusive of class 8 are over 120 lakhs per year. Roughly 20 lakhs of boys and girls cross class 8 but do not go beyond class 10. All of them form a large pool of unskilled labour force. They need opportunities for training in some skills either in their traditional occupations or in new areas to enable them to take up skilled and gainful occupations.

In addition, there is a backlog of school drop outs who have crossed the school age and are working as semi-skilled and skilled workers. The total labour force in the country in the age group of 15 to 59 consists of all these groups and is of the order of about 23.70 crores (March 1980). Of this only about 10% is in the organised sector. The remaining are either employed without training, partially employed or unemployed.

The NPE document decided:

"Entrepreneurial/self-employment skills will be developed in vocational stream students, through curriculum, special training programmes as well as paid apprenticeship facilities.

State Departments of vocational education and SCVEs will formulate necessary schemes for the purpose.

State Directorates of vocational education will set up career guidance cells at district level. NCERT/CIVE shall formulate suitable norms for the purpose.

NCERT/CIVE, SCERTs/Sives, RCEs, CDC, TTTIs and other institutes will develop bridge/transfer courses in accordance with the guidelines laid down by JCVE. Suitable schemes for course offering shall be developed by SCVEs."

But there is no planned educational programmes for this large population. Agencies like community polytechnics, TRYSEM, Krishi, Vigyankendras, Nehru Yuvak Kendras, KVIC, Social Welfare Centres, All India Handicraft Boards, Council for Advancement of Rural Technology etc. are contributing to many non-formal programmes, to some extent. Concerted and well coordinated efforts are required to meet the demands of this task.

Prerequisites and priorities: It is important to view the programme of vocationalisation at the higher secondary stage, as an important component of the overall school education both as a self-contained stage as well as feeder to the general and professional education at the tertiary stage. The Management system proposed in subsequent paragraphs for the vocational effort therefore, should be seen as supportive/complementary to the current system for the management of school education. In implementing the plan of Action for vocationalisation the following guiding principles will apply:

(i) The policy clearly stipulates that a minimum of 10% of students at the +2 stage should be diverted to the vocational stream .This would be achieved largely by making use of the existing set up for administration, provision of research and developmental support, and certification of the vocational programmes. The existing system for this purpose will have to be suitably strengthened in order that it is functionally adequate to cope with the dimensions of the task during the 7th plan and could provide the nucleus for a more elaborate

set-up needed for meeting greater challenges during the subsequent Plans.

(ii) A beginning, however, would have to be made towards establishing the desired new structure because it will take some for the structures to come into being and to develop professional competence and expertise for the task ahead. While the report of the national Working Group under the Chairmanship of Dr. Kulandaiswamy provides a suitable model, the principle of flexibility to suit the requirements of the respective States will be followed. It would allow the organisational structures to be modulated by the States according to the planned coverage, implementation stage of the programme, and specific local contexts. It would be desirable to involve institutions of higher education in the vicinity of the target schools in the promotion and implementation of the vocational programme.

(iii) While the target in relation to the +2 stage will be fulfilled and efforts will be made to exceed the target, modest beginning will be made during this Plan in the area of non-formal vocational education for drop-outs and other target groups. This will help to gain sufficient experience and expertise before undertaking expansion of the programme on larger scale in the 8th and subsequent Plans. Greater accent on the +2 programme in the current Plan will also create a pool of human resources needed for future expansion of vocational education both in the formal and non-formal sectors.

(iv) In relation to the targets laid down ,it is necessary to recognise that there is a minimum level of funding below which a meaningful programme of vocationalisation cannot be implemented. A level of funding below this critical level will not make much impact and could indeed be counterproductive by discrediting the concept of vocationalisation.

(v) It is important to generate acceptability and respectability for vocationalisation of education. For this purpose (i) Efforts will have to be made by employment sectors of the economy to create a demand for vocationally trained manpower. Agencies and sectors will be expected to identify jobs which require vocational skills and in recruitment to these jobs preference will have to be given to the graduates of the vocational programmes. It may be recognised that access to such jobs by those holding higher but vocationally irrelevant qualifications has been a strong deterrent to the vocational

education effort in the past. (2) Linkages through bridge courses, modification of existing educational programmes, and other measures, should create a situation for greater professional advancement of the vocational graduates. Opportunities for higher education, continuing education and training will have to be created.

(vi) The role of the +2 stage in schools vis-a-vis those of the polytechnics, ITIs and other certificate level institutions in providing vocational opportunities have to be outlined. While ITIs and polytechnics would cater generally to the organised industrial sector, the thrust in the school programme would be on the sectors not covered by them and on the potentially very much larger service sector. The school system would give greater attention to the areas of Agriculture, Agro-industries, Business and Commerce, Home Science, and Health and Para-medical vocations. However, this demarcation is not meant to exclude institutions from taking up vocational programmes in other area if a need is identified and other institutional mechanisms are not available."
