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## REPORT

ON THE

# Working of Industrial Training Institutes, Industrial Schools for Girls and Special Trade Institutes



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THE ECONOMIC ADVISER TO GOVERNMENT, PUNJAB,  
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## PREFACE

Industrial Training Institutes in the State are run under the Craftsmen Training Scheme, their major policy being laid down by Directorate General of Employment and Training, (D.G.E. &T) Government of India. Through Training in the Industrial Training Institutes quality of technicians is sought to be improved by systematic and scientific knowledge and the skill thus acquired by them has an important bearing on the industrial development of the country. Realising the importance of the scheme, the State Evaluation Committee decided that an evaluation study of the working of Industrial Training Institutes, Industrial Schools for Girls and Special Trade Institutes in the State be conducted.

Utilization capacity in the Industrial Training Institutes has generally been improving over the years. While in the early seventies it hovered around 75 per cent, it improved to over 90 per cent after 1973-74 and in 1977-78 it exceeded 100 per cent for the first time. An important draw back in the training programme revealed by the study, is the in-adequate supply of raw materials for practical work which is essential for imparting requisite level of training and skill in the respective trades. The supply of raw-materials falls short of the norms fixed by the D.G.E. & T. The extent of inadequacy of raw materials which was 47.2 per cent in 1975-76, was however, reduced to 22.7 per cent in 1976-77. It was further revealed that machines and equipment in many institutions were not properly maintained.

Based on the observations it was recommended that three mobile vans equipped with the latest tool kits and expert mechanics should be kept at three centrally located Industrial Training Institutes which could repair the machinery of institutes located in nearby areas. It was further recommended that new trades like electronics, farm mechanic and beautician courses (for girls) in Industrial Training Institutes/Industrial Schools for Girls, located in big cities should be introduced as these courses still have ample potential.

Acknowledgement is made of the work done by Sardar Tejwant Singh Bhasin, Research Officer and his team for undertaking the survey and drafting the report and of Dr. Ajit Singh, Joint Director, Evaluation, for supervising and guiding the work.

Chandigarh :

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## SUMMARY OF FINDINGS AND RECOMMENDATIONS

The aims and objectives of the schemes of the Industrial Training Department are to impart training in various Engineering and non-engineering trades and thus to ensure a steady flow of skilled workers in different trades of industry. Such type of training improves the quality of technicians by systematic and scientific knowledge for making the educated men and women suitable for employment and self employment.

The Director of Technical Education and Industrial Training formally requested the Evaluation Unit to conduct a study of the working of Industrial Training Institutes/Special Trade Institutes/Industrial School for girls and to review the existing system of grant of stipend on means-cum-merit basis.

### A : Summary of findings

1. There were 29 Industrial Training Institutes, 42 Industrial schools for girls and seven Special Trade Institutes in the State at the time of survey.
2. The utilization capacity of the I.T.I.'s has gradually been improving over the years while in the early seventies it hovered around 75 per cent, it improved to over 90 per cent after 1973-74 and in 1977-78 it exceeded 100 per cent for the first time.
3. The utilization capacity of Industrial schools for girls and Special Trade Institutes was almost according to the intake capacity.
4. It was found that supply of I.T.I.'s trained hands was out stripping the demand for them thereby creating the problem of unemployment. By end of June, 1978, 19362 such I.T.I.'s trained persons were on the Live Registers of the Employment Exchanges in Punjab.
5. The principals of I.T.I.'s tend to devote more attention to the administrative work and that a much greater proportion of time was being spent on miscellaneous jobs.
6. Students are selected by a local selection committee consisting mainly of non-technical members. Since 1977, aptitude test has been abolished. This seems to be step in the wrong direction.
7. Punjab Government had spent Rs. 16.16 crores during the period of eight years (1969-70 to 1976-77) under Industrial Training Scheme and allied schemes for imparting training in various engineering and non-engineering trades.
8. Admission in the Special Trade Institutes was according to intake capacity so there was full utilisation of seating capacity. As these specialised courses had better employment avenues, large number of applications were being received for admission. But in Arts and Crafts Institutes the admission was poor on account of limited scope for employment for trainees.

9. Students belonging to weaker section of society were granted stipends to enable them to pursue their studies and become skilled workmen. The total expenditure on stipend constituted between 5 to 6 per cent of the total annual expenditure of the institutes.

10. Both the trainees as well as ex-trainees who were getting stipend or had been getting stipends highlighted that the payment of stipends was not made in time. Usually a period of 5 to 6 months lapses before the stipends were disbursed, thus defeating the very purpose of stipends. Further it was also observed that one reason for dropping out was the non-disbursement of stipends for a period beyond one's sustenance.

11. The main reason for giving stipend was to help the students for meeting part of their expenses and thus to lighten their economic burden to that extent. The current rate of stipend was fixed a long time back. Perhaps the cost of living at that time was taken into account while fixing the amount. While the cost of living had gone up several times since then, the amount of stipend has remained the same thus reducing the extent of monetary compensation it rendered earlier.

12. Stipends to one third of students were given on merit-cum-poverty basis. It was, however, difficult to identify students strictly according to the criteria laid down for the purpose. In a number of cases while children belonging to parents engaged in petty and middle level business or to average farming families succeeded in securing the stipend, those belonging to the families especially of government middle level employees, failed to get the stipend.

13. It was reported by the Principal that 75 per cent work of the special trade Institutes was based on practicals. Special Trade Institutes of Garment technology, Amritsar; Tanning Institute Jullundur; Textile Technology, Amritsar; Textile Chemistry and Knitting Technology, Ludhiana had reported that amount sanctioned for raw material was too meagre to provide proper practical training.

14. The gap between the required and available raw material was bridged by authorities of Garment Technology, Amritsar by taking consumer work. This method of arranging raw material was beneficial as the students were in a position to get practical training and to deal with the customer's directly. Government Tanning Institute, Jullundur was getting raw material through private parties who bring their own raw hides and skins and get them processed into various types of leather.

15. Institute of Textile Technology, Amritsar and Institute of Textile Chemistry and Knitting Technology, Ludhiana being old, some of the machinery was reported to be out-dated which required replacement. In the institute of textile technology, Amritsar additional machinery worth Rs. 7.50 lakhs was required. This included combler high speed and with cross voll verga system, humidification plant. New machines required for the institute were sizing machine, high speed warping machine, terry towel loom automatic knitter, saurer loom, swivel loom.

To improve the quality of the existing training courses in the Textile Chemistry and Knitting Technology, Ludhiana, the main machinery/equipments namely flat machine, RIB type V. Bed placement, single cylinder

circular knitting machine, straight bar fully fashioned machine, circular loop wheel knitting machine, circular linking machine, button holing machine, button stitching machine, flat knitting machine, V. bed type for the manufacture of collars, taps and garment planks; power driven warp knitting machine with spring needle and 4 gauge bars, double cylinder power one socks machine for jacquard pattern etc. was required.

In case of Government tanning institute, Jullundur the whole machinery and part of machinery was handed over to M/s. Punjab Tanneries Ltd. A subsidiary of Punjab State Industrial Development Corporation. It was then agreed that the machinery would remain in common use for commercial production and training purposes, but this system was not working satisfactorily. The machinery was not made available to the institute for sufficient time. The students were not allowed to handle the machinery for fear of breakdown or interruption in normal production programme of the Tanneries and thus the trainees lacked confidence in the control of various machine operations. The standard of training and work under common facility scheme had also been adversely affected.

16. *Staff position.*—In Government institute of textile technology Amritsar, post of Lecturer in Dyeing and Printing which had fallen vacant on account of retirement of incumbent three years back was lying vacant due to non-availability of suitable candidate in the pay scale attached to the post. There were 51 posts sanctioned in this institute and 46 posts were in position. In Arts and Crafts Institute Amritsar and Nabha, out of 18 posts of senior and junior lecturers 8 posts were lying vacant as suitable candidates were not available. In institute of textile chemistry and knitting technology, Ludhiana, additional staff for proper training required was (i) Lecturer in Textile Calculations, (ii) Lecturer in English, (iii) Junior Lecturer in Bleaching and Finishing, (iv) Demonstrator in warp knitting/technician in warp knitting, (v) Demonstrator in Physics and Chemistry, (vi) Demonstrator in knitting and (vii) Demonstrator in textile dyeing, (viii) Technician in textile. In Government Polytechnic for women the total strength of the staff including teaching/non-teaching had been 51 but 33 persons were in position on the survey day. 14 posts were vacant due to non-availability of qualified personnels.

17. *Facilities available in Institutes.*—The Institutes were handicapped due to absence of certain essential facilities. Institute of garment technology was not having the facility of telephone and play grounds. Tanning institute was not having good library, meeting hall/recreation room and adequate accommodation for workshop. Arts and Crafts Institute, Amritsar was working in private rented building and was not having adequate accommodation. A small library existed at the institute of Nabha with sufficient books. The condition of hostel building was not good. Play grounds were not available to the trainees and the available grounds were not properly maintained. In government institute of textile chemistry and knitting technology, Ludhiana, existing library was very small in contrast to the strength of the teachers and students. The institute was situated in an old fort. The roofs of the building leaked during rainy season resulting in damage to valuable machinery. Proper play grounds for playing hockey, foot-ball, cricket were not available. The existing hostel of this institute was in bad condition and facility of canteen and mess were not available in

hostel. In Government Polytechnic for Women the available accommodation for teaching and practical purposes was not sufficient and facility of hostel and common room were not available.

18. In two year diploma courses the percentage of drop outs was 27.45 per cent in 1975-76 and 29.11 per cent in 1976-77. In one year engineering courses it was 17.58 per cent and 18.15 per cent in 1975-76 and 1976-77. In non-engineering courses, drop outs were 13.90 per cent and 14.95 per cent in these years in I.T.'s and 4.94 per cent and 7.44 per cent in industrial schools for girls.

19. On the basis of interviews held with Principals, group instructors, staff members and trainees of sampled institutes, it was found that high rate of drop outs was due to various reasons viz., securing jobs during training, admission of trainees with poor academic standard as the science and mathematics oriented syllabus was unintelligible to such trainees, financial circumstances, unpredictable character of domestic vicissitudes, lack of seriousness on the part of trainees to become skilled workers, delayed and irregular payments of stipends, faulty methods of teaching which did not create interest in the trainees for studies, non-absorption of trained hands after completion of training had impact on the trainees etc.

20. The phenomena of rush for admission in I.T.'s and I.S.G's was due to the wide spread unemployment in the state and students preferred in some cases to get admission in these institutions with a view to pass time till they got another means of livelihood.

21. In two years engineering courses percentage of failures was 15.17 and 20.23 per cent in 1975-76 and 1976-77. In one year engineering courses failures increased from 17.01 per cent to 27.49 per cent in above said years. In non-engineering courses failures also increased from 16.42 per cent in 1975-76 to 22.26 per cent in 1976-77. In Industrial School for girls percentage of failures was negligible i.e. 1.41 per cent in 1975-76 and 2.15 per cent in 1976-77. The trainees as well as ex-trainees pointed out that the training was academically overloaded and not practical based.

22. It was observed during discussions with trainees/ex-trainees that sufficient raw material was not being supplied to them as per norms fixed by the Director General of Employment and Training, Government of India. During 1975-76 raw material worth Rs. 2.18 lakhs was consumed in six sampled Industrial Training Institutes. As per norms raw material worth Rs. 4.13 lakhs was required in these institutes. The extent of inadequacy of raw material was 47.21 per cent in 1975-76 and 22.74 per cent in 1976-77.

23. The extent of inadequacy of raw material worked out to be 50 per cent in 1975-76 in four selected Industrial School for girls. The position of availability of raw material improved during 1976-77 and the extent of inadequacy was 34.75 per cent.

24. It was found that machines and equipment were not properly maintained in the sampled industrial training institutes. Some machinery was lying un-used due to (i) non-availability of spare parts (ii) non-availability of repair facilities particularly of sophisticated imported machines etc.



25. In Industrial training institute, Bhatinda, trades of Machinist, Refrigeration and Air conditioning and Moulder, in case of Industrial Training Institute, Jullundur trades like Motor mechanic, Draftsman mechanical, Sports goods (wood), Printing machine operator, Machinist and Moulder and in Industrial Training Institute, Ludhiana trades of Tractor Mechanic Punjabi Stenography, Moulder, Radio and Television Mechanic, Pattern maker, Preservation of Fruit and vegetables, Draftsman Civil were either ill-equipped or required urgent repair of machinery.

26. All the selected institutes were found to be housed in their own buildings except government industrial school for girls, Ludhiana. No shortage of accommodation was reported at the time of survey except by Industrial Training Institute at Ropar and Bhatinda where classes were being taken in hostel rooms.

27. The hostel capacity of selected industrial training institutes was to accommodate 878 students but only 344 students were actually residing in the hostels. Hostel capacity in eight sampled institutes except Industrial Training Institute, Jullundur was not being fully utilized. Overall 39.18 per cent of total capacity was being utilized at the time of survey.

28. Out of 80 trainees contacted for study only 12 trainees were residing in hostels. 6 trainees reported that facilities such as recreation, in-door games etc., available in hostels were very poor.

29. Facility of library existed in the institutes but for Industrial training institute, Patiala had insufficient accommodation for stocking of books. The Principals of all sampled industrial training institutes reported that books for teachers were available. In 3 Industrial Training Institutes (Jullundur, Ludhiana and Pathankot) in-sufficient number of books for trainees were available. Out of four selected industrial school for girls, three were having the facility of library but in I.S.G., Ludhiana it was not available.

30. Distribution of trainees in industrial training institutes by their family occupations revealed that 28 trainees (35.00 per cent) were the sons of employees followed by trainees from the families of agriculturists (31.25 per cent), Business (trade and industry) was the parental occupation of 15.00 per cent of the trainees, and 10 or 12.50 per cent were from the families of artisans and remaining 6 trainees (6.25 per cent) were the wards of labourers.

31. Out of the total number of selected trainees (80) in engineering and non-engineering trades in sampled industrial training institutes (73.75 per cent) hailed from rural areas as against 26.25 per cent from the urban areas.

32. 43.75 per cent of the sampled trainees were not satisfied with the training being imparted in industrial training institutes. The main reasons listed for dis-satisfaction in the training programme were shortage of raw materials, tools and equipments, posts of instructors lying vacant and books in short supply.

33. 13.75 percent of the total sampled ex-trainees interviewed were middle or under-matric, 72.50 per cent were matric/higher secondary/prep. All

of them were either IIrd or IIIrd divisioners in the recognised academic examination. Only 5.00 per cent were intermediate or undergraduate but all of them were IIIrd divisioners. 7 students or 8.75 percent were graduates/post graduates. Six of them were second divisioners and remaining one was third divisioner. This indicates that brilliant students were not joining the industrial training institutes.

34. Out of total 80 ex-trainees, 63 (78.75 percent) had reported that their names were registered with the Employment Exchanges in the State for seeking job. Employment Exchanges had been successful for providing service to 21 ex-trainees i.e. 33.33 percent of total registered.

35. Out of 80 ex-trainees contacted for study 35 i.e. 43.75 percent were continuously unemployed at the time of survey. It could be safely said that I.T.I. trained hands did not get employment in relation to their out turn. The main reasons observed for this situation were (i) comparatively lesser expansion in industries (ii) lack of spirit for manual work, (iii) admission of undeserving and non-serious students, (iv) bias and prejudice against the recruitment of I.T.I. trained hands by employers, (v) lack of proper training in certain fields, (vi) training imparted not employment oriented, (vii) lack of proper practical training, (viii) improper implementation of the Apprenticeship Act, 1961.

36. Out of 45 employed ex-trainees, 11 or 24.44 percent were getting on an average monthly salary upto Rs. 150, 18 or 40.00 percent ranging between Rs. 151 to Rs. 300, 15 (33.34 percent) between Rs. 301 to Rs. 450 and remaining one ex-trainee was getting more than Rs. 451 per mensem.

37. There was a general consensus among the ex-trainees that practical aspect of the training was much below the mark. They reported that the practical periods were treated as leisure periods.

38. The ex-trainees opined that the duties assigned to them were not in accordance with their trade and they were put on manual or semi-manual jobs which were below their capabilities. The ex-trainees held the view that they were being looked down upon by the factory owners as the I.T.I. training did not enjoy an enviable reputation. This was because the I.T.I. trained craftsmen did not come up to the factory owner's expectations in giving the output. One important reason was that machines in I.T.I.'s and factories differ in design, operation and speed for output.

39. It was found that 50 selected industrialists had employed total number of 1216 employees in their units. Out of these 80 were I.T.I. trained workers, 52 were working as apprentices and 1084 were other skilled workers/non-skilled workers.

40. Out of 50 industrialists, eighteen were of the opinion that I.T.I. trained hands were lacking interest/responsibility in the job offered to them by these employers. 13 industrialists under value the I.T.I. trained hand due to lack of practical training while 4 had opined for creation of nuisance in the industrial units and other four had complained that trainees were not sticking to one factory. The industrialists were generally not satisfied with the performance of trainees.

## B : Summary of Recommendations

1. Selection Committees for selecting the trainees for various engineering and non-engineering courses should have a technical bias. At present these committees consist mainly of non-technical members.

2. The post of Principal/Vice Principal/Group Instructor of these institutes could be filled on the basis of merit-cum-seniority instead of filling it on the basis of seniority alone.

3. The question of time gap between the admission and disbursement of stipends needs a closer examination. It is felt that after an initial maximum gap of 3 months, stipend must be disbursed regularly every month. The delay in indentifying deserving students, both at the institute and the head-quarter levels must be reduced to the minimum and completed within the first three months.

4. It would be only fair if the rate of stipend is revised every three years keeping in view the rise in the cost of living and other related factors.

5. For sanctioning stipend to really deserving trainees to avoid resentment and heart burning, it would be more appropriate if the stipend is given purely on merit basis. Government may also consider the question of giving stipend to all the trainees who pass the class test. Any trainee failing the test twice consecutively may forfeit his stipend for the rest of the terms.

6. The question of giving stipend to all the trainees may also be looked into. If the stipend is given to all the trainees, the expenses on account of stipend will be a little more than double thus accounting for about 12 per cent of the annual expenditure of such institutions. This would eliminate the delay in the disbursement of stipends caused due to identification of deserving students and would also eliminate heart burning among deserving students. Stipends when awarded on merit-cum-poverty basis should be used as means for keeping up the performance of the students. A stipend receiving student must forfeit his stipend if his performance is not upto the mark in two tests consecutively.

7. The Government may adopt a selective system of stipend rates to attract the trainees in particular basic trades for which employment opportunity exist but trainees were not forthcoming (fitter, turner, moulder etc.) and to discourage students from going into trades where employment were already saturated. This decision should be taken by a committee headed by Director, Technical Education and Industrial Training or his nominee, Principal of the Institute, Employment Officer and two industrialists of the district/cities

8. Raw material as per norms should be provided to trainees of special trade institutes, so that practical training may not suffer. The provision of raw material to the trainees of Government Arts and Crafts Institutions Nabha & Amritsar should be looked into.

9. To avoid any unpleasant happening it is suggested that hedges should be provided to the machinery in the institute of Garment Technology, Amritsar. The installation of machinery should be at a fair distance to avoid accidents. The machinery should be shifted to a better hall in the institute.

10. There should be provision of at least Rs. 50 thousand in the form of personal ledger account for Government Tanning Institute, Jullundur so that not only the requirement of the trainees is met but also enough shoes are made with the availability of adequate raw material. This institute, will then be in a better position to supply leather goods to various departments and earn revenue.

11. To maintain proper standard of training in Government Tanning Institute, Jullundur, it would be absolutely essential to equip the institute with proper machinery to be used independent of the Punjab Tanneries Ltd. The training programme of this institute was reported to be suffering after shifting the machinery and part of buildings to the Punjab Tanneries Ltd.

12. Central Board of Apprenticeship, may be approached for arranging apprenticeship for all the students of the diploma courses in Leather and Foot-wear Technology. Difficulties have been experienced during the last 5 years in fixing up the students as apprentices. Firstly; because Board of Apprenticeship Training, Government of India, insists that they can arrange training only for such boys who had put in at least 3 years at the Institute. Secondly, they select trainees only on merit basis and thus large number of trainees not in merit list are left out. Thirdly the Punjab Apprenticeship Act, did not cover the trades of Leather and Foot-wear Technology under apprenticeship programme.

13. It is suggested that instead of opening new Industrial Training Institutes, special courses in special trade institutes should be started to provide specialised training which is more beneficial in comparison to ordinary training in I.T.I.'s. Sufficient modern machinery, staff and other infrastructure for expansion of the existing intake capacity in various important courses may also be provided in these institutes.

14. Government Institute of Garment Technology, Amritsar should be expanded to double its capacity especially in the trade of garment technology and also be broad based by covering the field of costume designing. There is still plenty of scope in this field.

15. Grades of the teaching staff working in Special Trade Institutes should be looked into and these should be at par with the staff of the other important institutes. At present existing grades were not attractive for qualified personnels.

16. It would be useful to depute the staff members of Tanning Institute, Jullundur for short term courses in their respective trades, in various institutes of repute viz. Madras and Kanpur.

17. Additional staff required for proper training in Government Institute of Textile Chemistry and Knitting Technology, Ludhiana, viz. lecturers in Textile Calculations, English, Bleaching and Finishing, Warp knitting, Physics and Chemistry, Textile Dyeing should be provided. Senior staff members of this institute should be sent to leading textile mills in India to improve their knowledge in the line so that they may in turn teach the students the modern technology.

18. Leather and allied industries have enormous export potential and with rapid increase in commercial units in the State, more and more trained personnels will be required. For all supervisory posts advertised in this trade, minimum qualification now prescribed was B. Tech. Accordingly it would be desirable to upgrade the Government Tanning Institute, Jullundur by introducing degree course in Leather Technology.

19. It is suggested that bigger units like Punjab Tanneries and Footwear Ltd. in the organised sector and units in the small scale sectors should encourage some talented hands to set up ancillary units. The setting up of common facility units in and around Jullundur will help such technical personnels to take up their own business on small scale basis.

20. The main purpose of the training at Arts and Crafts Institutes was to train the candidates for Arts and Crafts teachers and drawing masters to serve in schools under Education Department but the number of trained persons have out stripped the demand. It would be more appropriate if the period of basic training be reduced to one and a half year and afterward one year special trade training should be imparted to the trainees enabling them to learn the subjects on commercial lines. This will help the trainees to fix up in self-employment. It is also suggested that there should be co-ordination between these institutes and Arts College. The syllabus of these institutes required complete over-hauling and it should be according to the needs of Education Department.

21. The Education Department may start the drawing classes right from the primary level to inculcate the sense of art even at lower stages and thus provide employment opportunities to the trainees coming out from Arts and Crafts Institutes.

22. It is suggested that students desirous of setting up their own units in knitting and Textile dyeing should be given loans at lower rates of interest by the Government. The Government should arrange for the sale of the manufactured goods of these new entrepreneurs either in Government Emporiums or in Government Co-operative Stores.

23. It is suggested that an institution of degree level in Textile Chemistry and in knitting Technology should be set up in the State as there are large number of textile mills in the State having vast scope of providing employment for the degree holders in textile chemistry and knitting technology.

24. Essential facilities such as telephone and play grounds should be provided in these reputed institutes. Libraries should be properly housed in big rooms and more books of technical nature, journals, magazines etc. should be added to the libraries. Library rules should be modified so that it could be possible to issue books to trainees for home. Land should be got acquired for the play grounds and available play grounds should be properly maintained. Meeting hall/recreation rooms in the institutes for the meetings and recreation of the trainees should be provided. Construction of building according to the needs of different institutes should be taken up and hostel facilities for boys and girls wherever not available should be provided. It is suggested that Government should provide adequate funds for the construction of new buildings and new hostels at appropriate places.

25. Industrial Training Institute authorities should make efforts through incentives and publicity for attracting trainees in engineering trades like moulders, die-makers, fitters and machinists etc. for which Industrial Training Institutes were actually meant instead of starting classes for non-engineering trades when the separate schools for girls imparting training in non-engineering trades had already been opened.

26. It is suggested that aptitude test should be strictly enforced. The students selected may be watched in a particular trade for one-month and if they did not pull on, then they may be shunted out after one month.

27. To provide adequate raw material for training, budget provision should be enhanced. It is also suggested that to regulate the supply of raw-material even at the remote places where the facilities of procuring raw materials were not possible the supply should be made from departmental stores. The raw material should be purchased in bulk by the Director, Industrial Training according to the requirement of syllabi then it could be distributed as per requirement of different Industrial Training Institutes and Industrial School for Girls. The supply of raw-material should be strictly according to the norms fixed by Director, General Employment and Training, Government of India.

28. It is suggested that new trades like electronics, farm mechanic and beautician courses (for girls) may be introduced in I.T.I.'s /I.S.G.'s. located in big cities as these courses are assuming importance day by day.

29. Three mobile vans equipped with the latest tool kits should be kept at three centrally located I.T.I.'s which could repair the machinery of surrounding institutes. These mobile vans should also have spare parts. The staff for these mobile repair workshops should be well trained in different lines.

30. It is suggested that quick survey of available machinery and its condition and additional machinery required should be done by a team of technical experts.

31. Arrangement for providing radios, indoor games, periodicals and news papers may be made in the hostels. More funds may be allocated for this purpose.

32. Emphasis should be laid on practicals and refresher courses and visiting private industries during the tenure of training in Industrial Training Institutes for providing proper job experience in actual operation and handling of modern machinery.

33. Trainees should be given orientation lectures and taught to rely on self-employment. Even changes in the duration or curriculum of courses, especially in trades like blacksmith, motor mechanic, carpentry, welding, tractor mechanic etc. where the chances of self employment were higher should be allowed. They should also be made conversant with different sources which were advancing loans for setting up small units. The I.T.I.'s authorities should help trainees in obtaining loans for setting up their own small units. Greater attention should be paid in preparing the trainees for self employment.

34. Industrialists suggested that in order to have better co-operation and proper co-ordination, the representatives of the well established industries may be included in the selection committees for admission in I.T.I.'s as well as for framing the policy regarding training.

35. Post-training follow up of trainees is very important as this helps in charting out the demand pattern and the employability of such craftsmen. Facilities should, therefore, be provided for regular follow up of post training careers of trainees. Besides, regular surveys should be conducted by the Instructors to study the employment pattern among the ex-trainees and their suggestions for improvement in training.

36. It is suggested that cards containing particulars of every passing out craftsman should be prepared by the follow up sections of the Institutes in triplicate. Original card be retained in the Institute, duplicate be forwarded to local Employment Exchange and triplicate be given to craftsman. This system would ensure three pronged efforts viz. through Follow up section, Employment Exchange and candidate with his own efforts. This system would provide reliable statistics about the employment position of the trainees in the state.

## CHAPTER I

### INTRODUCTION

The Industrial Training Institutes in the State are run under the Craftsmen Training Scheme and their policy is laid down by Directorate General of Employment and Training, (DGE & T) Government of India. Prior to the year 1956, even the administrative control of this scheme was with the Government of India. On the recommendation of Shiva Rao Committee to make better utilisation of the Scheme, administrative control of the scheme and that of the Employment Exchanges was transferred to State Government with effect from 1st November, 1956. However, training Policy, courses, syllabi, examination, issue of certificates, pattern of staff, qualifications for the technical staff/and various other matters connected with the training are still governed by the Directorate General of Employment and Training (DGE&T), Government of India. As such any change or modification in the training policy, opening or closing of institutes, reduction or enhancement in the number of seats, trades, duration of courses etc., cannot be made at the State level without the prior consent of Government of India. The syllabi, duration of courses etc., are introduced or modified on the recommendations of the Trade Committee/Expert Committees and National Council for Training in Vocational Trades (NCTVT).

As per decision in the meeting held with Commissioner for Public Works, the Director of Technical Education and Industrial Training formally requested the Evaluation Unit to conduct a study of the working of Industrial Training Institutes/Special Trade Institutes and to review the existing system of grant of scholarship on means-cum-merit basis.

1.2. *Object of the study*:—The main object of the study was to evaluate the working of the Industrial Training Institutes/Special Trade Institutes and to review the prevailing system of grant of scholarships.

1.3. *Sampling Design and Coverage*:—It was decided that out of 29 Industrial Training Institutes, a sample of eight institutes should be selected in such a way that two institutes each should be covered from the I.T.I.'s having seating capacity 600—899 and below 250 trainees and remaining four should be taken from the I.T.I.s having admission capacity of 250 to 599 trainees. Further all the seven Special Trade Institutes were also to be covered under the study to evaluate their working. On the suggestion of Director, Technical Education and Industrial Training, it was also thought appropriate that four Industrial Training Schools out of 42 Industrial Training Schools were also covered because these schools were considered at par with I. T. I.'s. From each of these selected eight I. T. I.'s, seven S.T.I.'s and four Industrial Schools for girls, ten trainees (under-going training) from different engineering/non-engineering trades were covered (one each from the eight groups given in Annexure-A and remaining two from the groups which had maximum admission in July, 1977 (session). Similarly ten ex-trainees who had passed in July, 1976 were covered (subject to availability) in such a way that all the eight groups given in Annexure-A were covered and remaining two ex-trainees were taken from the group which had maximum pass-outs in July, 1976. Ten small scale industrialists in the private sector employing less than 50 workers, were selected from the five industrial centres viz., Ludhiana, Amritsar, Jullundur, Rajpura, and S.A.S. Nagar (Mohali) to know their opinion about the training being imparted in these institutions. These industrialists were classified in five groups according to activities (Annexure B) and two from each group were covered.



1.4. *Reference Period* :—The reference period of the study was two years i.e. 1975-76 and 1976-77.

1.5. *Schedules*:—Following schedules were canvassed for this evaluation study:—

*Institution Schedule*:—This schedule was filled in from all the selected Industrial Training Institutes for boys and girls and from Special, Trade Institutes. It contains detailed information about admission capacity pass-outs, stipends disbursed, budget provision, actual expenditure, raw material, purchased and consumed, production of goods and their sale, facilities available and difficulties faced by these institutions.

*Opinion of the trainees* :—This schedule was canvassed among training to know their opinion about lacunas in training programme and details about stipend being disbursed to them.

*Opinion of the ex-trainees*:—This schedule was filled in from ex-trainees for finding out the real position of the candidates in securing employment.

*Opinion of the Industrialists*:—This schedule was filled in from industrialists who mainly employ I.T.I.'s/S.T.I.'s trained hands to know their opinion about the difficulties being faced by them in absorbing these trainees and suggestions to improve technical know how of the trainees so that they may prove more useful and acceptable to the industrial units.

*Opinion of the Principal*:—This schedule was filled in from the Principals of selected I.T.I.'s/S.T.I.'s for knowing their opinion about the working of these institutions, difficulties being faced for smooth running of Institutes and suggestion for diversification of courses.

1.6. *Field work*:—The field work of the study was done by the Technical Assistants of the Evaluation Unit of the Economic and Statistical Organisation, Punjab. The field work was started in the month of February, 1978 and completed in the month of March, 1978. The supervision over the field work was exercised by the officers of the Evaluation Unit.

## CHAPTER II

### ADMINISTRATIVE SET UP

The Industrial Training Department was created in May, 1962. The Department is responsible for imparting training in various engineering and non-engineering trades. The aims and objectives of the schemes of this Department are to ensure a steady flow of skilled workers in different trades of industry, raise the quality of technicians by systematic and scientific training and to reduce un-employment among the educated men and women by making them suitable for employment opportunities.

2.2. The department has been placed under the control of Director, Technical Education and Industrial Training assisted by one Additional Director, one Joint Director, 3 Deputy Directors and 6 Assistant Directors. Their main jobs are to look into the work, supervise, guide and to co-ordinate the work of all Industrial Training Institutes/Centres, Industrial Schools for girls and Special Trade Institutes.

2.3. *Activities of the Department*:—The activities of this department may be divided into the following categories:—

*A. Craftsman Training Scheme*:—This scheme includes:—

- (i) Craftsman Training Scheme/Industrial Training Institutes/Centres.
- (ii) Training of Industrial workers in evening classes.

*B. Rural Training Scheme*:—(i) Rural Artisan Training Centres.

(ii) Mobile Training Centres.

*C. Training of Apprentices under the Apprentices Act, 1961.*

- (i) Training of Apprentices within the State.
- (ii) Training of Apprentices outside the State.

*D. Industrial Education (Schools Scheme)* :—This scheme includes the training of :—

- (i) Boys in Industrial Schools.
- (ii) Girls in Girls Industrial Institutes known as Government Industrial School for Girls.
- (iii) Boys and Girls under Special Trade Institutes.
- (iv) Training of Schedule Castes, Vimukta Jaties in Industrial Training Centres for Welfare of Backward Classes.

The scope of the present survey was limited to evaluate the Industrial Training Institutes, Special Trade Institutes and Industrial Training Schools for Girls. Details of these scheme are given in following paragraphs.

2.4. *Craftsman Training Scheme*—This was the main scheme of the department under which training was imparted in various engineering and non-engineering trades. This scheme was running on an all India pattern under the direct guidance of G. O. I., in the Ministry of Labour and Employment, under the aegis of the National Council of Training in Vocational Trades. This scheme was initially started by the Government of India, as a war time measure, before independence to man the public/private defence industries at the time of World War-II. It was then utilized to resettle

the ex-servicemen. Later on, it played a vital role to train and re-settle the displaced persons at the time of partition of the country during 1947, and finally it was thrown open to the adult civilisations to train them in various engineering and non-engineering trades to meet the increasing demand of the industry in the private and public sectors. All the major policies concerning the scheme were controlled and regulated by the Government of India as to maintain a uniform standard and pattern throughout the country. The administrative control of the scheme was, however, transferred to the State Governments with effect from 1956 on the recommendations of the Shiva Rao Committee. The objectives of this scheme have been thus:—

- (i) to ensure steady flow of skilled workers in different trades of the industry;
- (ii) to raise the quality and quantity of technicians/skilled workers by systematic training;
- (iii) to reduce un-employment among the educated men and women by making them suitable for industrial employment or to restart their own small scale industries.

It was contemplated that capacity of the industry to absorb large number of skilled workers would increase and the public sector would also generate sufficient demand. During the course of study it was found that these assumptions have been belied. It was found that supply of I.T.I.'s trained hands was out stripping the demand for them thereby creating the problem of unemployment. By end of June, 1978, 19362 such I.T.I. trained persons were on the Live Register of the Employment Exchanges in Punjab. Even then more and more trainees were being admitted in I.T.I.'s. At the time of this survey there were 29 Industrial Training Institutes in Punjab with a seating capacity of 11,676 trainees. The following table shows the number of I.T.I.'s and their seating capacity since 1969-70.

**TABLE 2-1**

**Number of I.T.I.'s and their seating capacity.**

Year	No. of I.T.I.'s	Total number of seats in I.T.I.'s	Trainees admitted	Utilisation capacity (%age)
1	2	3	4	5
1969-70	28	11,536	7,471	64.76
1970-71	28	11,536	8,374	72.59
1971-72	28	11,536	8,930	77.41
1972-73	28	11,560	8,797	76.10
1973-74	28	11,560	9,385	81.19
1974-75	28	11,580	10,882	93.97
1975-76	28	11,580	10,900	94.13
1976-77	29	11,676	10,463	89.61
1977-78	29	11,676	13,124	112.20

The utilisation capacity of the I.T.I.'s has gradually been improving over the years. While in the early seventies it hovered around 75 per cent, it improved to over 90 per cent after 1973-74 and in 1977-78 it exceeded 100 per cent for the first time.

Duration of different courses was one to two years depending upon the trade. The trainees were provided free training, workshop clothing, medical facilities, recreational facilities and also hostel accommodation wherever available. One third of the deserving trainees on roll were also given stipend @Rs. 25/- per month on poverty-cum-merit basis. All the Scheduled Castes / Scheduled tribes trainees were, however, awarded stipend @ Rs. 45- per mensem.

2.5. *Position of staff employed*:—Industrial Training Institutes having seating capacity of more than 750 have one Principal, Vice-Principal, Group Instructors and Instructors where as there is no Vice-Principal in smaller I.T.I.'s. There were 29 Industrial Training Institutes during the year, 1977-78, The Following table gives the staff position of Industrial Training Institutes as on 31st March, 1978.

**TABLE 2.2**  
**Staff position as on 31st March, 1978.**

Name of the Posts	No. of posts sanctioned	No. of persons in position on the date of survey
1	2	3
Principal	20	16
Vice-Principal	5	3
Superintendent Tech.	3	3
G.I./AAA /Mill Wright	126	108
Medical Officer (Part time)	17	17
Instructors	1,005	990
Master Craftmen	18	18
Superintendents	13	12
Head Clerks	14	14
Assistants	90	44
Accountants	29	27
Store-Keepers	29	28
Clerk/Hostel Clerk/Assistant		
Store Keepers	158	158
Hostel Superintendents	27	27
Pharmacists	27	27
Class IV	732	660

Four posts of Principals, eighteen posts of Group-Instructors/Assistant Apprenticeship Advisors (A.A.A.)/Mill Wrights and fifteen posts of Instructors were lying vacant. These posts could not be filled easily as the recruitment against these vacant posts was to be done through Punjab Public Service Commission/Punjab Subordinate Services Selection Board. However, efforts should be made by the Department to fill these posts of teachers at the earliest so that the trainees may not suffer. The two key posts on which the working of the I.T.I.'s depended to a great extent were that of the Principal and Group Instructor. Besides administrative duties of running the programme according to the scheme, Principal is also to make sure that machines and equipments are properly maintained and that the foreman and supervisors maintain an extremely close supervision over the work of the Instructors and the progress of the classes. It was observed during the study that the Principals of I.T.I.'s tend to devote more attention to the administrative work and that a much greater proportion of their time was being spent on administrative papers work and looking after other miscellaneous jobs such as purchase of raw material etc., by the Principals than a supervision of Instructors work in workshops, checking of machines and other equipments or in imparting training. A Group Instructor was an important part of administrative machinery of I.T.I.'s because he was to co-ordinate all sections and to inspect the work of Instructors. In this context, it is suggested that Principal/Vice Principal/Group Instructor should be a technically qualified person who was well versed with latest technical know how and should devote more time in workshop in imparting practical training. The main job of Instructor was to impart theoretical as well as practical training. He was also responsible to keep the machines clean and in working order. It had been observed that Instructors tended to spend more time in imparting theoretical and bookish knowledge than on practicals primarily due to the shortage of raw materials required for practicals. It would greatly help towards better working of the institutes if the post of Principal/Vice Principal/Group Instructors of these institutes could be filled on the basis of merit-cum-seniority instead of filling it on the basis of seniority alone. This procedure will bring capable persons as head of the Institutes.

2.6. *Admission in I.T.I's*:—The admission in the I.T.I.'s takes place during the month of July and the session commence with effect from August each year and the final examination takes place in the 2nd/3rd week of July each year. Students are selected by a local selection committee consisting mainly of non-technical members. Since 1977 aptitude test has also been abolished. This seems to be step in the wrong direction. Inapt selection of students results in high percentage of drop-outs. This fact was amply highlighted by the survey results. Selection of wrong type of candidates for admission results in further complications as many such trainees are not really serious to pursue their studies and try to become skilled craftsmen by dubious means. Another factor responsible for the admission of sub-standard students is the fear of instructors that lesser number of students in a particular trade might endanger their services. Some students join I.T.I.'s to while away their time while getting stipends. Lack of employment opportunities was another factor which deter good students from joining I.T.I.'s In view of the above, it is suggested that selection committee should have a technical bias and rigid aptitude test should be re-introduced. The amount of stipend should be enhanced to attract better and deserving students.

2.7. *Industrial School for Girls*:—There were 42 Government Industrial Schools for Girls functioning during the year 1976-77 with a seating capacity

of 3,518 trainees. The training in these schools was imparted to girls in various trades on the DGE & T pattern and the duration of courses in each trade was one year.

2.8. *Special Trade Institutes*.—The following Special Trade Institutes run diploma courses of two to three years duration, besides certificates courses of one year on the D.G.E. and T. pattern:—

- (i) Government Institute of Textile Technology, Amritsar.
- (ii) Government Institute of Garment Technology, Amritsar,
- (iii) Government Arts and Crafts Teachers Training Institute, Amritsar.
- (iv) Government Tanning Institute, Jullundur.
- (v) Government Women Polytechnic, Jullundur.
- (vi) Government Institute of Textile Chemistry and Knitting Technology, Ludhiana.
- (vii) Government Arts and Crafts Institute, Nabha.

The scope of the present survey was limited to evaluate the I.T.I.'s/S.T.I.'s and Industrial Training Schools for Girls.

2.9. *Placement Cell*.—To maintain link between the Industry and Training Institutes and the passed out trainees placement cell was opened during 1975-76. Its main function was to survey factories and find out vacancies and thus get the passed out trainees adjusted.

2.10. *National Apprenticeship Scheme*:—Under this scheme, candidates are deputed for apprenticeship training with various establishments and workshops in acceptance with the provisions contained under the Apprenticeship Act 1961, within and outside the State of Punjab. Under the Apprenticeship Scheme 2,815 persons were engaged for training in Industries/Establishments during the year, 1976-77 within the State. During the course of their training trainees are paid stipend at the following rates for:—

Ist year Rs. 130.00.

2nd year Rs. 140.00.

3rd year Rs. 150.00.

4th year Rs. 200.00 P. M. or minimum wages of skilled worker which ever is higher.

2.11. *Apprenticeship Training outside the State*:—Under this scheme 40 apprentices were deputed for training outside the State of Punjab in reputed establishments during 1976-77. In addition to the above rates of stipend, payable to them under the Apprenticeship Act, each Punjab boy is paid Rs 100 per month by the Punjab Government. They are paid 2nd class railway fair from the place of departure to the place of joining and back after completion.

2.12. *Budget allotment and expenditure*.—Punjab Government had spent Rs 1615.82 lakhs during the period of eight years (1969-70 to 1976-77) under Industrial Training Scheme and other allied schemes. The following table

depicts non-plan and plan budget provisions and actual expenditure by the Industrial Training Department since 1969-70.

Table 2.3 : Distribution of non-plan and plan expenditure

Year	(Rs. in lakhs)						
	Non-Plan Schemes		Plan Schemes		Plan and Non-plan Scheme provision	Expenditure	
	Budget provision	Expenditure	Budget provision	Expenditure			
1	2	3	4	5	6	7	
1969-70	..	135.51	134.26	16.09	14.57	151.60	148.83
1970-71	..	137.15	133.43	21.69	20.08	158.84	153.51
1971-72	..	143.68	143.18	25.49	22.02	169.17	165.20
1972-73	..	156.23	156.63	33.27	28.92	189.50	185.55
1973-74	..	193.42	168.24	23.71	21.76	217.13	190.00
1974-75	..	211.11	208.38	22.22	16.28	233.33	224.66
1975-76	..	224.43	225.75	34.96	30.64	259.39	256.39
1976-77	..	273.13	247.65	48.98	43.93	322.11	291.68

It is clear from the table that there was steep rise in Non-Plan expenditure. It was Rs. 134.26 lakhs in the year 1969-70 which rose to Rs. 247.65 lakhs in the year 1976-77. Expenditure under plan scheme was also rising except in the year 1973-74 and 1974-75. Total non-plan and plan expenditure was Rs. 148.83 lakhs in 1969-70 which increased to Rs. 291.68 lakhs in 1976-77.

## CHAPTER III

### WORKING OF SPECIAL TRADE INSTITUTES

As indicated earlier, on the recommendation of Planning Department, Punjab the evaluation study covered all the seven Special Trade Institutes which were imparting training for diploma courses of two to three years duration and certificate courses of one year duration on the D.G.E. & T pattern. Different trades like Textile Technology, Dyeing, Printing and Weaving, Garment making, Cutting and Tailoring, Knitting with Hand and Machine, Textile Chemistry and Knitting Technology, Arts and Crafts, Commercial Practice and Stenography, Library Science and Pharmacy were being taught in these Institutes.

Detailed information was collected from the Principals of these institutes through personal visits on different aspects like practical training, employment scope of trainees, supply of raw material for practicals, availability of machinery for the institutes, building, staff etc. trainees and ex-trainees of these institutes were also contacted to know their opinion about the working of these institutes, their employment prospects and finding out their suggestions for making improvement in the training programme. The detailed information collected from these special trade institutes is given in the following paragraphs.

3.2. *Government Institute of Garment Technology, Amritsar.*—The Institute of Garment Technology was established at Amritsar in the year 1937. The main aim of its establishment was to provide training in the technology of garment making. At the time of survey the institute was running the following courses :—

- (i) Three years diploma in garment technology. The diploma is awarded by the State Board of Technical Education ;
- (ii) one year certificate in Tailoring and Cutting on DGE & T pattern (2 units) ;
- (iii) one year certificate in Weaving Technology (one unit) ;
- (iv) one year certificate in Dyeing and Calico Printing (one unit) ;
- (v) one year certificate course for girls in Arts and Crafts.

The minimum educational qualification for admission to the diploma course was matric (minimum 45 per cent marks) with science and mathematics as essential subjects. The qualification for admission to certificate courses was middle only. The distribution of trainees who passed out from the respective courses in 1975-76 and 1976-77 by their qualifications at the time of admission is given in table 3.1.

**Table 3.1 : Qualifications of the trainees who passed out in 1975-76 and 1976-77 at the time of entry into the Institute**

Trades/Courses	1975-76				1976-77			
	Middle	Matric/ Hr. Sec/ F.A.	B.A.	Total	Middle	Matric/ Hr. Sec/ F.A.	B.A.	Total
1	2	3	4	5	6	7	8	9
1. Diploma in Garment Technology	—	35	2	37	—	30	1	31



Trades/Courses	1975-76				1976-77			
	Middle	Matric/ Hr. Sec/ F.A.	B.A.	Total	Middle	Matric/ Hr. Sec/ F.A.	B.A.	Total
1	2	3	4	5	6	7	8	9
2. Certificate Course in Cutting and Tailoring ..	4	24	—	28	3	24	—	27
3. Certificate Course in Dyeing and Calico Printing	—	16	—	16	—	12	—	12
4. Certificate Course in Hand Weaving of Fancy Fabrics ..	—	16	—	16	—	16	—	16
Total ..	4	91	2	97	3	82	1	86

Thus more qualified students were being attracted by the Institute due to its providing better employment avenues after training.

*Intake Capacity.*—Data for the years 1975-76 and 1976-77 regarding intake capacity, actual admission, drop-outs and failures is presented in table 3.2.

Table 3.2 : Admission Capacity, Intake and Pass-outs

Year	Course <sup>1</sup>	Admission capacity	Students on roll	Drop-outs	Failures	Pass-outs
1	2	3	4	5	6	7
1975-76	(i) Diploma in Garment Technology (22 trainees in each year) ..	66	55	—	18	37
	(ii) Cutting and Tailoring ..	32	36	8	—	28
	(iii) Dyeing and Calico Printing ..	16	17	1	—	16
	(iv) Hand Weaving ..	16	16	—	—	16
1976-77	(i) Diploma in Garment Technology ..	66	55	—	24	31
	(ii) Cutting and Tailoring ..	32	33	4	2	27
	(iii) Dyeing and Calico Printing ..	16	16	4	—	12
	(iv) Hand Weaving ..	16	16	4	—	12

In the case of three years diploma course in garment technology where admission capacity at entry was 22, the total number of students on roll in the 3 years was 55. Although no drop-out was reported from among the students, the failure rate was comparatively higher and the failed students were allowed to re-appear only as private candidates. Due to the popularity of the diploma course and better employment prospects for persons trained in this trade, large number of applications were being received for admission. The data indicate full utilisation of the seating capacity. Although there was over-utilisation of seating capacity in one year Cutting and Tailoring Course, the drop-out rate was comparatively higher.

*Stipends/Scholarships to the trainees.*—Stipend and Scholarships of different denominations were awarded to the students. All Scheduled castes students were paid stipend @ Rs 45 p.m., Scholarships @ Rs 40 p.m. were awarded to two students each of 2nd and 3rd year classes on merit basis and stipends @ Rs 25 p.m. was paid to one-third of the students on merit-cum-poverty basis. The following table gives the details of amount of stipend disbursed and number of students given stipend during 1975-76 and 1976-77.

**Table 3.3 : Number of stipend holders and total amount of stipend disbursed**

Year	Total number of students	Number of stipend holders	Amount of stipend paid (Rs 000')	Total expenditure of the Institute (Rs 000')
1	2	3	4	5
1975-76	.. 124	54	13.9	215.00
1976-77	.. 120	51	12.4	237.00

As revealed by table 3.3 nearly 43 per cent of the students on roll (mostly) belonging to weaker section of society were given stipends to enable them to pursue their studies and become skilled workmen for employment. The total expenditure on stipend constituted between 5 to 6 per cent of the total annual expenditure of the institute.

Both the trainees as well as the ex-trainees who were getting stipends or had been getting stipends when asked about their opinion about stipend, highlighted the following points :

(i) The payment of stipends was not made in time. Usually a period of 5 to 6 months elapses before the stipends are disbursed, thus defeating the very purpose of stipends. Majority of the boys/girls in the Special Trade Institutes belong to relatively poor families and to them the amount of stipend was a great help in sustaining themselves. Further, it was also observed that one reason for dropping out was precisely the non-disbursement of stipends for a period beyond one's sustenance. The question of time gap between the admission and disbursement of stipends needs a closer examination. It is felt that after an initial maximum period of 3 months, stipend must be disbursed

regularly every month. The delay in indentifying deserving students both at the institute and the head-quarter level must be reduced to the minimum and completed within the first three months.

(ii) The main reason for giving stipend is to help the students for meeting part of their expenses and thus to lighten their economic burden to that extent. The current rate of stipend was fixed a long time back. Perhaps the cost of living at that time was taken into account while fixing the amount. While the cost of living has gone up several times since then, the amount of stipend has remained the same thus reducing the extent of monetary compensation it rendered earlier. It would be only fair if the rate of stipend is revised every three years keeping in view the rise in the cost of living and other related factors.

(iii) Stipends to one-third of students is given on merit-cum-proverty basis. It was, however, difficult to identify students strictly according to the criteria laid down for the purpose. In a number of cases while children belonging to parents engaged in petty and middle level business or to average farming families succeeded in securing the stipend, those belonging to the families especially of government middle level employees, failed to get the stipend. In many cases, therefore, some really deserving trainees were by-passed causing resentment and heart burning. It would be more appropriate if the stipend is given purely on merit basis.

(iv) Government may also consider the question of giving stipend to all the trainees who pass the class tests. Any trainee failing the test twice consecutively may forfeit his stipend for the rest of the term. As mentioned earlier already around 45 per cent of the students receive stipend. If stipend is given to all the trainees, the expenses on account of stipend will be a little more than double thus accounting for about 12 per cent of the annual expenditure of the Institutes. This step would eliminate the delay in the disbursement of stipends caused due to identification of deserving students and would also eliminate heart burning among deserving students. It was further noticed that students once identified for the grant of stipend, continue to get it throughout his stay irrespective of his performance later on. Stipend once awarded on merit-cum-poverty basis should be used as means for keeping up the performance of the student. A stipend receiving student must forfeit his stipend if his performance is not up to mark in two tests consecutively.

(v) The Government may adopt a selective system of stipend rates to attract trainees in particular basic trades for which employment opportunities exist but trainees were not forthcoming (fitter, turner, moulder etc.) and to discourage students from going into trades where employment opportunities were already saturated. This decision should be taken by a committee headed by Director, Technical Education or his nominees, Principal of the Institute, Employment Officer and two prominent industrialists of the district/city.

*Raw-material used and production of goods.*—Adequate supply of raw materials to cover the prescribed exercises is utmost necessary for imparting practical training to the trainees. It was reported by the Principal that 75 per cent work of the Institute was based on practicals. The Institute was facing a great problem in managing the practical training within a small sum of Rs. 20 thousand per annum allocated for this purpose. The gap between the required and the available was being bridged by authorities by taking customers work so that the syllabus pertaining to practical might not suffer. This

method of arranging raw-material was incidently proving beneficial to the institute in many ways. The supply of material was effected by the customers, the students were in a position to deal with the customers directly, and the institute charged only the stitching charges.

**Table 3.4 : Details of raw material purchased/arranged and used**

(Rs. in thousand)				
Items	1973-74	1974-75	1975-76	1976-77
1	2	3	4	5
1. Raw material purchased/arranged during the year ..	30.0	30.0	24.0	24.0
2. Raw material used during the year ..	30.0	30.0	24.0	24.0

The table shows that whatever raw material was purchased/arranged during the different years was used by the trainees during the same year for the practical exercises. The record also revealed that while Rs. 20 thousand was allotted for the purchase of raw material the sale proceeds were worth Rs. 30 thousand. No doubt the authorities/trainees had to put in greater efforts for this but such method of arranging raw-materials at their own level was proving very helpful.

*Production of goods.*—The Institute was arranging its own raw materials from private customers and production was taking place in the Institute. During the years 1975-76 and 1976-77 production worth Rs. 13 thousands and Rs. 18 thousands, respectively was done by the trainees of three years' diploma course in garment technology. In this context, it is suggested that such type of production should be encouraged in Special Trade Institutes wherever possible and incentive in shape of money should be given to both Instructors as well as trainees.

*Staff Position.*—The Institute had 25 sanctioned posts inclusive of the teaching and establishment staff on the date of the survey but 23 persons were in position. One post was advertised for filling it on an *ad hoc* basis and the second post was vacant due to promotion of an attendant. The following table gives the staff position of the Institute.

**Table 3.5 : Staff position as on survey day**

Designation	No. of posts sanctioned	No. of persons in position
1	2	3
(i) Principal ..	1	1
(ii) Technical Teaching staff ..	12	11
(iii) Other staff ..	12	11
<b>Total</b> ..	<b>25</b>	<b>23</b>

The qualifications of the staff on various jobs were fixed after consulting the expert committee consisting of General Manager of Army Clothing factory, Technical Heads of Private Factories, Industrialists and other experts. The staff was well qualified and trained in their respective trades.

Since the research work was being carried out by this Institute the staff members were acquiring more and more skill by working in the Institute itself. However, it is suggested that their grades should be brought at par with the staff of the Polytechnic Institutes.

It may be mentioned that this was a unique Institute not only in the country but also in Asia. No refresher courses were, therefore, needed for technical staff. The Institute was providing technical help to almost all the clothing factories as and when it was needed by them. The research work had itself assumed the place of refresher courses and improvement in the calibre of the staff. The Institute itself conducts refresher courses for the staff of the Girls Institutions. Not only this, the clothing factories also depute their technical staff for improving their knowledge. The institute has all the wherewithal for starting a 2 years course in costume designing. For this purpose only two additional posts, one of dress designer and other of pattern maker would be required. It would be useful to start such a course to broad base the Institute.

*Machinery and Equipment*:—The working of available machines was satisfactory. The available plant for manufacturing of readymade garments was adequate for the existing intake capacity. For the safety arrangements it is suggested that hedges should be provided to the machinery, and its installation should be at a fair distance to avoid accidents. It is also suggested that machinery should be shifted to a better hall. It was reported by the Principal that none of the machines was lying idle for want of repair. All the machinery was in use and was inspected by the Director from time to time. In order to check up the machinery, experts from Delhi working in Industrial Product unit of Singer Sewing Machines were called from time to time.

*Prospectus of Employment*.—On an enquiry about the employment scope off the passed out trainees, the Principal informed that their trainees were absorbed as soon as they come out. As a matter of fact the Institute many a times received employment indents from the various factories even before the final examination of the students. The students were accepted by garment manufacturers without even seeing the results. The very fact that they had appeared in the final examination was considered an adequate qualification for their employment. There was great demand for the trained hands of this Institute in about 2,000 garment manufacturing units spread throughout the country. The Institute was currently not in a position to meet the demand. It is suggested that Institute should be expanded to double its capacity especially in the trade of garment technology and also broad based to cover the field of costume designing. There is still plenty of scope in this field.

*Facilities available to the Institute*.—It is clear from the aforesaid review that Institution was working satisfactorily and producing trained hands in the field of garment technology. The Institute was, however, handicapped due to the absence of certain essential facilities such as telephone and play grounds. Although the facility for library existed in the Institute yet an improvement in it was required. Library should be properly housed and perhaps a suitable room can be constructed in the back lawn of this

Institute to accommodate the library in a proper manner. It was noticed that there was shortage of books in Institute on the subjects relevant to its fields of instructions. It is suggested that more books of technical nature, journals, magazines etc. should be added to library.

Other facilities like laboratory, workshop, meeting hall/recreation room etc., were adequate.

Two play grounds for badminton and volley ball were available but the Institute was hiring play ground whenever necessary. It is suggested that land should be got acquired for the play ground.

The Institute had no telephone. This facility was very essential for a popular institute which is serving useful purpose in the development of clothing, industry. The Director, had approached the Government for according sanction for the installation of a telephone but some how the sanction could not be received. It is recommended that telephone should be installed in this reputed Institute.

3.3. *Government Tanning Institute, Jullundur*;—The Government Tanning Institute, Jullundur, was established in 1934 with the limited objective of demonstrating better techniques in tanning to the country's tanners and thus improve the quality of their tanned leather. In 1938, a two years diploma course and one year certificate course in tanning were introduced. On the recommendations of late Mr. B. M. Das, the then Principal, Bengal Tanning Institute, the Institute was re-organised in 1941 when the previous courses were replaced by a three years diploma course in leather chemistry and technology and two years artisan's course in tanning. Keeping in view the shortage of qualified technologists and skilled workers in the Footwear Industry two years diploma course in footwear technology and one year artisan course in footwear were introduced in 1964 and 1974 respectively. The latest addition to various courses had been a skilled worker course in leather based sports goods industry with the object of easing out the acute labour problem in this industry. On the recommendation of the All-India Council for Technical Education, the three years diploma in leather technology was replaced by a State diploma which provided for two years training at the Institute followed by one year compulsory apprenticeship.

The following were the various courses of studies offered by the Institute at the time of the survey in 1978 :—

- (i) A State Diploma (N.C.C.) in Leather Technology, extending over three years, two years at the Institute followed by one year compulsory apprenticeship, with an annual intake of 10 students. Minimum qualification prescribed for admission was matric pass with science as compulsory subject.
- (ii) A Diploma in Foot wear Technology of two years duration at the Institute. The annual intake was 15 trainees and qualification prescribed for admission was matric pass.
- (iii) Two years artisans course in Tanning with an annual intake of 10 trainees. No qualifications were prescribed but the Admission was restricted to sons and wards of Harijans.

(iv) One year artisan course in Footwear with an annual intake of 10 trainees. No minimum qualifications were prescribed.

(v) One year artisan course for each of the following trades :—

(a) Football and Volleyball cover making.

(b) Hockey and Cricket ball making.

Besides the above regular training programme, the Institute had also been offering common facility services to private parties who bring their own raw-hides and skins and get them processed into various types of leather, under the guidance of its technical staff, at reasonable rates. The Institute was also a recognised source for the supply of leather footwear to Class IV employees of Punjab Government Departments.

*Qualifications of the trainees:*—Educational qualifications at the entry, possessed by the passed out trainees covered under the survey are given in table 3.6.

TABLE 3.6 : Educational qualifications of passed out trainees

Trades	1975-76					1976-77				
	Below Middle	Middle	Matric/ Hr. Sec./ Inter- mediate	B.A.	Total	Below Middle	Middle	Matric/ Hr. Sec./ Inter- mediate	B.A.	Total
1	2	3	4	5	6	7	8	9	10	11
1. Diploma course in leather technology ..	—	—	3	—	3	—	—	9	1	10
2. Diploma course in Footwear technology ..	—	—	4	—	4	—	—	8	1	9
3. Artisan course in tanning ..	6	—	—	—	6	8	—	—	—	8
4. Artisan course in footwear ..	4	—	—	—	4	7	—	—	—	7
5. Skilled workers in leather based sports goods ..	5	—	—	—	5	11	—	—	—	11
Total ..	15	—	7	—	22	26	—	17	2	45



In the diploma courses all the passed out trainees fulfilled the minimum basic qualification laid down for entry. In 1976-77 one trainee was a graduate. No minimum qualification was prescribed for admission in other courses and generally the students were not even middle pass.

*Intake capacity/admission:—*Data relating to the utilisation of intake capacity in this Institute during the years 1975-76 and 1976-77 is given in table 3.7.

TABLE 3.7 : Intake capacity, admission and passed out trainees

Trades	1975-76					1976-77				
	Admission capacity	Actual admission	Drop outs	Failures	Pass outs	Admission capacity	Actual admission	Drop outs	Failures	Pass outs
1	2	3	4	5	6	7	8	9	10	11
1. Diploma course in leather technology	10	9	4 (44·45)	2 (22·22)	3 (33·33)	10	11	—	1 (9·09)	10 (90·91)
2. Diploma course in footwear technology	15	9	3 (33·33)	2 (22·22)	4 (44·45)	15	15	6 (40·00)	—	9 (60·00)
3. Artisan course in tanning	10	5	—	—	5 (100·00)	10	7	2 (28·57)	—	5 (71·43)
4. Artisan course in footwear	10	10	—	—	10 (100·00)	10	8	1 (12·50)	—	7 (87·50)
5. Skilled workers in leather based sports goods making	—	—	—	—	—	15	15	1 (6·67)	—	14 (93·33)
Total	45	33	7 (21·21)	4 (12·12)	22 (66·67)	60	56	10 (17·85)	1 (1·79)	45 (80·36)

(Figures in brackets are percentages to actual admission).

The above table depicts the data regarding admission capacity, actual admission, drop-outs, failures, pass-outs during the years 1975-76 and 1976-77 in different courses. It had been observed that while response for admission to diploma courses was encouraging. The main reason for the drop-outs was that the trainees seeking admission in these courses mostly belonged to the weaker sections of society and parents could ill afford to send their children who supplement the family earning, for one year at the institute, and thus losing their contribution towards family's upkeep.

*Stipend/Scholarships to the trainees.*—Stipend and scholarship were awarded to the students. The following table gives the details of the amount of stipends disbursed and number of students during the different years.

**TABLE 3.8 : Number of stipend holders and total amount of stipend disbursed**

Year	Number of students	Number of stipend holders	Amount of stipend paid (in '000' Rs)	Expenditure (in '000' Rs)	
1	2	3	4	5	
1975-76	..	51	28	13.3	276.0
1976-77	..	81	45	20.2	287.0

Regarding the reaction of the current as well as the ex-trainees about the stipend a reference may be made at page 22—23 as the views expressed were identical.

*Raw material used.*—Sufficient supply of raw material for practical training to the students is utmost necessary. It was reported that the Institution was facing a problem in managing the practical training with inadequate amount sanctioned for the purchase of raw material. Efforts were made by the Institute to entertain private parties who bring their own raw hides and skins and get them processed into various types of leather under the guidance of its technical staff at reasonable rates to make up deficiency of funds. Institute was also an approved source for the supply of leather and footwear to all class IV employees of Punjab Government Departments but it was not in a position to meet the total requirements. There should be a provision of at least Rs. 50 thousand in the form of personal ledger account so that not only the requirements of the trainees is met but also enough shoes are made with the availability of adequate raw material. The Institution can then be in a better position to supply leather goods to

various departments and could thus earn revenue. Details of raw material purchased and used during the period 1973-74 to 1976-77 is given below :

**TABLE 3.9 : Value of raw material purchased/used**

(Rs. in '000')				
Items	1973-74	1974-75	1975-76	1976-77
1	2	3	4	5
Raw material purchased during the year ..	34.0	43.0	34.7	39.0
Raw material used during the year ..	30.0	38.0	29.9	35.4

The reason for the shortfall between actual purchase and use was the habit of keeping some quantity of the raw material always in store.

*Production of Goods.*—As indicated in above paragraphs the Institution was an approved source for the supply of leather and footwear to all the class IV employees of Punjab Government Departments. The value of goods produced by the trainees in this Institute increased from Rs. 27.0 thousands in the year 1975-76 to Rs. 30.0 thousands during 1976-77. It is suggested that the Government should endeavour to increase production by providing suitable incentives in form of money both to the instructors and trainees. The details of production are given below :—

**TABLE 3.10 : Production and disposal of goods produced by the trainees.**

(Rs. in thousand)					
Year	Value of goods produced by the trainees	Value of goods sold			Value of goods in stock as on (31st March)
		Government Department	Others	Total	
1	2	3	4	5	6
1975-76 ..	27.0	20.0	2.0	22.0	5.0
1976-77 ..	30.0	25.0	2.5	27.5	2.5

*Staff position.*—The total sanctioned strength of the staff on 31st January, 1978 including the teaching and non-teaching staff was 38. One post of foreman was lying vacant due to the promotion of the present incumbent.

**TABLE 3.11 : Number of persons employed**

Designation	No. of post sanctioned	No. of persons in position
1	2	3
1. Principal	1	1
2. Technical Teaching staff	8	8
3. Other staff	18	17
4. Class IV Employees	12	12

The whole staff was qualified and trained according to the duties entrusted to them. However, it would be useful to depute them for short term refresher courses in their respective trades, in various institutions of repute at Madras and Kanpur. It was reported that the grades of technical staff at present were too poor to attract qualified personnel. The grade of the principal was Rs. 400—800 were as that of Lecturers and Foremen was Rs. 300—600 and Rs. 250—500 respectively. The grades of the Principal and the Heads of Departments of Tanning and Footwear at the Government Leather Working School, Kanpur, who were also imparting almost the same standard of training were Rs. 700—1,200 and Rs. 400—900 respectively. The Government may consider the question of revising the grades of Technical Staff in this institute to the level of Lecturers in Education Department for the purpose of attracting suitably qualified technical hands.

*Machinery and equipment.*—Adequate supply of machinery and equipment plays a vital role in imparting proper practical training to the trainees. Prior to 1969, the Institution was well equipped with requisite machinery and a high standard of training was maintained. A good volume of work was also being done for private parties under the Common Facility Service Scheme. However, as per decision of the Government the whole machinery and part of buildings of the Institute were made over to M/s Punjab Tanneries Ltd. a subsidiary of Punjab State Industrial Development Corporation. Although it was then agreed that the machinery would remain in common for commercial production and training purposes, this system was not working satisfactorily. The machinery was not made available to the Institute for sufficient time required for giving training to the students. The students were also not allowed to handle the machinery for fear of breakdown or interruption in normal production programme of the Tanneries, and thus the trainees are not getting confidence in the control of various machine operations so vitally required to enable them to become

adept workmen. The standard of training and work under common facility scheme had also been adversely affected. It is suggested that with a view to maintaining the proper standard of training it would be absolutely essential to equip the Institute with the proper machinery to be used independent of the Punjab Tanneries. Modern machinery for Diploma course in Leather Technology as also for Artisan Course was not available at all. It was reported by the trainees that the machinery for making sports goods was not available in the Institute.

*Employment Prospectus.*—With the out flow of a number of B. Tech. and highly qualified technical personnel in Leather Technology from Madras and Calcutta, it was difficult for Diploma holders of this Institute to secure places of responsibilities in the industry. Leather and allied industries have enormous export potential and with rapid increase in commercial units in the State more and more trained personnel will be required. For all supervisory posts advertised in this trade, minimum qualification now prescribed was B. Tech. Accordingly it would be desirable to upgrade the Institute by introducing degree course in Leather technology and one year condensed course for Diploma holders after equipping the institute properly. Institutions like Leather Technology Institute, Calcutta should be persuaded to accept trainees of this Institute for condensed degree course. Till the Punjab Government introduces B. Tech. Course, it can sponsor candidates to undergo degree course training either at A.C. College, Madras or College of Leather Technology, Calcutta.

For improving the employment opportunities for Diploma holders, it is suggested that bigger units like Punjab Tanneries and Footwear Ltd. in the organised sector and units in the small scale sectors should encourage some talented young hands to set up ancillary units. The setting up of common facilities units in and around Jullundur will help such technical personnel to take up their own business on small scale basis. The banking facilities available to new entrepreneurs were too rigid to be availed of by the persons entering these professions and need to be relaxed to some extent. When asked about the prospects of employment of passed out trainees from the Institution, the Principal informed that although no official record was available with the office yet it can be safely assumed that the trainees were generally absorbed in sports goods industry or in Punjab Tanneries Ltd., etc. The Institute got the employment indents from the various factories.

*Facilities available to the Institute:*—The Institute was not only handicapped in modern machinery and equipments but also was seriously handicapped from certain other facilities. The library of the Institute was housed by partitioning a room, the half portion of which was being used for practicals of Foot-wear Technology course. The Institute required a separate room measuring 20' X 20' for stocking the books and to serve as a reading room. The availability of books for both teachers and students was not sufficient. Library should have different types of Magazines, Technical books, Journals, Library rules should be modified so that it was possible for the trainees to get the books issued for reading at home.

Though the Institute had a separate work-shop yet it was inadequate to give proper training. It is suggested that a shed measuring 70' X 30' should be constructed. Meeting Hall/Recreation Room in the Institute

for the meetings and recreation of the trainees and teachers was also badly needed.

*Apprenticeship of trainees.*—Ever since the introduction of State Diploma Course in Leather Technology, All-India Council for Technical Education was arranging one year compulsory apprenticeship for out-going students in various tanneries in India by awarding them stipends. During the past 5 years they have refused to offer this facility on the plea that their apprenticeship programme was meant for only such students who have put in atleast three years at the Institute. They had indicated that one year compulsory apprenticeship after two years studies at the Institute was the concern of the State Government. Lot of difficulties were coming in the way of the students in obtaining gainful employment in commercial establishments because of inadequate arrangements for the apprenticeship. It will be of much help to include apprenticeship in Leather and Foot-wear Trades in the apprenticeship programme being conducted by the Punjab Government. Thus the boys would acquaint themselves with the problems of commercial working and gain enough confidence to work independently in tanneries and foot-wear units. One year apprenticeship should be made compulsory part of the training for students of State Diploma Course in Leather Technology. Difficulties have been experienced during the last about 5 years in fixing up the students as apprentices, firstly because Board of Apprenticeship Training, Government of India, insists that they can arrange training only for such boys who had put in atleast 3 years at the Institute. Secondly they select trainees only on merit basis and thus large number of trainees not in the merit list are left out. Thirdly, the Punjab Apprenticeship Act did not cover the trades of Leather Technology and Footwear Technology units under apprenticeship programme. The private units generally hesitated to accept the students as apprentices because it was made binding on them that all such apprentices should be employed by them after the completion of apprenticeship period. Such a binding should be removed. Central Board of Apprenticeship, may be approached for arranging apprenticeship for all the students of the Diploma Courses in Leather and Footwear Technology. The amount of stipend for Diploma holders should be increased to Rs. 250 p. m. to meet the high expenses outside the State. To improve the scope of the students it is suggested that present syllabus may be revised so as to make it a Diploma in Shoe-and Leather goods making and may be brought to the level of the Leather Working School, Kanpur. In addition to this inplant training of about one year in some commercial units for different courses will be helpful in inculcating confidence in the students in handling the work on commercial lines. The Diploma in Footwear Technology is also required to be got recognised from Government of India. It is, also suggested that duration of training for :—

- (i) Artisan course in tanning ; and
- (ii) Course in sports goods were unnecessarily longer and should be reduced to one year and six months duration, respectively.

3.4. *Government Institute of Textile Technology, Amritsar.*—The Government Institute of Textile Technology, Amritsar had been functioning under different names since 1920. It was started by the Industries Department with the following objectives in view :—

- (i) to give technical instructions to young men in Textile Technology.

- (ii) to undertake experiment and research for the development of Textile Industry.
- (iii) to give assistance to the general public in technical matters connected with the textile trade ; and
- (iv) to improve and strengthen generally the textile industry in Punjab.

Taking into consideration the changing needs of the Textile Industry which had become very much different in character, it was decided in 1946-47 to reorganise the Institute and to include in its scope training in Power Loom Weaving, Spinning, Textile Chemistry, Textile Economics, Mill Organisation and Textile Technology so as to provide systematic training on principles of Science and Arts as applied to Textile Industry. Under this scheme, the period of Diploma Course was increased from two years to three years with six months of inplant training in the mills.

During the Third Plan period the Northern Regional Committee of the All-India Council for Technical Education appointed by Government of India recommended the introduction of three years post-Matric Diploma Course in Textile Technology. The syllabii prescribed by the All-India Council for Technical Education, Government of India has since been introduced. The Institute played an important role in the development of textile industry by providing quality supervisors and skilled workers. The Institute produced diploma holders who were in great demand in all the private textile mills and also in the mills manned by National Textile Corporation, Government of India and all other Government offices which deal in textiles.

The admission capacity of the Institute was 33 in Three year Diploma in Textile Technology and the total seats were 99 in the Institute. The minimum educational qualifications for admission to this diploma was Matric second division. Out of 16 trainees who passed the diploma course during 1975-76, 5 trainees were Matric, 9 were Pre-University/Pre-Medical and 2 trainees were B.Sc./B.A. and during the year 1976-77 out of 19 successful trainees, 12 were matriculate, 5 were pre-university, one was pre-medical and one student was B.Sc.

*Intake capacity/Admission.*—The following table gives the details of intake capacity/admission and of wastage on account of failures and drop outs in 1975-76 and 1976-77.

**TABLE 3-12**  
**Extent of wastage on account of failures and drop-outs**

Year	Course	Admission capacity	Admission	Drop-outs	Failures	Pass-outs
1	2	3	4	5	6	7
1975-76	Diploma in Textile Technology.	33	33	—	17 (51.52%)	16 (48.48%)
1976-77	Diploma in Textile Technology	35	34	3 (8.82%)	12 (35.29%)	19 (55.89%)



The table shows that admission in this institute was strictly according to admission capacity. It was reported by the Principal that usually there was a great rush for admission for this diploma course. It was really appreciated that there was no wastage of trainees on account of drop outs during the year 1975-76 and it was only 8.82 percent in the year 1976-77. It is clear from the table that wastage on account of failures was very high. Out of 17 trainees who failed to pass examination in 1975-76, 8 trainees cleared the examination in supplementary examination and 3 were still appearing in supplementary examination as private candidates and 5 trainees had left the Institute. Similarly in the year 1976-77 out of 12 failures, 3 trainees cleared in supplementary examination, 2 were appearing to clear as private candidates and the remaining 7 trainees had no contacts with the Institute. With the expanding activities in the field of textile industry and greater demand of Indian Textiles from the foreign countries, demand of passed out diploma holders of this Institute had increased considerably. In order to meet the increasing demand, it was very essential to enhance the intake capacity of the Institute. It was reported by the Principal that the existing machinery/equipment, building and staff was sufficient to teach the present strength of students only. In case the working of the Institute was split up in two shifts, the Institute could increase the annual intake of students to double i.e. from 33 to 66. For double shift, few additional posts of Lecturers, Junior Lecturers, Technicians and Weavers etc., would be required in Weaving shop, Spinning shop, Dyeing and Printing shop, Testing Laboratory, Workshop etc. Since the students of the second shift would pursue the same course of studies and would appear in same Diploma Examination alongwith the students of first shift, it would not be much expensive.

*Stipends/Scholarships.*—Stipends and Scholarships of the different denominations were awarded to the trainees. Scheduled Castes trainees were paid @ Rs. 45 p. m., two scholarships @ Rs. 10 p. m. to trainees of 2nd and 3rd year on merit basis and stipend @ Rs. 25 p. m. was given to 33 $\frac{1}{3}$  percent of total admitted trainees. Following table gives the number of stipend holders under different schemes and total amount of stipend disbursed to the trainees.

TABLE 3.13

**Stipend holders and amount of stipend disbursed from 1975-76 to 1976-77**

Year	Number of students	Number of stipend holders	Amount of stipend paid (Rs. in '000')	Expenditure (Rs. in '000')
1	2	3	4	5
1975-76	90	37	8.8	352.0
1976-77	92	41	13.5	325.0

The picture was similar to the one observed in the earlier case. Nearly 45 percent of the students were getting stipends and expenditure on this account contributed only about 4 percent of the total expenditure of the institute.

Regarding the opinion of the current as well as ex-trainees on the stipends reference may be made at pages 22—23 as the views expressed were identical.

*Raw material used and production of goods.*—It was observed that this Institute was facing the problem of shortage of raw material due to lack of funds. Most of training in the Institute was based on practical work and in the absence of raw material, it was very difficult to impart proper practical training. Details of raw-material purchased and consumed during the different years is given below :—

TABLE 3·14

## Value of raw material purchased/consumed

Value in 000' Rs.

Items	1973-74	1974-75	1975-76	1976-77
1	2	3	4	5
1. Raw material purchased ..	1·8	3·0	3·5	3·3
2. Raw material used ..	1·3	2·5	3·0	2·5

All the 10 trainees (undergoing training) and 10 ex-trainees contacted for survey reported that practical training being given by the Institute was not sufficient because of shortage of raw material and absence of modern machinery being used in mills. In this context it is suggested that raw material should be provided to trainees as per norms fixed D.G.E. & T. pattern by Government of India so that practical training may not suffer.

*Production and disposal of goods.*—Being a training institute there was little scope for production. Greater stress was laid to train students as mechanics of machines. As soon as a machine was made fit to produce cloth, it was again dismantled to provide repeated practice to become perfect mechanics, which was actual need of the textile industry. It was on account of good training that diploma holders of the Institute were immediately employed. It was reported that if more stress was laid on production, the students would simply become operators.

*Machinery and equipment.*—As stated earlier the existing machinery/equipments were sufficient enough to teach the present strength of students. As the institute was very old, some machinery was reported to be outdated which required replacement. For making the improvement in the quality

of the existing training course in spinning and weaving at this Institute the following machinery was required for spinning section.

(Rs. in lacs)

Spinning	Approximately value
1	2
(i) Combler ..	2.00
(ii) High speed and with cross voll verga system ..	1.50
2. Humidification Plant (for spinning weaving and testing sections) ..	0.50

The following new machines were required for the weaving section of Institute.

Machines	Value
1	2
1. Sizing machine ..	1.15 lacs
2. High speed Warping machine ..	1.05 „
3. Terry Towel loom ..	0.25 „
4. Swivel Loom ..	0.15 „
5. Automatic Knitter ..	0.10 „
6. Saurer Loom ..	0.80 „
	<b>3.50 lacs</b>

The Principal of the Institute indicated that another scheme for training of weavers on Hand Loom/Power Loom Weaving (short term course) was under the consideration of the Department. The following courses were likely to be started :—

- (i) Certificate course for weaver and warper on Plain Loom of six months duration.
- (ii) Certificate course for weaver and warper on Fancy warpers on one year duration.
- (iii) Certificate course for training on weaving machine for jobbers and fitter of one year duration.

For starting above mentioned certificate courses the following machinery would be required.

Type of Machinery	Number of units	Approximately cost (Rs. '000')
1	2	3
1. Plain Looms over Pick ..	4 Nos.	20·00
2. Plain Looms under Pick ..	2 Nos.	15·00
3. Looms with Dobby ..	4 Nos.	40·00
4. Looms with Drop Box ..	2 Nos.	20·00
5. Looms with Jacquard ..	2 Nos.	10·00
6. Looms with Jacquard & Drop Box ..	1 No.	10·00
7. Warping machine ..	1 No.	10·00
8. Piron Winding machine 10 spindles ..	1 No.	8·00
9. Warp Winding Machine ..	1 No.	10·00
10. Sizing Machine ..	1 No.	22·00
11. Accessories with Pirms, Dobbies, healds spare Beams, Wire healds, Drawing locks, leathers—Latcher for Dobbies and Drop Box cards	1 No.	25·00
Total	..	190·00

It is suggested that instead of increasing the number of I.T.I.'s new courses in S.T.I. should be started to curb the un-employment. Modern machinery needed in these Special Trade Institutes to improve practical training and starting new courses should be provided.

*Prospects of Employment of the trainees of the Institute.*—The trainees passing out from this Institute were directly absorbed on responsible jobs in textile industry and in Government departments dealing with textile goods through out India. The Institute was facing no difficulty in getting its trainees absorbed. Salary ranging from Rs. 500 to Rs. 600 p. m. were being paid to successful trainees as absorption in mills.

*Staff position.*—It was reported that teaching staff in the Institute was well qualified to teach their respective trades. It was noticed that still there was some scope for additional refresher training which would improve

their standard. The principal reported that no doubt the staff employed at this Institute was possessing requisite qualifications and experience to impart proper training in the students but the grades of the staff were so low that once a staff member retired or left the job it becomes very difficult to recruit proper qualified staff as replacement. The post of lecturer carried a grade of Rs. 350—1,000 and the minimum qualification for the post was Degree in Textile Technology. Whereas the Diploma holder of this Institute was paid Rs. 500 to 600 immediately on completion of studies. It was found that the post of lecturer in Dyeing and Printing which had fallen vacant on account of retirement three years back was still vacant due to non-availability of suitable candidate at such a low grade. Studies of the students were suffering on account of this difficulty. Similar was the case with other senior posts falling vacant from time to time. In this context it is suggested that Government should either relax the qualification for the post or the grades should be upgraded. The following table shows the number of posts sanctioned and in position on 31st January, 1978.

TABLE 3-15

## Staff position of the Institute

Trades	Number of posts sanctioned	In position
1	2	3
Diploma in Textile Technology ..	51	46

There were 51 sanctioned posts in this Institute and 46 staff were in position. Five posts of different categories were lying vacant due to non-availability of qualified candidates against the low grades attached to the posts.

*Facilities available.*—The Institute was well-equipped with all the facilities available for smooth functioning. There was a library in the Institute. The books for trainees and teachers were available but still additional funds were needed for the purchase of more books. There was a workshop, a meeting hall, a recreation room and play grounds. These grounds were well maintained and the games, like Hockey, Volley ball, Badminton and Cricket were being played by the trainees. Attendance in the games was compulsory for every student. Hostel facility for men was available in the Institute. The total capacity in the hostel was 45 trainees but at the time of survey only 28 trainees were residing. This was on account of admission of local students. Besides above the Institute had facilities for different kinds of extra curricular activities like exhibitions, educational tours etc.

3.5. *Government Arts and Crafts Teachers Training Institutes at Nabha and Amritsar.*—These institutes were imparting training in Arts and Crafts

Teachers Training and Drawing Masters courses for the Middle, High and Higher Secondary Classes of the State. Both these Institutes were having two years diploma courses in these subjects and the total seating capacity was 336. The minimum qualifications for admission to these courses was Matric with Drawing/Fine Arts as one of the subjects. Girls students, however, were given relaxation and were admitted even without drawing and fine arts but they had to undergo aptitude test prior to admission.

*Institute at Nabha.*—This Institute was started in October, 1955 at Subathu (Simla Hills) to train teachers in different Crafts under the name of Government Craft Teachers Training Institute, Subathu. This Institute was shifted from Subathu to Nabha in September, 1956 and its name was changed from Government Crafts Teachers Training Institute to Government Arts and Crafts Teachers Training Institute. The Government Arts and Crafts Teachers Training Institute for Women, Patiala, was shifted and amalgamated with this Institute in 1963. Earlier this Institute was under the control of the Education Department but from March, 1966, the Administrative control of the Institute was transferred to the Director of Technical Education and Industrial Training, Punjab.

*Institute at Amritsar.*—This Institute was started in the year 1975 by merging private Institutes which were producing Arts and Crafts teachers. The Institute was working in a rented building which was inadequate as per present seating capacity. Institute at the time of survey was pursuing Special Training Project for the students who were formally getting training in privately managed Arts and Crafts teachers training Institutes. Only Second Year Class was being given training and no admission was done for the 1st year class on the instructions of Director of Technical Education and Industrial Training. Prior to this the privately managed Institutes were producing about one thousand trainees every year. The number of diploma holders increased rapidly. Due to limited scope of employment the admission in 1st year had to be stopped.

*Educational qualifications of the passed out trainees:*—As stated earlier the minimum qualification for admission was Matric or Higher Secondary with drawing as subject for boys. Those who had passed the Higher Secondary Part I in 1965 onward were also eligible provided they fulfilled other conditions. The following table reveals the actual qualification of the passed out trainees in both the Institutes during 1975-76 and 1976-77.

**TABLE 3.16**  
**Classification of the trainees**

Name of the Institution	1975-76			1976-77		
	Matric	B.A.	Total	Matric	B.A.	Total
1	2	3	4	5	6	7
Arts and Crafts Teachers Training Institute, Nabha	65	—	65	65	1	66
Arts and Crafts Teachers Training Institute, Amritsar	—	—	—	26	14	40
<b>Total</b>	<b>65</b>	<b>—</b>	<b>65</b>	<b>91</b>	<b>15</b>	<b>106</b>

The table shows that out of 65 passed out trainees in 1975-76 and all the 65 trainees were Matric/Higher Secondary . During the year 1976-77 out of 106 passed out trainees 91 trainees were Matric/Higher Secondary/ F.A. and remaining 15 trainees were graduates. The graduates were found admitted mostly in training Institute at Amritsar.

**Intake capacity/admission.**—Data relating to utilisation of intake capacity in these two institutes during the period 1975-76 and 1976-77 is given on next page :



**TABLE 3.17**

**Intake capacity/admission and passed out trainees**

Name of the Institutes	1975-76					1976-77				
	Intake capacity	Admission	Drop-outs	Failure	Pass-outs	Intake capacity	Admission	Drop-outs	Failure	Pass-outs
1	2	3	4	5	6	7	8	9	10	11
Arts and Crafts Teachers Training Institute, Nabha	88	84	6	13	65	88	88	1	21	66
Arts and Crafts Teachers Training Institute, Amritsar	—	—	—	—	—	80	68	—	28	40
<b>Total</b>	88	84	6	13	65	168	156	1	49	106
<b>Percentage to total</b>	..	(95.45)	(7.14)	(15.48)	(77.38)	..	(92.86)	(0.64)	(31.41)	(67.95)

The analysis of data given in table 3.17 reveal that the percentage of admissions to intake capacity for Arts and Crafts teachers training trade was 95.45 per cent in 1975-76 and 92.86 per cent in 1976-77. There had been under-utilisation of intake capacity in both the years. No admission was done for the course of 1975-76 in Arts and Crafts Institute, Amritsar, as it comprised several private Institutes prior to 1975. Poor admission in these institutes was on account of limited scope of employment for the trainees. Co-ordination is required between Director Public Instructions (Education Department), and Director Technical Education and Industrial Training as these institutions were imparting training and the passed out candidates absorption was in the hands of Education Department.

The table also reveals that percentage of drop-outs to admission was nominal. It was 7.14 per cent in 1975-76 and 0.64 per cent in 1976-77. The percentage of failures was 15.48 per cent in 1975-76 and 31.41 per cent in 1976-77.

**Stipends and Scholarships.**—Number of stipends and scholarships were awarded to the students on merit-cum-poverty basis. All the Scheduled Castes trainees were paid at the rate of Rs. 45 p.m. and two stipends at the rate of Rs. 40 p.m. each year on merit basis and stipend at the rate of Rs. 25 p.m. to 33½ per cent of students of general category of students. The following table gives the number of stipend holders and total amount of stipend disbursed.

**TABLE 3.18**

**Number of stipend holders and amount of stipend disbursed**

(Rs. in 000')

Name of the Institute	1975-76				1976-77			
	Total students	No. of stipend holders	Amount of stipend	Expenditure	Total students	No. of stipends holders	Amount of stipend	Expenditure
1	2	3	4	5	6	7	8	9
Arts and Crafts Teachers Training Institute, Nabha ..	168	79	19.0	193.0	176	85	15.0	167.0
Arts and Crafts Teachers Training Institute, Amritsar ..	—	—	—	—	136	47	12.4	147.0

In the Arts and Crafts Institute at Nabha almost half the students were getting stipend and the expenditure on stipends comprised 8 to 9 per cent of the total amount of expenditure. The institute of Amritsar was still in its initial phase and presented a somewhat different picture.

For opinion of the trainees and ex-trainees on stipends the views expressed were similar to the ones put forward by the trainees of other institutes. These may be seen at Pages 22-23.

**Raw-material and production of goods.**—Raw-materials such as paper sheets, drawing boards, pencils, colours, clay etc. were brought by the trainees as there was no provision for supplying raw-material. The trainees demanded that Government should provide the raw-material to them as was the case with other Special Trade Institutes. This demand should be examined by the Government.

There was no production of any kind in these Institutes as these were imparting training to the students in Arts and Crafts. After passing two years training, the trainees were appointed as Drawing Master in the Education Department.

**Staff position.**—The Principals of both the institutes reported that staff was well qualified in their Institutes. But the Principal of Arts and Crafts Teachers Training Institute, Amritsar reported that some of the staff had been recruited on temporary basis for the Special Training Project. The following table reveals the number of posts sanctioned and in position on 31st January 1978.

**TABLE 3.19**

**Staff position as on 31st January, 1978**

Items	Principal	Senior Instructor	Junior Lecturer	Junior Instructor	PTI-cum- Hostel Superin- tendent	Librarian	Clerical staff	Class IV employees	Part- time Medical Officer	
1	2	3	4	5	6	7	8	9	10	
Number of posts sanctioned	..	2	10	8	7	1	1	7	15	1
Number of persons in position	..	2	5	5	7	1	—	7	13	1

There were 10 posts of senior Instructors, five posts were lying vacant as suitable candidates were not available. Three posts of Junior Lecturers were vacant, one due to resignation and for two posts suitable candidates were not available. The post of Librarian was also vacant. Out of 15 class IV posts, two posts were vacant. Vacant posts of senior Instructors and Lecturers etc., over long periods adversely affects the training programme. These posts should, therefore, be filled without delay. Selection grades for certain posts such as P.T.I. and Psychology Instructor which have no further scope for promotion should be considered. It was reported by the Principal of Nabha Institute that the Junior Lecturer in Clay Modelling was Matric with four year Craft Master certificate in wood work. The qualification for this post was Matric with Diploma in Clay Modelling. It is suggested that such posts should be manned by diploma holders.

**Syllabus.**—It was reported by the staff members that the prescribed syllabus for the course was required to be completed in two years and final examination was to be conducted by the Department. The purpose of the training was to prepare Arts and Crafts teachers and Drawing Masters to serve in Schools under the Education Department only. It is suggested that the period of basic training should be reduced from two to one and-a-half years and afterwards one year Special trade Training should be imparted to the trainees enabling them to learn the subjects on commercial lines. The trainees should be imparted specialized training to enable them to fix themselves in self-employment as the scope of drawing master was limited. It is suggested that there should be link and co-ordination between these Institutes and Arts Colleges. The Principals reported that practicals covering geometry, drawing, still life, sketches, portraits etc., formed a part of the syllabus. They suggested that greater stress should be laid on practicals. The syllabus required complete over hauling and should answer the needs of the Education Department.

**Prospects of Employment.**—It was reported by the Principals that the passed out trainees of these Institutes were unable to find employment readily. Previously there were many private managed institutions giving training in arts and crafts such the number of diploma holders swelled much greater in comparison to limited posts available in schools. The ex-trainees contacted for the survey also brought to notice that residents of Punjab who were passing the course as private candidates from neighbouring states with poor training were also creating problem of unemployment. They were adjusted at the cost of trainees of these institutes. It is suggested that Education Department while giving employment should prefer the trainees of these institutes who were getting adequate training at the expenses of Punjab Government in recognised institutes. It was also reported that many diploma holders of 1972 batch were not in position to secure jobs up-till now, there should be ban on admission for this training at least for five years.

The Principals, staff-members, trainees and ex-trainees contacted for the survey also suggested that there was a need for change in education policy of the Education Department. The Department should start the drawing classes right from the primary level to inculcate the sense of art right from the lower stage. Drawing should be made compulsory subject in schools. This will also create employment opportunities for passed out trainees.

**Facilities available.**—The Arts and Crafts Institute, Amritsar was working in a private rented building which was not having adequate accommodation to house the existing classes. Construction of building according to the needs should be taken up for the Institute.

**Library.**—As the Institute at Amritsar was a newly established one no library facility existed there. A suitable library and books on art, history, modern art and other relevant fields should be arranged for the Institutes. A small library was existing at the Institute of Nabha but adequate accommodation and sufficient books were not available.

**Hostel facility.**—Hostel facility was available at Nabha for 25 male trainees. The condition of building was not good. The girl students were facing a lot of problem as there was no hostel facilities for them. As the students were admitted in these Institutes from all over Punjab it is suggested that Government should provide hostel facilities to boys as well as to girl students.

Proper playgrounds were not available to the trainees and the available playgrounds were not properly maintained. The telephone facility for Amritsar Institute should be provided.

**3.6 Government Institute of Textile Chemistry and Knitting Technology Ludhiana.**—The Government Institute of Textile Chemistry and Knitting Technology was established in 1926 with the object of improving the quality of textile and knitting in the country. In this Institute, training was being imparted for a certificate course in Dyeing and Calico Printing and a certificate course in Knitting.

The details of the training courses run by the institute are given below :

1. Three years Diploma Course in Textile Chemistry.
2. Three years Diploma Course in Knitting Technology.
3. One year certificate course in Dyeing and Calico Printing.
4. One year certificate course in Knitting with hand and machine.

**Qualification of the trainees.**—Minimum educational qualification of the passed out students during 1975-76 and 1976-77 are given in following table :—

**TABLE 3.20**  
**Educational qualification of the trainees**

Trades	1975-76				1976-77			
	Middle	High/ Higher Secondary/ F.A.	B.A.	Total	Middle	High/ Higher Secondary/ F.A.	B.A.	Total
1	2	3	4	5	6	7	8	9
1. Certificate course in Dyeing and Calico Printing ..	1	13	—	14	1	9	2	12
2. Certificate course in knitting with hand and machine	1	7	—	8	6	8	1	15
3. Final year Diploma in Textile Chemistry ..	—	32	—	32	—	29	1	30
4. Final year diploma course in knitting technology	—	9	—	9	—	20	3	23
<b>Total</b>	<b>2</b>	<b>61</b>	<b>—</b>	<b>63</b>	<b>7</b>	<b>66</b>	<b>7</b>	<b>80</b>



Table 3.20 shows that out of 14 trainees passed out in certificate course in Dyeing and Calico Printing in 1975-76, 13 were High/Higher Secondary/Intermediate and one was middle against minimum qualification of middle fixed for this course. During 1976-77, out of 12 trainees who got through, 9 were High/Higher Secondary, and 2 B.A. In certificate course in knitting with hand and machine, out of 8 passed out trainees in 1975-76, 7 were Matric/Higher Secondary/F.A. and one middle and out of 15 passed out in 1976-77, 6 were middle, 8 were matric/Higher Secondary and one B.A. against the minimum prescribed qualification of middle. In final year diploma course in Textile Chemistry, 32 passed out students were Matriculates/Higher Secondary/F.A. during 1975-76 and in 1976-77, out of 30 passed out trainees, 29 were High/Higher Secondary/F.A. and one B.A. whereas minimum qualification for the course was matric only. In the same way, in final year course in knitting technology, all the 9 passed out trainees were High/Higher Secondary/F.A. during 1975-76 and out of 23 trainees passed out in 1976-77, 20 were High/Higher Secondary and 3 B.A.

**Intake capacity and admission.**—Following table gives intake capacity and admission during the years 1975-76 and 1976-77:—

**TABLE 3.21**

**Intake capacity, admission and passed out**

Trades	1975-76					1976-77				
	Admission capacity	Actual admission	Drop-outs	Failures	Pass-outs	Admission capacity	Actual admission	Drop-outs	Failures	Pass-outs
1	2	3	4	5	6	7	8	9	10	11
1. One year certificate course in Dyeing and Calico Printing ..	16	18	4 (22.22)	—	14 (77.78)	16	18	3 (16.67)	3 (16.67)	12 (66.66)
2. One year certificate course in knitting with hand and machine ..	16	18	4 (22.22)	6 (33.33)	8 (44.45)	16	22	4 (18.18)	3 (13.64)	15 (68.18)
3. Final year Diploma in Textile Chemistry ..	30	36	—	4 (21.11)	32 (88.89)	30	38	5 (13.16)	3 (7.89)	30 (78.95)
4. Final year Diploma in knitting technology ..	30	36	24 (66.67)	3 (8.33)	9 (25.0)	30	35	12 (34.29)	—	23 (65.71)
<b>Total</b> ..	<b>92</b>	<b>108</b>	<b>32</b> <b>(29.63)</b>	<b>13</b> <b>(12.04)</b>	<b>63</b> <b>(58.33)</b>	<b>92</b>	<b>113</b>	<b>24</b> <b>(21.24)</b>	<b>9</b> <b>(7.96)</b>	<b>80</b> <b>(70.80)</b>

The analysis of data given in table 3·21 reveals that the actual admission against admission capacity in various courses was in excess in both the years 1975-76 and 1976-77. The percentage of drop-outs to admission was 22·22 percent in Dyeing and Calico Printing Course during 1975-76 and 16·67 percent in the year 1976-77. The percentage of drop-outs in certificate course in knitting with hand and machine was 22·22 and 18·18 during the years 1975-76 and 1976-77, respectively. Drop-outs in Diploma in Textile Chemistry was 11·11 percent in 1975-76 and 13·16 percent in 1976-77. In the same way, the percentage of drop outs in final year diploma in Knitting Technology was 66·67 in 1975-76 in contrast to 34·29 in 1976-77.

The percentage of failures in the Course of dyeing and Calico Printing was nil in 1975-76 and 16·67 per cent in 1976-77 while in knitting with hand and machine it was 33·33 and 13·64 in 1975-76 and 1976-77, respectively. In the final year Diploma in Textile Chemistry, there had been 11·11 per cent failures in 1975-76 and 7·89 per cent in 1976-77 while in final year Diploma Course in Knitting Technology its percentage was 8·33 during 1975-76 and nil during 1976-77.

*Stipend/Scholarship*:—Stipends were awarded to 33 $\frac{1}{3}$ % of the total students on roll on merit-cum-poverty basis and 2 merit scholarships to 2nd year and 3rd year Diploma Courses @ of Rs. 40. Scheduled Caste students were paid stipend @ Rs 45 p.m. under different schemes. The details of number of stipend holders under various schemes and total amount of stipend paid is given in the following table :—

TABLE 3·22

Number of stipend holders and total amount of stipend paid under various schemes

(Rs. in '000')

Year	Number of stipend holders	Amount	Expenditure
1	2	3	4
1975-76	81	21·3	431·0
1976-77	77	17·1	497·0

Total amount of Rs. 21·3 thousands was disbursed to 81 stipend holders in 1975-76 and Rs. 17·1 thousands to 77 students during 1976-77. Stipend was paid to one third of the total students on roll on merit-cum-poverty basis.

*Production and disposal of goods by the trainees*.—Only practical exercises for learning the use of different tools was done by the students during practicals and no commercial production was undertaken.

*Raw material.*—Adequate raw material for proper practical training to the trainees is utmost necessary. The per capita expenditure on a trainee on raw material per year was estimated to be Rs. 2.50. This amount was too meagre for proper practical training. The Institute had no adequate funds to purchase the required raw material for training purposes. The estimated amount required was Rs. 1.27 lakhs as against Rs. 22 lakhs provided by the Government during the year 1977-78. The details of raw material purchased and used in various years has been given below :—

**TABLE 3.23**  
**Details of raw material purchased and used in various years**  
 (Rs. in thousands)

Year	Raw material purchased during the year	Raw material used during the year
1	2	3
1973-74 ..	15.9	19.9
1974-75 ..	20.0	18.3
1975-76 ..	16.0	17.8
1976-77 ..	27.0	26.3

Due to the complete neglect of practical training students faced great difficulties in mills at the time of appointment. The industrialists hesitated to keep them even for training purposes due to the fear of breakage of machinery. This Institute being a Special Trade Institute of its own kind in the State, it should be provided with adequate funds for the purchase of raw materials for imparting proper training to the students.

*Staff position.*—The Institute had a total sanctioned strength of 64 employees as on 31st January, 1978. 63 employees were in position on the survey day. One post of class IV was vacant. The following table gives the staff position of the Institute as on 31st January, 1978.

**TABLE 3.24**  
**Staff position**

Designation	Number of posts sanctioned	Number of posts in position
1	2	3
1. Principal ..	1	1
2. Lecturers ..	10	10
3. Instructors/Demonstrators ..	9	9
4. Others ..	27	27
5. IV Class ..	17	16
<b>Total</b> ..	<b>64</b>	<b>63</b>

After discussion with the principal and other staff members it was felt that additional staff details of which are given below was required for improving the standard of instructions.

1. *Lecturer in Textile Calculations*:—According to the syllabus the students of 1st, 2nd and 3rd year diploma in Knitting Technology (D.K.T.) were required to be taught textile calculations. At the moment a Junior Lecturer in the Knitting was entrusted with the duties of teaching this in addition to his own duties as a Junior Lecturer in Colour and Design. This subject has one of the important subjects for the students in Knitting Technology Course and needed a separate post of Lecturer in Textile Calculations for proper coverage of course.

2. *Lecturer in English*:—The first year students of the D.K.T. and Diploma in Textile Chemistry (D.T.C.) were required to be taught English of intermediate standard. At present the Junior Lecturer in Physics was entrusted with the duties of teaching English. A separate post for Junior Lecturer in English should be created.

3. *Junior Lecturer in Bleaching and Finishing*:—The students of first year and second year diploma in Textile Chemistry courses were required to be taught the theory of Bleaching and Finishing subjects. The demonstrator in Textile Dyeing had been entrusted with the additional duty of teaching this subject to the diploma class students. The practical work of Dyeing Course suffers due to the diverted attention of the demonstrator for the additional duties entrusted to him. It is suggested that suitable qualified person should be appointed to teach this subject.

4. *One demonstrator in warp knitting/Technician in warp knitting*:—Second year students of diploma in knitting technology were required to undergo training mainly on warp knitting machines, but no demonstration to impart training to the students was appointed. A junior Lecturer in warp knitting was entrusted with the additional duties of a demonstrator. The Junior Lecturer in warp knitting can not devote full time attention to impart practical training in addition to his own duties.

5. *One demonstrator in Physics and Chemistry*:—The Junior Lecturer in Chemistry was entrusted with additional duties of Demonstrator for the students of 1st, 2nd and 3rd year. Diploma in Textile Chemistry and Physics practical. One post of Demonstrator may be created.

6. *One demonstrator in knitting/one Technician in knitting*:—This Institute was running certificate course in knitting with hand and machine on D.G.E. and T. pattern. The duration of the course was one year and 16 students were admitted in this course. The students were awarded National Trade Certificate. The training was being imparted by the staff meant for Diploma in Knitting Technology and they were heavily burdened for this additional work. One post of Demonstrator in knitting and one post of Technician in Knitting is required to be created for proper training to the students.

7. *One demonstrator in Textile dyeing/One Technician in dyeing*:—This Institute was running certificate course in Dyeing and Calico Printing on D.G.E. and T. pattern. The duration of the course was one year and 16 students were admitted in this course. The training was being imparted by

the staff meant for diploma in Textile Chemistry with the result that they are unable to do justice to additional work. One post of Demonstrator in textile Dyeing and one Technician in Textile Dyeing may be created.

It is suggested that the senior staff members of the institute should be deputed to leading textile mills in India to improve their knowledge in the line so that they may be in turn teach the students the modern technology.

8. *Machines and Equipments.*—The existing machines and equipments were sufficient to meet the requirements of the students for practical purposes. The institute being very old some out-dated machinery needed replacement. For making the necessary improvements in the quality of the existing training course in textile chemistry and knitting technology at this Institute, the following type of machinery is required :—

Particulars of the machine/equipment	Quantity	Approximate value (Rs in lacs)
1	2	3
<b>Particulars of the machine/equipment</b>		
1. Power Driven Flat Machine RIB type V. Bed placement ..	One	3.75
2. Power Driven Single Cylinder circular knitting machine for open work socks and knee stockings ..	One	1.50
3. Power Driven Straight bar fully fashioned machine for the manufacture of outerwear garments planks ..	One	9.00
4. Power Driven Circular Loop Wheel Knitting machine ..	One	1.50
5. Power Driven Circular linking machine for garment linking ..	One	0.25
6. Power Driven Button holing machine from small to large size button of punched type ..	One	0.50
7. Power Driven button stitching machine ..	One	0.15
8. Cup sewing machine ..	One	0.16
9. Power Driven linking machine for the linking of socks and stockings ..	One	0.16
10. Power driven flat knitting machine V. Bed type for the manufacture of collars, taps and garment planks, etc. ..	One	2.50

Particulars of the machine/equipment	Quantity	Approximate value (Rs in lacs)
1	2	3
11. Power Driven Warp Knitting Machine with Spring needle and 4 gauge bars.)	One	2.00
12. Power Driven Warp Knitting Machine with compound needle bed	One	2.25
13. Power Driven double cylinder links one socks machine	One	1.25
14. Power Driven double cylinder power socks machine for jacquard pattern	One	2.00
15. Power Driven Steam Press for ouster wear garments with Label Printing attachment	One	1.00
Total		7.98

*Prospects of employment of the trainees of this Institute.*—The Principal pointed out that passed out students from this Institute were easily absorbed in the mills. Almost all the passed out students in the Diploma of Textile Chemistry got absorbed in various Textile Mills such as Textile Dyeing, Printing and Bleaching Factories. The students of the Diploma in Knitting Technology were absorbed in the various knitting hosiery factories localized at Ludhiana or start their own business. The students of the certificate courses generally got operative jobs in the small units.

*Facilities in the Institute.*—The Library was very small in contrast to the strength of the teachers and students. It was not having a separate reading room. No doubt the technical books were available for the teachers, but they were not sufficient in accordance with the requirement of the teachers. Adequate funds should be made available to the Institute for the purchase of Technical Books both for the teachers as well as the students.

*Apprenticeship of trainees.*—It was informed by the Principal that trainees of Textile Chemistry and certificate course trades got engaged through the efforts of this office but generally such students were not paid any stipend or financial help under the Apprenticeship scheme by the private mills.

The trainees were not given the fixed amount of stipend by the Industrialists as prescribed by the Government under the Apprenticeship scheme. Secondly, the Industrialists were hesitant to engage the trainees for avoiding the risk of breakage of machines.

*Construction of new building for the Institute.*—This institute was situated in an old fort whose foundation had been shaken. During the rainy season,

the roofs of the building leaked badly resulting in damage to valuable machinery. Moreover, the accommodation was inadequate besides absence of proper grounds for playing Hockey, Foot Ball and Cricket. The Institute was already negotiating with the Punjab Development Board, Chandigarh for the purchase of land in Dhandari Kalan near Focal Point, Ludhiana. It is suggested that Government may provide adequate funds for the construction of a new building at an appropriate place.

*Hostel.*—The students admitted in this Institution hailed from various parts of the country and even students from other countries also sought admission. The existing hostel of the Institute was in dilapidated condition which was not worthy to be called as hostel. The hostel building had no bath rooms and whatever number of rooms existed in the hostel were old workshops and in reality are not fit for living. No canteen or mess facilities were existing in the Institution.

*Degree College.*—There was no Institution of degree level in Textile Chemistry or in Knitting Technology in the State of Punjab. We have a number of Textile Mills engaged in Textile Dyeing, Printing, Bleaching, Finishing and Knitting which had the scope of providing employment Degree holders in Textile Chemistry. Degree holders presently employed in these concerns came from other states and occupy most of the supervisory posts. In this way, trainees from Punjab were deprived of working on supervisory posts. The possibility of starting degree courses in these subjects may be examined.

3-7. *Government Polytechnic for Women.*—Government Polytechnic for Women started functioning during August, 1970 with the following courses:—

- (i) Library Science with two years Diploma Course.
- (ii) Commercial Practice and Stenography with two years Diploma Course.
- (iii) Pharmacy course of two years duration.

These courses were job-oriented courses and every year there was great rush for admission in all the three courses. These were approved courses of the National Council of Technical Education, Ministry of Education, Government of India. This Institute was running under the administrative control of the Department of Industrial Training, Punjab and affiliated to the Board of Technical Education, Punjab which was the examining body. In the pharmacy course, all the norms and standards of Pharmacy Council of India were maintained.

*Educational qualifications.*—The minimum qualifications for all three courses were matric with more than 45 percent marks and the selection was



done on merit. The following table gives the educational qualifications of the passed out trainees in various courses of the Institute.

**TABLE 3-25**  
**Educational Qualifications of the passed out trainees**

S. No.	Name of the trade	1975-76				1976-77			
		Mid- dle	High/ Hr/ F.A.	B.A.	Total	Mid- dle	High/ Hr/ F.A.	B.A.	Total
1	2	3	4	5	6	7	8	9	10
1	Diploma in commercial practice and Stenography	—	17	4	21	—	28	2	30
2	Diplom in Library Science ..	—	9	7	16	—	—	21	21
3	Pharmacy ..	—	5	—	5	—	9	1	10
	Total ..	—	31	11	42	—	37	24	61

Students with much higher than the minimum required level were getting admission into the courses run by the institute.

*Intake capacity/admission.*—Data relating to intake capacity, admission, failure and passed out trainees have been collected for the years 1975-76 and 1976-77. The figures of admission for these years indicated that intake capacity in various courses of the institute was fully utilised. The following table shows the coursewise detail of the trainees.

**TABLE 3-26**  
**Admission capacity, intake and passed out**

Year	Name of course	Admis- sion capacity	Admis- sion	Drop- outs	Failures	Pass- outs
1	2	3	4	5	6	7
1975-76	Diploma in Library Science	30	30	2 (6.67)	7 (23.33)	21 (70.00)
	Diploma in Commercial Practice and Stenography	30	30	6 (20.00)	8 (26.67)	16 (53.33)

TABLE 3.26

## Admission capacity intake and passed out

Year	Name of course	Admission	Admission	Drop-outs	Failures	Pass outs
	2	3	4	5	6	7
	Pharmacy ..	20	18	7 (39·89)	6 (33·33)	5 (27·78)
1976-77	Diploma in Library Science	30	30	—	—	30
	Diploma in Commercial Practice and Stenography	30	30	6 (20·00)	3 (10·00)	21 (70·00)
	Pharmacy ..	20	20	6 (30·00)	4 (20·00)	10 (50·00)

(Figures in brackets are percentages to actual admission).

The drop-out rate was pretty high especially in the two years course in Pharmacy and in the diploma course in Commercial Practice. The main reason for higher drop-out rate in the latter course was un-satisfactory employment prospectus.

*Stipend/Scholarships to the trainees:*—Some kind of incentive in shape of stipend/scholarship was awarded to the students taking admission in various trades of the Institutes. Only 10 percent of the students were awarded stipend at the rate of Rs. 50·00 per month on the basis of poverty-cum-merit. The following table gives the details of amount of stipend disbursed and number of stipend holders.

TABLE 3.27

## Number of stipend holders under different schemes and total amount of stipend disbursed

Year	No. of stipend holders	Amount of stipend (in '000' Rs.)
1	2	3
1973-74 ..	38	17·18
1974-75 ..	39	17·90
1975-76 ..	42	16·61
1976-77 ..	39	16·06

The opinion of the trainees/ex-trainees on the stipends agreed with the views expressed by stipend holders of other institutes given at pages 22—23.

*Raw material and production of goods:*—It was reported that there was no shortage of raw material for any trade. Details of raw material purchased and used during the years 1973-74 to 1976-77 is given below:—

**TABLE 3-28**  
Value of raw material purchased/used.  
(Rs. in '000')

Items	1973-74	1974-75	1975-76	1976-77
1	2	3	4	5
Raw material purchased during the year ..	6.15	15.05	14.93	9.02
Raw material used during the year ..	4.53	11.67*	12.77	7.55

The information displayed in table 3-28 indicates that there was no dearth of raw material for practicals etc. These were not production oriented courses.

*Staff position:*—The total sanctioned strength of the staff including teaching and non-teaching had been 51 but 33 persons were in position on the survey day. 14 posts were vacant due to the non-availability of qualified persons. Three posts were vacant due to promotion. In the Department of Library Science, the posts of Head of Department and Lecturer were lying vacant since long. The Director, Employment as well as Director, Technical Education and Industrial Training, Punjab were approached to take steps for making recruitment against vacant posts. Intensive efforts should be made to fill up these posts with suitable, qualified and talented persons. The trainees and ex-trainees contacted for knowing their opinion about the working of the Institute informed that they suffered a lot both in teaching and practicals due to vacant posts. The number of sanctioned/in position posts in the Government Polytechnic for women is given below:—

**TABLE 3-29**  
Staff position in Government Polytechnic for women

Designation	No. of posts sanctioned	No. of posts in position
1	2	3
1. Principal ..	1	—
2. Teaching staff ..	28	14
3. Other staff ..	13	10
4. IV Class ..	9	9

Though all the lecturers who were imparting instructions to the trainees were holding master degree in their respective fields, yet some short period refresher courses in their respective trades could be beneficial.

*Machinery and equipment:*—The working of machinery was satisfactory. There was no need for replacement of machinery in any department.

*Employment Prospectus:* Regarding the employment prospects of the passed out trainees, the Principal informed that their trainees in Pharmacy Course were absorbed in toto. The Institute receives employment indents many a times before the final examination of the students. The passed out trainees in the Department of Library Science were also being absorbed. But the plight of passed out trainees in commercial practice and stenography was not satisfactory.

*General problems and suggestions:*—

*Building:*—Number of rooms available for teaching and practical purposes was not sufficient to meet the requirement. It is suggested that some addition of rooms in the present building should be made.

*Hostel:*—This Institute being one of its own kind for women in the State lacked hostel facilities. The students from far off places even from other States were taking admission in various courses of the institute. Moreover for girls it was not convenient to make arrangement for their living. It is suggested that Government should provide adequate funds for the construction of new hostel.

*Common room/canteen:*—The institute had no common room for the students. The students felt the need of a separate common room during their vacant periods. It is suggested that a separate common room for the students should be constructed. The institute had no canteen facilities for the teachers and students. It is suggested that arrangements for opening a canteen in the institute should be made by authorities.

## CHAPTER IV

### WORKING OF INDUSTRIAL TRAINING INSTITUTES/INDUSTRIAL SCHOOL FOR GIRLS

Out of the total number of 29 Industrial Training Institutes, (I.T.I.'s), 40 Industrial School for Girls (I.S.G.'s) functioning in the State during 1976-77, 8 Industrial Training Institutes and 4 Industrial School for Girls were selected for evaluation study. The selected I.T.I.'s and I.S.G.'s were located at Amritsar, Jullundur, Ludhiana, Patiala Bhatinda, Rajpura, Ropar Nangal and Pathankot. Further ten trainees and ten ex-trainees from each of the selected I.T.I.'s were contacted for assessing their opinion about the working of these institutes. Ten trainees from each of the four selected I.S.G.'s were also contacted to elicit their opinion about the training. Principals of all the selected I.T.I.'s and Industrial Training School for girls were also contacted to know their opinion about the working of these institutions. For assessing the employment potential of these institutions 50 industrialists were also contacted to have their opinion about the passed out trainees of I.T.I.'s. Information was collected regarding teaching/training programme intake capacity, wastage on account of drop-outs, and failures, condition of machinery, staff position, stipends, value of goods produced and their sale, facilities available and difficulties being faced by these institutions.

4.2. *Intake capacity/admission*:—In the 8 selected Industrial Training Institutes the total intake capacity in the one year engineering trades, two year engineering trades and one year non-engineering trades was 1312, 1274 and 800 respectively during the year, 1975-76 and 1280, 1212 and 731, during the year 1976-77 respectively. The number of student actually admitted in one year engineering trades, two year engineering trades, and non-engineering trades was 1462, 1508 and 856 during 1975-76 and 920, 1367 and 773 during 1976-77 respectively. The following table depicts the admission capacity and actual admission during the year 1975-76 and 1976-77 in the eight sampled Industrial Training Institutes and four Government Industrial School for girls.

TABLE 4.1

**Admission capacity and actual admission in the selected I.T.I.'s/G.I.S. during 1975-76 and 1976-77.**

Year	Course	Admission capacity	Actual admission	Percentage of actual admission to capacity
1	2	3	4	5
<i>Industrial Training Institutes:</i>				
1975-76	One year engineering trades in I.T.I.'s	1,312	1,462	111.43
	Two year engineering trades in I.T.I.'s	1,274	1,508	118.37

**TABLE 4.1**  
**Admission capacity and actual admission in the selected I.T.Is/G.I.S's**  
**during 1975-76 and 1976-77**

Year	Course	Admission capacity	Actual admission	Percen- tage of actual admission to capa- city
1	2	3	4	5
	One year non-engineering trades in I.T.I.'s ..	800	856	107.00
	Total ..	3,386	3,826	112.99
1976-77	One year engineering trades in I.T.I.'s ..	1,280	920*	71.87
	Two year engineering trades in I.T.I.'s ..	1,212	1,367	112.79
	One year non-engineering trades in I.T.I.s ..	731	773	107.96
	Total ..	3,223	3,060	94.94
<i>Industrial School for Girls</i>				
1975-76	One year non-engineering trades in Industrial Schools ..	972	972	100.00
1976-77	One year non-engineering trades in Industrial Schools ..	955	954	99.90
	Over all position ..	1,927	1,926	99.95

\*No admission due to change in duration of trade of Motor Mechanic and Refrigeration in August, 1976.

The data given in table 4.1 show that the actual admission had been more than the sanctioned intake capacity in the selected I.T.Is. Admission was strictly according to the sanctioned capacity in Government Industrial School for Girls. It is clear that there was no under-utilisation of the sanctioned capacity. Rather there was great rush for admission specially for two years engineering courses viz., draftsmen civil, draftsmen mechanical and turner in 1975-76 and for electrician in 1976-77. There was over-utilisation of intake capacity for one year engineering trades in tractor

mechanic, diesel mechanic, carpenter and welder in 1976-77 because of great demand for these technicians in Arabian countries. There was under utilisation of admission capacity in the trades of blacksmith and painter to the extent of 39.32 per cent and 12.50 per cent respectively in the year 1975-76. The under utilisation of sanctioned capacity in the trades of blacksmith and plumber was 42.86 per cent and 4.17 per cent in 1976-77 respectively. These trades were becoming unpopular in selected I.T.I's. There was great rush for admission in non-engineering trades although their scope for employment was limited especially in Government Offices and public sector undertakings. The actual admission exceeded the intake capacity by 7.00 per cent in 1975-76 and 7.96 per cent in 1976-77 in non-engineering trades of one year duration. It was reported that the Director, Technical Education and Industrial Training had allowed 10 to 20 per cent increase in admission besides allowing guest seats. It was observed during the course of survey that this increase in admission over and above intake capacity and shifting of seats had created great difficulties in the working of these Institutes and had resulted in the deterioration of the standard of training. There was no corresponding increase either in building accommodation or in machinery. The teacher pupil ratio had also increased considerably. There was need for providing more teaching staff especially in those trades whose popularity was increasing. In order to meet shortage of accommodation hostel buildings had been converted into class rooms in some selected I.T.I's. The students of Draftsmen (Civil), Stenography, English, Punjabi and Hindi) and Cutting and Tailoring were not being provided enough raw material for their day to day training. They had to purchase papers, note-books and clothes etc. from their own pockets. Similarly, the teaching staff was also reported to be overburdened due to increased admissions. In this context it is suggested that Director, Technical Education and Industrial Training should take necessary steps to provide additional facilities for those trades in which there was great rush for admission. More staff should be provided in the Institutes where ever the excess admission is allowed due to any reason. On the other hand unpopular trades should be diversified and their machinery and staff should be used for allied trades if possible.

Figures of admission in the I.T.I's have high-lighted the fact that more and more students were being, admitted in non-engineering trades like Stenography, Cutting and Tailoring, Hand composing, No efforts was being made to attract trainees for engineering trades like Moulder, Turners, Die makers, Fitter, Electrician, Machinists etc., for which the I.T.I's were actually meant and had in fact been opened. It is suggested that efforts through intensive publicity etc., should be made by the I.T.I authorities for attracting trainees in aforesaid engineering trades, specially when the separate schools for girls imparting training in non-engineering trades had already been opened by the Industrial Training Department. I.T.I's were primarily meant, for training craftsmen to feed industry for economic development of State. It is also suggested that new trades like electronics, farm mechanic and beautician courses (for girls) may be introduced in I.T.I's/I.S.G. located in the big cities.

4.3. *Educational qualifications of trainees in sampled I.T.I.s/I.S.G's*—  
The minimum prescribed educational qualifications for admission in various engineering/non-engineering trades varied according to the nature and duration of the courses. Educational qualifications possessed by the trainees

who passed out in different engineering/non-engineering trades during the years 1975-76 and 1976-77 is given below :—

TABLE 4-2

**Educational qualifications of passed out trainees of selected institutes during 1975-76 and 1976-77**

Serial No.	Course/Year	Educational qualifications					Total
		Middle/under Matric	Matric/ Hr. Sec./ Prep. ]	Inter-mediate/ under gradu-ates	Gradu-ates		
1	2	3	4	5	6	7	
<b>1975-76</b>							
<i>A. Industrial Training Institutes :</i>							
1	Engineering Trade Courses—						
	(i) One Year ..	279 (27.90)	676 (67.60)	19 (1.90)	26 (2.60)	1,000 (100.00)	
	(ii) Two Year ..	150 (16.16)	737 (79.42)	28 (3.02)	13 (1.40)	928 (100.00)	
2	Non-Engineering trade courses	21 (3.41)	499 (81.01)	47 (7.63)	49 (7.95)	616 (100.00)	
	<b>Total ..</b>	<b>450 (17.69)</b>	<b>1,912 (75.16)</b>	<b>94 (3.69)</b>	<b>88 (3.46)</b>	<b>2,544 (100.00)</b>	
<i>B. Girls Industrial Schools</i>							
2	Non-Engineering trade courses	46 (5.01)	780 (84.87)	60 (6.53)	33 (3.59)	919 (100.00)	



TABLE 4.2

Educational qualifications of passed out trainees of selected institutes during 1975-76 and 1976-77

Serial No.	Course/Year	Educational qualifications				Total
		Middle under/Matric	Matric. Hr Sec./graduates	Inter-mediate/under graduates	Graduates	
1	2	3	4	5	6	7
<b>1976-77</b>						
<i>A. Industrial Training Institutes</i>						
1	Engineering Trade Courses—					
	(i) One year ..	180 (32.97)	355 (65.02)	5 (0.91)	6 (1.10)	546 (100.00)
	(ii) Two year ..	103 (13.33)	647 (83.70)	11 (1.42)	12 (1.55)	773 (100.00)
2	Non-engineering trade courses	7 (1.49)	426 (90.45)	15 (3.18)	23 (4.88)	471 (100.00)
	Total ..	290 (16.20)	1,428 (79.78)	31 (11.73)	41 (4.18)	1,790 (100.00)
<i>B. Girls Industrial Schools</i>						
2	Non-engineering trade Courses	43 (5.63)	656 (85.87)	33 (4.38)	32 (4.18)	764 (100.00)

Note.—Figures in brackets indicate percentage to total passed out trainees.

The data given in the above table reveal that generally students after passing the matriculation examination or its equivalent take admission in the engineering and non-engineering trades. The percentage of students with qualifications higher than matriculation/Higher Secondary was less than ten per cent.

4.4. *Drop-outs.*—Wastage during the period of studies took place in the form of students discontinuing their studies because of one or the other reasons. One of the important revelation of the study was that a considerable amount of wastage occurred in Institutes due to premature withdrawals (i.e. drop-outs), failures and training of persons in the fields for which there was little demand and they sought jobs which were unrelated to their technical training e.g. clerical employment on the ground that they were educated.

Data relating to drop-outs of students in Engineering and Non-engineering trade courses in the selected institutes/schools is given in following table:—

**TABLE 4.3**

**Extent of wastage on account of drop-outs**

Year	Course	Actual admission	Drop-outs	Percentage of drop-outs to admission
1	2	3	4	5
<i>Industrial Training Institutes</i>				
1975-76 ..	One year engineering trades ..	1,462	257	17.58
	Two year engineering trades	1,508	414	27.45
	One year non-engineering trades	856	119	13.90
	Total ..	3,826	790	20.65
1976-77 ..	One year engineering trades ..	920	167	18.15
	Two year engineering trades	1,367	398	29.11
	One year non-engineering trades ..	716	107	14.95
	Total ..	3,003	672	22.38
<i>Government Industrial Schools for Girls</i>				
1975-76 ..	One year non-engineering trades ..	972	48	4.94
1976-77 ..	Two year non-engineering trades ..	954	71	7.44
	Total ..	1,926	119	6.18

The percentage of drop-outs was much higher in two year engineering trade courses as compared to one year engineering and non-engineering trade courses. In two year engineering courses drop-out rate was 27.45 percent in 1975-76 and 29.11 percent in 1976-77. In one year engineering course

it was 17.58 per cent and 18.15 per cent in 1975-76 and 1976-77 respectively. In non-engineering courses, drop-outs were still lower i.e. 13.90 per cent and 14.95 per cent in these years in I.T.I's and 4.94 per cent and 7.44 per cent in Industrial School for Girls.

It was reported by the Principals and staff that drop-out rate was higher during the first year of the two year engineering trades. This drop-out rate was comparatively lower in the second year. In the case of one year engineering and non-engineering trades the tendency to drop-outs was greater during the first six months and after that it dwindled sharply. Once the trainees got beyond initial hurdles they were fairly likely to finish their courses. Detailed study revealed that percentage of drop-outs was higher in trades of Wireman, Radio and T.V. Mechanic, Mechanic Instrument, Turner etc. of two year engineering courses. In one year engineering courses large percentage of wastage occurred in trades of Painter, Diesel Mechanic, Black Smith and Tractor Mechanic.

On the basis of interviews held with Principals, Group Instructors, staff and trainees of the selected Institutes, it was found that high drop-out rate was due to various reasons such as securing of jobs during training, trainees with poor academic background to whom science and mathematics oriented syllabus was unintelligible, financial circumstances, unpredictable character of domestic vicissitudes, lack of seriousness on the part of trainees to become skilled worker, delayed and irregular payments of stipends, faulty methods of teaching which did not create interest in the trainees for studies and non-absorption of trained hands after completion of training. The rush for admissions in I.T.I's and G.I.S. for girls was due to the wide spread unemployment and attitude of some students to get admission in these institutions with a view to pass time till they got another means of livelihood.

4.5. *Failures.*—Wastage in I.T.I's/G.I.S. for girls also occurred due to failure of trainees in various engineering and non-engineering trades. Table 4.4 displays data about the extent of failures in the sampled Industrial Training Institutes and Government Industrial School for Girls.

TABLE 4.4

Extent of wastage on account of failures and number of trainees passed out

Year	Course	Number of trainees appearing in I.T.I's (Admission-drop-outs)	Failure	Passed out
1	2	3	4	5
<i>I.T. I's</i>				
1975-76	One year engineering trades	1,205	205 (17.01)	1,000 (82.99)
	Two year engineering trades	1,094	166 (15.17)	928 (84.83)

TABLE 4.4

Extent of wastage on account of failures and number and of trainees passed out

Year	Course		Number of trainees Failures appearing in I.T.I.s (Admission dropouts)	Passed out
1	2		3	4
				5
	Non-engineering trades ..		737	121 (16.42) (83.58)
	Total ..		3,036	492 (16.21) (83.79)
1976-77 ..	One year engineering trades ..		753	207 (27.49) (72.51)
	Two year engineering trades		969	196 (20.23) (79.77)
	Non-engineering trades ..		609	138 (22.66) (77.34)
	Total ..		2,331	541 (23.21) (76.79)
<i>G.I. S. for Girls</i>				
1975-76 ..	Non-engineering trades ..		924	13 (1.41) (98.59)
1976-77 ..	Non-engineering trades ..		883	19 (2.15) (97.85)
	Total ..		1,807	32 (1.77) (98.23)

*Note.*—Figures in brackets indicate percentage w. r. t. number of trainees appearing in examination.

Data in table 4.4 show that there had been fluctuations in the percentage of failures to admission in engineering and non-engineering courses. In two years engineering courses percentage of failures was 15.17 and 20.23 per cent in 1975-76 and 1976-77. In one year engineering courses failures increased from 17.01 per cent in 1975-76 to 27.49 per cent in 1976-77. In non-engineering courses percentage of failures rose from 16.42 per cent in 1975-76. to 22.66

per cent in 1976-77. In Government Industrial School for Girls percentage of failures was negligible i.e. 1.41 per cent in 1975-76 and 2.15 per cent 1976-77. Wastage due to failures was mainly in the trades of Pattern Maker, Wireman, Surveyor, Tractor Mechanic, Moulder, Book-binding and Stenography English.

The trainees as well as ex-trainees contacted for the survey pointed out that the training has a theoretical bias and lacked practical basis which resulted in high percentage of failures.

In view of above, it is suggested that aptitude test should be strictly enforced. The students selected may be observed in a particular trade for two months and if they did not pull on, they may be asked to leave.

4.6 *Stipend*.—The cost of vocational training programme as it operates in Industrial Training Institutes/Govt. Industrial School for Girls/Special Trade Institutes was quite heavy. This heavy cost was not merely due to heavy basic investment which was required to start with, but also due to recurring expenditure on the grant of stipends and scholarships, expenditure on establishment (including both technical and non technical), expenditure on the installation of machinery and purchase of raw materials.

Stipends at the rate of Rs. 25/- p.m. per trainee to 33½ per cent of the trainees on roll on poverty-cum-merit basis were provided. Free workshop clothing, free medical aid, free hostel accommodation (wherever available and free recreational activities were also available to the trainees, Besides all the Scheduled Castes/Scheduled Tribes trainees were awarded stipend @Rs. 45 p.m. under one scheme for the other. These stipends were granted to students admitted in engineering trades (one year and two years courses) as well as non-engineering trades. The following table gives the number of stipend holders and amount disbursed to them during 1973-74 to 1976-77 under different schemes.

TABLE 4.5

Number of stipend holders and total amount disbursed since 1973-74  
in sampled I.T.I.'s/I.S.G's

(Rs. in lacs)

Institutions	1973-74		1974-75		1975-76		1976-77		
	No. Amount		No. Amount		No. Amount		No. Amount		
	1	2	3	4	5	6	7	8	9
Industrial Training Institutes ..	1841	4.06	2105	4.22	2271	4.88	2231	4.32	
Govt. Industrial School for girls ..	346	0.78	381	0.99	435	1.25	404	1.21	
Total ¶	2187	4.84	2486	5.21	2706	6.13	2635	5.53	

The table shows the amount of expenditure on stipends in 8 selected I.T.I's, 4 Govt. Industrial School for girls. The amount of expenditure was Rs. 4.06 lakh in 1973-74, Rs. 4.22 lakh in 1974-75, Rs. 4.88 lakh in 1975-76 and Rs. 4.32 lakh in 1976-77 in I.T.I's. Amount of expenditure was Rs. 0.78 lakh, Rs. 0.99 lakh, Rs. 1.25 lakh and Rs. 1.21 lakh in the years mentioned above in four selected Industrial School for Girls.

*Opinion of trainees (undergoing training) about the grant of stipend.*— The trainees from different trades were selected on sample basis to know their opinion about adequacy of stipend being disbursed to them, regularity of payments of stipend and basis of selection for stipend. In all 80 trainees were interviewed out of which 46 trainees were stipend holders. Although stipends were given on merit-cum-poverty basis but the proper selection of trainees could not be done due to one or the other reasons which led to resentment among the deserving trainees, It is, therefore, suggested that fifty percent trainees may be given stipend purely on merit basis and the other fifty percent on poverty basis of the total number of trainees selected for stipend during a year.

Out of 46 stipend holders 36 trainees reported that the amount of stipend being disbursed to them was not adequate for their maintenance. The existing rate of stipends was fixed long back when the cost of living was not much. But with the passage of time the prices have gone up and it is difficult to maintain with this amount of stipend. It is suggested that amount of stipend should be revised, keeping in view the high cost of living. The sampled trainees had proposed the following rates of stipends.

**TABLE 4.6**  
**Classification of selected trainees with rates of proposed stipends**

	Rate per month	No. of trainees	Percentage
	1	2	3
Existing rate	Rs. 25	10	21.74
	Rs. 50.00	29	63.04
	Rs. 75.00	4	8.70
	Rs. 90.00	3	6.52
	Total	46	100.00

The table shows that 63.04 per cent of the stipend holders desired that stipend should be enhanced to Rs. 50, 8.70 per cent demanded rate of Rs. 75/- p.m. and 6.52 per cent were of the opinion that stipend should be raised to Rs. 90/- per month. In this context it is suggested that amount of stipend should be linked to the cost of living index number for the State.

39 Stipend holders reported that they did not receive stipend timely due to which they faced financial hardships. The reasons given by the trainees that the sanctions of the stipend were received late. To avoid labour, the dealing hands preferred to disburse the stipends in lumpsum at the end of the year. Certain trainees even reported adoption of mal-practices on the part of the officials. It is suggested that the stipends should be disbursed on the monthly basis as majority of the trainees belong to economically weaker sections and poor families and can ill-afford to meet the

expenses from their pockets. It was also observed that income statements submitted by the trainees whose parents were Govt. Employees, were correct while other's were generally on the lower side. Even a peon's income was found to be higher than a shopkeeper or land owner. It is suggested that some fool proof system of sanctioning stipend i.e. either purely on merits or quota for the wards of employees should be fixed to avoid hardship. The view expressed by the trainees/ex-trainees on stipend were the same as conveyed by the trainees in the institutes studied earlier and given on pages 22—23.

4.7 *Supply and requirement of raw-materials in Industrial training Institutes/Schools.*—Supply of adequate raw material for practical work is essential for making the trainees skilled workers. If adequate raw materials is not provided for training, the passed out trainees would lack practical training and are not likely to fare well in factories/industries. They had to face many problems in the factories and factory owners hesitated to give them employment. Trainees who lacked practical training because of inadequate supply of raw material while on training were compelled to work without money for sometimes in the industries. It was observed during discussions with trainees/ex-trainees that sufficient raw material was not being supplied to them as per norms fixed by the D.G.E. and T, Govt of India. The question of enhancement of training grant for I.T.I's was discussed in the 14th meetig of the NCTVT. The council had recommended that training grant per trainee be raised from Rs. 19/- to Rs. 25/- in the case of engineering trades. For non-engineering trades the training grant was recommended to be enhanced from Rs. 15 to Rs. 20. The value of raw material used by I.T.I's and I.S.G. and estimated value of raw material as per norms recommended by D.G.E & T. has been given in following table. These estimates have been prepared on the assumption that I.T.I. works for the period of 8 months during an academic year.

**TABLE 4.7**  
**Details of raw material used, estimated raw material required**  
**and extent of inadequacy in the six selected I.T.I's**

(Rs. in lakhs)

Type of Institutes	1975-76			1976-77		
	Value of raw material used	Estimated value of raw material required as per norms of D.G.E. & T.	Ext-ent of inadequate-ry. (percen tage)	Value of raw material used,	Estima- ted va- lue of raw ma- terial re- quired as per norms of D.G. E.&T.	Extent of inadequacy. (percen tage)
1	2	3	4	5	6	7
Industrial Training Institutes ..	2.18	4.13	47.21	2.48	3.21	22.74
Govt. Industrial School for girls ..	0.74	1.48	50.00	0.92	1.41	34.75
<b>Total ..</b>	<b>2.92</b>	<b>5.61</b>	<b>47.57</b>	<b>3.40</b>	<b>4.62</b>	<b>27.50</b>

The table shows that during 1975-76 raw material worth Rs. 2.18 lakhs was consumed by the trainees but as per norms fixed by the D.G.E. & T raw material worth Rs. 4.13 lakhs was required by six sampled I.T.I's. Two I.T.I's had not supplied the information about the raw material. The extent of inadequacy was, therefore, 47.21 per cent in 1975-76 which affected practical training adversely. During the year 1976-77 there was some improvement in the position, and extent of inadequacy was 22.74 per cent in these six I.T.I's. In Government Industrial School for girls where non-engineering trades were being taught raw material worth Rs. 0.74 lakh was used during 1975-76 while the estimated requirement as per norms came to Rs. 1.48 lakhs. The extent of inadequacy worked out to be 50 per cent. During the year 1976-77 there was an improvement in the supply of raw material in Industrial Training Schools also and the extent of inadequacy declined to 34.75 per cent. From the above, it could be concluded that the trainees were not provided with enough raw material required for practical work. The trainees also reported that the supply of raw material was not timely. These jobs formed an essential part of their training programme. Delay in supply of raw material was due to lengthy procedure involved in procuring it. It is suggested that Principals of I.T.I's/I.S.G. should make an indent well in time so that raw material could be supplied within two months of the receipt of the indent. It was also observed that raw material was procured through quotations from far off places which was time consuming. In this context the Principals had suggested that to regulate the supply of raw material even at the remote places where the facilities of procuring raw materials were not possible the supply should be made from departmental stores. The raw materials should be purchased in bulk quantities by the Director, Industrial Training according to the requirement of syllabi then it could be distributed as per their indents. To enhance the supply of raw material adequate budget provisions according to the norms fixed by D.G.E. & T. should be made.

#### 4.8. Machinery and equipment. —

The machinery for the training is of utmost importance. All the I.T.I's should have sufficient machinery and equipment. It was observed that in some cases where, new trades were introduced and seats in certain trades were reshuffled, machinery and equipment were not supplied in time. Starting of a trade without training facilities affected the quality of training adversely. It is suggested whenever any new trade is introduced or shifted, the necessary equipment should be supplied before the actual start of that trade.

As far as the proper maintenance of machinery and equipment was concerned, it was found that machines and equipments were not properly maintained in all the I.T.I's. Some machinery was lying unused in I.T.I's due to (i) non-availability of spare parts ; (ii) non-availability of repair facilities particularly of sophisticated imported machines ; and (iii) unsuitability of machines/equipments for training purposes (mostly imported machines). In the Industrial Training Institute, Bhatinda, hand drilling electric machine was not in order for the last one year and even stobbing machine was out of order for the last five years. In the trade of machinist Plane Milling Machine was out of order for the last 6 months, in Refrigeration and Air-conditioning Trade, walk in cooler, Room Air Conditioner, Refrigerator were out of order for about one year. In moulder trade



Cupla Furnance was out of order for the last 5 years. The Principals of I.T.I's at Rajpura and Ropar, were hesitant to supply information about the defective machinery I.T.I Patiala however, was well equipped with machinery.

In case of Industrial Training Institute, Jullundur machinery used in the Trades like Motor Mechanic, Draftsman Mechanical, Sports Goods, Printing Machine Operator, Machinist and Moulder, was out of order or required replacement/repair. In Motor Mechanic trade Ford Pickup required replacement, while jeep Ford required repair. In regard to Leyland Bus, Truck and Motor Cycle were all out of order requiring replacement and repairs. Additional machinery was required for imparting training in the trades of Tractor mechanic, Motor Mechanic, Cutting and Tailoring, Sports goods (Wood), Watch and Clock repair, Printing Machine Operator, Fitter, Machinist, Moulder and Surveyor. In trade of Tractor mechanic, the additional machinery required was (i) Valve reface machine (ii) Valve reface machine store type (one) ; (iii) Cylinder Boring, machine (one). In motor mechanic the institute required the following (i) Motor Cycle, (ii) Drilling machine (one). In Punjabi Stenography, 3 typing machines were out of order and one of these required replacement. Trades of Cutting and Tailoring and Watches and Clock repair were in need of only one over locking machine and one watch cleaning machine respectively. In sports goods (Wood) Trade the machine requiring repairs were (i) Wood turning Machine with accessory and (ii) Band saw machine. Additional machines required in this trade were (i) Hockey Blade Bending Press (one), (ii) Badminton Press multipurpose (one), (iii) Thickner Planner Machine (one), (iv) Spindle moulding machine (one), Printing Machine, Operator Trade required replacement of one Victoria Printing Machine and additional requirement were, (i) Platen Printing Machine (one), 10"×15", and ii) Cyclinder Printing machine (one) 22"×36". The whole machinery was in working order in Fitter Trade and the machine required in this trade was (i) Bench Grinder (one), (ii) Redial Drilling Machine (one), (iii) Lathe (one). Mechanist trade required the repair of Vertical milling type and Horizontal Milling Machines while it required additional machinery (i) Tools and Cutter Grinding Machine (one ), (ii) Surface Grinder (one) and Universal Grinding Machine (one).

One Core Making Machine was requiring repair in Moulder Trade while one Moulding and one Grinder were required in this trade. In respect of Surveyor Trade, all the tools available were old and required either repair or replacement.

In I.T.I., Ludhiana, it was reported that in Tractor Mechanic Trade, Tractor (Hindustan) was out of order and requirement for additional machinery was (i) Planner (one) ; (ii) Value Grinding Machine (one) and (iii) Modern Greasing unit. In the trade of Punjabi Stenography, the machines were in working order and required 8 additional type-writers. All the 9 type-writers (English) were requiring replacement and one Duplicating machine was required. Moulder trade required additional machinery (i) Sand Testing Equipment (one) and (ii) Sand mixing machine (one). Radio and T.V. mechanic trade required following additional machines (i) Coil winding machine automatic (one), (ii) Microphone, (3), (iii) Single Tracer (8), (iv) Tape Recorder, (v) T.V. Receivers (3) and (vi) Dynamic Demonstrative T.V.(2). The trade of Pattern Maker required the repair of starter of Wood Turning Lathe and additional requirement was of one Blade Sharpening Machine with 10" dia. The trade of Fruit and Vegetable

Preservation was needing replacement of its Can Sealing Automatic Hand Driven Apparatus. Additional machinery required for this trade was (i) Slicing machines (3), (ii) Bottle Filling Machine (one), (iii) Crown Cooking Machine, (1), (iv) China Ball Machine (one), (v) Jally Pulp Machine (one), (vi) Cream Separator (one) and Refrigerator. Trade of Draftsman (Civil) had requirements of (i) Drafting Machine (four), (ii) Azo Printing Machine Electric Operated (one), (iii) Cutting Edge Machine (one).

It could be concluded that I.T.I's had demand for different types of additional machinery as well as urgent repair of machinery. It is suggested that quick survey of available machinery and its condition and additional machinery required should be done by a team of technical experts. It is suggested that three mobile vans equipped with the latest tool kits should be kept at three centrally located I.T.I's which could repair the machinery of the surrounding institutes. These mobile vans should also have spare parts. The staff for these mobile repair workshops should be well trained in different lines.

#### 4.9. Facilities available in Industrial Training Institutes/Industrial Training Schools ;

Information regarding buildings, hostels, libraries, play grounds, etc. was collected from all the Industrial Training Institutes. The following paragraphs narrates the position in this regard.

*Buildings.*—The main buildings of all the selected Institutes comprised of administrative wing, class rooms, library, assembly hall, drawing section etc. All the selected Institutes were found to be housed in their own buildings except Government Industrial School for Girls, Ludhiana. No shortage of accommodation was reported at the time of survey except by I.T.I's at Ropar and Bhatinda where classes were being held in the hostel rooms. However, it was observed that theory classes were also being taken in workshops which created a lot of inconvenience to trainees as well as for instructors. In this context it is suggested that separate rooms should be provided where theory classes should be held for teaching subjects like mathematics and drawing. Building should be constructed for girls industrial school, Ludhiana.

*Hostels.*—All the selected institutes were providing hostel facilities which were adequate to meet the requirements of the trainees. The following table gives the details of hostels capacity and its utilisation in different Industrial Training Institutes.

**TABLE 4.8 : Institute-wise capacity of hostel and their utilisation.**

Industrial Training Institute	Total capacity in Hostel	Capacity utilised	Extent of utilisation (Col. 3 ÷ Col. 2 × 100)
1	2	3	4
Jullundur ..	45	45	100.00
Ludhiana ..	108	36	33.33

TABLE 4.8 Institute-wise capacity of hostel and their utilization.

Industrial Training Institute	Total capacity in hostel	Capacity utilised	Extent of utilisation (Col. 3 ÷ Col. 2 × 100)
1	2	3	4
Patiala ..	100	60	60·00
Rajpura ..	51	14	27·45
Bhatinda ..	119	25	21·01
Ropar ..	130	13	10·00
Nangal ..	200	100	50·00
Pathankot ..	125	51	40·80
<b>Total ..</b>	<b>878</b>	<b>344</b>	<b>39·18</b>

The table shows that except the Industrial Training Institute, Jullundur, hostel capacity in all other seven I.T.I's was not being fully utilised. The total hostel capacity of selected I.T.I's was to accommodate 878 students but only 344 students were actually residing in the hostels. Thus only 39.18 per cent of total capacity was being utilised. Out of 80 trainees contacted for study only 12 trainees were residing in hostels. 6 trainees reported that facilities such as recreation room, in-door games, reading rooms etc., available in the hostels were poor. Arrangements for providing radios, indoor games, periodicals and news papers may be made in the hostels. Funds may be allocated for this purpose.

*Library.*—Facility of Library existed in all the institutes. The Industrial Training Institute Patiala had insufficient accommodation for stocking books. It is suggested that libraries should be housed in big rooms in all the I.T.I's. The Principals of the eight selected institutes reported that books for teachers were available but the books for the trainees were not available in 3 I.T.I's (Jullundur, Ludhiana and Pathankot) in sufficient numbers. It is suggested that more books of technical nature pertaining to each trade, journals, magazines etc. should be added to the library of every Institute. Post of librarian was lying vacant in the Industrial Training Institute, Patiala at the time of the survey. Out of four selected Government Industrial Schools for Girls, three were having the facility of library but in Ludhiana Institute the facility was not available.

*Games.*—Open space was available in all the I.T.Is' within their own buildings. The open space had been converted into play grounds for Volley ball, Football, Badminton etc. All the eight sampled I.T.Is' were having well maintained playgrounds. In this context it is suggested that more funds for organising these games might be provided in budget allotment and inter-institutes games should be encouraged.

*Other facilities.*—Other facilities like proper toilets, canteen etc., were existing in all the selected institutes. Meeting hall was available in two I.T.I's viz., Ropar and Nangal. Recreation hall was available only in our I.T.I's (Rajpura, Bhatinda, Ropar and Nangal). Facility of telephone was available in all the I.T.I's

## CHAPTER V

### OPINION OF THE TRAINEES

In all 80 trainees were selected for knowing their opinion about different aspects of working of I.T.I's. in 8 sampled institutes. From each of these institutes, ten students undergoing training in various engineering/non-engineering trades were covered. One student was taken from each of the eight groups given in Annexure A and remaining two were taken from the groups having maximum admission in July, 1977 session. Information regarding socio-economic characteristics of the trainees was collected for better understanding of their problems. Information such as the family background of the trainees, their bio-data, purpose of joining I.T.I's, their choice about trades and their future plans for employment was collected along with their views about the training programme.

#### 5.2. Occupation of the head of household;—

Principal occupation of the household was defined as that occupation which contributed the maximum income towards the sustenance of the family. The following table gives the distribution of trainees by their family occupation :—

**TABLE 5.1**

**Parental occupational classification of the trainees**

Name of the Institute	Agricul- turst	Service	Labourer	Business/ trade industry	Arti- sans	Total
1	2	3	4	5	6	7
Jullundur ..	5	2	—	2	1	10
Ludhiana ..	2	6	—	1	1	10
Patiala ..	—	7	1	1	1	10
Rajpura ..	4	4	—	—	2	10
Bhatinda ..	4	3	—	1	2	10
Ropar ..	5	3	—	1	1	10
Nangal ..	3	2	—	3	2	10
Pathankot ..	2	1	4	3	—	10
Total ..	25	28	5	12	10	80
Percentage to total ..	31.25	35.00	6.25	15.00	12.50	100.00

Distribution of trainees in I.T.I's. by their family occupation revealed that 25 trainees (31·25 percent) were the sons of agriculturists, and 28 trainees (35·00 percent) from the families of employees. In the case of 12 trainees or (15·00 percent) the parental occupation was business (trade and industry) and 10 (or 12·50 percent) were from the families of artisans.

The family background determines, to a considerable extent, the aptitude of a student towards employment. Those with agricultural background could be trained to attend to the growing needs of mechanisation of agriculture. Those belonging to families whose principal occupation was classified as business (trade and industry) have a greater inclination towards self-employment than those whose family background was different.

5·3. *Rural/Urban background.*—Majority of the elected trainees belonged to rural areas. Domicile details of trainees selected for the survey are given below :—

TABLE 5.2

## Rural/Urban domicile of selected trainees

Name of the Industrial Training Institute	Rural	Urban	Total
1	2	3	4
Jullundur ..	8	2	10
Ludhiana ..	9	1	10
Patiala ..	6	4	10
Rajpura ..	5	5	10
Bhatinda ..	5	5	10
Ropar ..	8	2	10
Nangal ..	8	2	10
Pathankot ..	10	—	10
Total ..	59	21	80
Percentage ..	73·75	26·25	100·00

The data in table 5·2 show that of the total number of selected trainees in engineering and non-engineering trades 73·75 per cent hailed from rural areas as against 26·25 percent from the urban areas.

5.4. *Caste-wise distribution of sampled trainees.*—The following table gives the detail about the castes of trainees (under going training).

TABLE 5.3

## Classification of trainees on the basis of castes

Name of the Industrial Training Institute	Scheduled castes trainees	Backward classes trainees	Trainees belonging to other castes	Total
1	2	3	4	5
Jullundur ..	1	2	7	10
Ludhiana ..	2	2	6	10
Patiala ..	—	4	6	10
Rajpura ..	2	1	7	10
Bhatinda ..	1	1	8	10
Ropar ..	—	4	6	10
Nangal ..	—	2	8	10
Pathankot ..	1	4	5	10
<b>Total</b> ..	<b>7</b>	<b>20</b>	<b>53</b>	<b>80</b>
<b>Percentage</b> ..	<b>8.75</b>	<b>25.00</b>	<b>66.25</b>	<b>100.00</b>

The above table shows that out of the sample of 80 selected trainees 8.75 percent belonged to scheduled castes, 25.00 percent belonged to backward classes and remaining 66.25 percent to other castes.

5.5. *Education.*—It was observed that trainees generally joining different trades were Matriculate or Higher Secondary. The minimum prescribed educational qualifications for admission in various engineering/

non-engineering trade courses varied according to the nature and duration of the course. Educational qualification possessed by the sampled trainees are detailed in the table given below :—

TABLE 5.4

## Educational qualifications of sampled trainees

Name of Industrial Training Institute	Middle and under matric	Matric/ Higher Secondary/ Prep.	Graduates and above	Total
1	2	3	4	5
Jullundur ..	2	8	—	10
Ludhiana ..	1	9	—	10
Patiala ..	—	8	2	10
Rajpura ..	—	8	2	10
Bhatinda ..	—	8	2	10
Ropar ..	—	9	1	10
Nangal ..	—	9	1	10
Pathankot ..	1	9	—	10
<b>Total</b> ..	<b>4</b>	<b>68</b>	<b>8</b>	<b>80</b>
<b>Percentage</b> ..	<b>5.00</b>	<b>85.00</b>	<b>10.00</b>	<b>100.00</b>

The above table shows that 85.00 percent of the sampled trainees were matriculate/higher secondary/prep. 10.00 percent were graduates and remaining 5.00 percent were middle and under matric.

5-6. *Income groups.*—The annual family income of the sampled trainees is noted in table given below :—

TABLE 5-5

## Annual family income of the sampled trainees

Name of the Industrial Training Institute	Ranges of annual income of the family				
	Upto Rs. 1800	Rs. 1801 to Rs. 3600	Rs 3601 to Rs. 5400	Above Rs. 5400	Total
1	2	3	4	5	6
Jullundur ..	1	3	—	6	10
Ludhiana ..	—	3	3	4	10
Patiala ..	1	5	2	2	10
Rajpura ..	5	2	1	2	10
Bhatinda ..	4	2	1	3	10
Ropar ..	—	6	3	1	10
Nangal ..	2	2	3	3	10
Pathankot ..	1	8	—	1	10
Total ..	14	31	13	22	80
Percentage ..	17.50	38.75	16.25	27.50	100.00

From the above table it is clear that a majority of the trainees belonged to economically moderate classes of society. Annual family income of 17.50 percent was upto Rs. 1,800 of 38.75 percent of the selected trainees was between Rs. 1,801 to Rs 3,600 and of 16.25 percent between Rs. 3,601 to Rs. 5,400. Family earnings of 27.50 percent trainees were about Rs. 5,400 p. a.

5-7. *Future plans of trainees.*—When enquired about the employment plan after the completion of the training, the trainees exhibited a variety of interests. Majority of them wanted to secure job under Government or in the private sector. Some of the trainees had the definite motive of migrating outside the country after acquiring the desired skill. Some others wanted



to join their own family business. Details regarding future career plans of the selected trainees are given in following table :-

TABLE 5.6

## Future career plans of the selected trainees

Name of the Industrial Training Institute	Career Plan				
	To get job Govt./private	To start own business	To Start work in partner-ship	To join own family business	To go abroad
1	2	3	4	5	6
Jullundur ..	6	4	—	—	—
Ludhiana ..	8	2	—	—	—
Patiala ..	6	2	—	1	1
Rajpura / Bhatinda ..	5	2	1	1	1
Bhatinda ..	4	2	1	—	3
Ropar ..	4	4	—	1	1
Nangal ..	4	3	1	1	1
Pathankot ..	6	4	—	—	—
Total ..	43	23	3	4	7
Percentage ..	53.75	28.75	3.75	5.00	8.75

The analysis of the above data reveals that majority of the sampled trainees forming 53.75 percent of total sampled trainees wanted to join Govt./Private service after passing out from Industrial Training Institutes. 28.75 percent intended to start small units while 0.75 percent desired to go abroad and the remaining 8.75 percent wanted to start work in partnership or to join their own family business. This showed that the training programme of the Industrial Training Institute had not been able to infuse the requisite spirit and confidence for starting self-employment projects among the technical trained hands and even after qualifying in various technical trades majority of them were still-hankering after Govt./private jobs. The main reasons for such a phenomena were (i) lack of finance (ii) lack of confidence and technical capability in trainees as they did not

have sufficient practical experience in servicing/production techniques while undergoing training in Industrial Training Institutes. Principals of selected Institutes, Instructors, Trainees and ex-trainees directly or indirectly expressed their opinion that the workshops of I.T.I's were ill-equipped, had outmoded machinery and inadequate supply of raw materials. As reported earlier certain machinery was not in working order and the Instructors were not fully acquainted with operation of some of the machines.

5.8. *Opinion of trainees regarding training programme.*—The opinion of the sampled trainees regarding training programme of the Industrial Training Institutes is given in following table :—

TABLE 5.7

## Opinion of trainees regarding training programme

Name of the Industrial Training Institute	No. of sampled trainees	Opinion about training programme		Main reasons for short comings					
		Satisfactory	Not satisfactory	Shortage of raw material	Shortage of tools/equipments	Posts of instructors remained vacant	More theory less practical	Shortage of books	
1	2	3	4	5	6	7	8	9	
Jullundur	.. 10	7	3	1	1	—	—	2	
Ludhiana	.. 10	5	5	—	1	—	1	5	
Patiala	.. 10	7	3	—	2	1	2	—	
Rajpura	.. 10	4	6	4	4	2	1	—	
Bhatinda	.. 10	4	6	2	1	2	1	—	
Ropar	.. 10	3	7	2	1	4	—	—	
Nangal	.. 10	7	3	2	1	—	2	—	
Pathankot	.. 10	8	2	2	1	—	1	1	
Total	.. 80	45	35	13	12	9	8	8	
Percentage	.. 100.00	56.25	43.75	37.14	34.29	25.71	22.86	22.86	

*Note.*—More than one reason for short comings counted separately.

The above data show that 43.75 per cent of the sampled trainees were not satisfied with the training programme being imparted to them. The main reasons listed for dissatisfaction in the training programme were shortage of raw materials, tools and equipments, posts of Instructors lying vacant and books in short supply. Besides, practical training programme was also regarded inadequate as there were no arrangements, during the tenure of training in I. T. I's, for providing proper job experience in the actual operation and handling of modern machinery in the industries. Old notes were being dictated to the trainees by the instructors only to pass the examination. In the context of above analysis it is suggested that more emphasis should be laid on practicals, refresher courses and visiting private industries should be started. Costly books should be subsidized, important posts falling vacant should be filled in at the earliest, raw material should be provided and tools and equipments should be supplied as per needs of the trainees.

**5.9. Opinion of trainees of industrial training school**—For eliciting suggestions for improvement in the working of these institutions 40 trainees from various trades were contacted from 4 Industrial Training schools for girls i.e. 10 trainees from each institute. They were asked their opinion about the provision of raw material, machinery and equipment and stipend being paid. The following paragraphs narrate the opinion of the trainees regarding various aspects of training.

**Raw material**—Adequate raw material in the form of both quality and quantity is necessary for training. About 50 per cent of the trainees informed that the supply of raw material for practical training was inadequate. They opined that they were provided raw material worth Rs. 25 only for the whole month which was not at all sufficient for the proper training of the trainees in cutting and tailoring. It was demanded by the trainees that the amount of raw material per trainee should be doubled atleast for the proper training.

**Machinery**.—The number of machines available for training in sewing and typing were much less as against the number of trainees admitted in the trades. Lesser number of machines lead to wastage of time and energy. It is suggested that the number of machines should be increased according to the intake capacity of the schools.

**Library**—The trainees complained that there had not been any separate library in any of the school. Adequate books of syllabus for both the students and teachers were not available. The trainees opined that there should be separate library alongwith the availability of all the required books for the teachers as well as students in regional language.

## CHAPTER VI

### OPINION SURVEY OF EX-TRAINEES

In all 80 ex-trainees were interviewed to know problems faced by them after passing the final examination from I.T.I.'s. An ex-trainee was defined as a craftsman who after successfully completing the institutional training and obtained the certificate. To know the position of the ex-trainees who had passed examination during the session of July, 1976 were covered. In this way 10 ex-trainees were selected from each of the eight sampled I.T.I.s. These trainees were selected in such a way so as to cover the eight groups of trades given in annexure—A at end of the report and remaining two ex-trainees from the group which had maximum pass outs in the session mentioned above from that I.T.I. Information regarding bio-data of the ex-trainees, their registration with employment exchanges, details about employment, period of unemployment and wages obtained etc. was collected from each of the selected ex-trainee. Out of 80 selected ex-trainees, 43 were from the engineering/non-engineering courses of one year duration and remaining 37 were from the engineering courses of two years duration.

6.2. **Educational qualification of sampled ex-trainees** :—The information collected revealed that not even a single ex-trainee was first divisioner in middle, matric, intermediate and B.A. who had passed the I.T.I. examination. The picture regarding educational standard of ex-trainees is depicted in following table.

**TABLE 6.1—Educational standard of selected ex-trainees**

Educational Standard	Division obtained in the examination			Total Percentage	
	I	II	III		
1	2	3	4	5	6
Middle	—	7	4	11	13.75
Matric/Hr. Sec./Prep.	—	25	33	58	72.50
Intermediate/under graduate	—	—	4	4	5.00
Graduate/Post graduate	—	6	1	7	8.75
<b>Total</b>	—	38	42	80	100.00

The table shows that 13.75 percent of the total sampled ex-trainees interviewed were middle, 72.50 per cent were matric /higher secondary/ prep. All of them were either II<sup>nd</sup> or III<sup>rd</sup> divisioner in the recognized academic examination. Only 5.00 per cent were intermediate or under-graduate but all of them were III<sup>rd</sup> divisioners. 7 students or 8.75 per cent were graduates/post graduates. Six of them were second divisioner and remaining one was third divisioner. This indicates that brilliant students were not joining the I.T.I.'s

6.3. **Registration at Employment Exchanges** — Out of total 80 ex-trainees 63 (78.75) had reported that their names were registered with the Employment

Exchanges in the State for seeking a job and Employment Exchanges had been successful for providing service to 21 ex-trainees i.e. 33.33 per cent of total registered. Post training follow up of trainees is very important as this helps in the employability of such craftsmen. It was reported by the ex-trainees that hardly any attention was being paid towards this aspect by I.T.I. authorities. I.T.I.s had not succeeded even in enabling the trained hands to get apprenticeship under the Apprenticeship Act of 1961. Facilities should, therefore, be provided in for follow up of Post training careers of trainees. Besides regular surveys should be conducted by the Instructors to study the employment pattern among the ex-trainees and their suggestions for improvement in training.

**6.4. Employment of I.T.I. trained hands** — The ultimate aim of the incorporation of a variety of skills in workers through the channel of Industrial Training Institute was to enhance their employment prospects substantially. The programme has, however, not achieved its aim. Out of 80 ex-trainees contacted for study 35 i.e. 43.74 per cent were continuously unemployed at the time of survey. It could be safely said that I.T.I. trained hands did not get employment in relation to their out-turn. The main reasons observed for this situation were (i) Comparatively lesser expansion in Industries (ii) Lack of spirit for manual work, (iii) Admission of undeserving and non-serious students (iv) Bias and prejudice against the recruitments of I.T.I trained hands by employers, (v) Lack of proper training in certain fields, (vi) Training imparted in the I. T. I. 's not employment oriented (vii) Lack of proper practical training, (viii) Improper implementation of the Apprenticeship Act, 1961. All these points need to be looked into for making improvements in the employability of I.T.I. trained personnel as far as possible.

**6.5. Extent of Employment among the ex-trainees** :—The information collected from the ex-trainees revealed that out of 80 craftsmen, 45 or 56.25 per cent were employed through one or the other sources. The following table gives the details of source-wise employment of ex-trainees.

**TABLE 6.2. Source-wise employment of ex-trainees**

Serial No.	Source of employment	Number of ex-trainees employed	Percentage to Total sampled ex-trainees
1	2	3	3
1	Employment exchange ..	21	46.67
2	Direct through self efforts ..	15	33.34
3	Services Selection Board ..	2	4.44
4	Self-employed ..	2	4.44
5	Under Apprenticeship Act ..	5	11.11
	<b>Total</b> ..	<b>45</b>	<b>100.00</b>

The table shows that out of 45 employed ex-trainees, 21 or 46.67 per cent got employment through Employment Exchanges, 15 or 33.34 per cent were employed through self efforts as the employers display vacancies on the outgate of the factories and recruitment was done without notifying these vacancies to the Employment Exchanges. Two ex-trainees got employment through Subordinate Services Selection Board, two others were self-employed and remaining 5 were adjusted under Apprenticeship Act, 1961.

**6.6. Average monthly income,**—The following table gives the distribution of employed ex-trainees by their average monthly earnings.

**TABLE 6.43** Distribution of Employed ex-trainees by average monthly earnings

Serial No.	Average monthly income of employed ex-trainees (Rs)	No. of ex-trainees employed	Percentage to total employed ex-trainees
1	2	3	4
1	Upto 150	11	24.44
2	151—300	18	40.00
3	301—450	15	33.34
4	451 and above	1	2.22
Total		45	100.60

Data reveal that out of 45 employed ex-trainees, 11 or 24.44 per cent were getting on an average monthly salary upto Rs. 150, 18 or 40.00 per cent ranging between Rs. 151 to Rs. 300, 15 or (33.34 per cent) between Rs 301 to Rs. 450 and remaining one ex-trainee was getting more than Rs. 451 per mensem.

**6.7. Characteristics of unemployed ex-trainees.**—Out of 80 ex-trainees contacted for survey, 35 ex-trainees were continuously without a job after the completion of their training. Out of these 35 ex-trainees, 3 were working without any wages in private concerns for getting practical training to secure employment and one trainee was persuing higher study.

The ex-trainees brought to the notice that instructors were lacking in practical training. Even instructors did not possess knowledge about machines lying in the workshop of I.T.I. and were ignorant about the different types of machines of similar trade in operation in the industries. Thus ex-trainees had to face difficulties of adjustment in factories. The knowledge of Instructors was limited only to use the machines for instructional

purposes. As experienced and seasoned craftsmen endorsed with the high responsibility of shaping raw hands into skilled personnel they were unable to set examples as practical and production minded craftsmen. They were required to be practically sound than to remain mere teachers with no confidence in actual operation of machines. Lack of practice made them mere arm chair teachers rather than seasoned craftsmen Instructors. It is suggested that these Instructors should be sent for refresher courses in large scale industries to know modern techniques of production and latest technical know-how about the machines.

There was a general consensus among the ex-trainees that practical aspect of the training was much below the mark. The practical periods were treated as 'leisure periods'. The ex-trainees also opined that due to lack of the requisite practical training they were facing great difficulties in securing jobs. Even when they were able to find jobs the wages offered to them were meagre. Again, the duties assigned to them were not in accordance with their trade and they were put on manual or semi-manual jobs which were below their capabilities. The ex-trainees held the view that they were being looked down upon by the factory owners as the I.T.I's did not enjoy an enviable reputation as far as the training of craftsmen was concerned. This was because the I.T.I. trained craftsmen did not come up to the factory owner's expectations in giving the output. One important reason was that the machines in I.T.I's and the factories differ in design, operation and speed for output. As such the craftsmen trained in the I.T.I's did not find favour for their recruitment in the factories. In this context it is suggested the trainees should be sent to factories for short duration along with their instructors to equip themselves with the machinery. It was observed after interviewing the ex-trainees that they did not have much knowledge about their scope of employment. They were also ignorant about physical and technical requirements of jobs suitable to them and the advantages of self-employment vis-a-vis salaried employment. It is, therefore, suggested that they should be given orientation lectures and taught to rely on self-employment. Even changes in the duration or curriculum of courses, especially in trades like blacksmiths, motor mechanic, carpentry, welding, tractor mechanic, etc. where the chances of self employment were higher should be allowed. They should also be made conversant with different sources which were advancing loans for setting up small units. The I.T.I.'s authorities should help trainees in obtaining loans for setting up their own small units. Greater attention should be paid in preparing the trainees for self-employment.

The ex-trainees had also demanded that all the craftsmen who were keen for securing employment through the follow up section of the I.T.I. should be issued employment cards wherein all the particulars of the craftsmen be entered. This card need to be prepared in triplicate, original be retained by the I.T.I., the duplicate card be forwarded to the local employment exchange and triplicate be given to craftsmen. This would ensure three pronged efforts for employment of the Craftsmen, namely, the I.T.I.'s by their follow up section, the Employment Exchange through their good offices and the Craftsman with his own efforts. In case the follow up section secures him a job through its efforts or through local Employment Exchange, the card given to the Craftsman should be withdrawn. But if the craftsman finds, a job by his own efforts, his new employer should withdraw the card and return it to the I.T.I's from which it was issued, for deleting the name of the craftsmen from the list of job seekers. This system would also ensure complete and reliable statistics about the employment of the I.T.I. craftsmen.

## CHAPTER VII

### OPINION OF THE INDUSTRIALISTS

During the course of study, 50 employers, 10 each from five Industrial Centres viz., Jullundur, Ludhiana, S.A.S. Nagar(Mohali), Rajpura and Amritsar were contacted to know their opinion regarding the trainees of I.T.I's. These industrialists had employed total number of 1216 employees in their units. Out of the total workers (1216) employed by selected industrialists, 80 were I.T.I. trained workers, 52 were working as apprentices and 1084 other skilled labourers. These industrialists were recruiting the workers generally by direct interviews, through Employment Exchanges and through negotiation with I.T.I's. The following table gives the total number of employees and mode of recruitment in establishment of selected industrialists.

**Table 7.1 : Mode of recruitment in selected units:**

Name of Industrial town	No of Industrialists giving information	Mode of recruitment					Total employment in the Industrial unit			
		By Direct inter-view	Through Employment Exchange	Thro-ugh I T I	Adver-tisement	Total employ-ments in the Industrial units covered	No. of I.T.I. train-eds hands	No. of apprentices	Other	
1	2	3	4	5	6	7	8	9	10	
Jullundur	.. 10	10	1	—	—	341	8	14	319	
Ludhiana	.. 10	10	2	—	—	248	14	11	223	
S.A.S. Nagar (Mohali)	10	10	—	—	—	161	30	1	130	
Rajpura	.. 10	10	2	—	—	111	9	2	100	
Amritsar	.. 10	5	2	7	1	355	19	24	312	
<b>Total</b>	.. 50	45	7	7	1	1,216	80	52	1,084	

\*More than one mode of recruitment adopted by Industrialists counted separately.

Out of these 50 Industrialists, 24 had been having further demand of I.T.I. trained persons and some of them had already met their demand by recruiting I.T.I. trained hands. Eighteen of them were of the opinion that I.T.I. trained hands were lacking interest/responsibility in the job offered to them by these employers. 13 industrialists under value I.T.I. trained hands due to lack of practical training while 4 had opined that they create nuisance in the industrial units and four complained that trainees were not sticking to



one factory. The industrialists were generally not satisfied with the performance of trainees due to the following shortcomings which should be looked into by the Department :

- (i) Lack of practical training ;
- (ii) Lack of interest and excessive job mobility ;
- (iii) Carelessness in handling of the costly instruments/machines.
- (iv) Lack of hard work ;
- (v) Lack of discipline ;
- (vi) Lack of knowledge about the modern machinery/instruments ;
- (vii) Lack of knowledge of common names of the tools used in different trades in the factories.

The Industrialists suggested that in order to have better Co-operation and proper coordination, the representatives of the well established industries may be included in the Selection Committees meant for admission in I.T.I's as well as for framing the policy regarding training.

#### General views

*Jack of all trades but master of none.*—The Industrialists opined about the I.T.I. trained craftsmen being “Jack of all trades but master of none”. They lacked specialized type of training and were unable to be adjusted in factory environment.

*Absence of dignity of labour*—The employers held the views that I.T.I. trained hands believe in white collar and supervisory jobs and hence were not temperamentally fit for the type of jobs offered to them.

*Psychological bias*—It was observed that a majority of the industrialists of small units had worked themselves in production process at the initial stages. They were, thus, self made persons. They were having a natural bias against these I.T.I. trained persons and preferred employing persons without formal education but trained on the job who were capable of turning out reasonable out put and depended entirely on the employer.



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**TABLES**

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**TABLE No. 1****Admission Capacity and actual admission in the selected Industrial Training Institute 1975-76**

(One year engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage to actual admission capacity
1	2	3	4
1. Motor Mechanic ..	366	425	116.12
2. Moulder ..	63	64	101.59
3. Welder ..	213	249	106.87
4. Plumber ..	57	56	98.25
5. Blacksmith ..	51	31	60.78
6. Painter ..	16	14	87.50
7. Tractor mechanic ..	163	199	122.09
8. Carpenter ..	136	144	105.88
9. Diesel mechanic ..	80	103	128.75
10. Refregiration and Air conditioning ..	167	177	105.99
<b>Total</b> ..	<b>1,312</b>	<b>1,462</b>	<b>111.43</b>

TABLE No. 2

**Admission capacity and actual admission in the selected Industrial  
Training Institutes during 1976-77**

(One year engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage of actual admission to capacity
	2	3	4
1. Motor mechanic ..	366	*	—
2. Moulder ..	85	105	123·53
3. Welder ..	200	247	123·50
4. Plumber ..	57	46	80·70
5. Blacksmith ..	39	32	82·05
6. Painter ..	16	18	112·50
7. Tractor-mechanic ..	163	194	119·02
8. Carpenter ..	142	174	122·54
9. Diesel mechanic ..	80	104	130·00
10. Refregiration and Air conditioning	132	*	—
<b>Total</b>	<b>1,280</b>	<b>920</b>	<b>71·88</b>

\*No admission due to change in duration of trade of motor  
mechanic and refregiration in August, 1976.

TABLE No. 3

**Admission Capacity and actual admission in selected Industrial  
Training Institutes during 1974-76.**

(Two years engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage of actual admission to capacity
1	2	3	4
1. Draftsman Civil ..	111	163	146.85
2. Draftsman mechanic ..	64	86	134.38
3. Electroplator ..	16	6	37.50
4. Surveyor ..	98	117	119.39
5. Radio/T.V. Mechanic ..	108	95	87.96
6. Wireman ..	99	106	107.07
7. Electricians ..	311	386	124.12
8. Mechanic (General Composite + Grinder) ..	126	141	111.90
9. Mechanic Instruments ..	16	18	112.50
10. Turner ..	114	143	125.44
11. Fitter ..	183	217	118.58
12. Pattern Maker ..	28	30	107.14
<b>Total ..</b>	<b>1,274</b>	<b>1,508</b>	<b>118.37</b>

TABLE No. 4

**Admission capacity and actual admission in the selected  
Industrial Training Institutes during 1975-77**

(Two years engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage of actual admission to capacity
1	2	3	4
1. Draftsman civil ..	48	54	112.50
2. Draftsman mechanic ..	64	60	93.75
3. Wireman ..	100	109	109.00
4. Surveyor ..	68	71	104.41
5. Radio/T.V. Mechanic ..	128	139	108.59
6. Electricians ..	222	320	144.14
7. Mechinist ..	146	156	106.85
8. Turner ..	158	161	110.27
9. Fitter ..	230	251	109.13
10. Pattern maker ..	16	16	100.00
11. Electroplator ..	16	16	100.00
12. Watch and Clock repairing ..	16	14	87.50
<b>Total ..</b>	<b>1,212</b>	<b>1,367</b>	<b>112.79</b>

TABLE No. 5

**Admission capacity and actual admission in the selected Industrial  
Training Institutes during 1975-76**

(One year non-engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage of actual admission and capacity
1	2	3	4
1. Stenography English ..	241	262	108.71
2. Stenography Punjabi ..	294	329	111.90
3. Stenography Hindi. ..	45	40	88.89
4. Cutting and Tailoring ..	52	52	100.00
5. Book Binding ..	16	20	125.00
6. Sports goods (wood) ..	3	3	100.00
7. Sports goods (leather) ..	10	12	120.00
8. Foot wear ..	9	9	100.00
9. Preservation of Fruit and Vegetable ..	16	9	56.25
10. Accountancy ..	50	53	106.00
11. Store keeping ..	32	35	109.38
12. Printing machine operator ..	8	8	100.00
13. Hand compositor and proof reading ..	24	24	100.00
<b>Total ..</b>	<b>800</b>	<b>856</b>	<b>107.00</b>



TABLE No. 6

**Admission capacity and actual admission in the selected  
Industrial Training Institutes during 1976-77**

(One year non-engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage of actual admission to capacity
1	2	3	4
a			
1. Stenography English ..	242	257	106.20
2. Stenography Punjabi ..	274	310	113.14
3. Stenography Hindi ..	45	44	97.78
4. Cutting and Tailoring ..	52	49	94.23
5. Book Binding ..	16	27	168.75
6. Sports goods (wood) ..	3	3	100.00
7. Sports goods (Leather) ..	10	12	120.00
8. Footwear ..	9	9	100.00
9. Preservation of fruits and vegetables ..	16	9	56.25
10. Printing machine operator	8	—	—
11. Hand compositor and proof reading ..	24	16	66.67
12. Accountancy ..	16	18	112.50
13. Store keeping ..	16	19	118.75
Total ..	731	773	105.75

TABLE No. 7

**Admission capacity and actual admission in the selected  
Industrial School for Girls during 1975-76 and 1976-77**

(Non-engineering trades)

Name of the Trades	Admission capacity	Actual admission	Percentage of actual admission to capacity
1	2	3	4
<b>1975-76</b>			
1. Cutting and tailoring ..	368	368	100.00
2. Embroidery and needle work	272	272	100.00
3. Steno Punjabi ..	192	192	100.00
4. Teachers Training Centres ..	120	120	100.00
5. Teacher Training-cum-production centre ..	20	20	100.00
Total ..	972	972	100.00
<b>1976-77</b>			
1. Cutting and tailoring ..	335	335	100.00
2. Embroidery and needle work	304	304	100.00
3. Steno Punjabi ..	176	176	100.00
4. Teachers Training courses ..	120	120	100.00
5. Teachers Training centre-cum-production courses ..	20	19	95.00
Total ..	955	954	99.90

TABLE No. 8

Educational qualifications of passed out trainees of selected Industrial Training Institutes during 1975-76 and 1976-77

(Engineering Trades)

Name of the Industrial Training Institute	Middle and under matric	Matric/Hr.Sec/Prep.	Intermediates/under graduates	Graduates	Total
1	2	3	4	5	6
<b>1975-76</b>					
1. Ludhiana ..	53	84	8	2	147
2. Patiala ..	23	53	1	—	77
3. Jullundur ..	53	85	5	7	150
4. Bhatinda ..	22	56	1	9	88
5. Pathankot ..	75	127	—	2	204
6. Nangal ..	24	142	3	3	172
7. Rajpura ..	20	72	1	—	93
8. Ropar ..	9	57	—	3	69
<b>Total</b>	<b>279</b>	<b>676</b>	<b>19</b>	<b>26</b>	<b>1,000</b>
<b>1976-77</b>					
1. Ludhiana ..	29	68	1	1	99
2. Patiala ..	15	38	2	2	57
3. Jullundur ..	7	60	—	—	67
4. Bhatinda ..	19	38	—	—	57
5. Pathankot ..	45	28	—	1	74
6. Nangal ..	44	65	2	1	112
7. Rajpura ..	17	45	—	1	63
8. Ropar ..	4	13	—	—	17
<b>Total</b>	<b>180</b>	<b>355</b>	<b>5</b>	<b>6</b>	<b>546</b>

TABLE No. 9

**Educational qualifications of passed out trainees of selected Industrial Training Institutes during 1974-76 and 1975-77  
(Engineering Trades)**

Name of the Industrial Training Institutes	Educational qualifications					Total
	Middle and under matric	Matric/Hr. Sec/Prep.	Inter-mediate/under graduates	Graduates		
1	2	3	4	5	6	
<b>1974-76</b>						
1. Ludhiana ..	14	124	5	8	151	
2. Patiala ..	15	81	3	—	99	
3. Jullundur ..	20	96	14	—	130	
4. Bhatinda ..	13	68	—	1	82	
5. Pathankot ..	31	129	—	—	160	
6. Nangal ..	30	94	5	3	132	
7. Rajpura ..	5	41	1	—	47	
8. Ropar ..	22	104	—	1	127	
<b>Total ..</b>	<b>150</b>	<b>737</b>	<b>28</b>	<b>13</b>	<b>928</b>	
<b>1975-77</b>						
1. Ludhiana ..	10	146	1	4	161	
2. Patiala ..	16	94	5	—	115	
3. Jullundur ..	4	66	2	1	73	
4. Bhatinda ..	13	69	—	—	82	
5. Pathankot ..	18	96	—	3	117	
6. Nangal ..	38	114	3	4	159	
7. Rajpura ..	3	47	—	—	50	
8. Ropar ..	1	15	—	—	16	
<b>Total ..</b>	<b>103</b>	<b>647</b>	<b>11</b>	<b>12</b>	<b>773</b>	

TABLE No. 10

**Educational qualifications of passed out trainees of selected Industrial Training Institutes during 1975-76 and 1976-77**  
(Non-Engineering Trades)

Name of the Industrial Training Institutes	Educational qualifications					Total
	Middle and under matric	Matric/Hr./Sec./ Prep.	Intermediates/ under graduates	Graduates		
1	2	3	4	5	6	
<b>1975-76</b>						
1. Ludhiana ..	—	101	14	13	128	
2. Patiala ..	—	46	2	5	53	
3. Jullundur ..	3	109	28	5	145	
4. Bhatinda ..	—	40	—	5	45	
5. Pathankot ..	—	45	—	13	58	
6. Nangal ..	—	53	1	5	59	
7. Rajpura ..	2	55	2	1	60	
8. Ropar ..	16	50	—	2	68	
<b>Total ..</b>	<b>21</b>	<b>499</b>	<b>47</b>	<b>49</b>	<b>616</b>	
<b>1976-77</b>						
1. Ludhiana ..	2	56	10	5	73	
2. Patiala ..	—	44	—	1	45	
3. Jullundur ..	2	98	2	1	103	
4. Bhatinda ..	—	65	—	1	66	
5. Pathankot ..	—	60	1	9	70	
6. Nangal ..	—	30	—	3	33	
7. Rajpura ..	1	52	2	1	56	
8. Ropar ..	2	21	—	2	25	
<b>Total ..</b>	<b>7</b>	<b>426</b>	<b>15</b>	<b>23</b>	<b>471</b>	

**TABLE No. 11**  
**Educational qualifications of the passed out trainees of selected Industrial School for girls during 1975-76 and 1976-77 in non-engineering trades.**

Name of the School	Educational qualifications				Total
	Middle and under-matric	Matric/Hr. Sec./Prep.	Inter-mediate/under graduates	Graduates	
1	2	3	4	5	6
<b>1975-76</b>					
1. Govt. Industrial Teachers Training Institute, (Women) Jullundur ..	16	237	—	—	253
2. Govt. Industrial School for girls, Ludhiana ..	27	158	5	8	198
3. Govt. Industrial Teachers Training Institute, (Women) Amritsar ..	1	250	8	10	269
4. Govt. Industrial Teachers Training Institute, Patiala ..	2	127	47	15	191
<b>Total ..</b>	<b>46</b>	<b>772</b>	<b>60</b>	<b>33</b>	<b>911</b>
<b>1976-77</b>					
1. Govt. Industrial Teachers Training Institute, (Women) Jullundur ..	17	210	—	—	227
2. Govt. Industrial School for girls, Ludhiana ..	21	148	7	9	185
3. Govt. Industrial Teachers Training Institute (Women) Amritsar	2	244	—	9	255
4. Govt. Industrial Teachers Training Institute, Patiala	3	154	26	14	197
<b>Total ..</b>	<b>43</b>	<b>756</b>	<b>33</b>	<b>32</b>	<b>864</b>

TABLE No. 12

Extent of wastage on account of drop-outs during 1975-76 and 1976-77  
in Industrial Training Institutes (One year engineering trades)

Name of the trades	Actual admission	Drop-outs	Percentage of drop-outs to admission
1	2	3	4
<b>1975-76</b>			
1. Motor mechanic ..	425	55	12.94
2. Moulder ..	64	5	7.81
3. Welder ..	249	40	16.06
4. Plumber ..	56	8	14.29
5. Blacksmith ..	31	8	25.81
6. Painter ..	14	6	42.86
7. Tractor Mechanic ..	199	50	25.13
8. Carpenter ..	144	23	15.97
9. Diesel mechanic ..	103	31	30.10
10. Refergirator and Air Conditioning ..	177	31	17.51
Total ..	1,462	257	17.58
<b>1976-77</b>			
1. Moulder ..	105	29	27.62
2. Welder ..	247	33	13.36
3. Plumber ..	46	5	10.87
4. Blacksmith ..	32	4	12.50
5. Tractor mechanic ..	194	59	30.41
6. Carpenter ..	174	12	6.90
7. Diesel mechanic ..	104	20	19.23
8. Painter ..	18	5	27.78
Total ..	920	167	18.15

TABLE No. 13

Extent of wastage on account of drop outs during 1974—76 and 1975—77 in Industrial Training Institutes (Two years engineering trades).

Name of the trades	Actual admission	Drop-outs	Percentage of drop-outs to admission
1	2	3	4
<b>1974—76</b>			
1. Draftsman Civil ..	163	31	19.02
2. Draftsman mechanic ..	86	27	31.40
3. Electroplator ..	6	—	—
4. Surveyor ..	117	22	18.80
5. Radio/T.V. Mechanic ..	95	31	32.63
6. Wireman ..	106	42	39.62
7. Electricians ..	386	113	29.27
8. Mechanics (General) Composite Grinder ..	141	42	29.79
9. Mechanic Instruments ..	18	6	33.33
10. Turner ..	143	45	31.47
11. Fitter ..	217	55	25.35
12. Pattern Maker ..	30	—	—
Total ..	1,508	414	27.45
<b>1975—77</b>			
1. Draftsman Civil ..	54	22	40.74
2. Draftsman Mechanic ..	60	21	35.00
3. Wireman ..	109	26	23.85
4. Surveyor ..	71	11	15.49
5. Radio/T.V. Mechanic ..	139	47	33.81
6. Electricians ..	320	62	19.38



**TABLE No. 13**  
**Extent of wastage on account of drop outs during 1974-76 and**  
**1975-77 in Industrial Training Institutes (Two years engineering**  
**trades)—concl'd**

Name of the trades	Actual admission	Drop-outs	Per-centage of drop-outs to admission
1	2	3	4
7. Machinist ..	156	49	31·41
8. Turner ..	161	43	26·71
9. Fitter ..	251	105	41·83
10. Pattern Maker ..	16	7	43·75
11. Electroplator ..	16	1	6·25
12. Watch and Clock repairing ..	14	4	28·57
Total ..	1,367	398	29·11

TABLE No. 14

Extent of wastage on account of drop outs during 1975-76 in  
Industrial Training Institutes (One year Non-engineering trades)

Name of the Trades	Actual Admission	Drop-outs	Percentage of drop-outs to admission
1	2	3	4
1. Stenography English ..	262	50	19.08
2. Stenography Punjabi ..	329	37	11.25
3. Stenography Hindi ..	40	6	15.00
4. Cutting & Tailoring ..	52	3	5.77
5. Book Binding ..	20	1	5.00
6. Sports goods (wood) ..	3	—	—
7. Sports goods (leather) ..	12	—	—
8. Foot-wear ..	9	—	—
9. Preservation of fruits and vegetables	9	4	44.44
10. Accountancy ..	53	5	9.43
11. Store keeping ..	35	8	22.86
12. Printing machine operator ..	8	—	—
13. Hand compositor and proof reading <sup>n</sup>	24	5	20.83
<b>Total</b> ..	<b>856</b>	<b>119</b>	<b>13.90</b>

**TABLE No. 15**  
**Extent of wastage on account of drop-outs during 1976-77 in**  
**Industrial Training Institutes (One year Non-engineering trades)**

Name of the Trades	Actual admission	Drop-outs	Percentage of drop-outs to admission
1	2	3	4
1. Stenography English ..	257	68	26.46
2. Stenography Punjabi ..	310	43	13.67
3. Stenography Hindi ..	44	5	11.36
4. Cutting & Tailoring ..	49	11	22.45
5. Book Binding ..	27	13	48.15
6. Sports goods (wood) ..	3	—	—
7. Sports goods (leather) ..	12	—	—
8. Foot-wear ..	9	—	—
9. Preservation of fruits and vegetables ..	9	4	44.44
10. Hand compositor and proof reading ..	16	6	37.50
11. Accountancy ..	18	2	11.11
12. Store keeping ..	19	1	5.26
Total ..	773	153	19.79

**TABLE No. 16**  
**Extent of wastage on account of drop-outs in Industrial School**  
**for girls during 1975-76 and 1976-77.**

Name of the Trades	Actual admission	Drop-outs	Percentage of drop-outs to admission
1	2	3	4
<b>1975-76</b>			
1. Cutting and Tailoring ..	368	23	6.25
2. Embroidery and Needle work ..	272	11	4.04
3. Steno Punjabi ..	192	12	6.25
4. Teachers Training Courses ..	120	2	1.66
5. Teachers Training Courses-cum-production Courses ..	20	—	—
Total ..	972	48	4.94
<b>1976-77</b>			
1. Cutting and Tailoring ..	335	36	10.75
2. Embroidery and Needle work ..	304	27	8.88
3. Steno Punjabi ..	176	6	3.41
4. Teachers Training Courses ..	120	2	1.66
5. Teachers Training Courses-cum-production Courses ..	19	—	—
Total ..	954	71	7.44

**Table No. 17**  
**Extent of wastage on account of failures and number of trainees**  
**passed-out in Industrial Training Institutes during 1975-76**  
**and 1976-77 (One year engineering trades).**

Name of the Trades	No. of trainees appearing in I.T.I's. (admission- drop-outs)	Failures	Passed- out
1	2	3	4
<b>1975-76</b>			
1. Motor Mechanic ..	370	63	307
2. Mechanic ..	59	13	46
3. Welder ..	209	26	183
4. Plumber ..	48	4	44
5. Blacksmith ..	23	2	21
6. Painter ..	8	—	8
7. Tractor Mechanic ..	149	44	105
8. Carpenter ..	121	20	101
9. Diesel Mechanic ..	72	15	57
10. Refregirator & Airconditioning ..	146	18	128
Total ..	1,205	205	1,000
<b>1976-77</b>			
1. Moulder ..	76	7	69
2. Welder ..	214	41	173
3. Plumber ..	41	8	33
4. Blacksmith ..	28	8	20
5. Tractor Mechanic ..	135	65	70
6. Carpenter ..	162	30	132
7. Diesel Mechanic ..	84	47	37
8. Painter ..	13	1	12
Total ..	753	207	546

TABLE No. 18

Extent of wastage on account of failure and number of trainees passed out Industrial Training Institutes during 1974-76 and 1975-77  
(Two year engineering trades)

Name of the Trades	No. of trainees appearing in I. T 's (admission drop-outs)	Failure	Passed-out
1	2	3	4
<b>1974—76</b>			
1. Draftsman Civil ..	132	5	127
2. Draftsman mechanic ..	59	11	48
3. Electroplator ..	6	—	6
4. Surveyor ..	95	7	88
5. Radio/T.V. Mechanic ] ..	64	9	55
6. Wireman ..	64	11	53
7. Electricians ..	273	43	230
8. Machanic (General) ..	99	21	78
9. Mechanic Instruments ..	12	2	10
10. Turner ..	98	17	81
11. Fitter ..	162	29	133
12. Pattern maker ..	30	11	19
<b>Total ]</b> ..	<b>1,094</b>	<b>166</b>	<b>928</b>
<b>1975-77</b>			
1. Draftsman Civil ..	32	8	24
2. Draftsman Mechanic ..	39	8	31
3. Wireman ..	83	27	56

TABLE No. 18

Extent of wastage on account of failure and member of trainees passed out Industrial Training Institutes during 1974-76 and 1975-77 (Two years engineering trades)—concl'd.

Name of the Trades		No. of trainees appearing in I. T. I's (admission drop-out)	Failure	Passed-out
1		2	3	4
4.	Surveyor ..	60	11	49
5.	Radio/T.V. Mechanic ..	92	21	71
6.	Electricians ..	258	42	216
7.	Machinist ..	107	20	87
8.	Turner ..	118	23	95
9.	Fitter ..	146	30	116
10.	Pattern maker ..	9	5	4
11.	Electroplater ..	15	1	14
12.	Watch and clock repairing ..	10	—	10
Total ..		969	196	773

TABLE No. 19

Extent of wastage on account of failures and number of trainees passed out during 1975-76 in Industrial School for Girls (One year engineering trades)

Name of the Trades	No. of trainees appearing in I.T.I.'s Actual admission drop-out	Failures	Passed-out
1	2	3	4
1. Stenography English ..	212	42	170
2. Stenography Punjabi ..	292	59	233
3. Stenography Hindi ..	34	5	29
4. Cutting & Tailoring ..	49	—	49
5. Book Binding ..	19	—	19
6. Sports goods (Wood) ..	3	—	3
7. Sports goods (Leather) ..	12	—	12
8. Foot wear ..	9	—	9
9. Preservation of fruits & vegetable ..	5	—	5
10. Accountancy ..	48	9	39
11. Store keeping ..	27	5	22
12. Printing machine operator ..	8	—	8
13. Hand compositor and proof reading ..	19	1	18
<b>Total ..</b>	<b>737</b>	<b>121</b>	<b>616</b>



TABLE No. 20

Extent of wastage on account of failures and number of trainees passed out in Industrial Training Institutes during 1976-77 (One year non-engineering trades)

Name of the Trades	No. of trainees appearing in I.T.I.'s (Admission-drop-outs)	Failures	Passed out
1	2	3	4
<b>1976-77</b>			
1. Stenography English ..	189	76	113
2. Stenography Punjabi ..	267	49	218
3. Stenography Hindi ..	39	11	28
4. Cutting and Tailoring ..	38	3	35
5. Book Binding ..	14	9	5
6. Sports goods (wood) ..	3	—	3
7. Sports goods (leather) ..	12	—	12
8. Foot wear ..	9	—	9
9. Preservation of Fruits and vegetables	5	—	5
10. Hand compositor and proof reading..	10	—	10
11. Accountancy ..	16	—	16
12. Store keeping ..	18	1	17
Total ..	620	149	471

TABLE No. 21

Extent of wastage on account of failures and number of trainees passed out in Industrial School for Girls during 1975-76 and 1976-77.

Name of the Trades	No. of trainees appearing in I.T.I.'s admission drop-outs	Failure	Passed-out
1	2	3	4
<b>1975-76</b>			
1. Cutting and Tailoring ..	345	3	342
2. Embroidery and Needle work ..	261	—	261
3. Steno-Punjabi ..	180	1	179
4. Teachers Training Courses ..	118	9	109
5. Teachers Training Courses-cum-Production courses ..	20	—	20
Total ..	924	13	911
<b>1976-77:</b>			
1. Cutting and Tailoring ..	299	6	293
2. Embroidery and Needle work ..	277	1	276
3. Steno-Punjabi ..	170	3	167
4. Teachers Training Courses ..	118	9	109
5. Teachers Training Courses-cum-production courses ..	19	—	19
Total ..	883	19	864

TABLE No. 22

Number of stipend holders and total amount disbursed since 1973-74 in sampled Industrial Training Institutes

(Rs. in lakhs)

Name of the Industrial Training Institute	1973-74		1974-75		1975-76		1976-77	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1	2	3	4	5	6	7	8	9
1. Jullundur ..	187	0.50	223	0.57	206	0.52	218	0.54
2. Ludhiana ..	110	0.33	274	0.67	321	0.82	257	0.11
3. Patiala ..	427	0.67	429	0.54	412	0.56	400	0.56
4. Rajpura ..	138	0.35	119	0.27	120	0.28	128	0.32
5. Bhatinda ..	102	0.27	159	0.34	174	0.42	182	0.39
6. Ropar ..	126	0.34	119	0.33	202	0.64	226	0.60
7. Nangal ..	430	0.80	472	0.78	526	0.96	514	0.88
8. Pathankot ..	321	0.80	310	0.72	310	0.68	306	0.92
<b>Total ..</b>	<b>1,841</b>	<b>4.06</b>	<b>2,105</b>	<b>4.22</b>	<b>2,271</b>	<b>4.88</b>	<b>2,231</b>	<b>4.32</b>

TABLE No. 23

Number of stipend holders and total amount disbursed since 1973-74 in sampled Industrial Schools for girls

(Rs. in lakhs)

Name of the School	1973-74		1974-75		1975-76		1976-77	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1	2	3	4	5	6	7	8	9
1. Government Industrial Teachers Training Institute (Women), Jullundur	109	0.33	130	0.33	152	0.39	119	0.38
2. Government Industrial School for Girls, Ludhiana	72	0.19	92	0.24	81	0.25	77	0.23
3. Government Industrial Teachers Training Institute, (Women), Amritsar	113	0.12	101	0.25	115	0.35	117	0.35
4. Government Industrial Teachers Training Institute, Patiala	52	0.14	58	0.17	87	0.26	91	0.25
Total	346	0.78	381	0.99	435	1.25	404	1.21

TABLE No. 24

Details of raw material used in sampled Industrial Training Institutes during  
1975-76 and 1976-77

(Rs. in lakhs)

Name of the Industrial Training Institutes	1975-76 Value of raw material used	1976-77 Value of raw material used
1	2	3
1. Jullundur ..	..	..
2. Ludhiana ..	0.70	0.61
3. Nangal ..	..	..
4. Pathankot ..	0.46	0.57
5. Patiala ..	0.50	0.55
6. Rajpura ..	0.26	0.35
7. Bhatinda ..	0.15	0.11
8. Ropar ..	0.11	0.29
Total ..	2.18	2.48

.. indicates not available.

TABLE No. 25

Details of raw material used in the selected Industrial Schools for Girls  
1975-76 and 1976-77.

Name of the School	1975-76 Value of raw material used	1976-77 Value of raw Material used
1	2	3
1. Government Industrial Teachers Traning Institute (Women), Jullundur ..	0·31	0·27
2. Government Industrial School for Girls, Ludhiana ..	0·19	0·19
3. Government Industrial Tea- chers Training Institutes (Women), Amritsar ..	0·10	0·32
4. Government Industrial Tea- chers Training Institute, Patiala ..	0·14	0·14
Total ..	0·74	0·92

## ANNEXURE — A

**Group -wise classification of trades on the basis of the nature of duties.***Group No. Name of the Trades*

- |      |   |
|------|---|
| I    | Black smith, Carpenter, Moulder, Painter, Plumber, Sheetmetal worker, Welder, Pattern makers (Wood).              |
| II   | Fitter, Turner, Machinist, Compositor, Machinist Grinder, Watch and Clock repairer.                               |
| III  | Tractor Mechanic, Diesel Mechanic, Motor Mechanic, Refrigeration Mechanic.  |
| IV   | Electrician, Wire Man, Radio & T.V. Mechanic, Instrument Mechanic, Electro-Plator.                                |
| V    | Draftsman Mechanical, Draftsman Civil, Surveyor.  |
| VI   | Steno-graphy English, Steno-graphy Punjabi, Steno-graphy Hindi.   |
| VII  | Cutting and Tailoring, Embroidery.  |
| VIII | Sports goods (leather) Sports goods (wood) Shoe-making, Printing Machine Operator, Hand Compositery/Book Binding. |

**ANNEXURE—B****CLASSIFICATION OF INDUSTRIALISTS :**

*Serial No. Name of the Group*

1. Machine shop Industry  
(Cycle parts and sewing machines).
2. Machine tool Industry  
(Small Tool manufacturing).
3. Automobile Industry  
(servicing and repair)
4. Fabricators and steel manufacturing.
5. Electronics Industry



## ANNEXURE—C

## Staff Associated with Survey

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Serial No.	Name	Designation
1.	Sardar Mewa Singh	.. Technical Assistant
2.	Shri Jai Dev Kalra	.. Technical Assistant
3.	Sardar Baldev Singh	.. Technical Assistant
4.	Shri Om Parkash Kapoor	.. Computer

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## ANNEXURE—D

ECONOMIC AND STATISTICAL ORGANISATION, PUNJAB

**EVALUATION STUDY RELATING TO WORKING OF  
INDUSTRIAL TRAINING INSTITUTES AND  
SPECIAL TRADE INSTITUTES IN PUNJAB**

## SCHEDULE-I : INSTITUTION SCHEDULE:

## Block-1

- 1.1 Name of the institution
- 1.2 District
- 1.3 Year of inception
- 1.4 For men, women or both
- 1.5 Whether hostel facilities available for ?
- (i) Men            Total capacity       Utilised
- (ii) Women
- 1.6 Medium of instruction:

---

English	Punjabi
(Name of trades)	(Name of trades)

## BLOCK —2

## Qualification of the Trainees

(a) Engineering Trade with one year duration:

Trades	1975-76				1976-77			
	Middle	High/ Hr. Sec.	F.A.	B.A.	Middle	High/ Hr. Sec.	F.A.	B.A.
1	2	3	4	5	6	7	8	9
Total								

Note:—Give here the actual qualification of the trainees and not the qualifications prescribed.

(b) Engineering Trade with two years duration:

Trades	1975-76				1976-77			
	Middle	High/ Hr. Sec.	F.A.	B.A.	Middle	High/ Hr. Sec.	F.A.	B.A.
1	2	3	4	5	6	7	8	9

(c) Non-engineering Trade with One Year duration

Trades	1975-76				1976-77			
	Middle	High/ Hr. Sec.	F.A.	B.A.	Middle	High/ Hr. Sec.	F.A.	B.A.
1	2	3	4	5	6	7	8	9

BLOCK

Number of trainees, drop outs, failures and pass outs

(Separate sheets)

Serial No.	Trade	Admission capacity	<i>Number of trainees</i>					
			Admitted					
			S.C.		Others		Total	
			M.	F.	M.	F.	M.	F.
1	2	3	4	5	6	7	8	9

—3

during the year 1975-76 to 1976-77

to be used for each year)

---



---

Dropped out		Failed		Passed out		Remarks
M.	F.	M.	F.	M.	F.	
10	11	12	13	14	15	16

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## Number of trainees, drop outs, failures and pass outs

BLOCK—3,

Serial Trade No.	Admission capacity	<i>Number of trainees</i>						
		Admitted						
		S.C.		Others		Total		
		M.	F.	M.	F.	M.	F.	
1	2	3	4	5	6	7	8	9

during the year 1975-76 to 1976-77

(Separate sheets to be used for each year)

---

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						Remarks
Dropped out		Failed		Passed out		
M.	F.	M.	F.	M.	F.	
10	11	12	13	14	15	16

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**BLOCK 5 A: PRODUCTION AND DISPOSAL OF GOODS PRODUCED BY THE TRAINEES:**

Year	Value of goods produced by the trainees	Value of goods sold			Value of goods in stock as on (31st March)
		Government Department	Others	Total	
1	2	3	4	5	6

1975-76

1976-77

**B: If no production is being taken please give reasons:**

(i)

(ii)

(iii)

**C. Whether Institution is ready to take up production of goods.**

Yes/No

If yes, please indicate requirements.

**BLOCK-6 RAW MATERIAL**

(i) Do you face any problem in procurement of raw-material in workshop for training Yes/No

(ii) If yes, what type of problems do you face :

(a)

(b)

(c)

(iii) Specify the shortage in different trades:

Trades: Name of raw material. Shortage:  
(quantity)

(i)

(ii)

(iii)

(iv)

(iv) What remedial measures do you suggest.

Details of raw material purchased:

(Rs)

---

	1973-74	1974-75	1975-76	1976-77
--	---------	---------	---------	---------

---

(i) Raw material purchased during the year

(ii) Raw material used during the year

---

## BLOCK-7 Staff position as on 31st March, 1977.

Serial No.	Trade/designation	No. of posts sanctioned	In position	Reasons for shortfall
1	2	3	4	5

(ii) Whether all the staff members are qualified to teach. Yes/No

(iii) If no, give following information.

Name of teacher	Qualification for the post	Actual qualification of the teacher	Additional training required, if any
1	2	3	4

**BLOCK-8      Facilities available**

---

**1. Library:**

- (i) Whether the library exists in the institution.      .. Yes/No
- (ii) Whether the books for teachers are available and adequate. Yes/No  
 (if inadequate give detail).
- (iii) Whether the books for the trainees are available and sufficient according to demand. If no, (give details). Yes/No
- (iv) Whether the reading room exists in library.      Yes/No
- (v) Whether sufficient accommodation for stocking the books is available in the library. (If no, write the requirement of the institution). Yes/No

**2. Other facilities:**

- (i) Whether following facilities exist      Yes/No
- (a) Laboratory
- (b) Workshop
- (c) Meeting Hall
- (d) Recreation room.
- (ii) Whether play ground is available.      Yes/No
- (iii) Whether play ground properly maintained.      Yes/No
- (iv) Games played :
- (a)
- (b)
- (c)
- (d)

Block -9

Equipment and machinery:

Trade	Properly equipped for training Yes/No	If no, specify shortage				Equipment are of latest design If no, specify required new designs				Yes/No
-------	--	-------------------------	--	--	--	---	--	--	--	--------

1	2	3	4	5	6	7	8	9	10	11
---	---	---	---	---	---	---	---	---	----	----

Machinery promptly repaired Yes/No	If no, reasons				List of machines lying idle for want of repair and the period of unuse in months		Remarks
---------------------------------------	----------------	--	--	--	--	--	---------

12	13	14	15	16	17	18
----	----	----	----	----	----	----

**BLOCK-10**

**Follow up action**

- (i) Are you taking following up measures in respect of institution trained hands Yes/No
- (ii) If no follow up action has been taken, give reasons for the same
  - (a)
  - (b)
  - (c)
- (iii) If yes, give following details

Name of trade	No. of trainees completed course	1975-76 No. of trained hands helped in		
		Securing jobs	Setting up own business	Any other specify
1	2	3	4	5

Name of trade	No. of trainees completed course	1976-77 No. of trained hands helped in		
		Securing jobs	Setting up own business	Any other (specify)
6	7	8	9	10

**BLOCK—11: Apprenticeship of trainees:**

---

- (i) Please indicate whether you are satisfied with procedure adopted for the apprenticeship Yes/No
- (ii) If no, state reasons and suggestions for improvement :

<u>Reasons</u>	<u>Suggestions:</u>
1.	1.
2.	2.
3.	3.

**BLOCK—12 Impact of the Scheme**

---

- (i) Taking an over all view, do you think the scheme is work- Yes/No  
ing satisfactorily.
- (ii) Give reasons for your answer and suggestions to improve  
the operation of the scheme:

<u>Reasons</u>	<u>Suggestions:</u>
1.	1.
2.	2.
3.	3.

- (iii) Whether the institution supervisory staff, supervises the Yes, No  
trainees during their apprenticeship period in the Indus-  
trial units?
- (iv) If no, give reasons for not supervising the trainees



**ECONOMIC AND STATISTICAL ORGANISATION, PUNJAB:****EVALUATION STUDY RELATING TO WORKING OF INDUSTRIAL TRAINING INSTITUTES AND SPECIAL TRADE INSTITUTES IN PUNJAB****SCHEDULE-II OPINION OF THE TRAINEE:****BLOCK-I Identification Particulars:**

- (i) Name of the Institute
- (ii) Name of trainee
- (iii) Name of trade in which admitted
- (iv) Caste (S.C., S.T., B.C., Others)
- (v) Rural or Urban domicile
- (vi) Educational qualifications.
- (vii) Father/Guardian's
  - (a) Occupation
  - (b) Annual income:

**BLOCK-II: Training Particulars:**

(i) How did you come to know about the training institute?

(ii) Whether you are admitted in the trade of your choice? Yes/No

If no, what was your choice and future plan?

If yes, give reasons for joining the trade:

- (a)
- (b)
- (c)

(iii) Do you think that the present training will improve professional skill for getting employment or for self employment? Yes/No

(iv) Do you find any lacuna in training/teaching programme/arrangements? Yes/No

If yes, give the suggestions for improvement

<u>Reasons</u>	<u>Suggestions:</u>
1.	1.
2.	2.
3.	3.

(v) Whether the practical training being provided Yes/No is sufficient?

If not, state reasons:

- (a)
- (b)
- (c)

(vi) Is the training workshop equipped with all modern tools/raw materials required for training purposes? Yes/No

If not, state the required articles:  
Tools.                      Raw materials

- |     |     |
|-----|-----|
| (a) | (a) |
| (b) | (b) |
| (c) | (c) |

(vii) What are your plans after completion of training course:

- (a) to get a job
- (b) to start own business
- (c) to start work in partnership
- (d) to join own family traditional business

(viii) With your present qualifications do you experience any difficulty in understanding the training courses? Yes/No

If yes, mention the difficulties:

- (a)
- (b)
- (c)

(ix) What have you been doing prior to joining this training Institute?

(x) Whether you are ready to work on part-time basis on wages in Institution Workshop? Yes/No

**BLOCK-III: Stipend:**

(i) Are you recipient of any stipend? Yes/No

(ii) If yes, what is the amount of stipend per month offered to you?

(iii) Is the stipend received by you regularly? Yes/No

If no, give reasons and suggest improvement?

(iv) Is the stipend adequate for your maintenance? Yes/No

If no, what should be the amount of stipend per month?

(v) Is there any lacuna in the present system of selection of trainees for grant of stipend, Yes/No

If yes, give details

**BLOCK-IV: Hostel Facilities:**

(i) Are you residing in hostel? Yes/No

(ii) If yes, what are your monthly expenses:

<u>Item</u>	<u>Expenses</u>
	(Rs.)
(a)	
(b)	
(c)	
(d)	

(iii) Your opinion about the hostel facilities (good, satisfactory, poor).

**BLOCK V: Day Schools:**

(i) Are you staying with your parents/ guardian Yes/No

(ii) If no, where do you stay?

(iii) Reasons for not staying in hostel:

- (a)
- (b)
- (c)

**BLOCK VI: Apprenticeship:**

(i) Are you satisfied with the programme/ facilities for apprenticeship training Yes/No

(ii) If no, state reasons and suggestions for improvement:

<u>Reasons:</u>	<u>Suggestions:</u>
1.	1.
2.	2.
3.	3.

**ECONOMIC AND STATISTICAL ORGANISATION, PUNJAB:**  
**EVALUATION STUDY RELATING TO WORKING OF INDUSTRIAL**  
**TRAINING INSTITUTES AND SPECIAL TRADE INSTITUTES IN**  
**PUNJAB:**

**SCHEDULE-III****OPINION OF EX-TRAINEE:****BLOCK-I: Identification Particulars:**

- (i) Name of the Institute
- (ii) Name of ex-trainee
- (iii) Name of trade in which training received.
- (iv) Caste (S.C., S.T., B.C., Others)
- (v) Rural or Urban domicile.
- (vi) Educational qualifications.
- (vii) Father/Guardian's
  - (a) Occupation:
  - (b) Annual income:

**BLOCK-II: Training Particulars:**

- (i) How did you come to know about the training institute?
- (ii) Whether you were admitted in the trade of your choice? Yes/No
- If no, what was your choice and future Plan?
- If yes, give reasons for joining the trade :
  - (a)
  - (b)
  - (c)
- (iii) Do you think that the training had improved professional skill for getting employment or for self employment? Yes/No
- (iv) Do you find any lacuna in training/teaching programme/arrangements? Yes/No

If yes, give reasons and suggestions for improvement:

Reasons	Suggestions:
1.	1.
2.	2.
3.	3.

- (v) Whether the practical training being provided was sufficient? Yes/No

If not, state reasons :

- (a)  
(b)  
(c)

- (vi) Was the training workshop equipped with all modern tools/ raw materials required for training purposes? Yes/No

If no, state the required articles.

Tools                      Raw materials:

Tools	Raw materials:
(a)	(a)
(b)	(b)
(c)	(c)

- (vii) What were your plans while joining training course:

- (a) to get a job  
(b) to start own business  
(c) to start work in partnership  
(d) to join own family traditional business.

- (viii) With your present qualifications did you experienced any difficulty in understanding the training course? Yes/No

If yes, mention the difficulties:

- (a)  
(b)  
(c)  
(d)

- (ix) What had you been doing prior to joining this training institute?

- (x) Whether you are ready to work on part-time basis on wages in Institution Workshop? Yes/No

### BLOCK-III: Stipend:

- (i) Were you recipient of any stipend? Yes/No
- (ii) If yes, what was the amount of stipend per month offered to you?
- (iii) Was the stipend received by you regularly?

If no, give reasons and suggest improvement?

(iv) Was the stipend adequate for your maintenance? Yes/No

If no, what should be the amount of stipend per month?

(v) Is there any lacuna in the present system of selection of trainees for grant of stipend, if yes, give details. Yes/No

**BLOCK-IV: Hostel Facilities:**

(i) Were you residing in hostel? Yes/No

(ii) If yes, what were your monthly expenses :

Items	Expenses:
	(Rs.)
(a)	
(b)	
(c)	
(d)	

(iii) Your opinion about the hostel facilities (good, satisfactory, poor)

**BLOCK-V. Day Scholars:**

(i) Were you staying with your parents/guardian, Yes/No

(ii) If no, where did you stay?

(iii) Reasons for not staying in hostel :

- (a)
- (b)
- (c)

**BLOCK-VI Apprenticeship:**

(i) Are you satisfied with the programme/facilities for apprenticeship training Yes/No

(ii) If no, state reasons and suggestions for improvement:

Reasons:	Suggestions:
1.	1.
2.	2.
3.	3.

**ECONOMIC AND STATISTICAL ORGANISATION, PUNJAB:****EVALUATION STUDY RELATING TO WORKING OF INDUSTRIAL TRAINING INSTITUTES AND SPECIAL TRADE INSTITUTES IN PUNJAB:****SCHEDULE-IV OPINION OF THE INDUSTRIALIST:**

1. Name of the establishment.
  2. Address
  3. Year of establishment
  4. Main items of production
  5. Whether seasonal or perenial:  
In case seasonal, mention operating months.
  6. What is the mode of recruitment.
  7. Total trained workers in your establishment on the day of survey:
    - (i) No. of I.T.I. trained workers
    - (ii) Trained workers under Apprenticeship Act. 1961.
    - (iii) Others
  8. Do you have further demand for the I.T.I. trained workers ? Yes/No  
If no, give reasons  
  
If yes, give details of requirements?
- |        |               |
|--------|---------------|
| Trade: | No. required: |
|--------|---------------|
9. Do you prefer other trained workers as compared to I.T.I. trained workers ? Yes/No  
If yes, give reasons :
    - (i)
    - (ii)
    - (iii)
  10. How much time is required for a fresh I.T.I. entrant to acquire the skill?
  11. Are you experiencing any difficulty in finding suitable trained hands ?  
If so, give suggestions for overcoming these.

12. Do you think that the I.T.I. trained workers perform their job more satisfactorily ?

Yes/No

If no, give the short-comings.

- (i)
- (ii)
- (iii)
- (iv)

13. Suggest improvements so that I.T.I. trained hands should prove more useful and acceptable to the industrial units.

- (i)
- (ii)
- (iii)



**ECONOMIC AND STATISTICAL ORGANISATION, PUNJAB**

**EVALUATION STUDY RELATING TO WORKING OF INDUSTRIAL  
TRAINING INSTITUTES AND SPECIAL TRADE INSTITUTES  
IN PUNJAB**

**SCHEDULE-V****OPINION OF PRINCIPAL:**

1. Name of Institute
2. Name of Principal
3. Educational qualifications
4. Trades being taught by him
5. Whether teaching staff in your institution is qualified to teach their respective trades Yes/No
6. If not, what type of additional training required to improve their technical know how.
7. Do you send trained hands in important industries after completion of training? Yes/No
8. What type of industries absorb trained hands of your institution:
  - (i)
  - (ii)
  - (iii)
9. Difficulties being faced in this respect and suggestions for improvement

DifficultiesSuggestions

10. What improvement in the theoretical and practical training are needed so that I.T.I. trained hands either may satisfy the requirements of industrial units and get employment or start their own business

11. Have you given any suggestion to the Local Selection Committee to train the trainees as per needs of industrial units for different trades. Yes/No

If yes, give details of suggestions made:

Date of meeting :Suggestions :

- (i)
- (ii)
- (iii)

12. What are the draw backs in the working of the Apprenticeship Act, 1961

13. What are the reasons that the local industrialists prefer to impart training under the Apprenticeship Act, 1961 rather than to appoint I.T.I. trained workers?

14. Whether the machinery installed is lying idle? Yes/No

If yes, whether the machinery can be put to regular use.

Does the I.T.I. take up production and marketing of its products? Yes/No

Causes for not taking up the production?

- (i)
- (ii)
- (iii)

15. General difficulties faced by the staff members in the working of S.T.I./I.T.I. Yes/No

(i) Inadequacy of spares in workshop.

(ii) Shortage of residential quarters.

(iii) Lack of essential tools and machines.

(iv) Inadequate supply of raw-material.

(v) Shortage of instruments.

(vi) Inadequate supply of power.

(vii) Any other (specify).

16. What are the major defects.

(a) In the working of I.T.I./ S.T.I. Schemes? (Not mentioned earlier).

(b) Measures needed for improvement with special reference to :

- (i) diversification of courses
- (ii) change in prescribed qualifications for admission to various courses.
- (iii)

## ANNEXURE—E

## A list of the Evaluation studies published

Serial No.	Name of the Evaluation Study
1.	Report on the analysis of administrative data regarding Agriculture, Education, Health and Roads.
2.	Report on the analysis of data relating to Population, Land-holdings, Employment, Consumption, Rural Debt and Investment Survey.
3.	Report on the enquiry into the extent of Utilisation of Irrigation facilities and Potential.
4.	Report of the Extent of Availability of Education, Drinking water and other facilities (Rural Areas).
5.	Report on the sample survey for estimating the extent of adoption of Improved Agricultural Practices during Kharif in 1964-65 in Punjab.
6.	Report on the sample survey for estimating the extent of adoption of Improved Agricultural Practices during Rabi in 1964-65 in Punjab.
7.	Evaluation Survey of Applied Nutrition Programme.
8.	Evaluation Survey of Working of State Tubewells in Punjab.
9.	Evaluation Survey of Utilisation of Farm-inputs for five crops of Kharif, 1967.
10.	Evaluation Survey of Rural Industrial Programme with special reference to :— (i) Rural Industrial Estates. (ii) Rural Industrial Development Centres. (iii) Common Facility Workshops.
11.	Evaluation Survey of the Minor Irrigation Works in Punjab.
12.	Evaluation Survey of the Working of Industrial Co-operatives in Punjab.
13.	Evaluation Study of Utilisation of Co-operative loans for Agriculture Purposes in Punjab.
14.	Evaluation Survey of Plant Protection programme in Punjab.
15.	Evaluation Survey of the Quality Marking Centres in Punjab.
16.	Evaluation Survey of Cattle Development Programme in Punjab.
17.	Evaluation Survey of Soil Conservation and Water Management Programme in Punjab.
18.	Report on the Evaluation Survey of Co-operative Sugar Mills in Punjab.

Serial No.	Name of the Evaluation Study Published
19.	Report on the Evaluation Survey of Utilisation of loans advanced by Primary Land Mortgage Banks in Punjab.
20.	Report on the study of Working of Industrial Training Institutes/ Centres in Punjab.
21.	Report on the Working of Government Poultry Farms and Government Service Centres in the State.
22.	Report on the Evaluation Survey of Rural Artisans Training Centres in Punjab.
23.	Report on the Evaluation Survey of Aerial Spray on Cotton in Punjab.
24.	Report on the Working of Sale-cum-Service Centres in Punjab by Agro-Industries Corporation.
25.	Report on Evaluation Survey of Milk Plant Verka.
26.	Report on the Evaluation Survey of Consumers' Co-operative Stores in Punjab.
27.	Report on the Evaluation Survey of Industrial Focal Points in the State.
28.	Report on the Evaluation Survey of Rural Water Supply Scheme.
29.	Report on the Evaluation Survey of Applied Nutrition Programme.
30.	Report on the Evaluation Survey of Small Farmers Development Agency and Marginal Farmers and Agricultural Labourers Agency.
31.	Development of Land in Faridkot and Ferozepur Districts with the financial assistance of A.R.C.
32.	Sinking of Deep Tubewells
33.	Crash Programme for Rural Employment in Punjab.
34.	Development of Sugarcane around Sugar factory areas (Only for Dhuri and Nawanshahar Sugar Factory Command Area)
35.	Development of Piggery in Punjab.
36.	Development of Industrial Focal Point at S.A.S. Nagar (Mohali).
37.	Working of Punjab Scheduled Castes Land Development and Finance Corporation.
38.	Working of Agro-Service Centres.
39.	Evaluation Survey of working of Indo-Swiss Project, Patiala.

Pub. National Council of Educational Research and Training, Govt. Press, Chd.

National Council of Educational Research and Training

Patna, Bihar

1. S. S. Choudhary, Director, Patna-110015

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Errata

<u>Sr.No.</u>	<u>Page No.</u>	<u>Line</u>	<u>For</u>	<u>Read</u>
1.	7	10	indentifying	identifying
2.	11	12	trafsman	craftsman
3.	11	14	co	to
4.	13	12	detailles	details
5.	17	52	Industiral	Industrial
6.	23	1	indentifying	identifying
7.	23	33	consectively	consecutively
8.	29	4	Journels	Journals
9.	31	24	Practica	Practical
10.	35	20	difficultues	difficulties
11.	35	41	n	in
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13.	41	40	Crats	Crafts
14.	62	19	Varius	Various
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18.	75	22	meetig	meeting
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20.	76	28	syllabi	syllabii
21.	81	12	elected	selected
22.	85	24	0.75	8.75
23.	90	19	100.60	100.00
24.	91	8	teachnius	techniques