ASSESSMENT OF CAUSE OF DROPOUT AND SUGGESTIVE MEASURES FOR RETENTION OF ITI STUDENTS

The Directorate of Technical Education and Training (DTE&T)

Assessment of Cause of Dropout and Suggestive Measures for retention of ITI Students

Submitted to
The Directorate of Technical Education and Training (DTE&T),

Prepared by
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ABBREVIATIONS

CAPI	Computer-Aided Personal Interviews
CATI	Computer-Aided Telephone Interviewing
CAWI	Computer-Aided Web Interviewing
CoE	Center of Excellence
CTS	Craftsman Trading Scheme
DTE&T	Department of Technical Education and Training
DWO	District Welfare Officer
ITI	Industrial Training Institute
NSQF	National Skills Qualification Framework
TCPC	Training, Counselling and Placement Cell
TI	Telephonic Interviews
TVET	Technical and Vocational Education and Training

KEY FINDINGS OF THE STUDY

Duration after which students dropped out after joining ITI course		
Duration after which students dropped out after joining ITI course	0-2	794 (15.85%)
	3-6 months	1545 (30.84%)
	7-12 years	1501 (29.96%)
	13-18 months	643 (12.83%)
	18 ABOVE months	527 (10.52%)

Factors responsible for Drop Out		
Factors responsible for Drop Out	Institutional Factors	40.80 % (2044)
	Personnel factors	53.91 % (2701)
	Community-level factors	3.53 % (177)
	Psychological factors	3.91 % (196)
	Socio-economic & demographic factors	20.04 % (1004)
	Women Specific factors	0.84 % (42)
Institutional Factors		
Institutional Factors	Academic Failure	54 % (1099)
	Attendance Shortage	26 % (530)
	Did not like ITI	7 % (145)
Personal Factors		
Personal Factors	Family Reasons	56.72 % (1532)
	Financial Constraints	31.65 % (855)
	Had to leave for work	19.99 % (540)
Community-Level Factors		
Community-Level Factors	ITI is far-off	62.71% (111)
	A shift in the location of residence	19.77 % (35)
	Got married	16.38 % (29)

Psychological Factors		
Psychological Factors	Not interested in studies	74.49 % (146)
	Education is not considered necessary	18.37 % (36)
	Friends dropped out	15.82 % (31)
Socio-Economic and Demographic Factors		
Socio-Economic and Demographic Factors	Poverty	88.15 % (885)
	Prolonged illness / Health issues	9.16 % (92)
	I couldn't work and study at the same time	1.99 % (20)

Post Drop Out Scenario		
Working post drop out	Yes	25.37 % (1271)
	No	74.63 % (3739)
Earnings post dropout	<4000	7.71 % (98)
	4000-6000	19.35 % (246)
	6000-8000	21.32 % (271)
	8000-12000	33.36 % (424)
	>12000	18.25 % (232)
Studying post drop out	Yes	13.95 % (699)
	No	86.05 % (4311)
Future Career Ambition	Pursue higher studies academics	13.73 % (688)
	10+2 /Graduation/ Diploma/ Engineering/ Master/ MBA/ PhD	26.79 % (1342)
	Engineer/ Entrepreneur/ Teacher/ Police/ Farmer/ Follow up father's occupation	5.73 % (287)
	Not interested in pursuing studies anymore	53.75 % (2693)

EXECUTIVE SUMMARY

The Odisha state's Directorate of Technical Education and Training (DTET) is responsible for education at the Technical Institutes/Colleges, Bachelor's Degree, Diploma, and ITI levels. Additionally, it offers Vocational Education to equip youth for self-employment. Further, the Department encourages professional development opportunities in the public and private sectors. ITI trades and courses emphasise the development of students' skills in various trades. The popularity of ITIs has dwindled slightly throughout the years. Nowadays, students aspire to better academic programmes such as engineering, a diploma in engineering, and comparable courses.

DTE&T is concerned about ITI dropout due to the effects on individuals, institutions, and society. Using primary and secondary data, this study examines the reasons for student dropout from 49 government ITIs, identifying the elements that contribute to it and suggesting corrective ways to address the identified factors.

53.39% (2675) of 5010 respondents affirm that personal issues played a significant role in their dropout, while 39.14% (1961) implied institutional considerations had a role. Similarly, 19.89% (1001) of respondents attribute their dropout to socioeconomic and demographic variables, whereas 0.82% attribute it to gender-specific factors.

To ascertain the efficiency of training delivery, the study examined dropout rates among trainees enrolled in various courses at ITIs. The data for this purpose was gathered through ITIs. In other words, statistics on trainees enrolled in a given year were linked to their eventual presence in a trade exam (depending on the course duration).

Few areas for improvement in ITI Institutes mentioned by students to reduce dropouts is that the advancements in campus placements and the provision of part-time job possibilities should result in significant changes in terms of dropout reduction. Along with provision of opportunities for development should include improving the quality of instruction, increasing practical training hours, and providing soft skill training.

INTRODUCTION

1.1 Overview of Vocational Training and Education in Odisha

Directorate of Technical Education and Training (DTE&T), Odisha, Cuttack, is endowed with technical education at Technical Institutes/Colleges, Diploma and ITI level across the Odisha state. Further, it plays a prominent role in preparing the youth for self-employment through vocational education. The department also promotes professional courses in Government and Private Sector. Odisha is gifted with one of the most ambitious vocational training programs and strategies, catered to numerous students from different backgrounds. There are 49 Government Industrial Training Institutes in Odisha. These Vocational Training Institutes run with multitudes of schemes with additional schemes for rural and tribal youth, artisans, and marginalised sections of the society.

The schemes, enrolment ratio, and training programs are needed to deliver a positive state of skill-based vocational training for students. Despite increasing emphasis on vocational training during the last decades, there remains a severe problem with the increasing dropouts of vocational students. It is vital because if economic growth and poverty reduction are realised, an individual needs to fulfil the essential skill requirement by completing vocational training. Drop-out undermines the goals of the policymakers. The student dropout reflects various factors, like poor infrastructure facilities of the institute, low-quality training, unviable students to teacher ratio, students poor economic background and lower literacy level of his/her parents, outdated teaching pedagogy, geographical terrain a student come from which makes it difficult for him to attend the training consistently etc. Another factor may be students' low achievement in their past academic records that they decode as not capable of learning or signals an unwillingness to do so. If students perceive a low level of understanding at the training Institutes, eventually they lose interest and drop out of the course. On a similar platform, if both the students and guardians perceive less learning and employment opportunities from the vocational institutes, they drop out. Another aspect may be related to parents associating less value towards education. Parents with poor educational backgrounds perceive education to be unnecessary for future success in the labour market, thus never boosting their children's aid in academic matters.

This study aims to understand the relevant social phenomenon: an experience of ITI students' entry or re-entry attempts to the ITI system and/or the labour market. The study tries to capture the reasoning behind the ITI trainee's out-of-school experiences and school faculty's perspectives regarding dropping out. The study attempted to look at the pathways that the ITIian follow.

ITI dropout is a significant concern for DTE&T because of its consequences for Individuals, Institutions, and Society. This study evaluates the reasons for student dropout from 49 government ITIs using the primary and secondary data, which helps realise the factors responsible for it and suggest remedial measures to overcome the identified factors.

The study aims to generate information enabling the Directorate of Technical Education and Training (DTE&T), Odisha, to understand the reason behind the dropout from the ITI education system. The study paves possible ways to get a rich, in-depth understanding of participants' 'lived 'experiences through this paradigm. This means that the dynamic, holistic, and individual aspects of the ITI dropouts are captured in the study.

In this regard, Core CarbonX Solutions Private Limited (hereinafter "the Consultant", a strategic business advisory consulting firm, was appointed to conduct this study in the state of Odisha.

The outcome of this study shall help in learning and reflecting first, which will help DTE&T understand the student dropout reasons and move towards informed measures to improve the performance and implementation of the TVET program. The study findings will enable constant growth at scale through excellence, with results aptly supported by the consultant's professional commitment to quality and accuracy.

1.2 Study Objectives

The main objectives of the study conducted are as follows:

a) To explore various factors (social and academic level) that leads to dropout of ITI Students from the Institutes

b) To analyse the effects of independent variables influencing dropout rates in ITIs and indicate which variables are important in explaining a dropout student.

c) To assess the Quality of ITI programs, thereby enhancing employability and efficiency of graduates;

1.3 Scope of Work/Tasks

- To investigate the present status of the ITI program focusing on student enrolment, dropout, and completion trends.
- To understand the factors that push the student to drop out.
- To analyse primary and secondary data and generate data on 'students' enrolment
- To study the dropout and completion trends through interviews and focus group discussions.
- To analyse the high dropout rate among ST, SC, and Girls from Govt. ITIs.
- To analyse the information generated from key 'participants 'interviews and focus group discussion.
- To identify the push factors from the study that are primarily extrinsic or institution-related and suggest measures for reducing dropouts.
- To collate suggested measures and prepare the strategy solution to implement the above-said objective.

It is an explorative research study wherein the sample design was a thorough survey of more than 5000 samples which are students from 49 Government ITIs in all the 30 districts of Odisha. The sample size considers competing needs so that costs and precision are optimally balanced. This sample size considers adequate exploratory analysis in discovering ITI student behavior on dropout. As the dropout student list was not available, the CoreCarbonX team has attempted to reach all the students from the admission list. Based on the findings and traceability of those students, whenever and wherever the drop out students were traced, the survey for drop out was carried out. Thus, any proportionate allocation for student admission or drop out rate was not possible. With the limited information and considering the timeline, CoreCarbonX has put up its best effort to reach out to all the students through the admission list.

The study is based upon primary data collected from various stakeholders impacting the Institute's Quality and students Dropouts trend. Stakeholders include the Institutes Faculties. The study entails feedback from 5010 students from all the 49 Government Industrial Training Institutes functioning in Odisha.

1.4 Research Methodology

1.4.1 Research Instruments for the survey

The study data collection appealed two research instruments to different target groups:

a) Interview with Principals and placement In-charge

In each 49 ITI, the study targets data collection from the ITIs on various aspects, such as Institute Profile, Data on Enrollment available with the ITIs.

b) Interview schedule for Drop-outs

Dropouts are defined as trainees enrolled in ITI but did not complete their course/trades and dropped out. Every year trainees drop out from each ITI; the survey focuses on students who had dropped out during 2015- 2019. Minimum 5000 drop out students (primary focus on ST, SC, and Girls dropout from Govt. ITIs) during the last two years were interviewed to assess the reason behind dropout.

c) Focus Group Discussion

The consultants carried out physical and online Focus Group Discussions with each ITI principal, faculty, placement officer, and drop out student.

1.4.2 Sampling Framework

5010 dropout students were surveyed. Computer Assisted Web Interviewing (CAWI) and/or Computer Assisted Telephone Interviewing (CATI) were done only for the ITI graduates outside the state / abroad. For the rest of the respondents, face to face interviews has been conducted.

Questionnaire

A standard questionnaire was developed as per the defined research objectives and questions to be answered. The questionnaire was kept short while comprising closed-ended questions to encourage a high response rate.

Pre-testing/Pilot of the Study:

The researcher cleaned the data and performed pre-testing of the developed questionnaire. During the test/pilot phase, special attention was given to the following questions:

Are all questions answered? – to understand 'why 'not' to make necessary changes and what steps to be taken 'if 'not' answered

Which questions are difficult to understand?

Are the options to each question definite and cover the existing range?

How long is the process taking?

Are the questions relevant and leading to meaningful derivations/analysis?

1.4.3 Data Collection Methods

The consultant used appropriate methods to increase the response rate and capture data in the required format for analysis. The data collection techniques mentioned in the Guidance note is proposed drawing learning from the pilot dropout study conducted by Core CarbonX. The researcher followed the Computer-Assisted Personal Interviews (CAPI) and whenever the students were not available or not reachable physically; the researchers followed Computer-Aided Telephonic Interviews (CATI).

Data collection and identification of existing information

Collection of Secondary data

The secondary data were collected from past DTE&T records and State Government database(s). The connection with relevant stakeholders was established to gather information on dropout. The consultant then compiled and analysed this information.

Access to the research site and participants

During the research, 49 ITI's were visited, and the 'consultant's researchers conducted interviews with the 'ITI's principals and other faculty members. Efforts were made to get permission to access the ITIs via the DTE&T Office, and the 'ITI's principals were, therefore, connected directly. The DTE&T and ITI principals presented the researcher access to a list of learners who had dropped out of ITIs. These individuals were then tracked down in their respective areas. They were then requested to participate in the research, and some of them agreed to do so. Those who agreed to participate were interviewed through Face-to-face (paper) and/or computer-assisted personal interviews (CAPI) Computer Assisted Web Interviewing (CAWI), and Computer-Assisted Telephone Interviewing (CATI).

Primary Data Collection and Compilation

A primary data collection using a structured questionnaire was conducted for the Dropout Students, Faculties, and the Employers from all the 49 ITI institutions. A random sampling procedure was adopted for the study. During the last two years, a sample size of 5010 dropout students (major focus on ST, SC, and Girls dropout from Govt. ITIs) was interviewed to assess the reason behind dropout. Out of 49 ITI institutes, only 25 institutes have shared the data of dropout students. For the remaining 24 institutes, data had to be collected from each institute individually by visiting them and by collecting data through friends of dropout students.

The proposed study in 49 ITIs, focused on dropout in studying the complex array of risk antecedents encompassing students' pre-entry attributes, goals, and commitments, as well as academic and social experiences at ITI, Family support, and strengthening of the capacity of teachers, other related issues of human resources, quality aspects of education, identifying constraints in each element and suggesting remedial measures to overcome the limitations.

The basis of the study is to capture the insights through a survey of ITIians (dropouts), one to one interviews with ITI Principals, ITI Placement Cells, Industries associations, Employers, Parents and other relevant stakeholders and focus group discussions to collect quantitative and qualitative data.

1.4.4 Data Collection

Preparation of a detailed survey plan

CCX prepared the survey plan for sample units across 49 ITI's. The survey team mobilised to the respective site based on the population data's finalisation. The dropout youths from ITIs listing operations are fundamental in the surveys. A complete listing of ITIians admitted for 2016-17, 2017-18, and 2018-19 of the 49 Government ITI's were done by the researcher in consultation with DTE&T. The researcher then reached out to all the admitted students and considered input for dropout for the identified students.

The data collection tools that were used are as follows:

Survey/ Questionnaire

In the survey, extensive data collection was performed using a detailed survey questionnaire for ITIans interviews. This phase consisted of interviews with **relevant stakeholders such as industries, industry bodies, Principals, Faculty members** etc. The survey constituted face-to-face personnel interviews using the survey form and/ or Computer Assisted Personal Interviewing (CAPI)/Face to face physical interview and/or Computer Assisted Telephone Interviewing (CATI).

Focus Group Discussion

A set of guiding questions were used during the focus group session to ensure consistent focus on the fundamental issues. The themes covered in the interview guide include demographic characteristics, reasons for dropping out, attempts at getting back into the system, reasons for trying to drop in, and the 'participants' personal experiences in each of the above.

The Research facilitator conducted focus group discussion in the specified ITIs in consultation with DTE&T and the principal of the respective 49 ITIs. The Focus Group Discussion process was central for engaging all the students to discuss and assess the current situation and understanding qualitative and quantitative values for indicators associated with the project activities. At the end of the interview, the consultant facilitator consolidated the findings and prepared comprehensive results on project indicators through collective consensus.

Data Entry

The online Zoho survey tool was utilised to capture the survey data. Data entry began on the first day itself every information coming from the field. The Data Entry team, under the supervision of the Senior Data Analyst, verified the surveyed data from the survey schedules.

Data Collected through CAPI/CATI was uploaded or transferred from the tablet/phone to a cloud server every day. However, for open or semi-open questions, the full range of answers was codified and classified. Information collected through CAPI/face to face interview /CATI was stored in the cloud with an adequately defined data framework.

The percentage of total and partial non-responses was measured to assess the quality of the data. Total non-response may have occurred due to a respondent's refusal to answer, geographical isolation (steep terrain, flooding, COVID-19 restriction, or such), absence of the person to be interviewed, or failure to identify the holding. The reasons were listed meticulously because each case has a bearing on the overall picture.

Validation of data processing and checking for consistency are important steps. Thus, procedures for correcting inconsistent data or providing missing entries were applied when strictly necessary, based on quantitative and qualitative criteria determined following experience. Great care was taken to avoid erroneous imputations. The final data sets were compiled, and consistency checks were performed to the approval of the CCX project team.

Collation and Analysis of Data

Upon completing the data entry process, the data entry supervisor prepared a single database file (.dbf) containing all the instruments' entered data. The consultant carried out a detailed framework and comprehensive plan to collate information and its analysis. Using the data from the field validation survey, a synthesis of conclusions and insights was done.

The study further analysed the data and presented the key findings to the supervising team. Based on the department's inputs and other relevant stakeholders, the report will be finalised, and a full report containing information on methodologies as the survey, results of the assessment, and recommendations will be submitted.

Deliverables

1. Draft Evaluation Report
2. Final Evaluation Report
3. Consultation Workshop

DETAILS OF ITI

The current chapter analyses data gathered through surveys and consultations during the dropout study. The analysis is divided into two parts. The primary focus is on finding the details information about the institute which may be the reasons behind the dropping out of the course and appropriate recommendations for improving the admission procedure for ITI students. Secondly, the study focused on physical and virtual consultations with principals and faculties from the ITI institutes.

This section below provides details of ITI institute under the study:

2.1 Admission capacity

The admission capacity of the target ITI institutes ranges from 40 to 3500. The highest admission capacity is in ITI Berhampur (3500), with 63% of the seats filled up. Similarly, ITI Raigad constitutes the lowest number of seats but achieves 100% student admission. Again, as per Table 2.1, ITI Cuttack, Jatani, Puri, and Talcher achieve to capacitate less than 50% of the total seats. This may be due to various social and academic factors associated with the Institutes, leading to fewer seats being filled up. 25 ITI institutes out of 49 Institutes were able to achieve 100% of the total seats filled up assigned to them.

Table 2. 1 % of seats filled (2020)

Name of the ITI	Admission capacity of the ITI	Number of students admitted	% of seats filled
ITI Talcher, Anugul	1200	562	47%
ITI Balasore	786	786	100%
ITI Bargarh	192	192	100%
ITI Bheden, Bargarh	80	80	100%
ITI Boudh	428	264	62%
ITI Bolangir	360	317	88%
ITI Gandhamardana , Bolangir	172	155	90%
ITI Cuttack	2500	1146	46%
ITI Madhusudan, Cuttack	608	572	94%
ITI Barkote, Deogarh	104	104	100%
ITI Dhenkanal	247	247	100%
ITI Gumma, Gajapati	104	82	79%
ITI Chandragiri, Gajapati	1124	1104	98%
ITI Raigada, Gajapati	40	40	100%
ITI Berhampur, Ganjam	3500	2206	63%
ITI Chhatrapur, Ganjam	NA	NA	NA
ITI Hinjilicut, Ganjam	1265	1265	100%
ITI Purushottampur, Ganjam	1180	1180	100%
ITI Shergarh, Ganjam	NA	NA	NA
ITI Jajpur	144	144	100%
ITI Jharsuguda	144	144	100%

ITI Bhawanipatna, Kalahandi	518	481	93%
ITI Phulbani, Kandhamal	408	408	100%
SIPT Pattamundai, Kendrapara	340	340	100%
ITI Barbil, Keonjhar	560	560	100%
ITI Anandapur, Keonjhar	528	528	100%
ITI Bhubaneswar, Khurda	854	854	100%
Special ITI for PWD, Jatni, Khurda	336	158	47%
Gopabandhu ITI Ambaguda, Koraput	560	560	100%
ITI Laxmipur, Koraput	144	130	90%
ITI Kotpad, Koraput	80	80	100%
ITI Pottangi, Koraput	80	80	100%
ITI Malkangiri	268	268	100%
ITI Mathili, Malkangiri	64	64	100%
TTI Takatpur, Mayurbhanj	1088	1088	100%
Purna Chandra ITI Baripada, Mayurbhanj	408	408	100%
ITI Umerkote, Nabarangpur	236	176	75%
ITI Chandahandi, Nabarangpur	144	144	100%
ITI Raighar, Nabarangpur	144	144	100%
ITI Nayagarh	212	196	92%
ITI Khariar Road, Nuapada	272	232	85%
ITI Khariar, Nuapada	104	104	100%
ITI Puri	367	170	46%
ITI Raygada	NA	NA	NA
ITI Gajabahal, Raygada	104	104	100%
ITI Hirakud, Sambalpur	975	623	64%
ITI Rasanpur, Sambalpur	104	104	100%
ITI Sonepur	376	376	100%
ITI Rourkela, Sunderagarh	1122	1026	91%

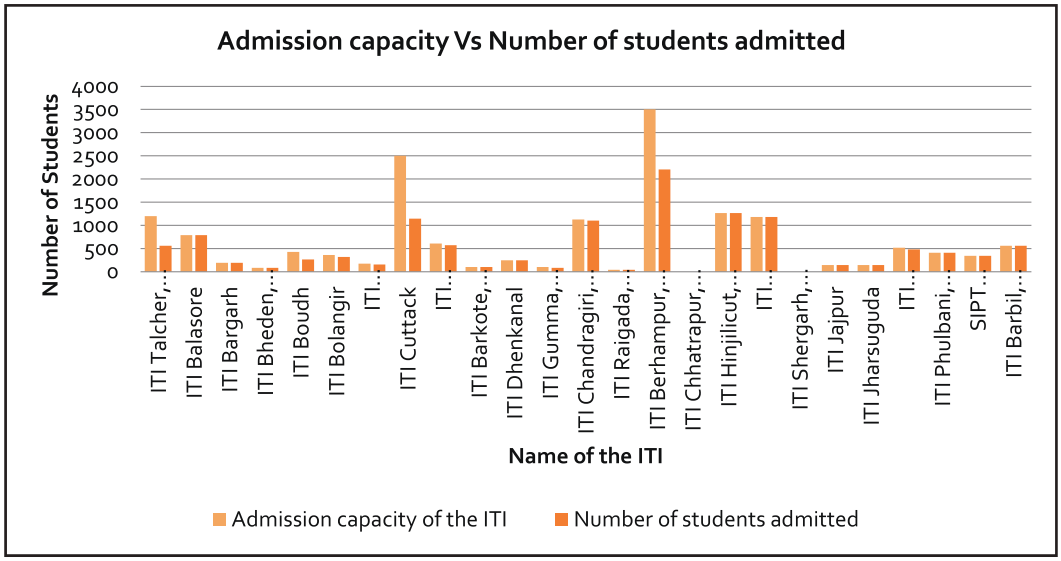

Figure 2. 1 Admission capacity vs no. of students admitted in ITI Institutes

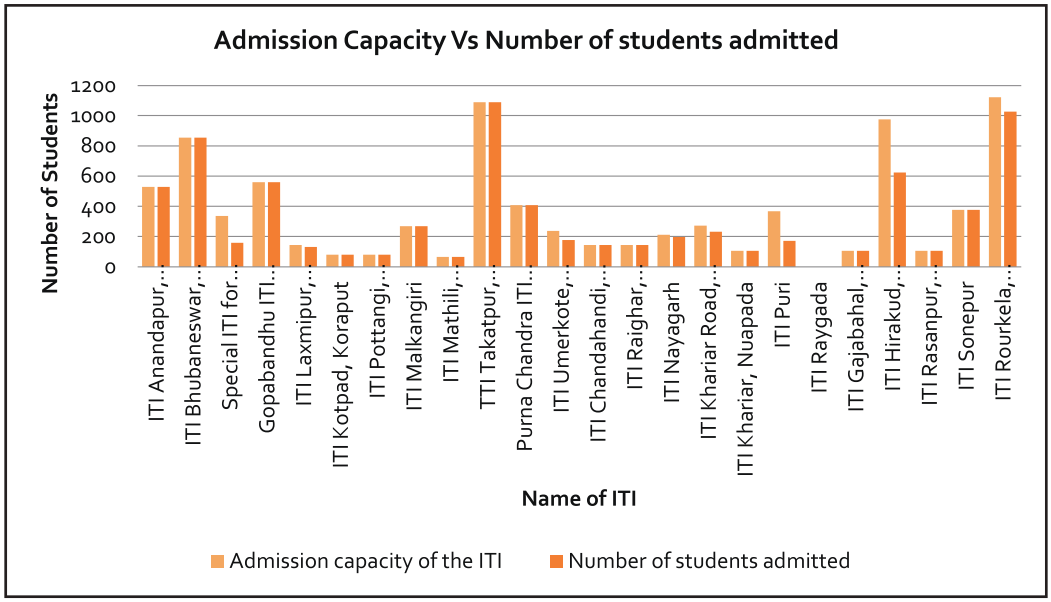

Figure 2. 2 Admission capacity vs Number of students admitted

2.2 Male to Female Ratio

Gender-wise analysis shows that a more significant proportion of admitted students are male (82%). Only 18% of female students were admitted to ITI courses, as shown in Figure 2.3.

Table 2. 2 Distribution of seats by gender

Name of the ITI	Admission capacity of the ITI	Male to female ratio of students
ITI Talcher, Anugul	1200	90:10
ITI Balasore	786	87:13
ITI Bargarh	192	83:17
ITI Bheden, Bargarh	80	80:20
ITI Boudh	428	80:20
ITI Bolangir	360	67:33
ITI Gandhamardana , Bolangir	172	37:33
ITI Cuttack	2500	NA
ITI Madhusudan, Cuttack	608	80:20
ITI Barkote, Deogarh	104	86:14
ITI Dhenkanal	247	NA
ITI Gumma, Gajapati	104	87:13
ITI Chandragiri, Gajapati	1124	85:15
ITI Raigada, Gajapati	40	98:02
ITI Berhampur, Ganjam	3500	80:20

ITI Chhatrapur, Ganjam	NA	NA
ITI Hinjilicut, Ganjam	1265	82:18
ITI Purushottampur, Ganjam	1180	88:12
ITI Shergarh, Ganjam	NA	NA
ITI Jajpur	144	90:10
ITI Jharsuguda	144	92:08
ITI Bhawanipatna, Kalahandi	518	80:20
ITI Phulbani, Kandhamal	408	77:23
SIPT Pattamundai, Kendrapara	340	85:15
ITI Barbil, Keonjhar	560	87:13
ITI Anandapur, Keonjhar	528	82:18
ITI Bhubaneswar, Khurda	854	57:43
Special ITI for PWD, Jatni, Khurda	336	80:20
Gopabandhu ITI Ambaguda, Koraput	560	67:33
ITI Laxmipur, Koraput	144	90:10
ITI Kotpad, Koraput	80	90:10
ITI Pottangi, Koraput	80	90:10
ITI Malkangiri	268	82:18
ITI Mathili, Malkangiri	64	95:05
TTI Takatpur, Mayurbhanj	1088	89:11
Purna Chandra ITI Baripada, Mayurbhanj	408	50:50
ITI Umerkote, Nabarangpur	236	63:37
ITI Chandahandi, Nabarangpur	144	72:28
ITI Raighar, Nabarangpur	144	65:35
ITI Nayagarh	212	80:20
ITI Khariar Road, Nuapada	272	90:10
ITI Khariar, Nuapada	104	90:10
ITI Puri	367	75:25
ITI Raygada	NA	NA
ITI Gajabahal, Raygada	104	87:13
ITI Hirakud, Sambalpur	975	82:18
ITI Rasanpur, Sambalpur	104	80:20
ITI Sonepur	376	65:35
ITI Rourkela, Sunderagarh	1122	83:17

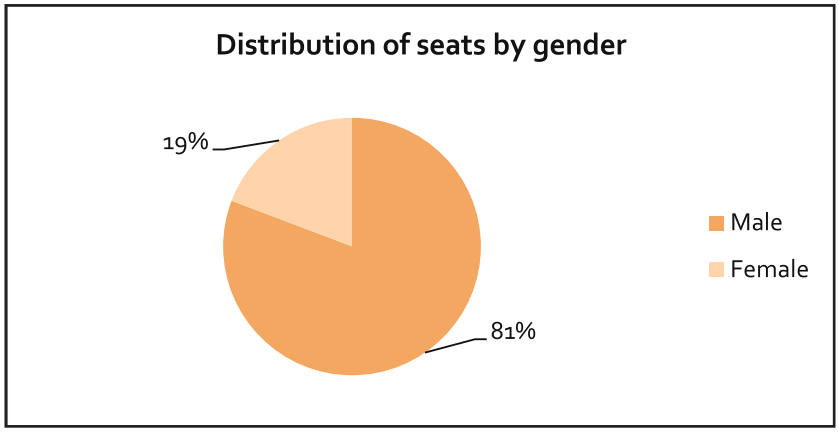

Figure 2. 3 Distribution of seats by gender

2.3 Duration of the course

In the ITI, the coursework consists of either one or two years, depending on the course. In ITI Rourkela, only one-course work whose duration is three years.

Table 2. 3 Number of students admitted in 1-year and 2-year courses

Name of the ITI	Number of students admitted	Number of students admitted in 1-year course	Number of students admitted in 2-year course
ITI Talcher, Anugul	562	NA	NA
ITI Balasore	786	240	546
ITI Bargarh	192	0	192
ITI Bheden, Bargarh	80	0	80
ITI Boudh	264	100	164
ITI Bolangir	317	86	231
ITI Gandhamardana , Bolangir	155	71	84
ITI Cuttack	1146	360	786
ITI Madhusudan, Cuttack	572	164	408
ITI Barkote, Deogarh	104	0	104
ITI Dhenkanal	247	NA	NA
ITI Gumma, Gajapati	82	18	64
ITI Chandragiri, Gajapati	1104	NA	NA
ITI Raigada, Gajapati	40	0	40
ITI Berhampur, Ganjam	2206	NA	NA
ITI Chhatrapur, Ganjam	0	NA	NA
ITI Hinjilicut, Ganjam	1265	672	593
ITI Purushottampur, Ganjam	1180	216	964
ITI Shergarh, Ganjam	0		

ITI Jajpur	144	40	104
ITI Jharsuguda	144	40	104
ITI Bhawanipatna, Kalahandi	481	82	399
ITI Phulbani, Kandhamal	408	176	232
SIPT Pattamundai, Kendrapara	340	160	180
ITI Barbil, Keonjhar	560	108	452
ITI Anandapur, Keonjhar	528	120	408
ITI Bhubaneswar, Khurda	854	292	562
Special ITI for PWD, Jatni, Khurda	158	94	64
Gopabandhu ITI Ambaguda, Koraput	560	60	500
ITI Laxmipur, Koraput	130	40	90
ITI Kotpad, Koraput	80	0	80
ITI Pottangi, Koraput	80	0	80
ITI Malkangiri	268	100	168
ITI Mathili, Malkangiri	64	0	64
TTI Takatpur, Mayurbhanj	1088	NA	NA
Purna Chandra ITI Baripada, Mayurbhanj	408	108	300
ITI Umerkote, Nabarangpur	176	40	136
ITI Chandahandi, Nabarangpur	144	40	104
ITI Raighar, Nabarangpur	144	40	104
ITI Nayagarh	196	NA	NA
ITI Khariar Road, Nuapada	232	44	188
ITI Khariar, Nuapada	104	40	64
ITI Puri	170	160	170
ITI Raygada	0	NA	NA
ITI Gajabahal, Raygada	104	0	104
ITI Hirakud, Sambalpur	623	131	492
ITI Rasanpur, Sambalpur	104	0	104
ITI Sonepur	376	40	336
ITI Rourkela, Sunderagarh	1026	180	846

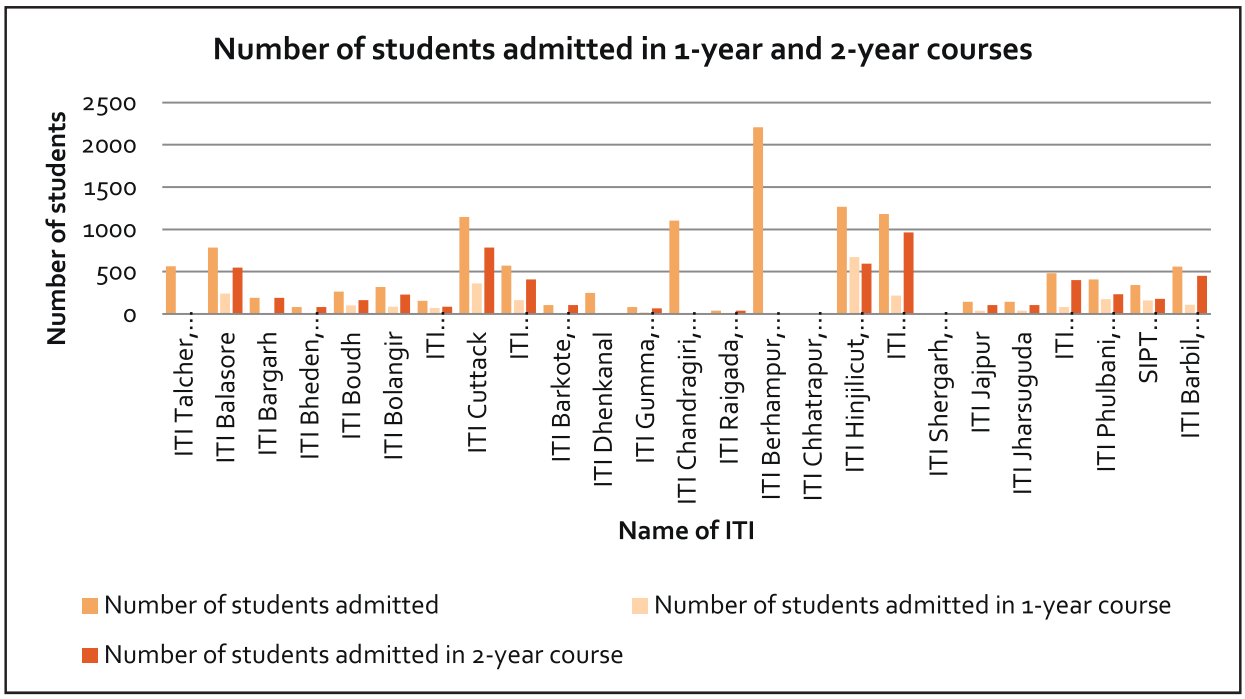

Figure 2. 4 Number of students admitted in 1-year and 2-year courses

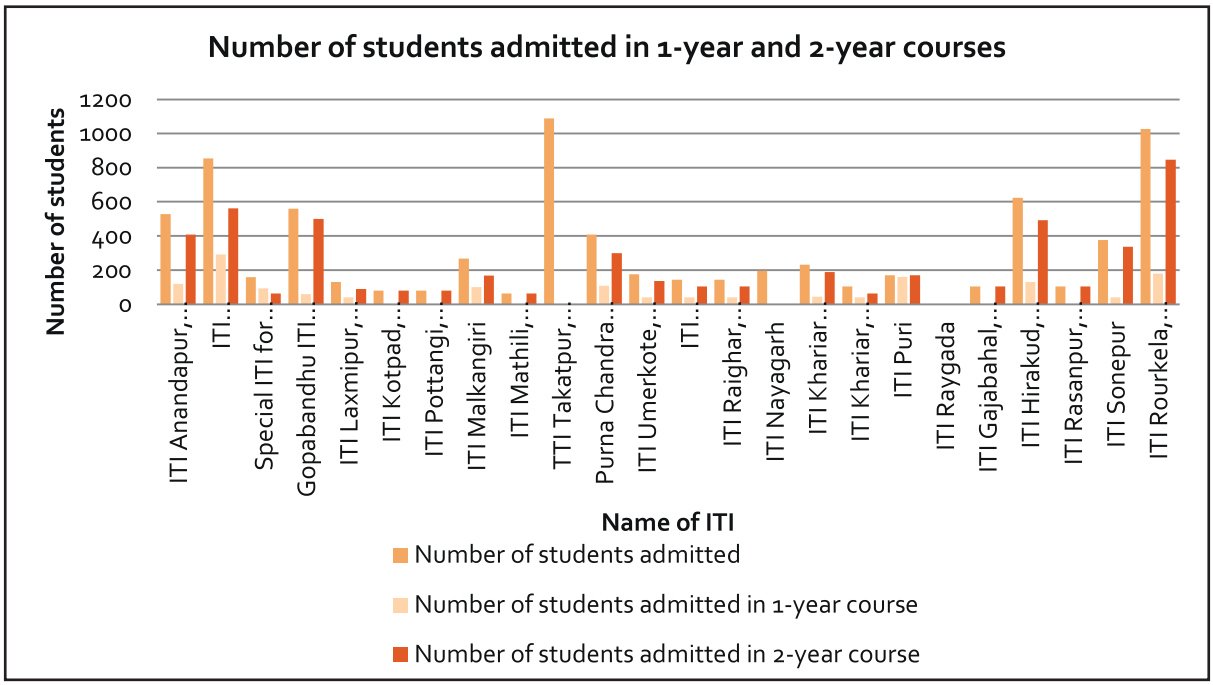

Figure 2. 5 Number of students admitted in 1-year and 2-year courses

2.4 Classroom Infrastructure

A well-designed institute infrastructure with adequate space makes it desirable for students to study. It creates interest and motivates students to attend the institute, which increases student attendance and interest in learning. It was found that the majority of the institute had an adequate number of classroom and Smart classroom facilities.

2.5 Hostel Facilities

A growing number of students are becoming increasingly interested in pursuing vocational education and seeking admission to courses and institutes that are a good fit for their career goals. These students often come from places away from the institute requiring accommodation facilities in ITIs. An analysis of hostel facilities at the ITI institutes and interaction with students shows that more people aspire to stay at the hostel than the number of hostel seats available.

2.6 Consultation with the stakeholder

The study conducted number of consultation meeting with the pricipals and faculties of the ITIs that are part of the study. The below findings are consolidated and highlighted below:

The study involved discussions and consultations with principals and faculties of ITI institutes. These consultation meeting were consist of physical meeting as well as virtual meeting due to COVID restriction. The primary objective was to assess the factors contributing to students dropping out of ITI institutes. Various factors like financial constraints, poor hostel infrastructure, and choice for other educational opportunities besides ITI courses stand as the major barriers that lead to the students' ITI dropouts.

About 23% of Principals interviewed are of opination that **financial problems** stand as the major constraint that leads to a higher number of dropouts from the institutes. For a two-year and one-year ITI course, academic fees cost stands at Rs.8800/- and Rs.5600/- respectively. In a poverty-stricken Odisha state, the fees remain unaffordable for most families considering majoring of the students who join ITI education are from economically backward section. There are also cases wherein students come from **Ashram schools** and assume that further studies in ITI are also cost-free, so parents are not ready to invest in the ITI education of their children. In some cases, it was observed that the students didn't able to bear the expenses associated with **hostel and food charges considering**.

About 9% of the respondents (i.e. Principals) opinioned that **fewer accommodations in hostels also contribute to students dropping** out from ITI institutes. The ITI institutes students are generally 8th class passed outs, or 10th class passed outs. They are of tender age and feel homesick. Proper hostel facilities with amenities can interest them and increase the institutes' intake. Even though around18% of the students joining the course are female, proper hostel facilities shall encourage them to join and complete the course. In a few cases, it was highlighted that **parents are not willing to send their girl child** to institute due to inadequate hostel facilities.

About 8% of respondents believed that social stigma like **early marriage for girls** also contributes to a lesser proportion of girls taking admission in the course and is a significant reason for girl dropouts. Parents with an uneducated background generally tend to get their daughters married to someone instead shall invest in building their careers. It is due to **less exposure to developments in society and the advantages of education**.

About 6% of the respondents believed that students after their 10th are inclined to study **10+2** rather than ITI due to the increased job opportunities and scope of growth in the field. The misconception that

Engineering and Diploma courses have more demand than the ITI course has also been a prime factor in dropouts. **Market dynamics** have also added up to this, further declining the growth of ITI. Major companies are also looking for **diploma and engineering graduates** compared to ITI passed-outs, as large formal sector industries adopt automation. **Poverty and Homesickness** are other significant reasons students drop out of the course. The lack of transportation facilities to the campus adds up their expenses, which remains unaffordable for the families.

The major concerns regarding the dropout of students from the ITIs that the Principals of ITIs raised during the FGDs are as follows:

- The lack of seriousness amongst the students getting admitted in the ITI. In many cases, the student's interest is only in getting the stipend money.
- Insufficiency of the stipend money or late disbursement of the scholarship amount increases the student's burden, resulting in dropout.
- The lack of transportation, especially in the late evening shifts of the classes in the ITIs, is also a significant concern.
- The students, either financially poor or academically weak, usually take admission in ITIs. The students who secured 30-40% marks in the 10th standard enrolled in ITIs as the last option and observed that they were rejected by all other options available in the academic era. In this process, students join in ITIs to get annual incentives and later switch over to other streams after receiving the desired amount.

RESEARCH FINDINGS

Dropouts in ITI have been a challenging aspect of the technical education and training department. To better understand the reasons behind the dropouts, the study was conducted for the students who dropped out from ITIs from all over Odisha. The current chapter provides an analysis of information collected from students who dropped out of ITI courses and gives a brief understanding of the following

1. The profile and family background of students
2. Factors responsible for dropout
3. The situation of student's post drop out
4. Opinion of students on the quality of training and infrastructure of ITI

3.1 Demographics

The number of responses from each district is depicted in Figure 3.1

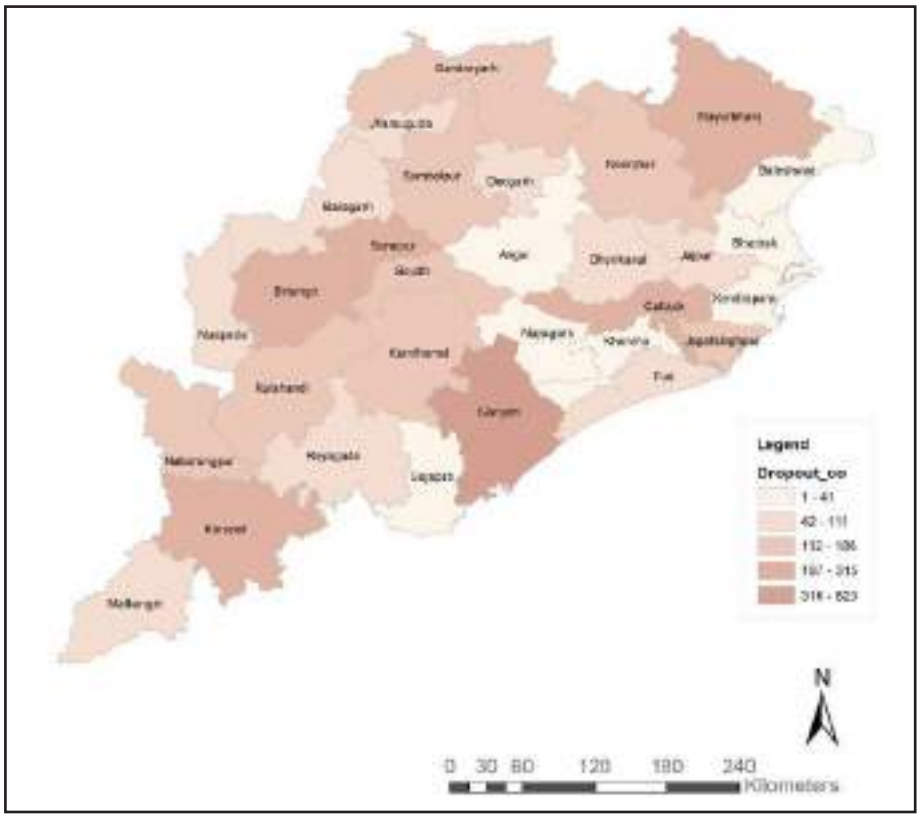

Figure 3. 1 Number of responses from each district

3.2 ITI Details

The study's primary objective is to assess the dropout responses of different ITI's of Odisha. As per the data analysis, it may be inferred that the maximum number of dropout students contacted and traced was 11.24% (563 response count) from ITI Cuttack and the minimum number in ITI Sheragarh with one response as shown in Table 3.1. The details number of responses from dropout students wrt the ITIs are given below:

Table 3. 1 Response from ITI Institutes

Name of ITI Institute	Response representation % in the overall survey	Response Count
ITI Talcher, Anugul	2.14%	107
ITI Balasore	1.06%	53
ITI Bargarh	1.40%	70
ITI Bheden, Bargarh	0.48%	24
ITI Boudh	1.82%	91
ITI Bolangir	2.50%	125
Gandhamardana ITI, Bolangir	2.18%	109
ITI Cuttack	11.24%	563
Madhusudan ITI, Cuttack	0.84%	42
ITI Barkote, Deogarh	1.74%	87
ITI Dhenkanal	1.72%	86
ITI Gumma, Gajapati	0.14%	7
ITI Chandragiri, Mohana	0.22%	11
ITI Raigada, Gajapati	0.26%	13
ITI Berhampur, Ganjam	5.41%	271
ITI Chhatrapur, Ganjam	5.73%	287
ITI Hinjilcutt, Ganjam	6.31%	316
ITI Purusottampur, Ganjam	3.51%	176
ITI Shergarh, Ganjam	0.02%	1
ITI Jajpur	0.08%	4
ITI Jharsuguda	0.10%	5
ITI Bhawanipatna, Kalahandi	3.61%	181
ITI Phulbani, Kandhamal	2.12%	106
SIPT Pattamundai, Kendrapada	2.95%	148
ITI Barbil, Keonjhar	1.78%	89
ITI Anandapur, Keonjhar	1.38%	69
ITI Bhubaneswar, Khurda	1.06%	53
Special ITI for PWD, Jatni, Khurda	0.60%	30
Gopabandhu ITI Ambaguda, Koraput	4.67%	234
ITI Laxmipur, Koraput	0.42%	21
ITI Kotpad, Koraput	0.34%	17
ITI Patangi, Koraput	0.08%	4
ITI Malkanagiri	1.34%	67
ITI Matheli, Malkanagiri	0.82%	41
TTI Takatpur, Mayurbhanj	2.93%	147

Purna Chandra ITI Baripada, Mayurbhanj	1.60%	80
ITI Umarkote, Nabrangpur	1.56%	78
ITI Chandahandi, Nabrangpur	0.86%	43
ITI Raighar, Nabrangpur	0.62%	31
ITI Nayagarh	0.16%	8
ITI Khariar Road, Nuapada	3.13%	157
ITI Khariar, Nuapada	0.48%	24
ITI Puri	1.56%	78
ITI Raygada	1.06%	53
ITI Gajabahal, Raygada	0.68%	34
ITI Hirakud, Sambalpur	5.47%	274
ITI Rasanpur, Sambalpur	0.28%	14
ITI Sonepur	6.17%	309
ITI Rourkela, Sunderagarh	3.43%	172
Total		5010

3.3 Student profile and Family Background

The student profile and family background give a brief understanding of the age, gender, caste and parents' profile. Profiling students and their parents play a crucial role in assessing the dropout variance in ITI's because it defines the socio-cultural background to attain higher technical education. Their parent's background in terms of literacy and financial implications helps to locate their strength to support their children's education. Schooling geographical location of the student's home also assesses the students thinking pattern and responsiveness towards the upcoming changes in his career.

The age group of participated students aged less than 18 and above 28 constitute each about 5 percent of the total respondents. The maximum number of respondents is 69 per cent from the age group of 19-22—the details as shown in Figure 3.2.

Table 3. 2 Age group of respondents

Age Group	Response Percent	Response Count
<18	5%	250
19-22	69%	3473
23-27	21%	1062
>28	5%	225
Total		5010

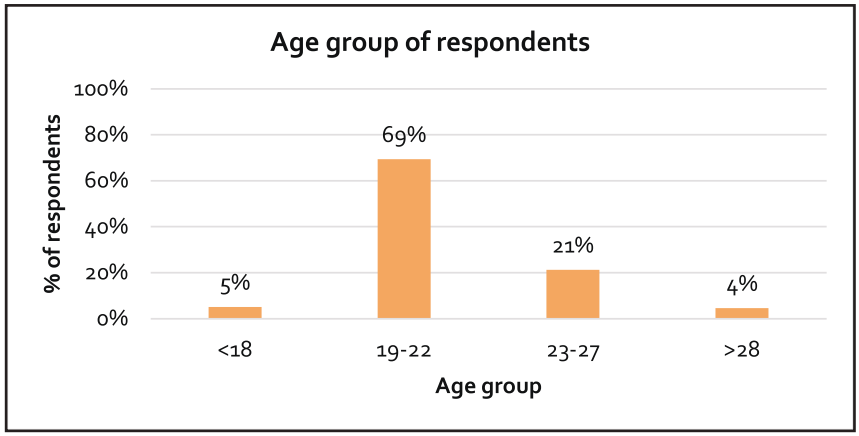

Figure 3. 2 Age group of respondents

The data analysis shows that the maximum number of responses recorded belong to the male category, with 3473 responses accounting to 86%. Only 719 responses were from the female gender, accounting for 14%.

Table 3. 3 Percent of Male and Female respondents

Age	Male	Female	Response Count	Male Response %	Female Response %
<18	200	50	250	80%	20%
19-22	2987	486	3473	86%	14%
23-27	913	149	1062	86%	14%
>28	191	34	225	85%	15%

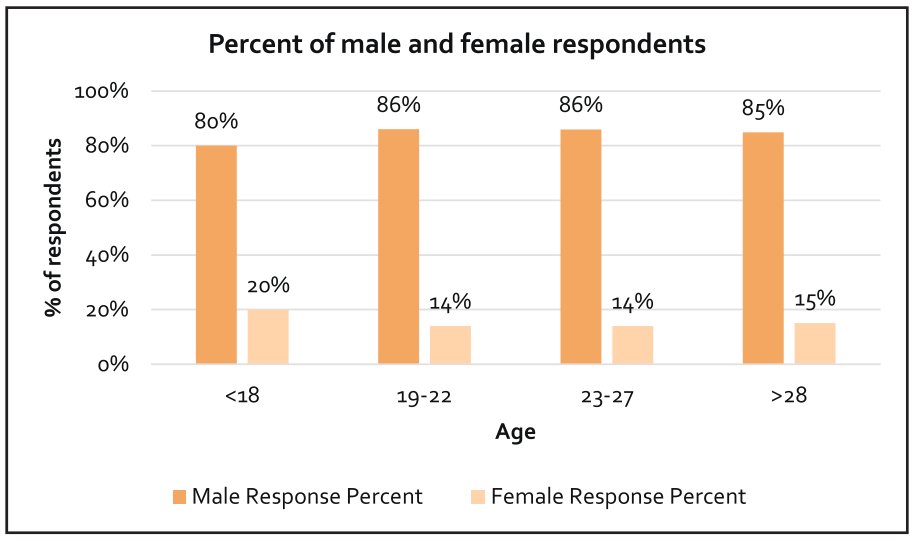

Figure 3. 3 Percent of Male and Female respondents

The analysis indicates that the maximum respondents constitute the scheduled caste category amongst all the male respondents, with a response count of 1359 accounting for 32%. The minimum number of male respondents is from the scheduled tribe category, with a response count of 870, accounting for 20%. Out of all the female respondents, the maximum respondents constitute the scheduled caste category, with

a response count of 261, accounting for 36%. The minimum respondents constitute the General category with a response count of 101, accounting for 14%, as shown in Figure 3.4.

Table 3. 4 Percent of respondents with respect to caste

Caste	Male	Female	Male Response %	Female Response %
General	928	101	22%	14%
OBC	1134	107	26%	15%
SC	1359	261	32%	36%
ST	870	250	20%	35%
Total	4291	719		

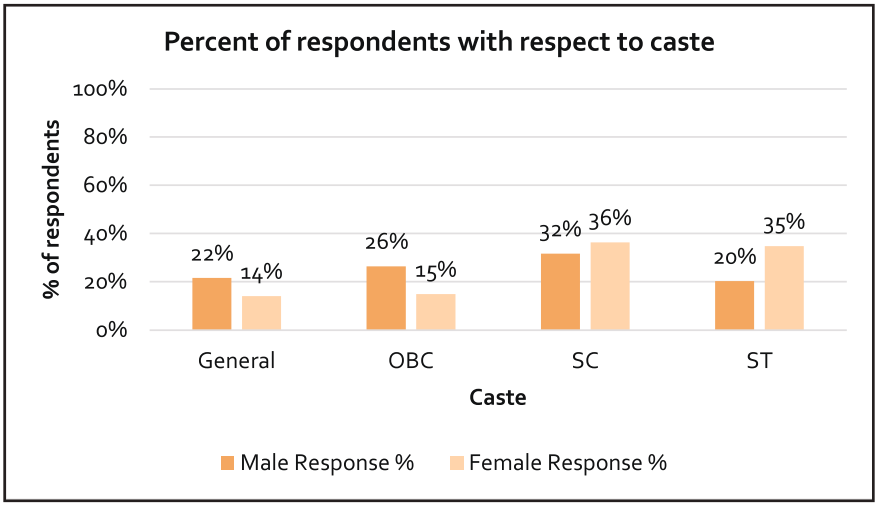

Figure 3. 4 Percent of respondents with respect to caste

The data analysis shows that about 68% (2287 respondents) of the respondents' parents have a literacy level below the 10th standard. About 6% (307) of the respondents' parents are illiterate. About 58% (2875) of the respondents' parents have their occupation in farming, 19% (958) of them are self-employed, and 5% (228) are unemployed (Check the Figure) as shown in Figure 3.5.

Table 3. 5 Respondents' Parent's Education vs Parent's Occupation

	Parent's Occupation					
Parent's Education	Farmer	Job	Others	Self-employment	Unemployed	Grand Total
<Below 10th	2287	300	0	646	138	3371
=>Above 10th	248	198	0	205	45	696
Diploma	0	4	0	1	1	6
Graduation	27	59	0	29	5	120
ITI	3	7	0	11	14	35
Post-Graduation	3	7	0	2	0	12

Uneducated	307	27	0	64	25	423
Others	0	0	347	0	0	347
			Total			5010

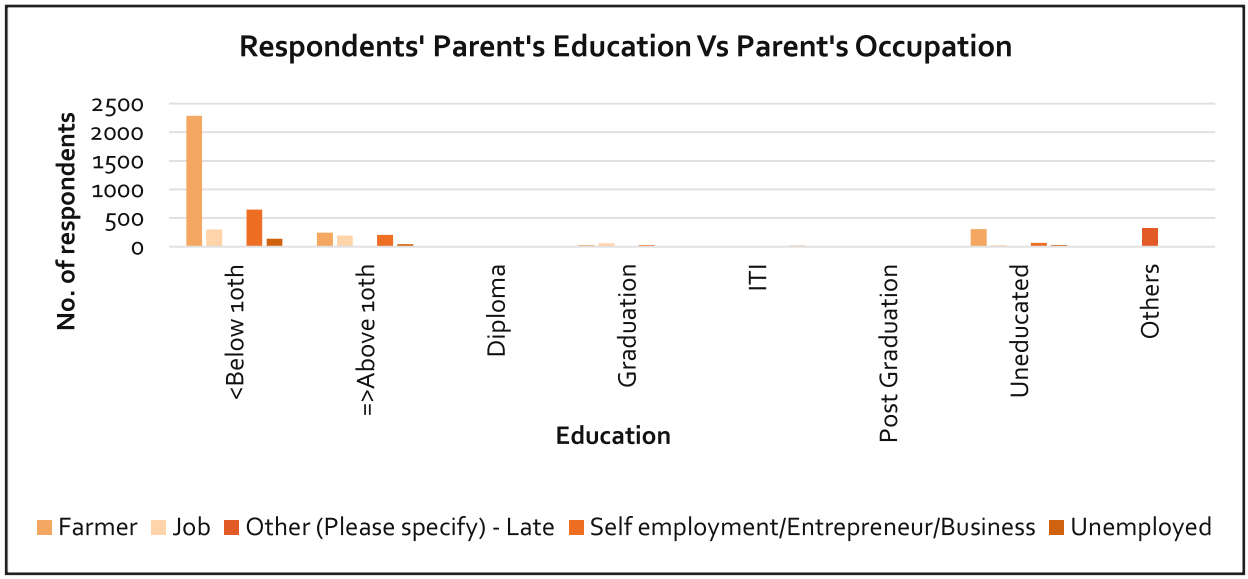

Figure 3. 5 Respondent's Parent's Education vs Parent's Occupation

The data analysis indicates that about 31.94% of respondents have 2 siblings, and 23.19% have 1 sibling. About 10% of the respondents have more than 5 siblings, as shown in Figure 3.6.

Table 3. 6 Number of Siblings

Number of Siblings	Response Percent	Response Count
0	3.29%	165
1	23.19%	1162
2	31.94%	1600
3	20.62%	1033
4	10.72%	537
5	6.55%	328
6	2.08%	104
7	1.06%	53
8	0.38%	19
9	0.18%	9
Others	0.00%	0
Total		5010

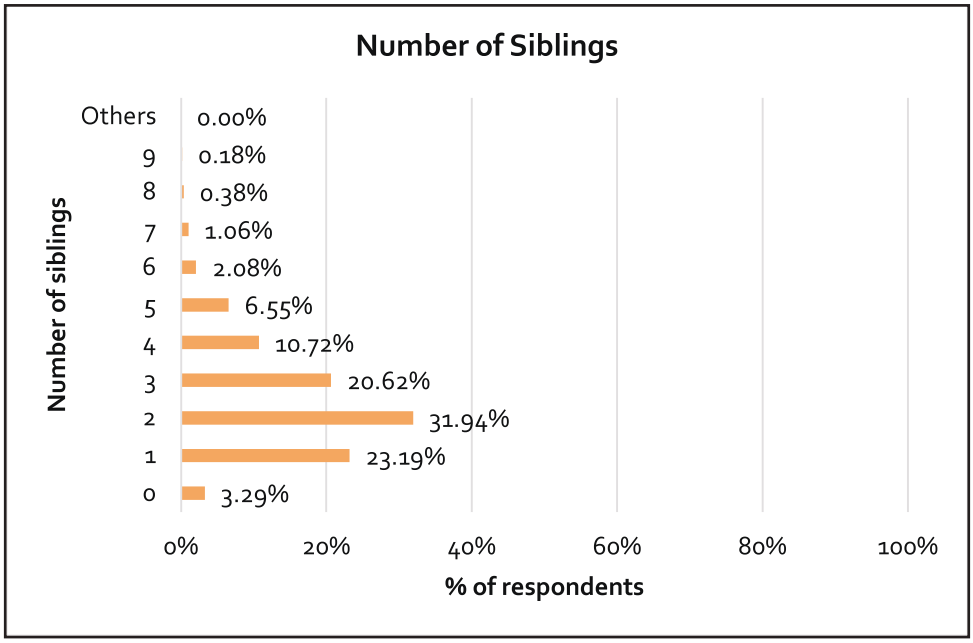

Figure 3. 6 Number of siblings

3.4 Student Educational Profile

Students' educational profile increases in subsequent years in ITIs as per response, the maximum number of respondents, i.e., 58% (2913), we gathered were from 2017, and only 4% (204) were from 2015, shown in Figure 3.7.

Table 3. 7 Year of Enrolment of Respondents

Year of Enrolment in ITI	Response Percent	Response Count
2015	4%	204
2016	12%	582
2017	58%	2913
2018	26%	1311
Total		5010

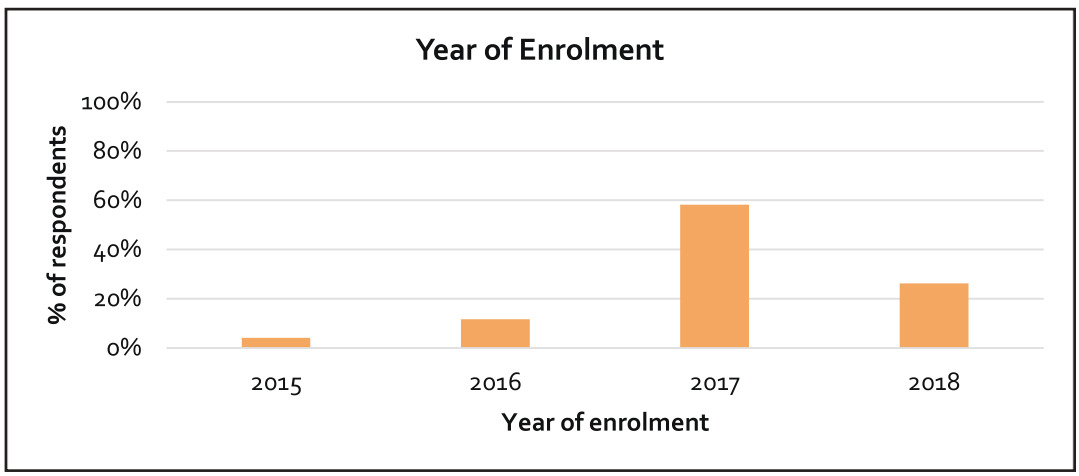

Figure 3. 7 Year of Enrolment of respondents

The student's admission in different trades reflects the insight that Electrical, Fitter and Welder are the most preferred courses in ITIs. The analysis reveals that the maximum respondents have taken admission under the electrician trade accounting to 15.75% and Fitter trade accounting to 15.59%. The next trade amongst the respondents is the Welder trade accounting for 10.32%, as shown in Table 3.8.

Table 3. 8 Trade selected by respondents

Trade	Response Percent	Response Count
Attendant Operator (Chemical Plant)	0.00%	0
Attendant Operator (Chemical Plant) (NSQF)	0.12%	6
Blaster /Short Firer SCVT	0.02%	1
Carpenter	0.14%	7
Carpenter (NSQF)	0.50%	25
CoE BBBT (Auto)	0.16%	8
CoE BBBT (Electrical)	0.08%	4
Computer Hardware & Network Maintenance	0.06%	3
Computer Hardware & Network Maintenance (NSQF)	0.52%	26
Computer Operator and Programming Assistant	0.30%	15
Computer Operator and Programming Assistant (NSQF)	2.59%	130
Data Entry Operator	0.00%	0
Draughtsman (Civil)	0.36%	18
Draughtsman (Civil) (NSQF)	1.24%	62
Draughtsman (Mechanical)	0.26%	13
Draughtsman (Mechanical) (NSQF)	0.42%	21
Dress Making	0.20%	10
Dress Making (NSQF)	0.92%	46
Electrician	6.53%	327
Electrician (NSQF)	15.75%	789
Electronics Mechanic	1.34%	67
Electronics Mechanic (NSQF)	4.65%	233
Fabrication Sector (CoE)	0.44%	22
Fitter	7.05%	353
Fitter (NSQF)	15.59%	781
Food & Beverages Services Assistant (NSQF)	0.14%	7
Foundryman	0.02%	1
Foundryman (NSQF)	0.34%	17
Industrial Painter	0.00%	0

Industrial Painter (NSQF)	0.24%	12
Information Communication Technology System		
Maintenance	0.82%	41
Information Communication Technology System		
Maintenance (NSQF)	1.12%	56
Instrument Mechanic	0.38%	19
Instrument Mechanic (NSQF)	0.74%	37
IT Sector (CoE)	0.14%	7
Laboratory Assistant (Chemical Plant)	0.00%	0
Laboratory Assistant (Chemical Plant) (NSQF)	0.12%	6
Machinist	0.88%	44
Machinist (NSQF)	1.16%	58
Marine Engine Fitter	0.00%	0
Marine Engine Fitter (NSQF)	0.16%	8
Mate (Mines) SCVT	0.04%	2
Mech. Repair & Maintenance of Heavy Vehicles	0.06%	3
Mechanic (Motor Vehicle)	1.16%	58
Mechanic (Motor Vehicle) (NSQF)	3.17%	159
Mechanic (Refrigeration and Air-Conditioner)	1.04%	52
Mechanic (Refrigeration and Air-Conditioning) (NSQF)	1.16%	58
Mechanic (Tractor)	0.10%	5
Mechanic (Tractor) (NSQF)	0.38%	19
Mechanic Agriculture Machinery (NSQF)	0.00%	0
Mechanic Auto Body Painting (NSQF)	0.14%	7
Mechanic Auto Body Repair (NSQF)	0.14%	7
Mechanic Computer Hardware	0.00%	0
Mechanic Consumer Electronics	0.00%	0
Mechanic Diesel	0.66%	33
Mechanic Diesel (NSQF)	2.24%	112
Mechanic Machine Tool Maintenance	0.08%	4
Mechanic Machine Tool Maintenance (NSQF)	0.28%	14
Mechanic Mechatronics	0.04%	2
Mechanic Mining Machinery (NSQF)	0.10%	5
Painter (G) NM	0.84%	42
Painter General	0.14%	7
Painter General (NSQF)	0.16%	8

Plastic Processing Operator	0.04%	2
Plastic Processing Operator (NSQF)	0.18%	9
Plumber	0.52%	26
Plumber (NSQF)	1.12%	56
Process Plant Maintenance Sector(CoE)	0.02%	1
Production and Manufacturing (CoE) Converted CTS	0.10%	5
Pump Operator-Cum-Mechanic	0.08%	4
Pump Operator-Cum-Mechanic (NSQF)	0.42%	21
Sewing Technology	0.46%	23
Sewing Technology (NSQF)	0.72%	36
Sheet Metal Worker	0.02%	1
Sheet Metal Worker (NSQF)	0.20%	10
Stenographer & Secretarial Assistant (English)	0.56%	28
Surveyor	0.42%	21
Surveyor (NSQF)	0.10%	5
Technician Mechatronics (NSQF)	0.02%	1
Textile Wet Processing Technician	0.20%	10
Textile Wet Processing Technician (NSQF)	0.02%	1
Tool & Die Maker (Press Tools, Jigs & Fixtures)	0.18%	9
Turner	0.48%	24
Turner (NSQF)	1.60%	80
Welder	10.32%	517
Wireman	1.82%	91
Wireman (NSQF)	3.03%	152
Total		5010

Out of 5010 dropout respondents, 76.29% (3822 respondents) were enrolled in 2-year courses, 23.55% were enrolled in 1-year courses, and 0.16% (8 respondents) of the respondents were enrolled in 3 years courses, as shown in Table 3.9.

Table 3. 9 Course duration of respondents

Course Duration	Response Percent	Response Count
1 Year	23.55%	1180
2 Years	76.29%	3822
3 Years	0.16%	8
Total		**5010**

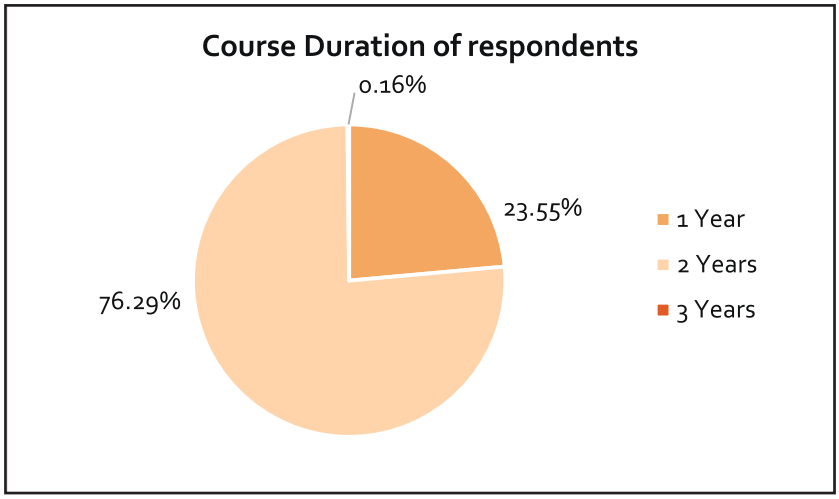

Figure 3. 8 Course duration of respondents

The analysis reveals that about 99% (4963) of 5010 respondents have completed their 10th standard, whereas 1% (47) of 5010 respondents could not complete their 10th standard, as shown in Table 3.10.

Table 3. 10 Completion of 10th by respondents

Completion of 10th	Response Percent	Response Count
Yes	99%	4963
No	1%	47
Total		**5010**

Table 3. 11 Year of 10th Pass out

Year of 10thPassout	Response Percent	Response Count
1990-1999	0.3%	15
2000-2009	3.5%	175
2010-2015	42.6%	2114
2016>	53.6%	2659
Total		**4963**

The data analysis reveals that the majority of the respondents have their current educational qualifications equal to or above 10th grade. About 74% of the respondents stated that their current qualification is 10th standard, and about 22% of the respondents have their current educational qualification as intermediate (10 + 2).

Table 3. 12 Current Educational Qualification of the respondents

Current Educational Qualification	Response Percent	Response Count
<Below 10th (1)	0.94%	47
=>Above 10th (2)	74.39%	3727

+2 / +3	21.70%	1087
ITI	0.12%	6
Graduation	1.52%	76
Diploma	1.24%	62
Post-Graduation	0.10%	5
Total		5010

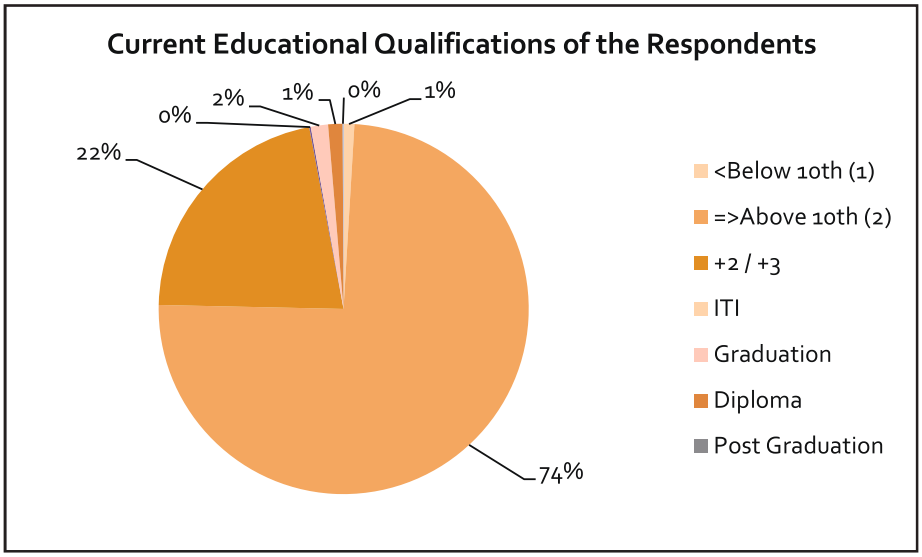

Figure 3. 9 Current Educational Qualifications of the respondents

Table 3. 13 Number of months after joining ITI

After how many months did you drop out after joining the ITI course?	1 Year	2 Years	3 Years	Grand Total
0-2 months	246	547	1	**794**
3-6 months	528	1012	5	**1545**
7-12 years	405	1094	2	**1501**
13-18 months	0	643	0	**643**
>18 months	1	526	0	**527**
Total	**1180**	**3822**	**8**	**5010**

The above analysis reveals that about 31% (1545) of 5010 respondents have dropped out from the course after admission for a duration of 3-6months, as shown in Table 3.13.

3.5 Factors responsible for dropout

This section presents a better understanding of the factors responsible for students' dropout from ITIs.

From the analysis, it may be inferred that personal and institutional factors have been the driving forces behind the dropout students from ITIs, as shown in Table 3.14.

Out of 5010 respondents, 53.91% (2701) affirm that personal factors were major factors behind their dropout, while 40.80% (1961) implied institutional factors were responsible for their dropout.

Economic condition too refrains students out of class after some days of admission. Lack of career-oriented motivation was also found to be one factor for dropout.

Similarly, 20.04% (1004) respondents infer socio-economic and demographic factors were responsible for their dropout, and 0.84% (42) of respondents confirmed to women-specific factors as the major reason behind the dropout from their respective ITI Institutes Figure 3.12. Many times the respondents have cited multiple reasons for dropouts.

Table 3. 14 Factors responsible for drop-out

Factors Responsible for dropout	Response Percent	Response Count
Institutional Factors	40.80%	2044
Personnel factors	53.91%	2701
Community-level factors	3.53%	177
Psychological factors	3.91%	196
Socio-economic & demographic factors	20.04%	1004
Women Specific factors	0.84%	42
Total Respondents		5010

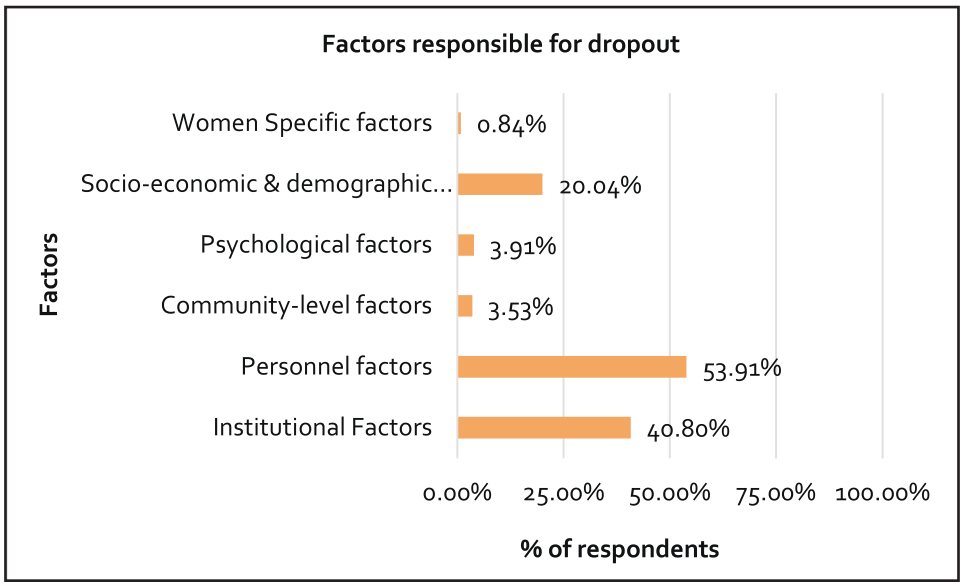

Figure 3. 10 Factors responsible for dropout

Analyzing the factors responsible for dropout in relation to the parent's occupation reveals that 57.4% (2875) of dropout students have farming as their parent's occupation. Approximately 19.1% (958) of dropout students have self-employed or business-owning parents. About 4.5% (228) of dropout students have parent's who are unemployed.

3.5.1 Institutional Factors

The factors responsible for dropouts in ITIs are various institutional reasons like non-coping with institutional mechanisms (attendance, dress code, late classes etc.).

2044 respondents who identified institutional factors as the reason for their dropout analysed specific reasons behind the dropout.

Academic failure, and attendance shortage (which again reflects families' socio-economic condition) constitutes the considerable factors accounting for 54% and 26%, respectively, as shown in Figure 3.11.

About 145 respondents accounting for 7% (out of 2044), mentioned that they couldn't cope with the ITI Institutes' disciplinary system and several other factors such as irregular classes, improper functioning of ITI, poor teaching quality and lack of interest; in the academic classes etc.

Table 3. 15 Institutional Factors

Institutional factors	Response Percent	Response Count
I didn't like the ITI	7%	145
I did not get the trade of my choice	4%	78
Interested in other Academic courses	2%	49
Lack of interest in Academic studying	2%	34
Not interested in trade, opted	3%	54
Lack of employment opportunities in the trade opted	1%	19
The course work was not interesting	2%	41
The teaching quality was not good	3%	57
The teachers were not good	3%	55
Absence of teachers	1%	14
Irregular classes	4%	89
The practical classes were not adequate	2%	37
The tools and machinery were not adequate	1%	15
The ITI did not function properly	3%	52
The ITI common infrastructure was not good	0%	10
Expelled from school	0.1%	3
Academic failure	54%	1099
Not satisfied with the food	1%	19
There are no much prospects after ITI	0.6%	12
Non- availability of accommodation/Hostel Facilities	4%	73
Attendance Shortage	26%	530
Total Respondents		**2044**

Out of 2044 respondents, 73 respondents (4%) inferred that non-availability of accommodation/ hostel infrastructure and 52 response count (3%) confirmed that improper functioning of ITI Institutes are the major reasons behind the dropout. Another factor responsible for dropout inferred from the study was the irregular classes in ITI's. The analysis presents around 89 respondents (4%) who have identified irregular classes as one factor responsible for their dropout.

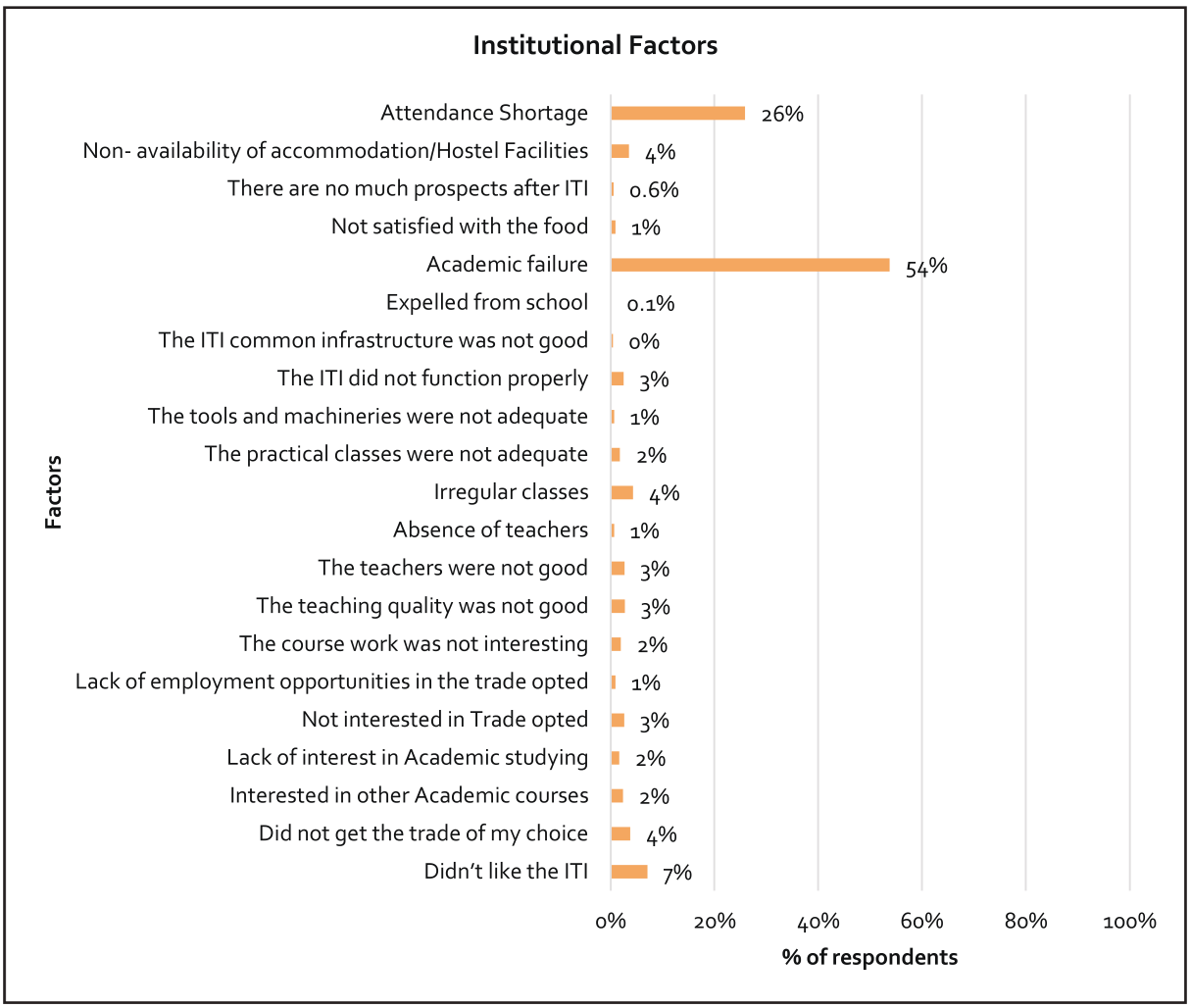

Figure 3. 11 Institutional Factors

Table 3. 16 Gender and Caste vs Institutional Factors

Gender	Lack of employment opportunities in the trade opted	Academic Failure	Not satisfied with the food	Non-availability of accommodation/ Hostel Facilities
Male	17	924	16	66
Female	2	175	1	5

Caste	Lack of Employment opportunities in the trade opted	Academic Failure	Not satisfied with the food	Non-availability of accomodation/ hostel facilities
General	6	256	3	13
OBC	7	294	7	21
SC	2	339	6	19
ST	4	210	1	18

An analysis of the impact of the institutional factors with respect to gender and caste is carried out. Some of the selected factors for analysis are lack of employment opportunities in the trade opted, academic failure, not satisfied with food, non-availability of accommodation or hostel facilities. It was observed that about 175 female respondents and 924 male respondents stated academic failure as a reason to dropout of the course. Non-availability of accommodation or hostel facilities has been stated by 16 male respondents and one female respondent.

The analysis also reveals that academic failure was a major reason for 549 respondents who belong to SC and ST categories. About 37 respondents who belong to SC and ST category have stated non-availability of accommodation and hostel facilities as a reason for dropout.

3.5.2 Personal Factors

The study reveals that many personal factors result drop outs from ITIs. Family reasons like financial issues need for presence during seasonal crops & harvesting health issues of family members are the core issues. Out of the 2701 respondents who inferred personal factors are the major issue behind their dropout, which comes about 56.6% (1514 respondents) as shown in Figure 3.14.

Table 3.17: Personal Factors

Personnel Factors	Response Percent	Response Count
Family reasons	56.72%	1532
Financial constraints (Tuition fee)	31.65%	855
I had to leave because I had to work	19.99%	540
I had to leave because I had to pursue sports	2.37%	64
Need to do Farming	1.18%	32
I left to concentrate on another studies/competitive exams	8.33%	225
Total Respondents		**2701**

Out of 1532 students who dropped out owing to family issues, 61% of their parents are farmers, as determined by a correlation between dropout factors and parental occupation. Out of 540 students who

dropped out because they had to work, 60% of their parents were farmers, while the parents of 14% of their parents were self-employed or into business.

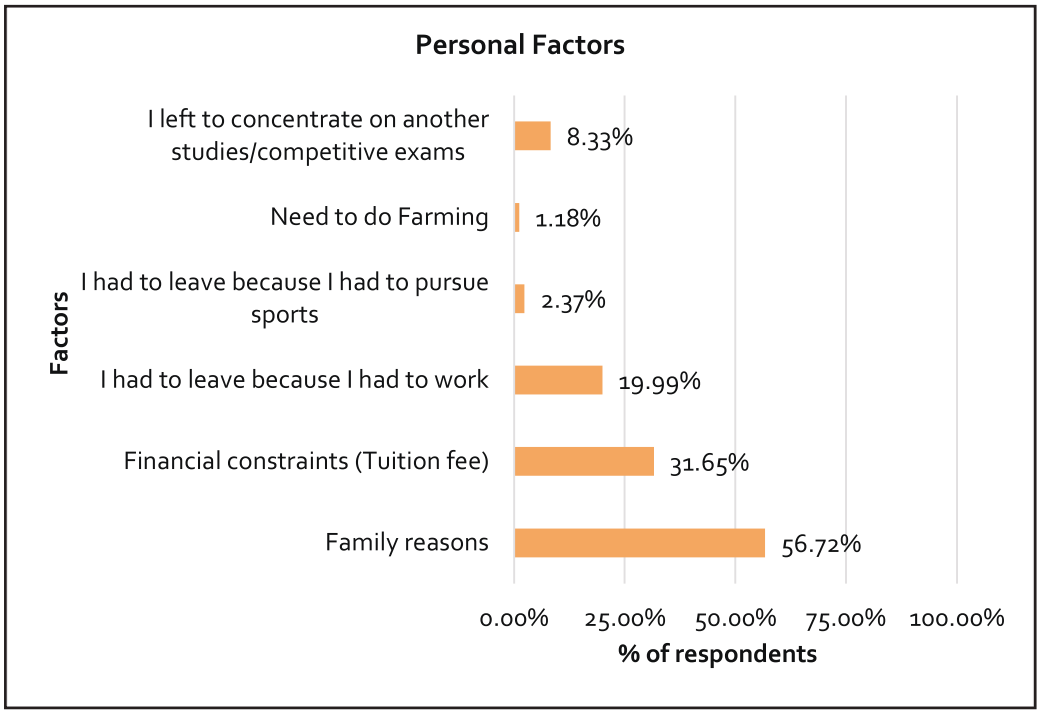

Figure 3.12: Personnel Factors

An analysis of the impact of the personal factors with respect to gender and caste is carried out. Family reasons, financial constraints, work, and the need to do farming are selected factors for analysis. It was observed that about 212 female respondents and 1324 male respondents stated family reasons as a reason to dropout of the course. Financial constraints has been expressed by 743 male respondents and 112 female respondents as a reason for dropout.

The analysis also reveals that family reasons were significant for 887 respondents who belong to SC and ST categories. About 541 respondents who belong to SC and ST category have stated financial constraints as a reason for dropout. About 306 respondents who belong to SC and ST category mentioned that they had to work to drop out of the course.

Table 3. 18 Gender and Caste vs Personal Factors

Gender	Family Reasons	Financial constraints (Tuition fee)	I had to leave because I had work	Need to do farming
Male	1320	743	481	30
Female	212	112	59	2
Caste	**Family Reasons**	**Financial constraints (Tuition Fee)**	**I had to leave because I had work**	**Need to do farming**
General	279	144	111	8

OBC	366	170	123	7
SC	506	286	203	10
ST	381	255	103	7

3.5.3 Community-level Factors

Regarding community-level factors, 177 respondents inferred community-level factors as the major reason behind their dropout. About 62.71% of these respondents confirmed that ITI is far off from their hometown and lacks transportation facilities which demotivated them to attend regular classes.

About 19.77% of respondents explained that shifting the residence location resulted in a drop out from ITIs, and 16.38% confirmed that early marriage is the major reason for out of ITI. Most of the marriage category belongs to the female category, as shown in Figure 3.15.

Table 3.14: Community-level factors

Community-level Factors	Response Percent	Response Count
ITI is far off	62.71%	111
ITI was not accessible during bad weather	9.04%	16
Separation between parents	7.91%	14
Shifting of the location of residence	19.77%	35
I got married	16.38%	29
Total Respondents		**177**

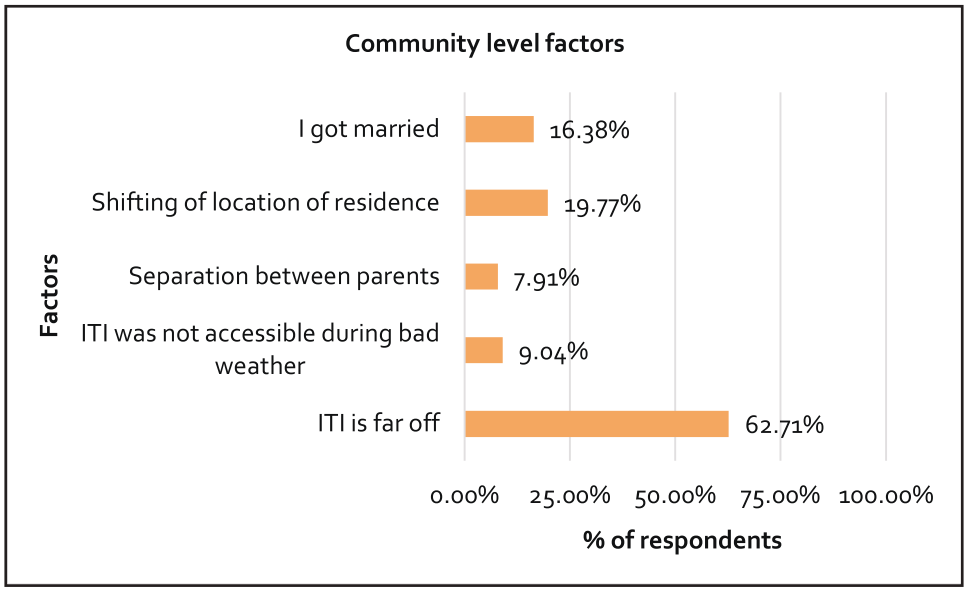

Figure 3.13: Community-level factors

Table 3. 19 Gender and Caste vs Community-level factors

Gender	ITI is Far off	I got married
Male	86	2
Female	25	27
Caste	**ITI is Far off**	**I got married**
General	18	2
OBC	22	4
SC	31	11
ST	40	12

An analysis of the impact of the community-level factors with respect to gender and caste is carried out. ITI is far off, and marriage are selected factors for analysis. It was observed that about 25 female respondents and 86 male respondents stated that ITI is far off as a reason to drop the course. Early marriage is a reason expressed by 27 female respondents and two male respondents for dropout.

The analysis also reveals that far-off ITI was significant for 71 respondents in SC and ST categories. About 23 respondents who belong to SC and ST category have stated early marriage as a reason for dropout.

3.5.4 Psychological Factors

The psychological factors like friend's dropout indicate 15.82% refrain from ITI studies. Approximately 75% of respondents do not focus on studies and never consider higher education to achieve the academic qualification necessary to be part of their lives. Some respondents joined by the influence of external factors. Parents do not show interest in ITI education due to a lack of perspective in academic achievements as a career building of their wards. The above factors forced respondents towards dropout from it is education. Table – 3.17 indicates details;

Table 3.20: Psychological Factors

Psychological Factors	Response Percent	Response Count
Friends dropped out	15.82%	31
Education is not considered necessary	18.37%	36
Not interested in studies	74.49%	146
Parents not interested in ITI education	5.10%	10
Total Respondents		196

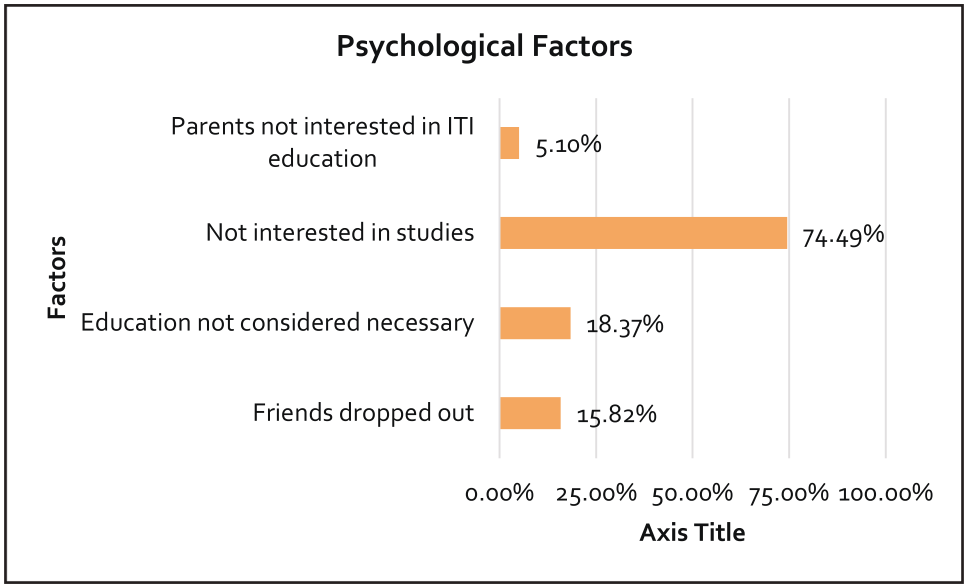

Figure 3.14: Psychological Factors

Out of the ten students whose parents were not interested in ITI education, sixty percent (6) were farmers and thirty percent (3) were active in self-employment or business, according to an analysis of parental occupation and community-level characteristics.

Table 3. 21 Gender and Caste vs Psychological factors

Gender	Education is not considered necessary	Not interested in studies
Male	33	135
Female	3	11
Caste	Eduation is not considered necessary	Not interested in studies
General	12	14
OBC	6	31
SC	9	61
ST	9	40

An analysis of the impact of the psychological factors with respect to gender and caste is carried out. Education not considered necessary and not interested in studies are selected factors for analysis. It was observed that about three female and 33 male respondents felt that education is unnecessary, and about 11 female respondents and 135 male respondents are not interested in studies.

The analysis also reveals that about 18 respondents who belong to the SC and ST category believe that education is unnecessary, and 101 respondents in the SC and ST category have no interest in studies.

3.5.5 Socio-economic and Demographic Factors

Socio-economic and demographic factors also play a major role in sharpening a student's future. Poverty is a major issue behind the dropout. The small and marginal landholding families cannot support their kids to

educate in ITIs. The farming community and unemployment forced them not to continue ITI studies due to a lack of proper earning revenue to support their children's studies. The study shows 88.21% of respondents dropped out from ITIs due to the socio-economic and demographic condition of the community, as shown in Figure 3.17.

Table 3.22: Socio-Economic and Demographic Factors

Socio-Economic and Demographic Factors	Response Percent	Response Count
Couldn't work and go to ITI at the same time	1.99%	20
For participating in other economic activities	1.79%	18
To look after younger siblings	0.40%	4
To attend domestic chores	0.60%	6
Poverty	88.15%	885
For helping in household enterprise	0.60%	6
Prolonged illness/ Health Issues	9.16%	92
Total Respondents		**1004**

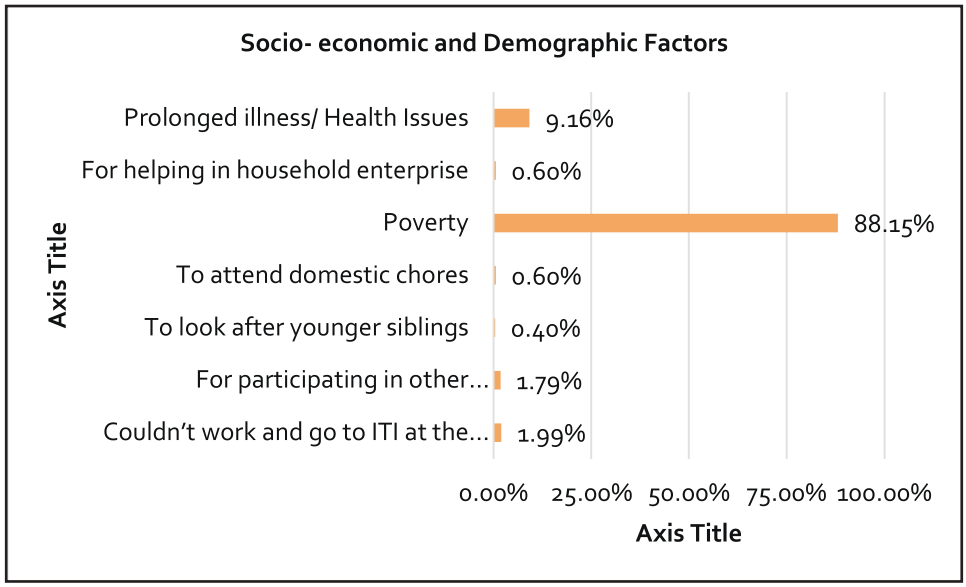

Figure 3.15: Socio-economic and Demographic Factors

On assessing the parental occupation with the socio-economic and demographic factors, out of 885 students who stated poverty as their reason for dropout, 55% (485) of the student's parents are farmers, 19% (169) of the student's parents are involved in self employment or business.

Out of the 20 students who stated that they could not work and go to ITI at the same time, 55% (11) of the student's parents are farmers.

Table 3. 23 Gender and Caste vs Socio-economic and demographic factors

Gender	To look after younger siblings	To attend domestic chores	Poverty	Prolonged illness/ health issues
Male	4	6	765	83
Female	0	0	120	9
Caste	**To look after younger siblings**	**To attend domestic chores**	**Poverty**	**Prolonged illness/ health issues**
General	2	0	143	16
OBC	1	2	184	25
SC	1	2	318	25
ST	0	2	240	26

An analysis of the impact of the socio-economic and demographic factors with respect to gender and caste is carried out. To look after younger siblings, to attend to domestic chores, poverty and health issues are selected factors for analysis. It was observed that about 120 female and 765 male respondents stated poverty as a primary reason for dropout, and nine female respondents and 83 male respondents have prolonged illness and health issues.

The analysis also reveals that about 558 respondents who belong to the SC and ST category stated that poverty is a significant concern, and 51 respondents in the SC and ST category have prolonged illness and health issues.

3.5.6 Women-specific Factors

Of the 42 female respondents, 28 of them explained that their parents forcing them to get married at an early age resulted in their dropout. Approximately 66.67% of female candidates married, and some inferred lack of safety and security in ITI campuses. In rural areas, the girl child is a burden for families and do not want to invest money in education to build a career. Few of them narrated that they dropped out due to health problems that the education system was not taken care of. Refer to Table no – 3.19 for the same in Figure 3.18.

Table 3.24: Women-specific Factors

Women-Specific Factors	Response Percent	Response Count
The family wanted me to be married off	66.67%	28
Absence of hostel facilities	11.90%	5
I had a health-related problem	19.05%	8
Safety and security was missing	11.90%	5
Total Respondents		**41**

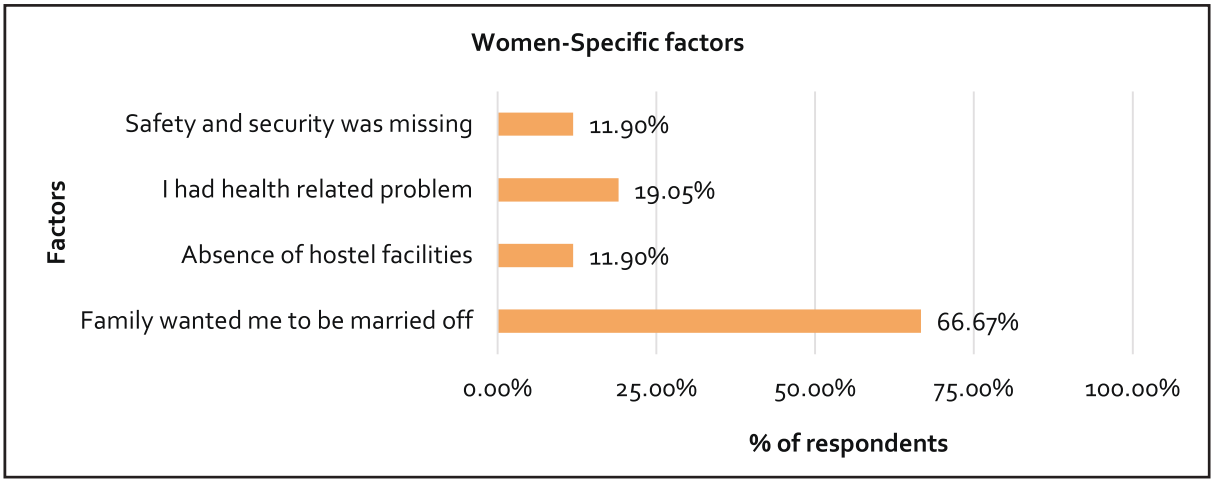

Figure 3.16: Women-specific factors

An analysis of the impact of the women-specific factors on gender and caste is carried out. Family forcing for marriage, absence of hostel facilities, and lack of safety and security are selected factors for analysis. It was observed that about 28 female respondents stated marriage as a primary reason for dropout.

The analysis also reveals that about 12 respondents who belong to the SC and ST category stated marriage as a primary reason for dropout.

Table 3. 25 Gender and Caste vs Women-Specific factors

Gender	The family wanted me to be married off	Absence of hostel facilities	Safety and security was missing
Male	0	0	0
Female	28	5	5
Caste	**The family wanted me to be married off**	**Absence of hostel facilities**	**Safety and security was missing**
General	10	2	2
OBC	6	0	0
SC	8	3	2
ST	4	0	1

3.6 Student's Perspective

Consolidating all the factors responsible for drop out of the students from ITI, 11 questions were framed, reflecting students' major concerns. This section gives a brief understanding of the various reasons for drop out and issues faced by the students during the course work that led them to drop out of ITI.

The students were asked to state their agreement from "strongly disagree", "agree", "neutral", "disagree", and "Strongly agree" for the following questions.

Table 3.26: State the Agreement

State the Agreement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Response Percent	Response Count	Response Percent	Response Count	Response Percent	Response Count	Response Percent	Response Count	Response Percent	Response Count
I would not have dropped if I had support from my parents	18.42%	923	24.11%	1208	20.52%	1028	24.21%	1213	12.73%	638
I would not have dropped if I had financial support from Govt.	18.42%	923	19.04%	954	16.61%	832	28.04%	1405	17.88%	896
I would have stayed if the school infrastructure would have been better	25.59%	1282	25.89%	1297	23.07%	1156	15.05%	754	10.40%	521
I was ragged at the ITI	43.21%	2165	35.57%	1782	21.22%	1063	0.00%	0	0.00%	0
If the quality of education at the ITI were high, I would not have to leave	27.07%	1356	26.21%	1313	24.91%	1248	12.75%	639	9.06%	454
Alcohol and drugs caused me to drop out	54.97%	2754	31.34%	1570	13.69%	686	0.00%	0	0.00%	0
ITI course work does not give the right career opportunities	28.74%	1440	28.50%	1428	23.59%	1182	10.10%	506	9.06%	454
I wasn't counselled and didn't receive help at the institute	25.69%	1287	24.01%	1203	21.24%	1064	17.45%	874	11.62%	582
I left due to peer pressure	36.87%	1847	26.55%	1330	23.59%	1182	9.44%	473	3.55%	178
I had to work to support myself & Family	24.27%	1216	22.93%	1149	21.12%	1058	17.54%	879	14.13%	708
I found coursework to be difficult	20.12%	1008	25.33%	1269	26.11%	1308	19.64%	984	8.80%	441

The data analysis indicates that 30.62% of the respondents out of the total 5010 responses have strongly agreed that they wouldn't have dropped out of ITI if they found the requisite support from their parents and financial assistance from the government. About 14.13% of the respondents strongly agreed that they had to support themselves and their families, which is the primary reason behind their dropout.

The students were questioned to state the most challenging part of the ITI. About 52% inferred coursework to be the most challenging part of the ITI. They framed trades like Electrician, Fitter and Welder being the major tough subjects in the coursework. Writing in English is a major concern for them.

The respondents whose course duration was two years mentioned that the coursework was the difficult part of the ITI. Course duration being longer is reflected as one of the major concerns amongst the 1606 respondents. The ITI course itself is a complex study that reveals 22% in this category and 16% pointed towards accommodation as a key factor, and 14% have answered that poor quality of teaching forced them to remain out of the study.

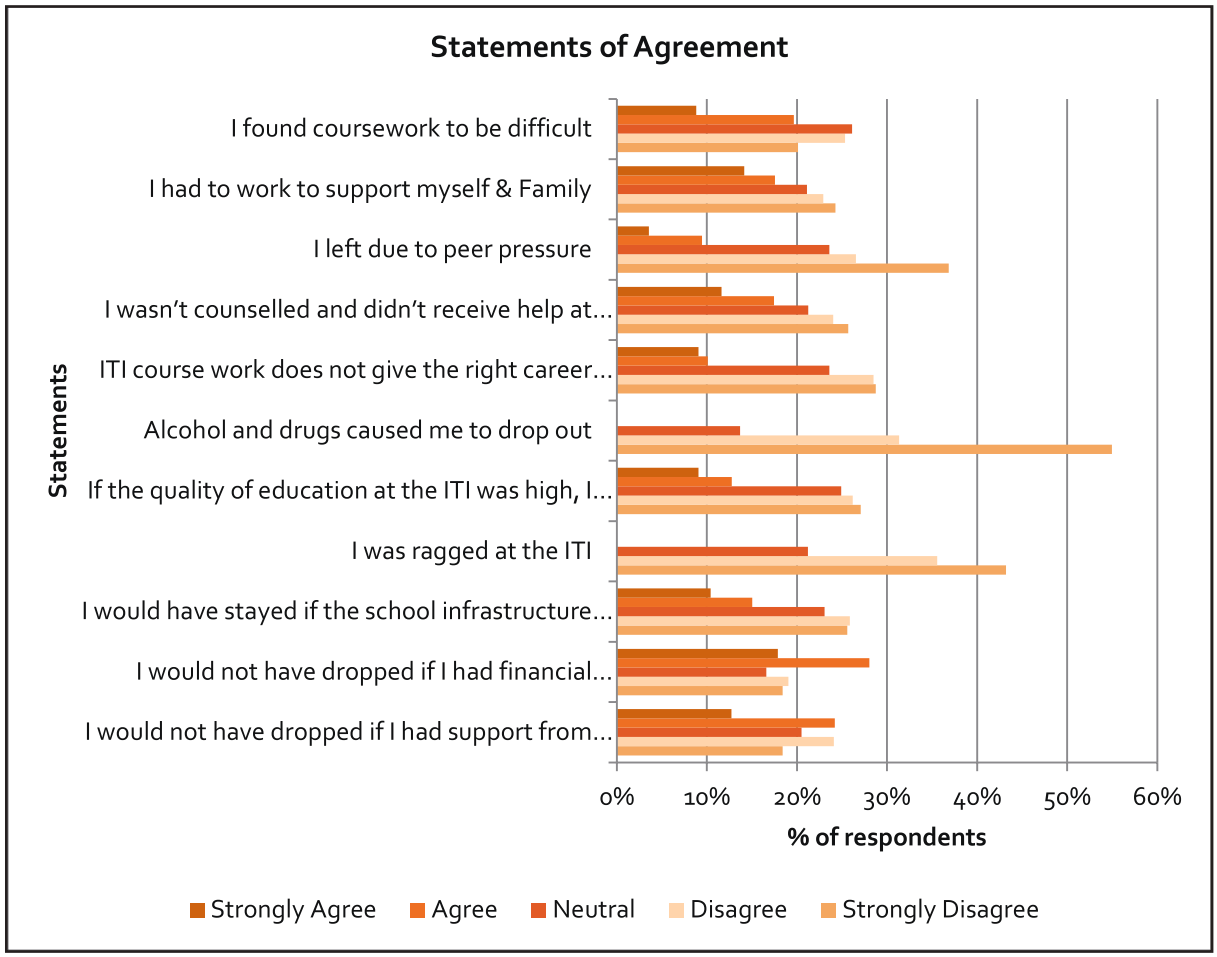

Figure 3.17: State your agreement

3.7 Post Dropout Scenario

This section captures the situations of the student's post drop out scenario.

Upon the analysis of the data, it was found that only 25.37% (1271 respondents) are working post drop out, and about 74.63% (3739 respondents) of the total respondents are not working post drop out, as shown in Figure 3.20.

Table 3.27: Percent of respondents working post dropout

Post Drop out	Response Percent	Response Count
Yes	25.37%	1271
No	74.63%	3739
Total		**5010**

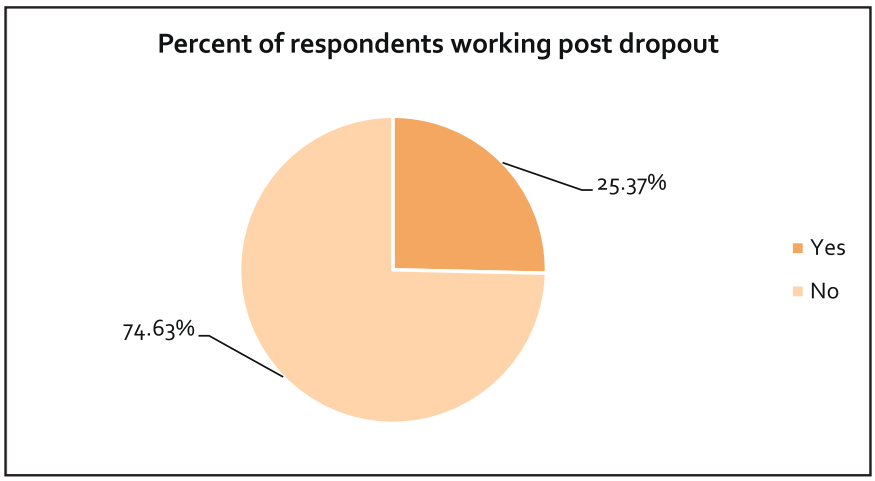

Figure 3.18: Percent of respondents working post dropout

Of the working post dropout respondents, only 18% (232) have an income greater than INR 12000. About 8% (i.e. 98 respondents) earn below INR 4000/- post dropout. Similarly, 33% (i.e. 424) respondents earn a living between the range INR 8000 to INR 12000/- as depicted in Figure 3.21.

Table 3.28: Income levels of respondents working post dropout

Income levels of respondents	Response Percent	Response Count
<4000	8%	98
4000-6000	19%	246
6000-8000	21%	271
8000-12000	33%	424
>12000	18%	232
Total		**1271**

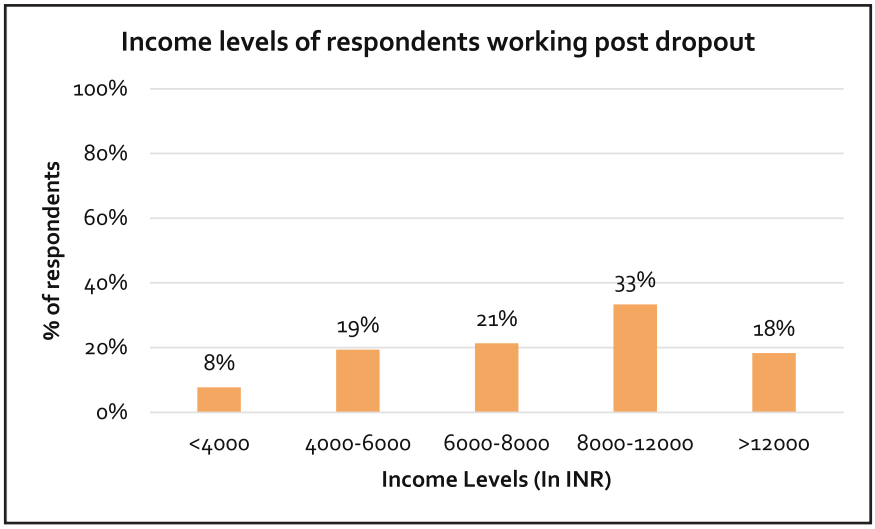

Figure 3.19: Income levels of respondents working post dropout

When the respondents were queried upon pursuing any other further studies post drop out, 86.05% (4311respondents) mentioned that they have yet to enrol themselves in any other course, whereas 13.95% (699 respondents) reported having enrolled in other future courses as presented in Figure 3.22.

Table 3.29: Percent of respondents pursuing studies post dropout

Pursuing studies post dropout	Response Percent	Response Count
Yes	13.95%	699
No	86.05%	4311
Total		**5010**

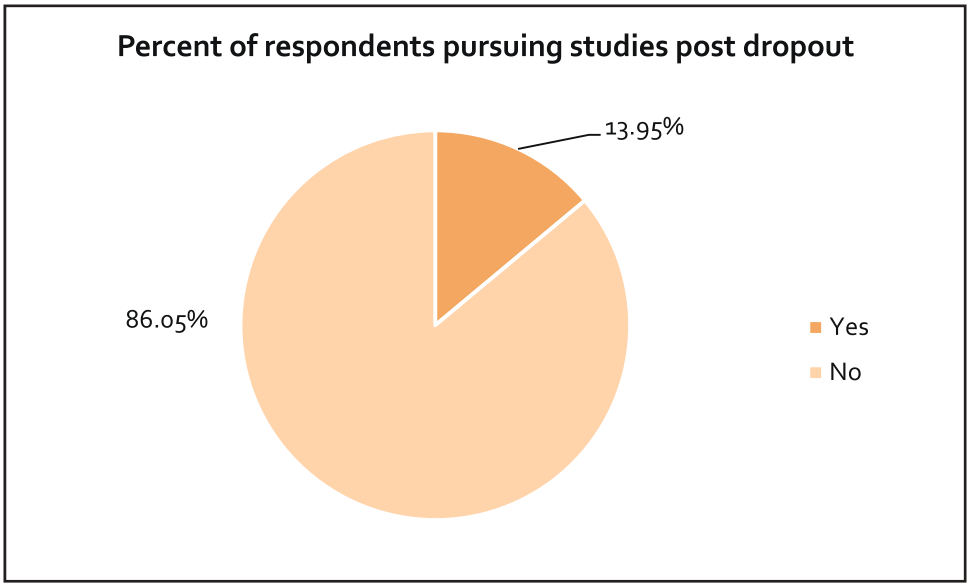

Figure 3.20: Respondents pursuing studies post dropout

Of the respondents pursuing other courses post drop out, 34% (241) are pursuing intermediate (10+2) courses, 25% (174) have joined another ITI, and 17% (120) are currently pursuing a Diploma course, as shown in Figure 3.23.

Table 3.30: Other courses pursued by respondents

Other courses	Response Percent	Response Count
Other ITI	25%	174
Diploma	17%	120
10+2	34%	241
Part-time	5%	35
Full time	18%	129
Total		**699**

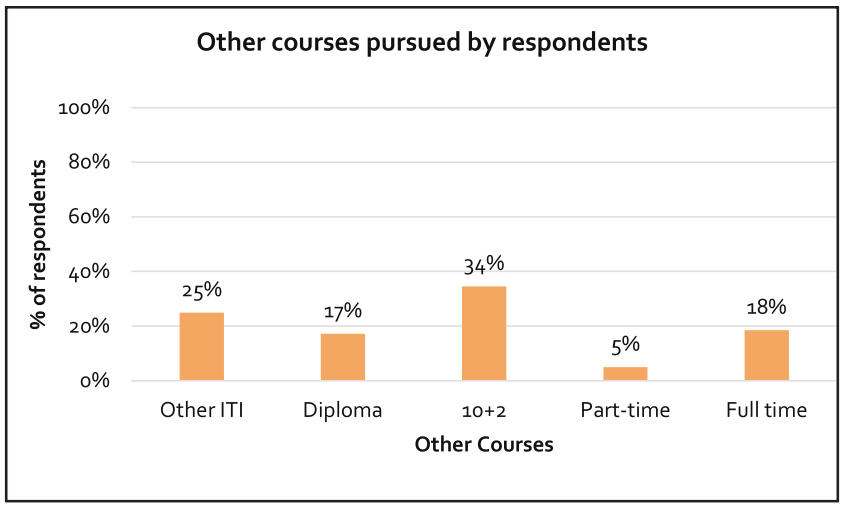

Figure 3.21: Other courses pursued by respondents

The data analysis shows that out of the total respondents, 53.75% (2693), the respondents have no interest to pursue their career any further. Similarly, 26.79% (1342) of the respondents hold a future career ambition to pursue higher studies in the streams of Engineering, MBA, and Graduation, as shown in Figure 3.24.

Table 3.31: Future career ambitions of respondents

Future Career Ambition	Response Percent	Response Count
Pursued higher studies academics	13.73%	688
10+2 /Graduation/ Diploma/ Engineering/ Master/ MBA/ PhD	26.79%	1342
Engineer/ Entrepreneur/ Teacher/ Police/ Farmer/ Follow up father's occupation	5.73%	287
Not interested to pursue studies anymore	53.75%	2693
Total Respondents		**5010**

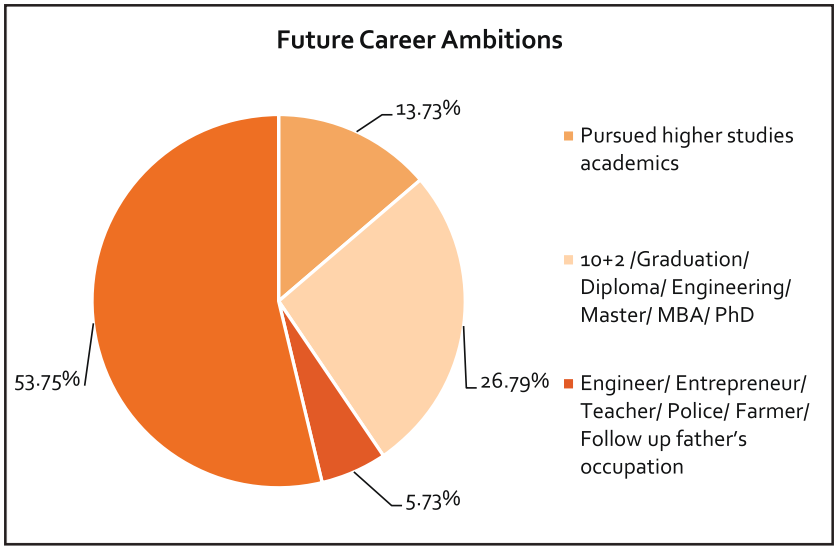

Figure 3.22 Future career ambitions of respondents

3.8 Opinion about the ITI

This section gives a better interpretation of the opinion of the dropout students on the ITI. The suggestions and recommendations provided by the students in improving the ITI and reducing the dropout rate are indicated in this section.

3.8.1 Quality of training received in ITI

The majority of students, about 65.91%, indicated during the study that they received quality education from ITI and have a good opinion about courses. About the poor opinion, approximately 2.46% (123 respondents) feel that the training can be improved, as shown in Figure 3.25.

Table 3.32: Quality of training received in ITI

Quality of Training at ITI	Response Percent	Response Count
Excellent	13.33%	668
Good	65.91%	3302
Average	18.30%	917
Poor	2.46%	123
Total		5010

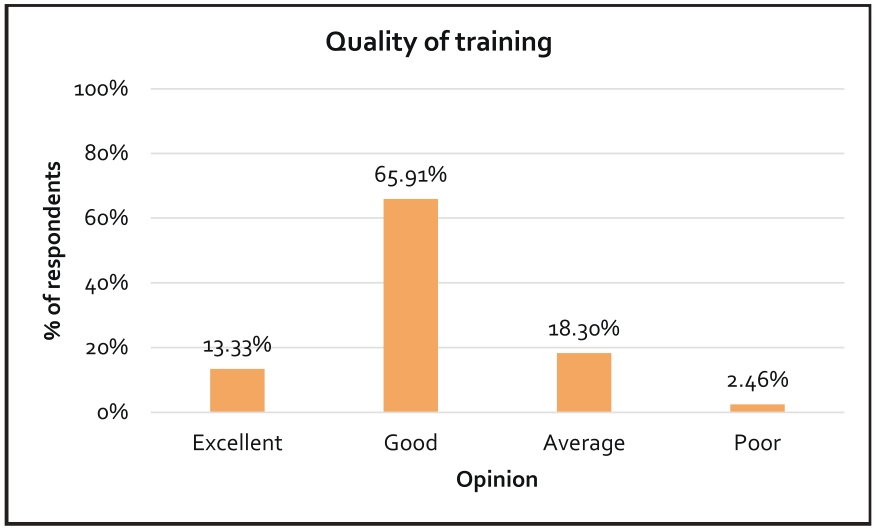

Figure 3.23: Quality of training received in ITI

3.8.2 Opinion on the components of ITI

When enquired about their opinion on the components of ITI, about 49% of the respondents stated that the instructors were regular, 41% of respondents felt the tools were adequate, 41% of them inferred that the machinery was sufficient, and 37% stated that the practical classes were adequate and standardised.

Table 3.33: Components of ITI

Components of ITI	Response Percent	Response Count
Instructors were regular	49%	2445
Tools were adequate	41%	2036
Machinery was adequate	41%	2077
Practical classes were adequate	37%	1836
Total		8283

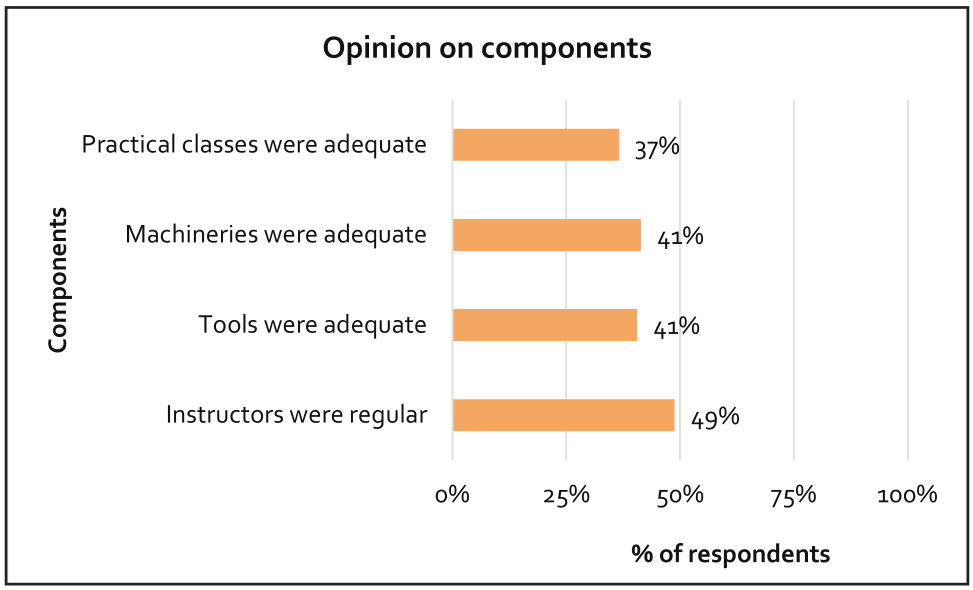

Figure 3.24: Opinion on components of ITI

3.8.3 Recommendation of ITI Course to others:

About 82.67% (4142) respondents, when queried whether they would refer the ITI course to others in future, affirmed positively and approx. 17.33% (868) confirmed on the negative side as not to recommend anybody as presented in Figure 3.27.

Table 3.34: Recommendation of ITI course to others

Recommendation of ITI course	Response Percent	Response Count
Yes	82.67%	4142
No	17.33%	868
Total		**5010**

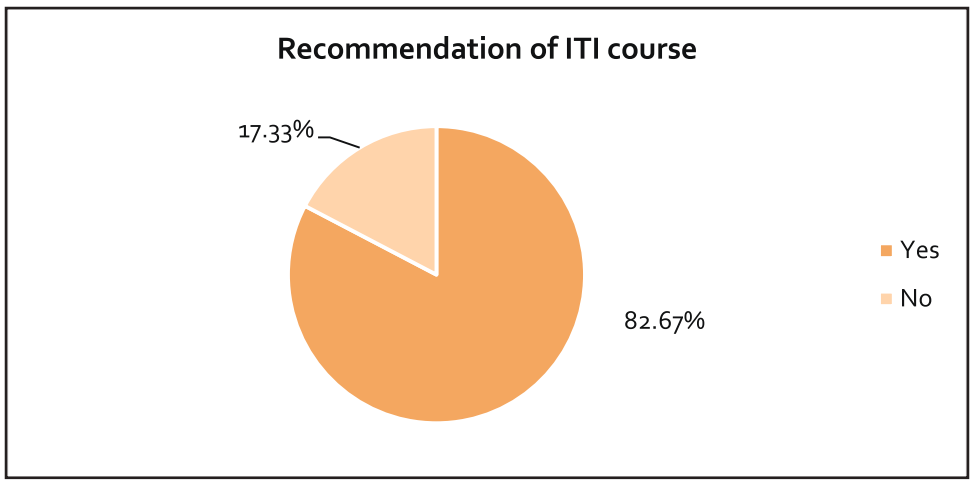

Figure 3.25: Recommendation of ITI course to others

When further probed about the reasons for not recommending the ITI course to others, the students reported to the four below options as stated in Table 3.29.

Table 3.35: Reasons for not recommending ITI course to others

Reasons for not recommending course	Response Percent	Response Count
Job prospects are poor	53%	461
The quality of teaching is poor	32%	279
The workshop facility is not good	15%	132
ITI is not known among the employers	21%	185
Total		**1057**

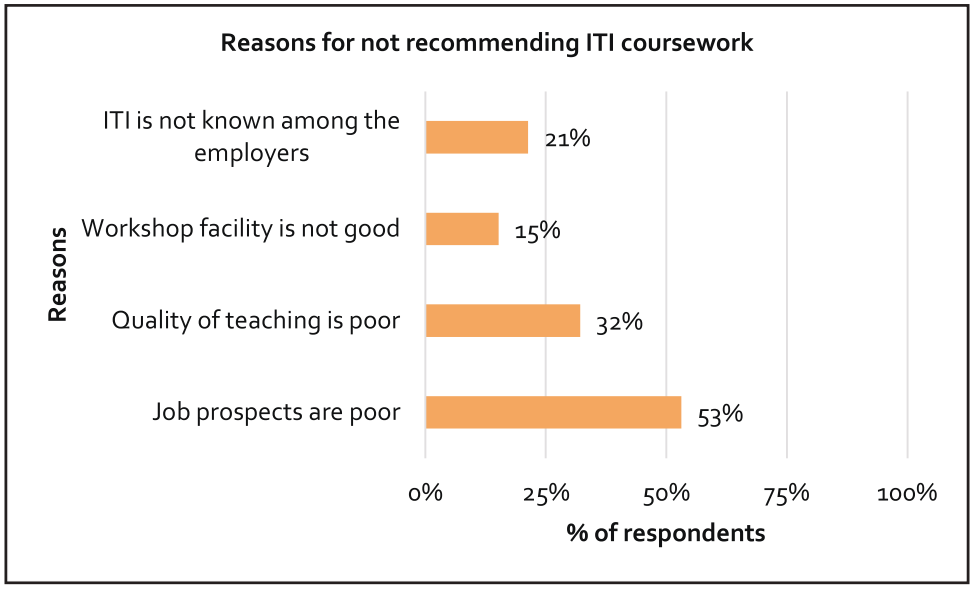

Figure 3.26: Reasons for not recommending ITI course to others

Out of the 868 respondents, 53% stated that the job prospects are poor, and 32% affirmed that the quality of teaching is poor.

About 21% of the respondents have explained that ITI is not known to the employers as the primary reason for not recommending the ITI course to others. This infers that the preference of ITI graduates at the employers level is less compared to other courses.

3.8.4 Place of stay during ITI:

Data analysis infers that 68.36% (3425) of the respondents are day scholars. About 15.91% (797) of the respondents stay at the ITI hostel and remain at private hostels or their relatives' places, as shown in Figure 3.29.

Table 3.36: Place of stay during ITI

Place of stay	Response Percent	Response Count
Day scholar	68.36%	3425
Staying at ITI hostel	15.91%	797
Staying at a private hostel	11.60%	581
Staying at a relatives place	4.13%	207
Total Respondents		**5010**

The respondents who stayed at the ITI hostels were queried to rate the hostel facilities. A major percentage like 77% (611) of them accepted as good rating.

About 9% (70) of the respondents have given poor ratings to the hostel facilities provided by the ITI.

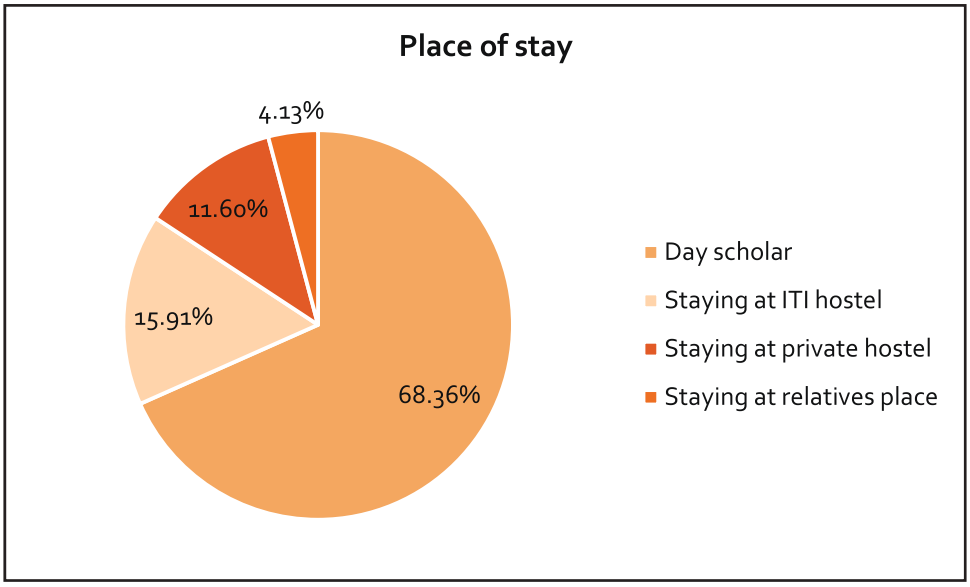

Figure 3.27: Place of stay of respondents during ITI

3.8.5 Hostel Bathroom Facility:

On querying whether the hostel bathrooms were proper and clean, about 75% (680) of the respondents stated positive, and 25% (117) of the respondents reported the hostel bathrooms were not proper and clean.

Table 3.37: Response on Hostel Bathroom Facility

Maintenance of bathroom (proper and clean)	Response Percent	Response Count
Yes	75%	680
No	25%	117
Total Respondents		797

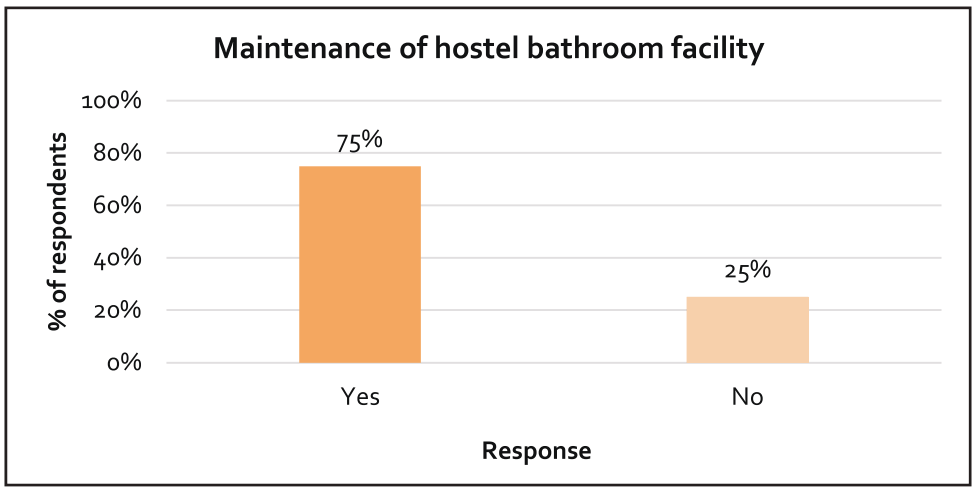

Figure 3.28: Response on Hostel Bathroom Facility

3.8.6 Improvement needed in ITI (if staying at ITI hostel):

Analysis of the data collected from the 797 respondents who stayed in the ITI hostel shows that 37% felt there is a scope for improvement in the hostel rooms. About 28% (221) of the respondents felt that students in one hostel room need to be reduced.

Table 3.38: Improvement needed in ITI

Improvement needed in ITI	Response Percent	Response Count
Hostel room need to be improved	38%	300
The number of students in the hostel room needs to be reduced	28%	223
Total Respondents		**797**

3.8.7 Overall improvement needed in the ITI:

The respondents' opinion on the overall improvement required in the ITI has been analysed and presented below.

Table 3.39: Factors for overall improvement in ITI

Factors for improvement in ITI	Response Percent	Response Count
Classroom needs to be improved	38%	1912
Tools and machinery need to be improved	33%	1678
Practical sessions need to Improved & Increase	38%	1906
Facilities for extra- curricular activities / sports	33%	1632
Total Respondents		**5010**

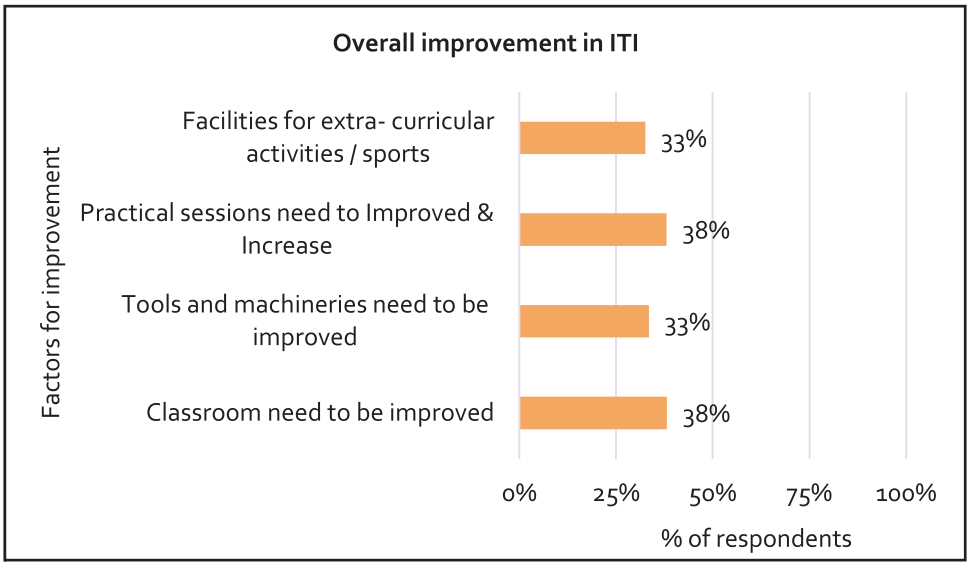

Figure 3.29: Factors for overall improvement in ITI

The analysis reveals that 38% of the respondents felt that there is scope in improving the classrooms of the ITI. About 33% affirmed a need for improvement in providing tools and machinery in ITIs. At the same time, 38% of respondents reported a scope for improvement in the quality and quantity of practical sessions. Also, 33% of respondents opined that extra-curricular activities/sports facilities should be improved, as presented in Figure 3.31.

In general, a significant proportion of the students who had accepted that good facilities for practical sessions existed in their ITIs, highlighting that the extent of exposure and hands-on experience on machines and tools was grossly inadequate for various reasons.

3.8.8 Favourable components of ITI

The most liked component of the ITI is the practical or hands-on training classes. About 72.73% of respondents expressed that the practical aspect of the ITI is the most favourable component of the study. About 214.93% of respondents expressed that the job training provided is the most liked component during the course tenure.

Table 3.40: Favourable components of ITI

Favourable components of ITI	Response Percent	Response Count
Practical	74.35%	3725
On the job training	15.13%	758
Behavioural training/Soft skills and English	21.66%	1085
Industry exposure	7.23%	362
Coursework	13.09%	656
Total Respondents		**5010**

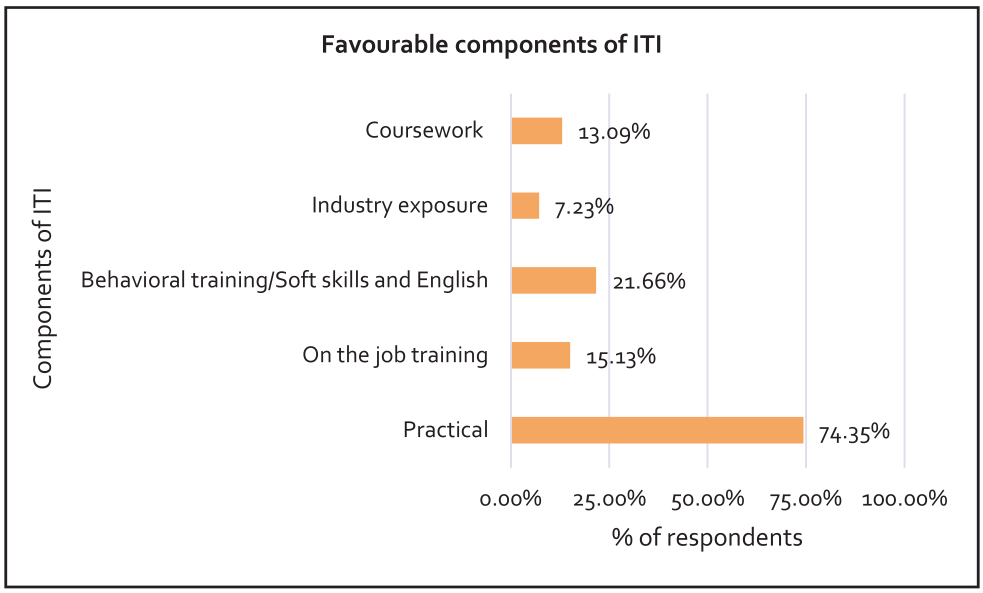

Figure 3.30: Favourable components of ITI

3.9 Area of Improvement

When enquired about the areas of improvement in the ITI Institutes to reduce the dropout, the majority of the respondents indicated that progress in the campus placements and provision of part-time job opportunities should bring immense changes in reducing the Drop-outs. Another section of respondents expressed that the improvement in quality of teaching, increase in practical training hours and provision of training in soft skills are the areas of improvement.

Table 3.41: Areas of improvement in ITI to reduce dropout

Areas of improvement	Response Percent	Response Count
The number of teachers per student ratio needs to be increased	26.49%	1327
Quality of teaching	18.90%	947
Practical training hours need to be increased	32.46%	1626
Equipment machinery for practical training need to be improved	25.35%	1270
Safer working practices	12.14%	608
Behavioural/ Soft skills training/ Exposure to employment credibility (Tata Strive)	32.46%	1626
Campus placements to be increased	49.10%	2460
Part-time earning opportunities can be enhanced	49.92%	2501
A better brand for ITI education needs to be established	22.61%	1133
Books & reference materials availability need to be enhanced	9.30%	466
Total Respondents		**5010**

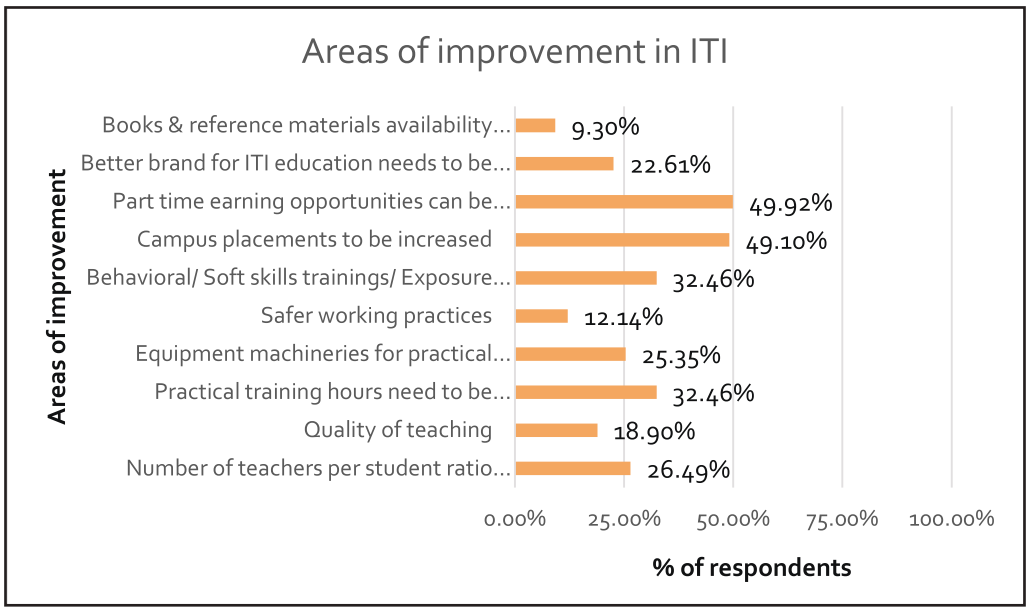

Figure 3.31: Areas of improvement in ITI to reduce dropout

3.9.1 Awareness of Sudakshya Scheme:

Sudakshya scheme was introduced by the Govt. of Odisha to improve the enrolment of girls in Government ITIs. The scheme envisages financial assistance for girls' mobilisation and support for training and placement. When asked the female respondents regarding the Sudakshya scheme, only 71% (205) of the respondents reported that they are aware of the Sudakshya scheme, as depicted in Figure 3.34.

Table 3.42: Awareness of Sudakshya scheme

Awareness of Sudakshya Scheme	Response Percent	Response Count
Yes	71.49%	205
No	28.51%	514
Total		**719**

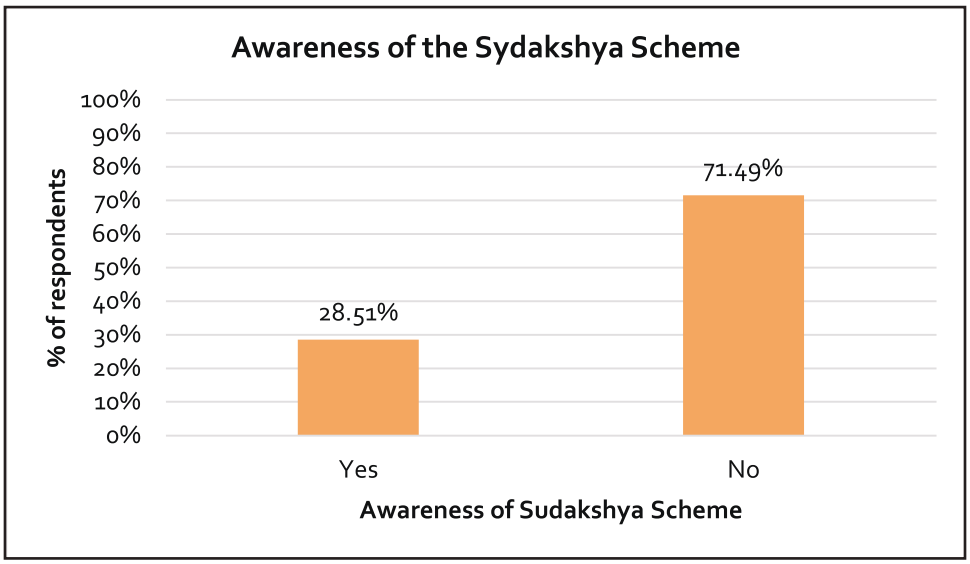

Figure 3.32: Awareness of Sudakshya Scheme

Further probing to the female respondents on whether the scheme was enough to support ITI education, about 71% of the respondents affirmed the scheme has enough potential to support ITI education, as presented in Figure 3.35.

Table 3.43: Scheme support to ITI Education

Support to ITI Study	Response Percent	Response Count
Yes	71%	146
No	29%	59
Total		**205**

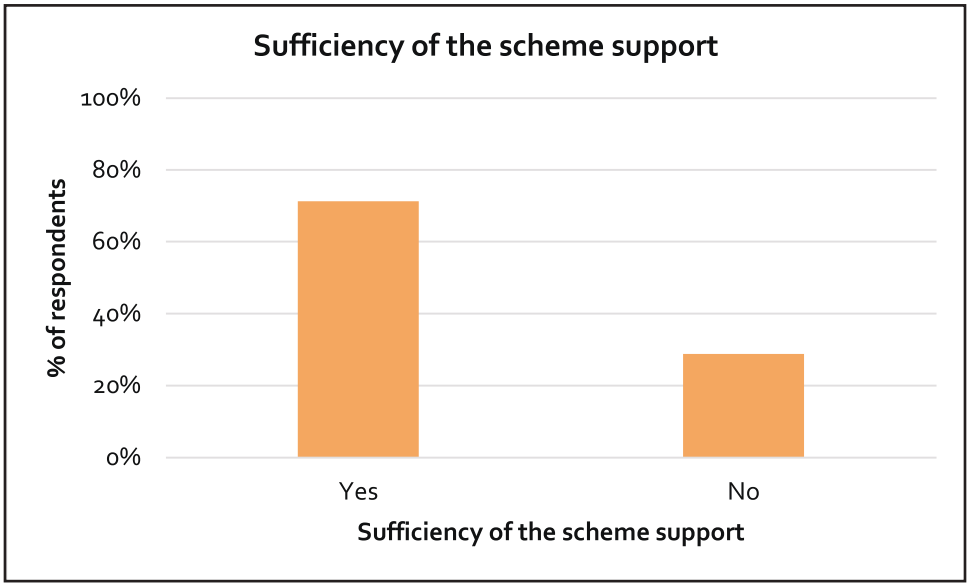

Figure 3.33: Scheme support to ITI Education

3.9.2 Reason for choosing ITI education:

The respondents were asked to choose the reasons for selecting the ITI education from multiple options. The respondents chose multiple options, and the same data was collected. The below-mentioned data analysis indicates that 46.29% of the respondents have selected ITI education for better career prospects, and 38.48% have chosen it to offer better job prospects.

Table 3.44: Reasons for choosing ITI education

Reasons for choosing ITI Education	Response Percent	Response Count
For increasing career prospects	46.29%	2319
For enhancing better job prospects	38.48%	1928
For providing prospects for higher studies	9.22%	462
For enhancing capability/skill for entrepreneurship	12.12%	607
The Family Suggested to do so	22.87%	1146
Total Respondents		**5010**

From the study, it may be inferred only 9.22% chose ITI education for better prospects for higher studies. It is also observed that 22.87% of the respondents chose ITI education upon their family's insistence, as shown in Figure 3.36.

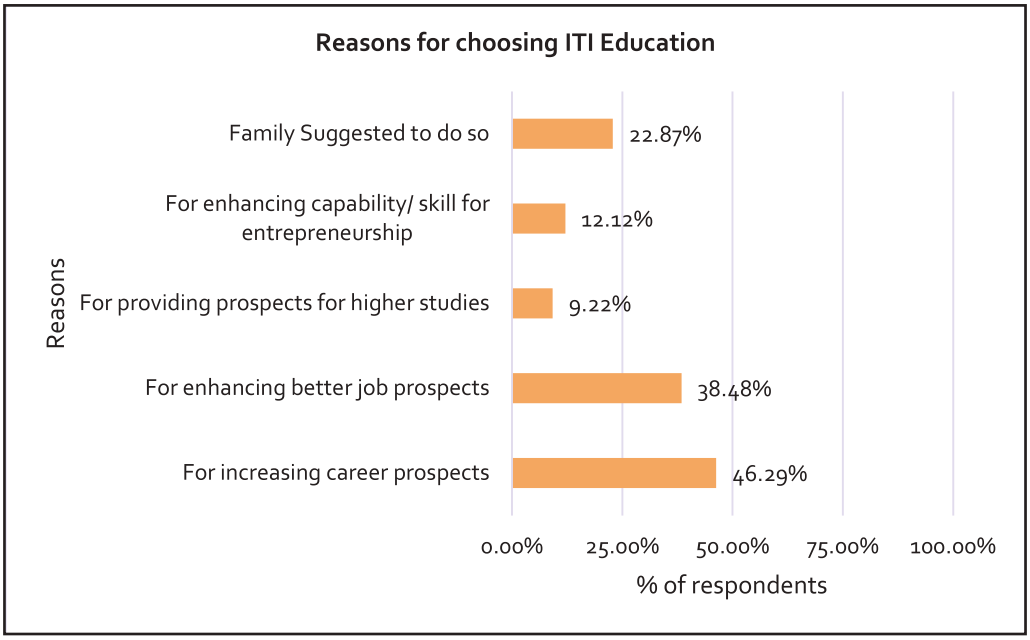

Figure 3.34: Reasons for choosing ITI education

3.10 Outcome of the consultation meeting:

At the time of fieldwork, principals and instructors had informally shared their views on various aspects regarding dropouts. The discussions pointed out that many ITI students take admission to receive an incentive. Students who are either financially poor or academically weak usually take admissions in ITIs. The students who secured 30-40% marks in the 10th standard enrolled in ITIs as the last option and observed that they were rejected by all other options available in the academic era. After getting an annual incentive, you switch to an additional stream after receiving the desired amount.

During an interaction in Malkangiri ITI, it was noticed that there are instances where students enrol their names in anticipation of receiving the Prerana scheme scholarship only. Once they receive the same, SC/ST students drop out of courses, and the effort to connect with them fails. They stop going to the institute as soon as they get a government stipend each year.

In many instances, the second issue identified was that students from economically backward sections and orphan students had left the course because they could not manage without sufficient support for expenses during the initial enrollment period. For example, in schemes like Prerana, students get their eligible incentive after 6 months of joining. Admission is usually completed in August, but the eligible incentive for SC/ST through DWO usually gets disbursed in January and February. Students who can't afford the messing charges and food allowances typically drop out. They don't ask for help most of the time because they're shy. They don't talk about their problems when they leave the institute.

The third issue highlighted was fear of studying English psychology. The student has to write home tasks in English during its two-year curriculum, which discourages the lower percentage of students from continuing the ITI. Writing in English is a fear factor for the low percentage of secured students. Those students who secured 30 to 35 % in the 10th or 8th class could not make the practical notes in English or engineering drawings and left the ITI courses silently.

Despite the COE system having been in place for more than a decade, employers have yet to recognise COE for apprenticeship training and employment. The COE (Centre of Excellency) model is unsuccessful because the students go through all the trades for two months in the first year. Two months is usually not sufficient for them to understand the technicalities of each trade. In the next six months, when they attend the elaborate classes on each trade, that course is also not sufficient for students to work in the industry. This is one of the reasons students from COE also get dropped out in between.

A large number of school dropouts do not have access to skill development to improve their employability. Although ITI coursework can position itself as a middle ground for these students in securing a job, it has failed to do so considering the changing nature of India's new economic growth. India is passing through a phase where the largest share of new jobs in India is likely to come from the unorganised sector that employs up to 93 per cent of the national workforce. The organised sector is more likely not to absorb local ITI students, citing union-related issues and increasing automation in industries that feel ITI students are not the best fit. The opportunities for ITI students in the organising sectors are becoming limited day by day. The career prospects are very bleak in the organising industry, so many students drop out after realising this.

Another significant influencing factor that has also emerged is the psychological factor. With the mushrooming of engineering colleges and private diplomas, getting admission into this coursework has become much easier for students if they can afford to get admitted into these colleges. Thus, when 16–17-year-olds see their friends with equal capability pursue diplomas and engineering, they get disheartened, lose interest, and drop out.

RECOMMENDATIONS

ITI education is widely acknowledged as a critical response to skill requirements for society over the next few decades. Enrollment and course work are essential, with significant socio-economic implications for society and livelihood security. The government reinforces this by enhancing focus on skill development, which underlines that measures need to be implemented to reduce students' dropouts.

For most students, beginning their journey in ITI is an exciting time. Often, students eagerly anticipate that ITI education will be the best time of their lives. By making choices/decisions without parental authorisation, students entering ITI can make new acquaintances and develop independence. This represents a considerable shift in autonomy from elementary and middle school times. Regrettably, many students are unprepared for the many difficulties associated with transiting through ITIs. Research findings indicate that entering ITI can be one of the most emotionally difficult, academically challenging times in students' lives. Students transitioning from school to ITIs face developmental, social, and academic difficulties. This is crucial to intervene and prevent pupils from remaining in school or dropping out.

Adolescence is a critical stage of human development. It is characterised by increased pubertal changes, expanded social networks, affiliation with social cliques, and exposure to novel sexual and other social pressures. Additionally, students make crucial academic and social choices during the transition that ultimately determine whether they enrol in ITI, enter the workforce directly, or drop out of ITI. The students exhibit higher failure rates in courses, a decline in test scores, and experience behavioural problems.

Dropping out of ITI poses plenty of complications for students. All students and parents are urged to consider the long-term repercussions of dropping out, even if children lack the desire to persist through high school's academic rigours. The study found that dropping out had a number of negative consequences, including unemployment, higher dependency on public assistance, homelessness, and increased social psychology. Given these negative repercussions, it is vital for educators, particularly school counsellors, to tackle dropout prevention in a systematic manner.

The section below highlights the suggested measures to reduce the dropout rate, including enrollment and management systems, institutional and policy changes, and changing students' perceptions and adaptive capacity. What is needed is an enabling environment and strategies that will enable and accelerate the reduced dropout rate.

4.1 Early Identification of Poor Attendance

It is noted that attendance during the initial days of ITI education is directly related to ITI completion rates. The number of absences during the first six months is the most significant risk factor for failure. DTET can immediately hire full-time or part-time educational counsellors with the appropriate degree and skills to oversee specific ITIs. These counsellors can decrease school dropout rates by identifying students with poor attendance early. Early identification can begin through the use of collaboration with counsellors. The education counsellors should inquire about feeder ITI, students with poor attendance, failing grades, behavioural concerns, and at-risk retention.

It is suggested that a mechanism be established to solicit student input through one-to-one sitting between teacher and students during the first 15 days of enrollment so that teachers are aware of their student's academic,social, and emotional needs. The most practical indicator for identifying students needing early intervention isattendance data. The education counsellors can monitor students' attendance by gathering attendance benchmarks by flagging students who have missed approximately two weeks (10 days) of ITIs. Students absent for more than 10% of instructional time should be flagged for possible early intervention. The counsellors can address the dropout challenge by identifying students on the verge of dropping out via an early warning system. The DTET can develop an early warning system tool that calculates students' attendance indicators, course failures, grade point 14 average, and on-track status, determining whether a student is below the defined benchmark on each indicator.

Additionally, the template includes tiered intervention options that education counsellors can use with students of varying severity. Along with identifying kids through the early warning system, education counsellors can monitor students' progress throughout the school year by upgrading the early warning system tool. Education counsellors need to frequently assess students' progress to implement effective dropout prevention methods. After identifying students in danger of dropping out due to excessive absences, poor course performance as judged by report cards, and prior retention history, education counsellors can assist students in overcoming excessive absences through group counselling strategies.

4.2 Service Delivery and support

A recurring theme in successful dropout prevention programming can be a student-centred approach. Various strategies should be used to address the entire range of student needs or factors that alienate the student from ITI, particularly economically backcard class students, SC/ST students and orphans. The study recommends early identification of potential dropouts and support/intervention to ensure early success. Involving families as much as possible and soliciting parental assistance is also related to success. Intensive individualised attention and instruction, including tutoring, mentoring programs, and instruction technologies, are recommended. Additionally, successful programmes are defined by instruction and management that include clear instructional objectives, aligned activities, and frequent monitoring of student progress. The study also noted tremendous success when programs had supportive services such as the timely release of adequate support funds through various opportunities to make up work via summer and night school wherever possible.One of the highlights has been that few ITI students take admission to receive incentives. The students who were either financially poor or academically weak were usually taken admission to ITIs. The students who secured 30-40% marks in the 10th standard enrolled in ITIs as the last option and observed that they were rejected by all other options available in the academic era. Students join ITIs to get annual incentives and later switch to other streams after receiving the desired amount. Thus, they leave the course once they receive the incentives/stipends/scholarship. There are instances where student incentives were credited to a joint account of parents & Children where parents utilised the fund. Subsequently, children could not meet his/her expenditure for the study.

In many instances, lack of money for basic needs such as food and transportation expenses emerges as a cause of school absenteeism where the student cannot afford it without adequate support. The students are dropping out because they cannot pay the fee and even the mess charges. Delay in disbursement of support

incentives/stipends/scholarships for various reasons has often resulted in dropouts. Immediate financial arrangements for this purpose during the first quarter of admission must need to be looked into. There are a few instances where ITI has approved special distressed funds from the collector for certain students. That helped few students meet the expenses required in the initial stage of ITI and helped them avoid dropping out. In addition, Govt can also consider providing rice at subsides prices to ITIs. It is suggested that a small initiative like providing subside rice will significantly benefit many of the poorest poor students in terms of reduced messing charges. He further emphasised that supporting through subsidise rice or other food will help rather than crediting the same or reimbursing their expenses. To address the issues, there need to have some systematic changes, such as a dedicated account for the student may be opened to receive incentives so that class teachers can monitor the withdrawals and utilisation of funds. The incentive schemes should be disbursed through ITIs to students monthly rather than yearly. In this process, monitoring would be possible for the utilisation of resources.

4.3 Interventions through a support group and community organisation

The students who have encountered repeated failures (20.62% as per the study findings) tend to lose confidence. Group interventions can be an effective measure to increase study skills and grade point averages for at-risk students. With this notion, the educational counsellors can implement psycho-educational groups targeting significant dropout prevention variables such as study skills to assist at-risk students. Other vital factors for dropout fear of English and inferiority complex by students because most of their friends prefer to pursue diplomas, engineering and general education. ITI can help students feel more secure and at ease by conducting orientation activities that include discussions about curriculum, scheduling, discipline, and extracurricular activities. Proper intervention and awareness building through educational counsellors and faculty members still has limitations. Selective community organisations can supplement as resources to provide student academic/counselling support services. The ITI can be empowered to identify and collaborate with reputable local mentoring, tutoring, faith-based, and other community programs to provide academic enrichment experiences for students. In addition, ITI and its faculty and staff can provide ongoing classroom guidance lessons for students and staff dealing with communication skills, peer pressure, how to meet people, problem-solving skills, study skills, and preparation for life after ITI.

4.4 Intervention in terms of students' welfare

Students at ITIs are predominantly from disadvantaged backgrounds, and their physical and mental capacity to undertake intensive technical education is severely limited. It's self-evident that keeping high health and fitness levels throughout the coursework period is critical. Students from impoverished and underprivileged backgrounds attend ITIs due to unsolved health issues in the past. This is demonstrated by the prevalence of absenteeism, dropouts, high exam absenteeism, and low accomplishment levels. Although only 1.82 percent of respondents cited health as a cause, a comprehensive health aid programme, including nutritional supplements, must be established and executed, at the very least for women and impoverished students. The absence of hostel facilities was one reason 1.66% of survey respondents cited for drop out. Numerous schemes exist to construct hostels, and states must be urged to take the lead in constructing/improving hostel facilities forboth male and female trainees.

4.5 Improving Parental Involvement

Students who stay in school and perform successfully tend to have parents who are informed, concerned, and involved with their child's education. In addition, negative parental attitudes toward ITI, their expectation that child's need to support them in income and poor parenting style contribute to poor student performance and ultimately to school dropout. ITI faculty and proposed educational counsellors can play a pivotal role in bridgingthe divide between home and school and enhancing parent involvement across the constituencies they serve. The ITI can encourage parents to provide positive reinforcement and express their value on education to their children. The study indicates that many parents do not attend parent meetings for various reasons, including their home being located far from ITI, the meeting being planned during their earning/employment period, or never pursuing education. ITIs can address the barriers associated with parent attendance by providing flexible schedules for parents unable to attend meetings during the traditional school day. Providing transportation to parents for theparent meeting, making faculty visits home of students, and holding meetings at student's locality can assist parents in participating in their student's education.

4.6 Quality of Education

Quality of Training delivery is paramount in transforming ITIs into centres of Excellence. Although dropout students have not highlighted any specific reason for dropping out, a small 2.46% percentage of students highlighted the poor quality of education in ITI. Conclusion: There is a need for increased faculty-student engagement to addvalue and prospects to ITI education, resulting in a reduced dropout rate. One critical issue that remains to be resolved is the availability of trained and experienced staff.

A sizable portion of sanctioned staff remains vacant, and many instructor positions were still being recruited at the survey. Contract staff with the current salary range did not attract qualified and experienced staff. There is no systematic planning and training of all untrained (instructional training) staff.

As per the discussions with state officials, the principal is responsible for monitoring the quality of training delivery. However, it was observed in various ITIs at the time of the study that principals are involved in multiple administrative works, and their time devoted to ITIs are reduced considerably. ITI needs to strengthen its support staff and permanent faculty to improve further the course's impact and thus help reduce the dropout rates.

4.7 Provision of Nutrient Food

The Department of Skill Development and Technical Education is implementing the Provision of Nutrient Food to Trainees of Government ITIs in Odisha scheme through the Director of Technical Education and Training, Odisha, with the goal of strengthening the "New ITI" eco system in Odisha with creative innovative hands and minds to make the Skilled-in-Odisha brand a global reality at Industry 4.0 scenario by nourishing them with proper domain and life skills with a focus on nutrition. This scheme is applicable to all existing 49 ITIs as well as upcoming ITIs.

This scheme will benefit ITI students from low-income families as well as those who travel long distances to get to the institute. Because the curriculum includes a lot of physical activity, the students' nutritional needs are high.

4.8 Reducing Girls Drop Out

The study also tries to look into specific issues on girls' dropout, which are mostly categorized into three categories: home- or family-related, school-related and child-related. Tending to domestic chores is a significant matter. Girls drop out of school due to home responsibilities such as caring for siblings, animals, cooking and cleaning. In addition, family financial restrictions frequently compel girls to drop out of school. Early marriage keeps females out of school. In addition to school organisation, curriculum, and pedagogy, girls are pushed out of school. Girls drop out of school for various reasons, including distance from home, poor teaching quality, lack of female teachers, language of instruction, and long school hours. Family and school pressures weigh heavily on the female offspring. They lack supervision and assistance, cannot comprehend course material, and lack of motivation hinders their academic advancement.

Policies to improve educational opportunities for girls must consider investing in proven programs and policies that will be key to ensuring a better future for girls students. The study recommends incentivising participation that can help more girls continue their schooling and learning with measures like targeted scholarships, conditional cash transfers, supply of bicycles, and access to smartphones and hostel facilities. The National Education Policy (NEP) 2020 also proposes ensuring quality education so that students, especially girls, from socio-economically disadvantaged groups do not lose interest in learning. A universal requirement is the introduction of computers and digital literacy, artificial Intelligence and its different disciplines, and Coding. This will keep kids interested in school and prepare them for the ever-changing technological job market.

4.9 Branding and value education

The ITI education brand has been diluted due to the mushrooming of private diplomas and engineering colleges. In addition, the formal sector where automation is in demand is primarily looking to hire diploma and degree students to avoid issues associated with Union activities. There are also indications that wherever the formal sector is coming up in Odisha, there is a trend towards outsourcing ITI jobs to third-party contractors and bringing in an unwritten policy that local people will not be hired, mostly jobs relevant to ITI students. This has reduced the demand for job prospects for ITI students, and only the informal sector is catering to the demand for ITI students. This brand dilution is a significant factor in the dropout of many students. The government, industry department, an apex industry body should be aware of the situation. Policy intervention is needed to integrate the local population's job aspirations, including ITI students, into the next industrialisation phase.

Another prospect is that ITI education is now competing with short-term skill coursework under various schemes and where incentives are better. In addition, numerous corporations are infusing the fund through their Corporate Social Responsibility (CSR) initiatives and training the students with cutting-edge equipment/machinery. The it is are equipped with old equipment, tools or machinery. After completing ITI, students compete with these shortterm skill forces, a severe psychological barrier for many students seeing value in ITI. ITI education will be equivalent to passing Class XII under recent ITI reforms.

The Ministry of Human Resource Development (HRD) has already accepted the skill development ministry's proposal to set up a separate education board for the Industrial Training Institutes (ITI) students. It will issue a certificate equivalent to those issued by regular boards for classes X and XII. The two-year course at the Industrial Training Institute in Maharashtra is equivalent to passing Class XII if the candidates from the identified trades further clear the examinations in two language subjects. Students who completed the two-year ITI course previously struggled to access mainstream education. In Maharashtra, the Maharashtra State Board Of Secondary And Higher Secondary Education (MSBSHSE) has issued the order for five trades, which will be a milestone in ITI education. The same reform is expected in Odisha and will create a great pathway in branding ITI education at par with other higher education and open a path for career growth for aspiring ITI students.

4.10 Engagement of students beyond the curriculum

ITIs may organise sports, cultural programmes, creative activities, clean toilets, Garden works etc., to attract students. Once students develop the habit of attending the classes for three months, they will continue to participate in the future. Innovative solutions should be explored to transform the ITI into a green campus. Considering that students can spend a significant amount of their time in environment building &communication with their teachers, peers and communities. Social and emotional support by teachers to students is essential. Service-learning opportunities for students is another strategy to reduce the dropout rate. Numerous education programmes, primarily evolving MBA, graduate, and engineering programmes, have successfully integrated service-learning into their course work in recent years, combining meaningful community service experiences with academic learning, personal growth, and civic responsibility. Service-learning enables students to learn by doing, learn from one another, and promotes engagement in community-based projects. Faculty members can collaborate with communities to provide the best possible service to students. Service-learning will allow students to work as a team, build their self-esteem and self-efficacy, and collaborate with positive adult role models.


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