Impact Assessment

of Focused Development Program (FDP) P0638

for HDFC Bank CSR





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EXECUTIVE SUMMARY

About the FDP:

This FDP Project of HDFC Bank CSR was focused on enabling digital skills for employability of rural youth of North Karnataka by ensuring well-equipped IT Labs with 600 desktops. The intervention sought to bring about rural transformation by enhancing employability of youth in the organized sector by equipping them with job-oriented contemporary skills, much needed in the radically changing job market scenario. The project was implemented by Deshpande Foundation (DF) between October 2022 to September 2023.

About the Impact Assessment:

The proposed study was commissioned to conduct an Impact Assessment of the FDP project P0638. The objective of the study was to assess how upgraded computer systems, digital tools, and blended learning approaches have contributed to achieving the program's objectives. The Assessment also sought to evaluate the efficacy, effectiveness of the project interventions and sustainability of the project's outcomes. The research design for this study followed a mixed method approach to data collection involving structured quantitative interviews with project beneficiaries along with an observation checklist and qualitative focus group discussion (FGDs) and Key Informant Interviews (KIIs). The final achieved sample size of the study was 105 beneficiaries (against the target of 100) along with 4 FGDs with beneficiaries; 3 KIIs were also conducted with the project and technical staff. The sample size for quantitative interviews was set at 100, as the program was not designed to establish a direct link between desktop installation and student employability, making this sufficient for assessing the impact of this infrastructural project.

Study Findings:

Digital transformation for enhanced learning: Qualitative insights from project and technical personnel



Process flow diagram of the intervention

The study findings depict the success of the intervention through installation of the new computer systems which effectively helped to overcome the technical shortcomings of the old systems. Based on discussions with DF Project and Technical Personnel, insights drawn suggested that the old computers posed significant challenges to students, hampering their learning efficiency and overall experience. Frequent crashes, slow performance, and outdated software disrupted workflows, making it difficult to complete assignments and access digital tools essential for skill development. Limited storage capacity and obsolete hardware further constrained students' ability to multitask and explore advanced applications. These issues not only delayed learning but also restricted the practical application of skills, highlighting the urgent need for upgraded systems to create a more reliable and effective learning environment.

Physical Observation of IT Labs containing the desktops: At the Deshpande Skilling laboratory, an observation checklist assessed the condition and functionality of computers, webcams, and projectors, with input from technical staff. The facility houses 600 desktops across 14 IT labs, along with 52 webcams and 2 projectors, supporting training requirements.



The following sections discusses the findings in relation to the OECD-DAC framework through the assessment of relevance, effectiveness, efficiency, coherence and sustainability, based on data collected from project beneficiaries, that is, the alumni and current students. Of 105 alumni interviews conducted, 66% used new desktops, while 34% experienced both old and new systems during the transition.

Relevance:

This intervention proved highly relevant by addressing the critical technological gaps in the IT labs, ensuring students had access to modern tools essential for their learning and skill development. The introduction of new computer systems directly responded to the inefficiencies of outdated desktops, which had hindered productivity and learning outcomes. By aligning the systems' capabilities with the program's objectives and the demands of a tech-driven job market, the intervention successfully bridged the gap between classroom learning and workplace readiness.

The introduction of new desktops significantly improved learning efficiency, aligning with students' needs for faster, more reliable systems. With enhanced speed, storage capacity, and hardware quality, the new systems enabled smoother multitasking, better comprehension of complex topics, and timely assignment completion. This upgrade was highly praised by students, with the majority expressing full satisfaction, underlining the intervention's success in meeting user needs. The reliable performance of the new systems ensured minimal disruptions, providing a stable environment that supported skill development and reinforced the intervention's relevance in preparing students for their future careers.



n=36 (those who used both old and new desktops)

EFFECTIVENESS

This intervention demonstrated remarkable effectiveness in equipping students with user-friendly tools, advanced technological skills, and enhanced learning experiences that directly contribute to their job readiness. By integrating modern systems like upgraded desktops, webcams, and projectors, the initiative ensured that students could efficiently develop industry-relevant skills in a technology-driven landscape.

Key Findings:

User-Friendliness of New Computers: An overwhelming majority of students found the desktops intuitive and easy to use (Extremely user-friendly – 65%, User-friendly – 34%) which significantly enhanced their productivity and engagement.

Skill Enhancement Through Technology: The intervention effectively improved job-oriented skills, including typing, advanced software usage (e.g., MS Office, Tally, and design tools), and internet navigation. Students highlighted improved typing speed, workflow efficiency, and mastery of professional software essential for workplace success.



Webcams for Virtual Readiness: The inclusion of webcams supported online interviews, virtual learning, and mock practice sessions, with students emphasizing their utility in professional scenarios. Clear video quality and ease of use were frequently highlighted as major advantages.

Interactive Learning with Projectors: The projectors transformed classrooms into dynamic learning spaces, enhancing the understanding of complex concepts through presentations, visual aids, and group activities. Students unanimously appreciated their contribution to an engaging educational environment.

Robust System Performance: The new desktops provided seamless multitasking and efficient handling of heavy software (yes always – 97%; yes sometimes – 3%) ensuring students could meet the demands of a competitive job market.

This intervention not only elevated the technical learning experience but also bridged the gap between theoretical knowledge and practical skills, equipping students with the confidence and capabilities required to excel in their careers.

EFFICIENCY

The intervention demonstrated high efficiency through the seamless performance of the new systems, which were instrumental in enhancing learning outcomes and supporting innovative teaching methods. With minimal technical issues and quick access to resources, students were able to focus on skill development without disruptions, showcasing the intervention's ability to maximize learning time and ensure smooth educational delivery.

Key Findings:

• **System Speed's Positive Impact:** All of the students reported a positive impact (very positive – 69%; positive – 31%) from the system's speed and performance, emphasizing how fast, reliable technology enhances learning efficiency by minimizing delays and enabling smooth multitasking.

				8	
How would you rate the	VERY	POSITIVE	NEUTRAL	NEGATIVE	VERY
impact of the speed and	POSITIVE				NEGATIVE
performance of the systems					
on your learning?	69%	31%	0%	0%	0%

Impact of System Speed and Performance on Learning

N= 105 (All students)

- **Reliability of the Systems:** Most students faced no technical issues (never 94%; rarely 6%), demonstrating the systems' reliability and the intervention's ability to maintain consistent functionality with minimal disruptions.
- **Improved Access to LMS:** All of the students reported a very large improvement in their access to the Learning Management System (LMS), reflecting the intervention's effectiveness in facilitating digital learning, critical for a learner-centered environment.
- **Effective Teaching Integration:** Every student (100%) confirmed that teachers successfully integrated the new systems into their teaching methods, indicating that the intervention fostered innovative teaching practices that further optimized learning outcomes.

These findings highlight how the intervention effectively utilized technology to streamline learning processes, reduce inefficiencies, and provide reliable tools that enhance both teaching and student experience.

IMPACT

The intervention demonstrated a significant impact on students' learning and career readiness by enhancing their technological and practical skills. The new systems not only improved access to learning resources but also streamlined assignment completion and provided real-world applications of professional software. These advancements bridged the gap between theoretical knowledge and jobspecific tasks, equipping students with the skills needed in the workforce.

Key Findings:

Enhanced Learning Efficiency: All students reported improved access to learning materials and more efficient assignment completion, contributing to better time management and skill application.

Impact of Technical Specifications on Learning Experience: All of the students noted a significant improvement in their learning experience, with all students acknowledging the positive influence of the new systems on their education and career preparedness.



Contribution of New Computer Systems to Learning Outcomes

Readiness for Technology-Based Careers: All students (100%) affirmed that the new desktops greatly contributed to their preparedness for technology-driven careers.

Perception of Technological Environment: Majority (61%) of students, rated the centre's technological environment as excellent, followed by good (39%) reflecting a successful implementation of the intervention.

Satisfaction with Equipment Quality: All (100%) of the students expressed satisfaction with the quality of the new desktops and equipment, with no students dissatisfied.

This evidence suggests that the upgraded technology has not only supported students in their learning but also enhanced their readiness for entering the technology-driven job market.

COHERENCE

The coherence of the intervention was evident in how well it integrated the tools and resources provided with the needs of the students and the demands of the job market. The training modules, digital tools, and systems were tailored to help students develop skills that are directly applicable to their careers. This alignment allowed students to enhance their proficiency and confidently apply their learning to real-world tasks, ensuring they were prepared for industry challenges.

The alignment of tools and software with industry standards played a pivotal role in ensuring the coherence of the intervention. By equipping students with resources that closely mirrored those used in the professional world, the program ensured a seamless integration of digital tools with the curriculum. This alignment allowed students to effectively apply the skills they acquired during training to real-world job requirements, reinforcing the program's coherence in fostering career readiness. The tools not only supported skill development but also provided practical experience in using software and technology critical to their future roles, ensuring that the learning process was both relevant and directly applicable to the job market.

SUSTAINABILITY

The sustainability of the upgraded systems has proven to be a key strength of the intervention, as students reported high levels of reliability and minimal maintenance issues. The systems have not only been stable

in their performance but also demonstrated long-term effectiveness, with students expressing confidence in their durability and continued functionality. This sustainability ensures that the learning environment remains conducive to skill development and job readiness in the long run.

The seamless functionality of the new desktops ensures that students can continuously access learning materials, complete assignments, and engage in practical skill applications without interruptions. As a result, the systems support both short-term educational outcomes and long-term career readiness, making them a sustainable asset for future training. The ability of the systems to maintain high performance with minimal technical issues reflects their durability, while the students' strong confidence in the infrastructure's longevity highlights the sustainability of the intervention as a whole. By providing students with a consistent, efficient learning environment, the intervention sets a solid foundation for continuous growth and development, reinforcing the importance of such technological investments for future education programs.

CONCLUSION AND RECOMMENDATIONS:

In India, where unemployment remains a challenge, especially in rural and semi-urban areas, digital skills are essential for improving job proficiency and employability. With limited access to quality education and training, equipping youth with relevant digital competencies is crucial. As industries increasingly adopt digital technologies, the lack of such skills widens the employment gap, leaving many disadvantaged. Digital literacy through platforms can bridge this gap, enabling youth to participate in the country's economic growth and empowering them with social mobility and career advancement. However, having the right infrastructure is key. The Deshpande Foundation has addressed this need by upgrading its IT labs with new computers, enhancing the training environment. These systems provide faster, more reliable performance, allowing students to master the digital tools and software required by today's job market. This initiative not only boosts learning efficiency but also prepares students for digital-driven careers, improving their employability and readiness for modern workplaces.

Based on the findings of the assessment, here are a few recommendations.

- Continued Investment in Technological Upgradation through regular upgrades to the technology infrastructure, ensuring that the tools and systems stay aligned with industry standards and evolving technological trends
- Comprehensive Maintenance and Support System to address minor usability concerns promptly, ensuring minimal disruption to learning and maximizing system longevity.
- Enhanced Focus on Practical Application of Digital Skills to focus on hands-on, practical applications of digital skills, providing students with opportunities to work on real-world tasks and projects.

Chapter 1

INTRODUCTION

1.1. CONTEXT

HDFC Bank undertakes its Corporate Social Responsibility (CSR) initiatives under the banner of 'Parivartan', a comprehensive program aimed at addressing key developmental challenges in India. Parivartan emphasizes the upliftment of communities, enabling them to transition from poverty to growth through interventions in various focus areas such as education, rural development, skill enhancement, livelihood improvement, healthcare, and financial literacy. These initiatives strive to empower communities in a sustainable manner, contributing to the country's social and economic development.

The Focused Development Program (FDP) of HDFC Bank CSR is one among its many important programs, where the Bank chooses an implementing partner with expertise in one of the focus areas and tries to improve the lives of the target beneficiaries around that particular focus area. Systematic routine monitoring and independent evaluations are regularly undertaken to assess the effectiveness of projects under their programs.

This research was commissioned to conduct an Impact Assessment of the FDP project P0638 on enabling digital skills for employability of educated rural youth from colleges in tier II/III towns and villages of North Karnataka by way of having well-equipped IT Labs with 600 desktops. The project was implemented by Deshpande Foundation (DF) between October 2022 to September 2023. The target mobilization areas for Deshpande Foundation were graduate youth (aged 18 – 25 years) from around 20 districts of Karnataka and border districts Maharashtra, Telangana & Andhra Pradesh.

1.2. STUDY OBJECTIVES

GOAL OF THE PROJECT

Enabling digital skills for employability of rural youth of North Karnataka by ensuring well-equipped IT Labs with 600 desktops

The intervention sought to bring about rural transformation by enhancing employability of youth in the organized sector by equipping them with job-oriented contemporary skills, much needed in the radically changing job market scenario. This SkillPlus-Residential program made use of innovative pilots, appropriate use of technology in classrooms and an integrated learning management system, to ensure that students are provided with customised training based on their individual learning curve.

Overarchingly, the Impact Assessment has sought to evaluate the efficacy, effectiveness of the project interventions, and sustainability of the project's outcomes. Since there are no baseline estimates for the implemented project, a retrospective recall approach was adopted for collecting baseline information, and thereby assess the impact.

Chapter 2

METHODOLOGY

This chapter describes the research methodology adopted for conducting the said Impact Assessment.

2.1. RESEARCH OBJECTIVE

The objective of the Assessment was to provide estimates on impact indicators in key domain areas along with evaluation of the efficacy, effectiveness of the project interventions and sustainability of the project's outcomes. The specific objective of this impact assessment was to assess how upgraded computer systems, have contributed to achieving the program's goals.

2.2. RESEARCH DESIGN

The research design for this study followed a **cross-sectional study design** with a mixed method approach for data collection.

The **mixed method approach** of data collection involved the following methods:

- 1. Observation Checklist for physical verification of IT labs having the desktops
- 2. Qualitative Key Informant Interviews (KIIs) with Program Staff and DF Engineer
- 3. Qualitative Focus Group Discussion (FGDs) with Project Beneficiaries (students)
- 4. Quantitative Telephonic Interviews with Project Beneficiaries (students)

The assessment will has used qualitative techniques of data collection to gain descriptive insights around the impact of this infrastructural support in enabling Deshpande Foundation to achieve its larger program objectives; quantifiable data will also be captured as part of this assessment through physical observation of the desktops at the Deshpande Skilling campus located at Vidya Nagar, Hubbali. Further, interview with project beneficiaries using a structured questionnaire was also conducted.

2.3. SAMPLE SIZE AND SAMPLING APPROACH

The project was targeted to cater to graduate youth from 20 districts hailing from rural and semi-urban areas of Karnataka and border districts Maharashtra, Telangana & Andhra Pradesh.

The qualitative component included, Focused group discussions (FGDs) conducted with alumni students at the alumni meet in Bangalore and with current students at the Deshpande Skilling campus. Key Informant Interviews (KIIs) were conducted with technical staff and programme staff at Deshpande Skilling. The selection of the persons was done purposively.

Qualitative Component	Targeted	Achieved
Focused Groups Discussion	4	4
with alumni students		
KII with Implementing	1	2
Partner - Program Staff		
KII with Implementing	1	1
Partner – IT Staff/ Engineer		
	6	7

Table 2.1: Qualitative sample size targeted and achieved

For the purpose of quantitative data collection, 100 alumni student beneficiaries were sought to be covered through telephonic interviews. This projects' focus and goal has primarily been infrastructural, with the ultimate aim to enhance user experience and thereby learning. While having access to appropriate technology is an important aspect of any skilling program, this alone is not a marker of enhanced student employability. In fact, the program, was not intended to have a direct link between desktop installation and student employability. Hence, a sample size of 100 quantitative interviews with passed out students is deemed sufficient for assessing the impact of this infrastructurally oriented project.

A sample size of 105 student beneficiaries was achieved. The students sampled for assessment were those who were from the cohorts after the installation of new equipment, particularly dated after 4th March 2023 and 22nd July 2023. It was also ensured that a few students from the cohorts, right before the installation of the new equipment to be included to get a comparative understanding of the experience of using both old desktops and new desktops.

Additionally, the IT Labs along with the newly installed systems were also sought to be observed and physically verified. A total of 14 labs were visited for the verification at Deshpande Skilling Centre at Vidya Nagar, Hubbali.

Table 2.2: Quantitative sample size targeted and achieved

	Targeted	Achieved
Quantitative interviews	100	105

2.4. STUDY TOOLS

The research tool developed was in alignment with the intervention done under the FDP, with the aim to arrive at quantifiable impact indicators and assessing the project's efficacy, effectiveness and sustainability of outcome. Project related documents as obtained for HDFC Bank CSR were studied to get detailed understanding of the project and hence develop the tools. The tools developed as part of this Assessment included the following:

- Quantitative questionnaire
 - o Survey with alumni students
- Observation checklist for IT Labs
- Key Informant Interviews (KII) Guide
 - Implementing Partner Program Staff
 - Implementing Partner IT Staff/ Engineer
- Focused group discussion (FGD) Guide
 - o Alumni and existing students on-campus

A structured quantitative tool was designed to assess the effectiveness and impact of the technical upgradation in the pedagogy and learning. The observation checklist was a semi-structured tool which included the physical verification of the newly installed equipment at the IT labs. This was done through assessment of the overview of availability, functionality and maintenance of the IT Labs.

The qualitative FGD/ KII Guide had questions to help draw qualitative insights in keeping with the scope of the Assessment, with special attention to assessing the project's efficacy, effectiveness and sustainability of outcome.

2.5. STUDY IMPLEMENTATION

The preparation for the Impact Assessment after commissioning from HDFC Bank CSR began in mid-December 2024. One of the important initial tasks was to study the project documents shared by HDFC Bank CSR, for developing an understanding of the project. HDFC Bank CSR organized a kick-off meeting between the NGO partner and MODEL Resource to discuss the project's activities and intended outcomes, ensuring a clear understanding for the effective development of tools. The study tools were then developed and shared with HDFC team for approval. The CAPI digital scripting was also undertaken in preparation for the field launch in addition to other field level preparation. Field Team Training for tele-callers was held on 26th December, 2024, for orienting and training the teams on the study protocols and quantitative tool. Soon after, data collection was launched from 27th December to 31st December. For the qualitative component, the 3 FGDs were conducted with the trained students at the alumni meet organized by Deshpande Foundation at Bangalore on 21st December. Whereas the remaining 1 FGD was conducted with current students, along with the KIIs with project and technical staff at the Deshpande Skilling Centre. The observation checklist was also administered through physical verification of the IT Labs.

This was followed by data processing, management, analysis and preparation of Report which was undertaken in the month of January.





IT Lab at Deshpande Skilling

Training session in progress

Informational wall display in the IT Lab



Projector in use



Newly upgraded computer systems in the IT lab



Students engaged in an ongoing training session



Computer equipped with a mounted webcam

2.6. DATA MANAGEMENT, ANALYSIS AND REPORTING

After completion of data collection, final data collation, checking and cleaning of the completed quantitative interviews were done. Like-wise, transcription and further content analysis was undertaken for the qualitative capsule. Once the data was cleaned, it was analysed and Draft Findings Report prepared on its basis. Descriptive statistical analysis using SPSS was conducted. For the qualitative data, thematic analysis was done to collate the findings of the intervention. Qualitative data analysis was conducted using NVivo, where transcripts were coded and organized into thematic nodes to identify patterns and insights. This facilitated a comprehensive thematic analysis, collating findings aligned with the intervention's objectives.

2.6.1. ANALYTICAL FRAMEWORK

This Report on the Impact Assessment of FDP P0638 has made use of the OECD DAC¹ criteria as an analytical framework. This framework defines six evaluation criteria – relevance, coherence, effectiveness, efficiency, impact and sustainability – and two principles for their use. These criteria provide a normative framework used to determine the merit or worth of an intervention (policy, strategy, programme, project

¹ <u>https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm</u>

or activity). They serve as the basis upon which evaluative judgements are made. This framework recommends adapting this framework, wherever feasible and applicable.



2.7. FIELDWORK CHALLENGES

A few challenges were encountered during the fieldwork, primarily around securing appointments with alumni students for quantitative interviews owing to their busy work schedules during the day. To address this, interviews were strategically conducted during evenings and weekends to ensure their availability and participation.

Chapter 3

STUDY FINDINGS

As outlined in the previous chapters, this particular FDP was focused on the 'promotion of employability' through skill-based training programs, primarily involving support to students in enhancing their technical and professional skills, creation of a robust learning environment for hands-on experience with upgraded technological tools, thereby leading to improved job readiness, higher employment opportunities, and engagement with prospective employers through campus placements and industry-aligned training modules.

This section presents key findings from the impact assessment study, starting with an overview of a process flow of the intervention gathered from insights from project and technical personnel, findings from the physical verification of the equipment. Further, findings of the beneficiaries surveyed and their background profile was analysed. The subsequent sections analyse findings using the OECD DAC framework, focusing on the Relevance, Effectiveness, Impact, Coherence, and Sustainability of the training interventions. The conclusions are based on both quantitative and qualitative data collected from all beneficiaries.

This current chapter analyses the key project impact achieved through our analytical framework outlined in section 2.6.1, assessing the level of impact.

3.1. DIGITAL TRANSFORMATION FOR ENHANCED LEARNING: QUALITATIVE INSIGHTS FROM PROJECT AND TECHNICAL PERSONNEL

This process diagram outlines the journey of transforming outdated computer systems into a robust and efficient digital infrastructure, guided by qualitative insights from project personnel and technical staff.

Figure 3.1: Process flow diagram of the intervention



Identifying Issues with Old Computers: The intervention began by addressing several challenges with the old computer systems. These included frequent shutdowns, slow performance, outdated software versions, and compatibility issues with critical tools like PowerPoint. Students experienced significant disruptions, such as files taking excessive time to load, system crashes when running multiple applications, and even loss of data. The limitations of the older systems were hindering learning and productivity.

Understanding Requirements for New Desktops: To overcome these issues, specific requirements for new desktops were identified. The new systems needed to have updated hardware, such as 11th-generation processors, a minimum of 8GB RAM, and at least 256GB of storage. These specifications ensured compatibility with modern software and improved performance for multitasking and learning needs.

Quotation and Procurement Process: A structured procurement process was followed, ensuring costeffectiveness and quality. Vendors provided three quotations, and the best option was selected based on price and compliance with the technical requirements. The systems were procured according to specifications to meet the needs of the students and trainers.

Impact of the New Systems: The new desktops had a transformative impact on the learning experience. Students were able to complete tasks more quickly and efficiently, improving typing speed and multitasking capabilities. Trainers also benefitted, as they could teach faster and cover more content. Enhanced performance allowed students to use multiple tools like Tally, Zoom, and Excel simultaneously, preparing them for real-world job requirements.

Maintenance and SOP Implementation: A robust maintenance system was introduced to ensure the longevity of the new desktops. SOPs were developed and shared with students to guide proper system usage, including correct shutdown procedures. Regular maintenance schedules, including deep cleaning and quarterly checks, were implemented. Students and trainers monitored desktops post-class, creating a sense of ownership and reducing maintenance costs by minimizing the need for external staff.

Suggestions for Further Improvement: To enhance the intervention further, several suggestions were made. These included increasing RAM and storage capacity, improving projector bulbs for better functionality, and introducing Train-the-Trainer programs to upskill trainers. Addressing gaps in storage allocation, such as providing separate drives for users, was also recommended to improve system efficiency and user experience.

"Computer and digital skills are very much important for getting jobs. It is one of the very important skills and non-negotiable skills. Having the older system was not efficient; it was not even supporting the curriculum what we have or the software such as MS Office 2021"

- Program Director, Skill Plus

"Students have been able to learn important and employable skills. More than 90% students were able to learn typing speed between 25 to 30 words per minute, using excel formulas, communication apps such as Zoom, Google Meet, Microsoft Teams."

- Program Director, Skill Plus

"Now we have created student leaders in every batch, they have to check whether all desktops have shut down or not they have to oversee all this after their class."

- IT Head, Deshpande Skilling

3.2. FINDINGS BASED ON PHSICAL ASSESSMENT OF DESKTOPS

The physical assessment of the newly installed equipment was conducted across the 14 IT Labs located at the Deshpande Skilling laboratory. The focus was on evaluating the installed computers, webcams, and projectors, in addition to interacting with the technical staff for further insights. The objective was to evaluate the number and condition of these equipment and ensure their alignment with the training



needs. The findings revealed that there are a total of 600 desktop computers spread across 14 IT labs within the facility. Additionally, 52 webcams and 2 projectors have been installed to support various training activities.



Figure 3.2: Physical assessment of new desktops

Further, the observation checklist provided key insights into the overall condition and functionality of the equipment. While some desktops displayed the HDFC Bank CSR logo, most of them were free from visible damage such as scratches, dents, or broken parts. All of the computers powered up correctly and were fully functional, as were all additional accessories, including the mouse and keyboard. In terms of webcams,

some were securely mounted on the desktops and were free of damage. All projectors were found to be in good condition, free from visible damage, and their ports (HDMI, VGA, USB) were fully functional. The brightness and resolution of the desktop screens were found to be adequate for clear viewing on some systems. Furthermore, all relevant training programs, including MS Office, Learning Management Systems, and Enterprise Resource Planning software, were functioning efficiently. The lab also maintained a system for recording maintenance checks and repairs, and the equipment, including desktops, webcams, and projectors, was found to be free from dust and well-maintained. While the observation revealed effective overall performance, it also highlighted some areas for improvement, such as webcam mounting and desktop screen clarity.

FINDINGS BASED ON QUANTITATIVE INTERVIEWS WITH BENEFICIARIES

3.3. BENEFICIARY PROFILE

For assessing the impact of the intervention through the installation of desktops, webcams and projectors; a total of 105 alumni students of Deshpande Skilling were interviewed. These interviews were conducted with alumni students who had attended the skilling program after the installation of new desktop systems after March 2023. Among these 105 alumni students interviewed, 66 percent alumni students were those who used new desktop systems (Figure 3.2). Further, to get a comparative response of the functioning of old and new systems, a few students who attended the skilling programme during the transition of the desktop installation were also interviewed. In this category, a total of 34 percent of the students were interviewed.





Among the 105 beneficiaries who were part of the quantitative sample for telephonic interviews, 57 percent were male, and 43 percent were female. In terms of the course distribution of students interviewed, a majority of students, 69 percent, were from the DKF program. This was followed by 22 percent from the DSF program and 10 percent from the DIT program. On being asked about the primary motivation for joining the training program, the desire to have increased income was cited as the key reason, affirmed by 79 percent of participants. Encouragement from parents followed closely at 77 percent, while 76 percent were motivated by the opportunity to improve job prospects. Additionally, 72 percent joined the program based on recommendations from others, and 69 percent sought to gain new skills. These findings indicate that financial growth, family support, and career enhancement were significant factors influencing their decision to enrol.

In addition, the employment status of the students revealed that the majority, 90 percent, were currently employed in a company. A smaller percentage, 7 percent, were unemployed, while 3 percent were self-employed. This indicates a generally positive employment outcome for the students after their training. Regarding campus placements at Deshpande Skilling, a significant majority of students, 80 percent, secured employment through the placement program. On the other hand, 20 percent of students did not find employment through campus placements.

3.4. RELEVANCE - Is the intervention doing the right things?

3.4.1. COMPARATIVE EXPERIENCE WITH OLD DESKTOP SYSTEMS

The intervention was intended towards ensuring the upskilling of the rural youth to ensure that they are equipped to secure employment and meet market-level requirements. To keep students engaged with the most relevant pedagogy, it was important to provide them with the most suitable tools for their learning needs. As computer systems can become inefficient and difficult to use over a period of time, students faced various challenges in their usage. Among the 105 students interviewed, 36 students who had used both old and new computers were able to provide insights about the challenges faced in the functioning of the old computer systems. Although this is a small number, these students provided essential insights into the challenges that they faced, further reiterating the relevance for the intervention through installation of new computer systems.



Figure 3.5: Challenges faced while using

n=36 (those who used both old and new desktops)

In this, 92 percent students reported that they faced challenges in the functioning of the computers owing to their slow performance. Further, 58 percent said there were insufficient number of systems for students use; and 53 percent reported that the computers had outdated software. Another 36 percent students reported that they faced challenges of frequent technical issues such as hang/crash.

Further, through qualitative insights the alumni highlighted the relevance of the intervention in aligning their skills with market demands. They mentioned that Deshpande University guided them not only in acquiring current skills but also in preparing for future career opportunities. Additionally, they noted that the curriculum was designed to reflect market trends, with the new computer systems being regularly updated to meet industry standards, ensuring that they were equipped with the latest tools and knowledge to succeed in their respective fields.

"We are from a rural area and we lack English communication. We also don't have any facility to learn computer related work. We just completed our education and we wanted to study more."

- FGD with alumni students

Further to this, the students who used both old and new computers were asked about a comparative user experience of new computers, in relation to old computers, on a five-point scale; as shows in figure 3.4. Among those 36 students, all of them expressed overall satisfaction, with 89 percent reporting being fully satisfied; and 11 percent students reporting being satisfied.



 Figure 3.6: Satisfaction with user experience of new computers as compared to old computers

 89%
 11%
 0%

 89%
 11%
 0%

 Fully satisfied
 Satisfied

 About the same
 Somewhat satisfied

 Not satisfied

n=36 (those who used both old and new desktops)

issues with the old computers, highlighting frequent technical problems. The old desktops were slow, often freezing or getting stuck during tasks, which led to significant delays, sometimes taking up to an hour to complete simple tasks. There were also issues with the hardware, such as keyboards where keys would come loose, and the computers had low RAM and outdated processors, which hindered multitasking, including difficulties with opening multiple files or Excel tabs. Additionally, the old systems had connectivity problems, with internet cables frequently becoming detached. The outdated software and the frequent need for updates were also mentioned as frustrating elements. In contrast, the new systems offered a much smoother, faster, and more efficient experience, addressing these problems and significantly improving the overall user experience.

3.4.2.EXPERIENCE WITH NEW DESKTOPS

Next, all students (n=105), were asked a technical question to assess the features that they liked and appreciated in the new desktops. It was reported that the students appreciated the most was ease of use (78%); storage capacity (78%); speed and performance (75%); faster internet connectivity (71%); hardware features (70%); display quality (67%); and design build and quality (48%). These features appreciated by students further highlight the relevance of the installation of the new desktop systems. These findings demonstrate that the intervention was well-targeted to meet the needs of students and the program's objectives. The features appreciated by the students directly address the requirements for job-oriented skill development in a technology-driven job market, affirming the relevance of installing the new desktop systems.



Further through the qualitative discussions with alumni students provided valuable insights into their experiences. Students highlighted the exceptional display quality of the systems, emphasizing that the clarity and vividness of visuals significantly enhanced their learning experience. The accurate and sharp visuals not only facilitated better understanding but also made complex concepts easier to grasp. Participants also appreciated the compact and sleek design of the computers.

The hardware of the computer systems was also praised by alumni students during the focus group discussions. Participants noted that the CPU was compact. Further, they also emphasized the high quality of the hardware components, particularly highlighting the keyboard for its smooth and soft feel, which made typing a comfortable and efficient experience. Students further remarked on the quality of accessories such as the mouse and other hardware elements, describing them as durable, reliable, and of superior quality.

The storage capacity of the new computer systems was highlighted as a significant advantage by alumni students during the focus group discussions. Participants appreciated the ample storage space provided by the systems, which allowed them to store a large volume of files, including assignments, learning materials, and project data, without any concerns about running out of space.

"We can store our data permanently now. Before, when 4 to 5 members were using one PC then there might be chances to delete my data. But now I have my own assigned desktop hence I can save my data and it is easy to access.

- FGD with alumni students

	•				
	Fully Satisfied	Satisfied	Somewhat Satisfied	Not Satisfied	
SATISFACTION WITH NEW DESKTOPS IN TERMS OF USER EXPERIENCE	78%	22%	0%	0%	
	Yes, always	Yes, Most of the Time	Neutral	Rarely	No
EFFECTIVENESS OF NEW DESKTOPS IN LEARNING AND ASSIGNMENT COMPLETION	80%	20%	0%	0%	0%
U					
$\widehat{}$	Never	Rarely	Occasionally	Often	Always
INCIDENCE OF DELAYS OR DISRUPTIONS WITH NEW DESKTOPS	89%	11%	0%	0%	0%
-					

Figure 3.7: Experience with new desktops

N= 105 (All students)

Satisfaction with user experience: The intervention's relevance was further reinforced by assessing student satisfaction with the new desktops in terms of user experience. The results were overwhelmingly positive, with 78 percent of all 105 students surveyed reporting that they were fully satisfied with the desktops and 22 percent expressing that they were satisfied. The high satisfaction levels demonstrate that the desktops

provided a seamless and productive user experience, addressing the students' needs effectively and supporting the program's goal of equipping youth with contemporary, job-oriented skills.

Learning and completing assignments on time: Further, the assessment also explored whether the new desktops effectively met the students' needs for learning and completing assignments. The findings indicate a resounding success in this regard, with 80 percent of students affirming that the desktops always met their learning and assignment needs. Another 20 percent reported that the desktops met their needs most of the time. Importantly, no respondents indicated a neutral, rare, or negative experience, underscoring the consistent reliability and functionality of the desktops in supporting their academic endeavours.

Reliability and Relevance of New Desktops in Skill Development: Next, the assessment also explored whether the new desktops provided a reliable and uninterrupted learning experience for students. The findings revealed that 89 percent of students reported never experiencing delays or disruptions while using the systems, and 11 percent indicated that such issues were rare. Importantly, no respondents reported encountering disruptions occasionally, often, or always.

By providing students with high-quality, reliable tools tailored to their academic and vocational aspirations, the intervention ensured that the resources were aligned with the rapidly evolving demands of the job market. These findings confirm that the program was not only doing the right things but also addressing the right challenges, thereby solidifying its relevance in fostering rural transformation through skill development.

3.5. EFFECTIVENESS – Is the Intervention achieving its objectives?

This section examines the effectiveness of the intervention in achieving its primary objectives of enhancing the learning experience, improving accessibility, and equipping students with job-oriented skills.

User-friendliness of new computers: More than half of the students (65%) found the desktops to be extremely user-friendly, while 34 percent described them as user-friendly. Only one respondent (1%) expressed a neutral opinion, and no students reported the systems as difficult or extremely difficult to use. These results highlight the intervention's success in providing systems that were intuitive and easy to navigate, which likely contributed to a more engaging and productive learning experience.



N= 105 (All students)

Further through qualitative assessment, the new computer systems were widely praised for their userfriendly nature, making them highly suitable for both learning and practical applications. Students highlighted that the systems performed smoothly without any interruptions or glitches, which significantly enhanced their overall experience. The fast and efficient processor was particularly appreciated, as it ensured seamless functionality and allowed users to complete tasks quickly and efficiently.

Skill Enhancement Through Advanced Technology: The intervention's effectiveness was further evaluated by analysing the skills students developed or improved by using the new desktops. As seen in figure 3.8, the results were highly encouraging, with all students (100%) reporting improvements in key job-oriented skills such as typing, using professional software (e.g., MS Office, design tools), conducting research and navigating the internet, creating presentations or reports, and learning software commonly used by potential employers.

Additionally, 11 percent of students reported developing programming or coding skills, which reflects the desktops' capacity to support more advanced skill-building. These findings illustrate the intervention's substantial impact in equipping students with contemporary and industry-relevant skills, directly contributing to the program's objective of enhancing employability through technology-integrated education. The wide range of skills improved underscores the desktops' versatility and effectiveness in meeting diverse learning needs.





N= 105 (All students)

Qualitative inputs from students also highlighted that the intervention significantly contributed to enhancing students' skills and familiarizing them with advanced tools. Many reported an improvement in their typing speed, which streamlined their workflow. Students gained proficiency in advanced Excel, MS Office, Google applications, and updated versions of Tally, which were instrumental in equipping them for professional tasks. The training transitioned students from relying heavily on manual, long-form processes in basic applications to using advanced shortcuts and tools, saving considerable time and effort.

"Yes, we are working efficiently at work because of the training that we have got. Sometimes we feel that we are better compared to people who have been working at our office for many years. Because we have got the complete knowledge and skills."

- FGD with alumni students

How helpful were the webcams in preparing for online interviews or virtual	EXTREMELY HELPFUL	HELPFUL	NEUTRAL	NOT HELPFUL
session?	80%	20%	0%	0%

Figure 3.9: Role of Webcams in Preparing for Online Interviews and Virtual Sessions

N= 105 (All students)

Role of webcams: As part of the intervention, 52 webcams were installed to help students prepare for and participate in online interviews and virtual sessions. As referenced from NGO documentation, these webcams were reportedly procured using remaining funds after the purchase of desktops, highlighting efficient resource allocation. The effectiveness of this initiative was evident from the overwhelmingly

positive feedback – 80 percent of students found the webcams extremely helpful, while 20 percent described them as helpful. No respondents expressed neutrality or dissatisfaction, nor did anyone indicate that webcams were not applicable to their needs.

To further evaluate the effectiveness of this initiative, students were asked to identify the specific aspects

of the webcams they found most useful. Clear video quality, which contributed to a professional online presence, was highlighted by 42 percent of students as the most valuable feature. Accessibility for mock interviews and practice sessions was appreciated by 38 percent of students while 20 percent emphasized the ease of use and setup during interviews or virtual sessions.

These findings demonstrate that the webcams not only supported technical functionality but also facilitated skill development and confidence building in online communication – a critical competency in



N= 105 (All students)

today's job market. The targeted impact of the webcams aligns well with the program's objective of enhancing employability through technology-driven interventions.

Qualitative insights gathered through the FGDs with alumni students revealed strong positive feedback on the webcams. Participants praised the excellent clarity and sharpness, which enhanced their readiness for online interviews and meetings. They highlighted the usefulness of the webcams for mock interviews, while others noted their importance for job assessments that require eye monitoring. Additionally, the webcams were seen as essential for ensuring transparency in virtual assessments. Overall, the webcams were considered highly beneficial for both preparation and participation in industry-related assessments.

"Webcam was really good because nowadays they do online interviews. It was very helpful to take mock interviews and get ready for the actual ones."

- FGD with alumni students

To what extent did the projectors contribute in your	TO A VERY LARGE EXTENT	LARGE EXTENT	NEUTRAL	TO SOME EXTENT	NOT AT ALL
enhanced learning experience?	45%	55%	0%	0%	0%

Figure 3.11: Impact of Projectors on Enhancing Learning Experience

N= 105 (All students)

Role of Projectors: As part of the intervention, two projectors were installed to enhance students' learning experiences by supporting tally classes, project-based learning, and various event activities. The projectors played a pivotal role in creating an engaging and interactive educational environment. When students were asked to evaluate the extent to which the projectors contributed to their enhanced learning experience, the response was overwhelmingly positive. More than half of the respondents (55%) reported that the projectors contributed to a large extent, while 45 percent stated they contributed to a very large extent. No students expressed neutrality or reported limited or no contribution from the projectors.

Further, the students were asked about the specific uses of the projectors that they found most beneficial, with all respondents (100%) highlighting the utility of displaying presentations and training material during sessions. Similarly, 100% of students appreciated the use of projectors for visual aids, such as diagrams and videos, which helped in understanding complex topics. Additionally, the projectors were highly valued for facilitating group activities and discussions using projected content, further enriching the collaborative learning experience.

These results underscore the projectors' effectiveness in fostering a dynamic and collaborative learning environment, enabling students to better grasp concepts and actively participate in classroom activities. The intervention's focus on integrating projectors into the curriculum effectively supported the program's objective of



leveraging technology to enhance employability-focused education.

The alumni students shared their experiences with the upgraded projectors, highlighting significant improvements. They noted that previous projectors had issues like blurriness and blinking, especially when fans were turned on. In contrast, the new projectors provided clearer graphics and better picture quality, making it easier for them to understand the content being presented. This enhancement contributed positively to their learning experience, as it improved both visibility and comprehension during sessions.

"Performance is good because overall in a class we have around 48 students and cannot spend time with each and every student, we show it in a projector for all the students which is helpful."

• Deputy Manager, Deshpande Skilling

"With the projector even for the person who was teaching us also it was very helpful. Even for the person who is sitting at the back could learn each and everything at the real time. Each and every person was able to read it properly"

FGDs with alumni students

Enhanced Learning Experience Through Robust System Performance: The performance of the new desktops significantly contributed to the effectiveness of the learning environment by enabling multitasking and seamless functionality. A majority of the students (97%) reported that the desktops always allowed them to open multiple tabs, use heavy software, and manage large files quickly, while 3 percent stated this was possible sometimes. No respondents faced limitations in this regard, highlighting the robust performance of the systems in handling demanding tasks.



"We can work in multiple windows at a time, which means we will be searching for something on Google and at the same time we can also run something in ChatGPT, so the present system supports multitasking."

- FGDs with alumni students

"Students are using multiple software simultaneously like tally, hardware networking software and they were using ICT MS office and even Zoom. In previous system, we were using one tool at a time but now students are doing multiple activities."

- Program Director, Skill Plus

3.6. EFFICIENCY – Is the intervention utilizing resources (time, technology, and effort) to achieve desired outcomes with minimal waste?

This section evaluates how efficiently the intervention leveraged resources – including the installed desktops, projectors, and webcams – along with time and effort, to enhance students' learning experiences and skill development, ensuring the optimal use of technology to achieve the program's objectives.

Figure 3.14: Impact of System Speed and Performance on Learning

How would you rate the impact of the speed and performance of the systems on your	VERY POSITIVE	POSITIVE	NEUTRAL	NEGATIVE	VERY NEGATIVE
learning?	69%	31%	0%	0%	0%

N= 105 (All students)

Impact of Speed and Performance on Learning Outcomes: The speed and performance of the newly installed systems emerged as a critical factor in ensuring the efficiency of the intervention. When students were asked to rate the impact of these features on their learning experience, an overwhelming majority expressed positive outcomes. Specifically, 69 percent reported a very positive impact, while the remaining 31 percent described the impact as positive. No respondents expressed neutrality or dissatisfaction, highlighting the systems' ability to deliver consistent and high-speed performance, which played a key role in optimizing time spent on learning activities. These findings underscore the intervention's efficient use of technological resources to meet its objectives without unnecessary delays or disruptions.

Figure 3.15: Technical Issues Encountered with New Systems

Did you ever face any technical issues with the new systems?	NEVER	RARELY	OCCASIONALLY	FREQUENTLY
	94%	6%	0%	0%

N= 105 (All students)

Reliability of the New Systems: The efficiency of the intervention is further highlighted by the minimal technical issues reported by students while using the new systems. When asked about their experiences, 94 percent stated they never faced any technical issues, while 6 percent reported encountering issues only

rarely. No respondents reported occasional or frequent technical difficulties, indicating that the systems were not only reliable but also well-maintained to ensure seamless functionality.

Ease of access to learning management systems: At Deshpande Skilling, the locus is learner-centred with blended learning approach of classroom and student-led learning. The 'Flipped Classroom' model emphasizes active learning and application, requiring students to engage with Learning Management Systems (LMS) for accessing reading materials, research content, and preparatory resources prior to classroom discussions. When asked about the extent to which the new computer systems facilitated access to the LMS, 42 percent of students reported that it made access easier to a very large extent, while 58 percent stated it helped to a large extent. None of the respondents indicated neutrality or dissatisfaction, underscoring the efficiency and reliability of the systems in meeting the requirements of the digital education model.

Figure 3.16: Ease of Access to Learning Management Systems Using New Computers

To what extent did the new computer systems made it easy for you to access the learning	TO A VERY LARGE EXTENT	LARGE EXTENT	NEUTRAL	TO SOME EXTENT	NOT AT ALL
management systems?	42%	58%	0%	0%	0%

N= 105 (All students)

Innovative Teaching Methods Enabled by Technology: The success of the intervention is further evident in the effective utilization of the computer systems by teachers for innovative teaching methods. All students (100%) unanimously agreed that the teachers leveraged the new systems effectively, integrating them into their pedagogical strategies.



N= 105 (All students)

Figure 3.17: Satisfaction with the Quality of New Desktops and Equipment for Learning

Were you satisfied with the quality of the new desktops and related equipment for	VERY SATISFIED	SATISFIED	NEUTRAL	DISSATISFIED	VERY DISSATISFIED
the purpose of your learning?	57%	43%	0%	0%	0%

N= 105 (All students)

Satisfaction with the Quality of Desktops and Equipment: The quality of the newly installed desktops and related equipment was another critical aspect of the intervention's efficiency. When asked about their satisfaction, 57 percent of the students expressed being very satisfied, while the remaining 43 percent stated they were satisfied. Not a single respondent reported dissatisfaction or neutrality, underscoring the high quality of the equipment provided.

3.7. IMPACT - What difference does the intervention make?

This section will focus on the impact of the intervention, specifically examining the long-term and significant changes it has brought to the learning environment and skill development of the students. By analysing the extent to which the intervention's objectives have been met, this section evaluates how the installation of new desktops, projectors, and webcams under the Deshpande Skilling initiative has contributed to equipping students with job-oriented skills, enhancing their employability, and fostering rural transformation.

Figure 3.18: Word Cloud Depicting Positive Aspects of New Desktop Devices: Insights from FGDs with Alumni and Current Students



Note: Word font size is in proportion to the frequency of its use

The NVivo software was utilized to analyse qualitative data from FGDs conducted with alumni and current students, focusing on their experiences with the new desktop devices. This analysis demonstrates how the intervention successfully addressed prior challenges, creating a conducive environment for skill development and application.

Enhanced Learning Efficiency Through Technological Support: The new computer systems significantly enhanced the efficiency of the learning process by providing essential support across key areas. All students (100%) reported that the systems facilitated access to learning materials, ensuring they could easily retrieve and utilize resources necessary for their education. Additionally, the systems were instrumental in improving the speed of completing assignments, with all respondents acknowledging their contribution to optimizing time management. Furthermore, the computers enabled the practical application of skills, such as hands-on use of professional software and tools, which are critical for bridging the gap between theoretical knowledge and workplace requirements.



Figure 3.19: Contribution of New Computer Systems to Learning Outcomes

"We did not know anything about copy and paste options and there are many things we do not know but now we have learnt everything and also starting from the basic switch on to switch off everything we have learnt. We didn't know how to shut down the computer before but we have learnt so many things.

FGD with alumni students

Did the technical specifications of the new computer systems help in anhancing your avanal	YES, SIGNIFICANTLY	TO SOME EXTENT	NEUTRAL	NO
learning experience?	90%	10%	0%	0%

Figure 3.20: Role of Technical Specifications in Enhancing Learning Experience

N= 105 (All students)

When students were asked about the role of the technical specifications of the new computer systems in enhancing their overall learning experience, a majority of 90 percent reported that the systems significantly improved their experience, while 10 percent felt the improvement was to some extent. No students reported a neutral or negative experience, underscoring the positive and impactful role of the intervention in shaping their educational journey and career readiness.

Figure 3.21: Effectiveness of Desktops in Preparing for Technology-Based Job

Do you think the desktops helped you in your preparation	YES, DEFINITELY	YES, SOMEWHAT	NEUTRAL	NOT ALIGNED
for technology-based job roles:	89%	11%	0%	0%

N= 105 (All students)

Impact of Desktops on Readiness for Technology-Based Careers: All students (n=105) reported that the desktops helped them in their preparation for technology-based job roles. Of these, 89 percent stated that

the desktops were "definitely" helpful, while 11 percent felt they were somewhat helpful. This indicates a strong positive impact of the intervention in preparing students for careers in technology-driven fields.

Figure 3.22: Overall Impression of the Centre's Technological Environment

What is your overall impression of the centre's technological environment?	EXCELLENT	GOOD	AVERAGE	BELOW AVERAGE	POOR
teennological environment.	61%	39%	0%	0%	0%

N= 105 (All students)

Students' Perception of the Centre's Technological Environment: All students (n=105) were asked about their overall impression of the centre's technological environment. The majority, 61 percent, rated it as excellent, while 39 percent rated it as good. This overwhelmingly positive feedback underscores the successful integration of technology into the learning environment and highlights the effectiveness of the intervention in enhancing students' educational experiences.

3.8. COHERENCE

This section examines the coherence of the intervention, focusing on how well the program aligns with broader institutional goals, regional needs, and the technological and skill-based demands of the job market.

Figure 3.23: Alignment of Installed Tools and Software with Industry Standards

How aligned were the tools and software installed on the	FULLY ALIGNED	PARTIALLY ALIGNED	NEUTRAL	NOT ALIGNED
industry standards of your field?	91%	9%	0%	0%

N= 105 (All students)

Alignment of Tools and Software with Industry Standards: When assessing the alignment of the tools and software installed on the upgraded systems with industry standards in their respective fields, 91 percent of students reported that the tools were fully aligned, while 9 percent stated they were partially aligned. No students expressed neutrality or non-alignment.

Relevance of Digital Tools in Skill Development: All the students (100%) reported that the digital tools provided were helpful in practicing the skills required for acquiring their target jobs. This indicates a strong positive impact of the intervention, demonstrating that the upgraded computer systems, with their associated digital tools, effectively supported students in honing job-specific skills essential for their career advancement.



Through FGDs, students shared that they are able to effectively apply the digital skills and knowledge acquired during the program to their workplace tasks, often outperforming their peers who lack similar

training. They emphasized that the program has equipped them with industry-relevant competencies, giving them a significant edge in their professional environments. Additionally, insights from KIIs with program staff revealed a dedicated effort to ensure that the learning modules are consistently aligned with the latest industry requirements, ensuring that the skills imparted remain relevant and beneficial for job readiness.

3.9. SUSTAINABILITY - What the benefits of the intervention last?

This section examines the sustainability of the intervention, focusing on the long-term viability of the new computer systems and their continued effectiveness in meeting students' learning needs. It explores whether the systems are capable of being maintained and supported over time, ensuring ongoing positive impacts without significant resource depletion or issues.

Stability and Long-Term Effectiveness of the Systems: The findings reveal that the vast majority of students (92%) did not observe any maintenance or support issues with the newly purchased computer systems. Only a small proportion (8%) reported having observed some issues, indicating that the systems were largely stable and functional. This high level of satisfaction suggests that the new desktops are likely to continue being effective in the long run, with minimal need for intervention.



Maintenance Issues and Usability Concerns: Among the small

percentage of students who observed maintenance issues (n=8), the most commonly reported problems were slow performance after extended use (63%) and hardware malfunctions, including issues with keyboards, mice, or monitors (50%). These issues are relatively minor but can have a notable impact on usability over time. A few students also reported software compatibility issues (25%) and lack of regular software updates (25%), which can affect system functionality and security. Additionally, one student mentioned experiencing frequent system crashes or freezing (13%) and insufficient technical support for troubleshooting (13%).

Despite these concerns, the overall incidence of maintenance issues remains low, and the types of issues reported are manageable with proper support and regular maintenance. The findings suggest that while there are occasional hiccups, the new computer systems are largely stable and sustainable for long-term use with minimal intervention.





n= 8 (Those students who observed maintenance issues)

How likely are you to recommend this training centre to others based on the	VERY LIKELY	LIKELY	NEUTRAL	UNLIKELY	VERY UNLIKELY	
technological facilities?		66%	34%	0%	0%	0%

Figure 3.26: Likelihood of Recommending the Training Centre for Its Technological

N= 105 (All students)

Student Satisfaction and Likelihood of Recommendation: All the students interviewed confirmed the likelihood (Very likely – 66%; Likely – 34%) of recommending the training centre to others based on its technological facilities. This high level of satisfaction suggests that the technological infrastructure provided, including the upgraded desktops, software, and other tools, is positively perceived by the students and is seen as an asset to their learning experience. None of the students reported being neutral or unlikely to recommend the centre, indicating strong endorsement of the technological environment provided.

"We have developed a standard operating procedure for the students for the computers. They know the instructions like they are not allowed to switch off directly, they have to follow the process to switch off and switch on."

- Program Director, Skill Plus

In your opinion, how sustainable are the computer systems for long-	VERY SUSTAINABLE	SUSTAINABLE	NEUTRAL	NOT SUSTAINABLE	NOT AT ALL SUSTAINABLE
term usage?	53%	47%	0%	0%	0%

Figure 3.27: Sustainability of Computer Systems for Long-Term Usage

N= 105 (All students)

Sustainability of the Computer Systems: Similarly, all the students interviewed, consider the computer systems to be overall sustainable for long-term usage, with 53 percent confirming the same to be Very Sustainable and 47 percent viewing them as Sustainable. These responses indicate a strong belief in the durability and longevity of the systems, suggesting that the technology is perceived as robust enough to support long-term learning and job preparation needs. None of the respondents indicated concerns about the systems' sustainability, highlighting a high level of confidence in the ongoing viability of the infrastructure.

"We have a fixed schedule of 15-20 days; we check all the desktops"

- IT Head, Deshpande Skilling

"We guide students on proper shutdown, turn on and restart on the first day itself, we train them on maintaining the basic settings where they can maintain their system; clearing recycle bin which comes under basic maintenance and they are working on it and also increases the durability"

Deputy Manager, Deshpande Skilling

Chapter 4

DISCUSSION – Analysis as per OECD–DAC Framework

The OECD DAC framework has defined 6 evaluation criteria – relevance, coherence, effectiveness, efficiency, impact, and sustainability. These criteria provide a framework used to determine the worth of an intervention. They serve as the basis upon which evaluative judgments are made. This section analyses the findings of the study as per the given evaluation criteria.

4.1. RELEVANCE

The relevance of this Focused Development Project is highlighted through the technological upgradation of IT labs and the upskilling of youth at Deshpande Skilling, facilitated by the installation of advanced desktops, webcams, and projectors.

Further, it was intended to ensure that the students are exposed to the most relevant pedagogy to learn the most relevant skills necessary for the industry. It was all the more imperative as the previous desktops systems were inefficient and posed multiple challenges in functioning. The previous desktop systems were reportedly slow, with outdated software and frequently crashed during learning. Hardware and attached accessories such as keyboards and mouses posed frequent challenges in usage. Contrastingly, the new desktop systems provided a much smoother and faster experience, addressing the multiple challenges being faced and improving overall experience. The compact build and the seamless functioning allowed for opportunities of enhanced learning.

The intervention equipped students with high-quality, dependable tools designed to meet their academic and career goals, ensuring alignment with the fast-changing demands of the job market. The program effectively tackled key challenges while pursuing the right objectives, reinforcing its significance in driving rural transformation through skill development.

4.2. EFFECTIVENESS

The study has also attempted to understand how well the intervention has attempted to achieve the intended goals or outcomes. The effectiveness of the intervention through enhanced learning experience, improved accessibility, and equipping students with job-oriented skills were assessed.

The intervention demonstrated significant success in improving the educational experience through userfriendly and high-performance systems. These systems facilitated skill enhancement, ensured ease of access to learning management platforms, and supported innovative teaching methodologies. By addressing critical gaps in technological infrastructure, the intervention enhanced learning outcomes and better aligned students' preparation with professional requirements.

- The new desktop systems were **user-friendly** with their intuitive design and **seamless functionality**. This high level of accessibility likely played a key role in enhancing students' engagement and productivity, underscoring the intervention's success in aligning the technology with user needs.
 - Extremely user friendly (65%); User-friendly (34%)
- The new desktops **enhanced students' job-oriented skills**, equipping them with proficiency in typing, professional software, research, and digital tools essential for workplace readiness. By fostering practical expertise in commonly used applications and platforms, the initiative bridged

the gap between academic learning and industry requirements, preparing students to meet professional expectations with confidence.

- Typing (100%); Using professional software e.g., MS Office, design tools (100%); Conducting research and navigating the internet (100%), Creating presentations or reports (100%), Learning software commonly used by potential employers (100%); and Coding (11%).
- The webcams contributed beyond technical functionality, playing a pivotal role in fostering skill development and **building confidence in online communication** an essential competency in the modern job market. This outcome aligns closely with the program's objective of leveraging technology to enhance students' employability. The webcams were reported as helpful in the preparing for online interviews and virtual sessions.
 - Extremely helpful (80%); Helpful (20%)
- The projectors were effective in creating an **interactive and collaborative learning environment**, helping students better understand concepts and engage more actively in classroom activities. By integrating projectors into the curriculum, the intervention successfully advanced its goal of utilizing technology to enhance employability-driven education. The projectors were beneficial in enhancing their learning.
 - Utility of displaying presentations and training material during sessions (100%); Visual aids for understanding complex topics (100%); Group discussions or activities using projected content (100%)
- The desktops were effective and **reliable in enhancing student's learning** experience in a digital method, further enhancing the flipped classroom method followed at Deshpande Skilling. As the seamlessness of the new desktops made it easy for learning management systems.
 - To a very large extent (42%); Large Extent (58%)
- **Improved pedagogical strategies** as the new computer systems were effectively leveraged by teachers for innovative teaching methods.
 - Teachers used new computer systems for innovative teaching methods (100%)
- Effective learning experiences through opening multiple tabs, using heavy software and managing large files quickly enabling **multi-tasking and seamless functioning**
 - Yes always (97%); Yes, sometimes (3%)

4.3. EFFICIENCY

This study highlights the intervention's alignment with efficiency by demonstrating how the upgraded systems maximized learning outcomes through enhanced technological support. The new infrastructure streamlined educational processes by improving speed, reliability, and access to resources. The program successfully leveraged these systems to support innovative teaching methods and a learner-centered approach, ensuring optimal utilization of time and resources. The integration of cutting-edge tools and well-maintained systems underscores the program's commitment to fostering an efficient and effective learning environment.

- The new systems' **speed and performance optimized learning** by minimizing delays, highlighting the importance of reliable technology in achieving educational goals. A positive impact of the speed and performance was noted on the learning outcomes.
 - Very positive (69%); Positive (31%)
- The systems' seamless functionality, with minimal technical issues reported, highlighted their efficiency. High reliability ensured that students could focus entirely on learning without concerns about technological disruptions.
 - Never (94%); Rarely (6%)

- Teachers leveraged the new systems effectively to implement innovative pedagogical strategies, creating a dynamic and interactive learning environment. This integration demonstrated the program's efficiency in harnessing technology for advanced teaching methods.
 - Yes (100%)

4.4. IMPACT

The study also attempted to assess the extent to which the intervention has generated positive results. The intervention's emphasis on advanced technical specifications, reliable performance, and alignment with industry standards significantly elevated students' learning outcomes and readiness for technology-driven careers. By integrating high-quality tools and software tailored to skill development, the program fostered a productive and efficient educational environment, enhancing both satisfaction and perceptions of the centre's technological infrastructure. This alignment between technological resources and industry demands underscores the program's strategic approach to equipping students for future career opportunities.

- The new computer systems **streamlined the learning process** by enhancing access to resources, improving task efficiency, and enabling hands-on application of professional tools, bridging the gap between academic knowledge and workplace demands.
 - Access to learning material (100%); Speed of completing assignments (100%); Practical application of skills (100%)
- The advanced technical specifications of the new computer systems significantly **enhanced students' learning experiences**, playing a key role in supporting their education and preparing them for career opportunities.
 - Yes, significantly (90%); To some extent (10%)
- The tools and software installed on the **upgraded systems were highly aligned with industry standards**, effectively equipping students with the skills and knowledge required for their professional fields.
 - Fully aligned (91%); Partially aligned (9%)

4.5. COHERENCE

The intervention demonstrates strong coherence, aligning seamlessly with broader institutional goals, regional needs, and the evolving demands of the job market. By providing upgraded computer systems equipped with industry-standard tools and software, the program effectively addresses skill gaps and empowers students with practical, job-specific competencies. This alignment ensures that the intervention not only supports individual career aspirations but also contributes to the regional and institutional objective of creating a skilled workforce equipped for the digital economy.

- The tools and software provided through the intervention **align closely with current industry requirements**, ensuring students are trained in skills that are directly applicable to their professional fields.
 - Fully aligned (91%); partially aligned (9%)
- Students unanimously acknowledged that the digital tools enhanced their ability to practice jobspecific skills, demonstrating the program's success in bridging the gap between education and employability.
 - Digital tools were helpful (100%)

This coherence between program design, industry demands, and regional needs underscores the intervention's role as a catalyst for sustainable skill development and workforce readiness.

4.6. SUSTAINABILITY

The study was also focused on understanding whether the intervention done can be sustained in a costeffective and reliable manner, ensuring ongoing relevance and value to its users. The findings exhibit high system reliability, long-term stability, and minimal maintenance issues, fostering strong student satisfaction and a high likelihood of recommendation. The sustainability of the computer systems further underscores their potential to support consistent learning outcomes and future employability.

- The systems demonstrated **strong stability and functionality**, with minimal reported issues, indicating their reliability for sustained use.
 - Yes (92%); No (8%)
- Some students (n=8) noted occasional issues such as slow performance, hardware malfunctions, and software compatibility challenges, these concerns were relatively minor and manageable with proper upkeep.
 - Slow performance after extended use (63%); hardware malfunction issues with keyboards, mice, or monitors (50%); Software compatibility issues (25%); Lack of regular software updates (25%); Frequent system crashes or freezing (13%); and insufficient technical support for troubleshooting (13%)
- Regular maintenance is done by the technical staff at the weekly and quarterly cycles. Further, each **student has been well oriented on the maintenance and up-keep of the systems** to ensure that they run smoothly. Each cohort has identified a few student leaders who are responsible for ensuring maintenance is undertaken.

Chapter 5

CONCLUSION AND RECOMMENDATIONS

In the context of India, where unemployment remains a significant challenge, particularly in rural and semiurban areas, the importance of digital skills and learning cannot be overstated. With a growing youth population and limited access to quality education and training opportunities, equipping young people with relevant digital competencies is critical to improving job proficiency and employability. As industries increasingly rely on digital technologies, the lack of access to such skills further exacerbates the employment gap, leaving many young individuals at a disadvantage. By fostering digital literacy and offering skill development through digital learning platforms, we can bridge this gap, ensuring that youth in rural and semi-urban areas are not only prepared for the job market but are also empowered to participate in the country's broader economic growth. Therefore, digital skills development is not just a necessity for personal career advancement but a key driver of social mobility and rural transformation.

However, to achieve this, it is essential to have the right tools and infrastructure in place, as access to the right digital resources plays a pivotal role in enabling effective learning and skill acquisition. The Deshpande Foundation has played a pivotal role in providing the right skills for job readiness through its well-designed training programs, particularly in the context of digital learning. The introduction of new computers into the IT labs has significantly enhanced the training environment, ensuring that students have access to up-to-date technology that is crucial for mastering digital tools and software used in today's job market. The new systems have not only improved the efficiency of learning by offering faster, more reliable performance but have also ensured that students are well-prepared for the demands of modern workplaces. By providing these essential tools, the Deshpande Foundation has ensured that students gain practical, hands-on experience with the technologies they are likely to encounter in their careers, thereby empowering them to take on roles that require proficiency in digital skills and boosting their overall employability.

RECOMMENDATIONS

Based on the findings of the assessment, here are a few recommendations.

- Continued Investment in Technological Upgradation through regular upgrades to the technology infrastructure, ensuring that the tools and systems stay aligned with industry standards and evolving technological trends
- Comprehensive Maintenance and Support System to address minor usability concerns promptly, ensuring minimal disruption to learning and maximizing system longevity.
- Enhanced Focus on Practical Application of Digital Skills to focus on hands-on, practical applications of digital skills, providing students with opportunities to work on real-world tasks and projects.