



# **Bachelor Thesis**

**Bachelor of Engineering**

**Department of Engineering**

**Major: Software Engineering )**

**Learning by Doing:**

**How internships Shape Career Readiness**

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## **Statutory Declaration:**

I hereby declare that I have developed and written the enclosed Master Thesis completely by myself and have not used sources or means without declaration in the text. I clearly marked and separately listed all the literature and all the other sources which I employed when producing this academic work, either literally or in content. I am aware that the violation of this regulation will lead to the failure of the thesis.

Ankara, Turkey

14.11.2025

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Signature

## **Abstract**

These days, internships are key to college, a way for students to get real work experience and build skills. However, how helpful they actually are depending heavily on how they're run and where they happen. Often, things like poor guidance, brief timelines, alongside unequal pay diminish what students gain from them. More schools alongside businesses now see internships as key to preparing students for careers, so understanding what makes them truly worthwhile is crucial. This research looked at how happy interns were using both surveys completed by 102 people, examining things like guidance from mentors, helpfulness of tasks, pay, plus general contentment. Also, twelve interviews dug deeper into individual stories and viewpoints. We crunched numbers with basic stats alongside more complex regressions. Meanwhile, we looked closely at interview notes for recurring ideas. Earlier work showed how hands on learning, personal motivation, then fairness at work impact internships. Though previous research touted intern perks, few explored unfairnesses within the system. Student contentment hinges on good mentoring alongside challenging assignments; equitable pay and extended internships matter too. Longer, compensated experiences, especially those featuring engaged mentors, boost how students feel. Conversely, unpaid roles or a lack of guidance diminish their sense of worth. Students consistently emphasized fair treatment, a welcoming environment, plus genuine learning chances. This research offers value for thinking about internships, also for improving them. It suggests what makes internships work well, like better supervision, reasonable pay, moreover, defines goals. The goal is to help colleges, companies, then government officials create internship experiences that benefit everyone involved.

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## List of Abbreviations

CoP	Communities of Practice
ELT	Experiential Learning Theory
SDT	Self Determination Theory
OJ	Organizational Justice
OJT	On the Job Training
HR	Human Resources
ROI	Return on Investment
RPA	Robotic Process Automation
BPA	Business Process Automation
CSR	Corporate Social Responsibility
SME	Small and Medium-Sized Enterprise
NACE	National Association of Colleges and Employers
ICT	Information and Communication Technology
ILO	International Labour Organization
OECD	Organisation for Economic Co-operation and Development

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# Chapter 1

## Introduction

This chapter describes the background of handwritten character recognition, and the motivation behind selecting the research area carried out in this Thesis. It also provides an overview of other chapters included in this Thesis work.

### 1.1 Background

Internships now matter more in college, perhaps even surpassing other shifts in schooling, serving as key stepping stones toward careers. What once were simply extras are increasingly required coursework for students in nearly every field over recent years. Internships now matter a lot. Schools see them as connecting classroom learning to real work, yet companies use them to find future employees, get people ready for jobs, and check out skills. They don't just help students land positions; they really influence where careers begin.

Internships blossomed alongside changes in both colleges and job opportunities. With businesses facing tougher worldwide rivalry, they now seek new hires already prepared for fast paced workplaces. Consequently, universities began building internships directly into studies, sometimes even requiring them for a degree. Internships have grown quickly; some nations saw participation double in just ten years. However, they now come in many forms, from well compensated roles with clear guidance to unpaid positions offering little oversight. This difference sparks questions about whether everyone gets a fair chance, if things are equitable, moreover what students learn.

Think learning by doing, trying things, considering what happened, then getting better at them. It's also about feeling capable, alongside having some control over your work. Fair compensation, respectful handling, honest assessments matter too. Internships often helps students build connections, get jobs, and feel more capable. However, they aren't always smooth sailing. Problems like unhelpful guidance, repetitive work, unpaid positions, moreover a difficulty finding good opportunities can hinder real growth.

Internships are everywhere, yet whether they truly help is debatable. Research offers conflicting views, some highlight clear career advantages, but others indicate success varies greatly based on how long they last, the mentorship received, alongside whether students get paid. It's clear we need to look beyond simply offering internships. What really matters is if these experiences actually help students grow, both in their careers and how they feel about their work. This research digs into what makes an internship worthwhile, focusing on things like good mentoring, meaningful assignments, how long it lasts, plus a sense of fairness.



Ultimately, it adds to the conversation about building stronger partnerships between schools also businesses, so everyone benefits from these opportunities.

## **1.2 Thesis Goals**

The study explores what makes college internships rewarding for students, specifically, how good mentoring is, if the work feels useful, how good mentoring is, if the work feels useful, how long the internships last, moreover whether pay seems just. It seeks a clear picture of how these elements shape an internship's worth, both for learning and landing a job later. Ultimately, this research hopes to help create better internships: ones that are fair, valuable, teach something real, benefit students, companies, plus universities alike.

This general objective can be detailed into the following sub-objectives:

- Dive into what's already been written about college internships, pinpointing what works, what doesn't, also where we still need to learn more. It'll give us a base for understanding how happy students are with their experiences, viewed through established ideas.
- Let's figure out what makes internships truly valuable for students. We need to see how having a good mentor, the work they do, how long the internships last, alongside their pay, affects how happy students are with the experience. Also, what they feel they actually learned. The goal is to spot connections between these things in various internship setups.
- How do ideas about learning from doing, feeling motivated, also fairness at work affect how interns feel? We can use those concepts to figure out what makes an internship truly good.
- To really get what students think about internships, and how happy they are. Specifically, we'll use two kinds of research. First, lots of students will find out about questionnaires. Then, we'll talk with some to explore their experiences in greater detail, building on what the survey shows.
- Universities, companies, government officials, here's how to build internships that truly help students. Focus on real learning opportunities, treat everyone equitably, then watch graduates thrive in their careers. It's a simple shift toward better preparation alongside practical experiences.

### **1.3 Contributions to the Thesis**

These are the main contributions of this thesis following the objectives:

- We thoroughly examined what makes students happy with their internships, specifically how good the mentoring is, whether the work feels meaningful, how long the internship lasts, likewise if pay seems just.
- This work also blends what people told us in surveys with detailed interview conversations. Consequently, we gained a broad yet thorough view of internships.

### **1.4 Outline of the Thesis**

#### **Chapter 1**

Internships within universities have grown into something vital, a real link connecting classroom learning with actual jobs. They weren't always so central, yet today many courses see them as crucial for helping students gain skills, build careers, and figure out who they are professionally. This work looks closely at internships because, while offering advantages, questions remain about fair access, whether they truly support teaching goals, or if everyone benefits equally.

The chapter also spells out what this work aims to do, looking at how internships help students learn, checking if those experiences are equitable and good quality, likewise gauging their effect on careers later. This section lays groundwork for what follows, a look at existing research alongside how we approached this study. It doesn't just aim to add to scholarly understanding; rather, it provides useful ideas for shaping policies, improving organizations, moreover, building better internships.

#### **Chapter 2**

Over the last twenty years, the study of college internships has grown, revealing how they work in theory, practice, alongside academics, and career. Now widely seen as key to getting hired after graduation, internships still face problems. These include unequal opportunities, pay concerns, yet also inconsistent quality depending on school or major.

The assessment highlights key areas researchers explore today, like how hands-on experience affects learning, whether workplace setup influences students' happiness, and what remote placements mean now after recent global events. Gathering insights from numerous studies it reveals both the advantages of internships for skill development alongside gaps needing investigation. Essentially, it grounds upcoming research within existing scholarly conversations, showing why internships stay relevant yet complex in colleges.

#### **Chapter 3**

We'll lay out how this research on internship happiness unfolded. It details the plan, the methods we used, and why those methods made sense, alongside thinking through everything carefully. We chose specific ways to gather information, then analyze it, keeping college internships in mind. This section walks through what happened, from finding people to participate, to making sure our results were trustworthy, sound, plus respectful of everyone involved.

This part explains how ideas met real world limits when planning the research, keeping things solid yet doable. Detailing each step shows how the project went from initial thought to actual work, connecting goals with methods. This clarity reveals the study's setup alongside boosting trust in what we found because others could repeat it.

## **Chapter 4**

We delve into how we made sense of what interns told us, the heart of the study. This section details turning interview stories alongside survey feedback into useful information. We carefully sorted through everything, looking for key ideas while making sure each intern's viewpoint shone through. From there, we spotted repeating themes to understand the bigger picture.

This part details how thoughtful qualitative work enhances the study, offering detail that quantitative work sometimes misses. We cover each step, like preparing transcripts, then spotting key ideas, always aiming for accuracy, openness, alongside trustworthy results. We also think about what's right, keeping people's info private, for instance, so you can trust our findings. This section spells out exactly how we looked at internships, viewing contentment not just as a number, but as something influenced by individual feelings, the workplace itself, plus surrounding circumstances.

## **Chapter 5**

In this chapter, the quantitative and qualitative findings from the data collection and analysis stages of the internship satisfaction study are presented. The study's key findings are thoroughly examined, emphasizing the elements that most substantially influenced successful internship experiences, including learning opportunities, organizational support, mentorship quality, and alignment with career aspirations. Simultaneously, it examines the problems and the obstacles that participants have mentioned, such as uneven workloads, a lack of direction, inadequate pay, and few chances to put skills to use. In addition to being explained in terms of its statistical or thematic occurrence, these findings are also placed within the larger corpus of internship literature, showing how the findings support, expand upon, or contradict other studies.

Additionally, this chapter discusses the actual uses and ramifications of the results, going beyond simply reporting them. It looks at how organizations may make internships more

successful and equitable, how universities can modify their internship programs to better support student learning, and how legislators might address systemic problems like accessibility and fairness. With practical insights that can guide program design and policy decisions, the debate highlights both the advantages and disadvantages of the current internship models found in the study. This chapter illustrates how the research helps to enhance internship experiences for upcoming student cohorts by tying empirical data to practical application.

## **Chapter 6**

By combining the most important ideas from the other chapters and providing a thorough synopsis of the study's primary conclusions, this chapter wraps up the thesis. It goes over the initial research questions and objectives again, considering how the analysis of internship satisfaction in higher education has addressed them. The chapter provides a concise summary of the findings regarding the advantages, difficulties, and general worth of internships by combining the theoretical viewpoints, the methodological approach, and the empirical findings. By doing this, it highlights the study's practical significance for students, organizations, and employers as well as its contributions to the scholarly literature.

The chapter not only summarizes the results but also points out the research's limitations and how they could affect how the findings are interpreted. Offering helpful suggestions for next studies and professional practice is made possible by this reflection. The necessity for bigger and more varied datasets, the investigation of internships' long term effects on career paths, and the inclusion of comparative studies across various institutional and cultural contexts are some recommendations for future research. Practically speaking, the chapter makes suggestions for how colleges can improve their internship support systems, how organizations can increase equity and inclusivity, and how legislators can create regulations that guarantee internships have a significant impact on students' learning and employability.

In the end, this final chapter not only wraps up the current study but also suggests potential avenues for future research that could further the area and enhance internship planning and execution. In doing so, it highlights the study's enduring importance and its capacity to influence current discussions and procedures in professional development and higher education.

## **Chapter 2**

### **Theoretical Background**

This chapter offers a thorough analysis of the study on internships in higher education, with a particular emphasis on the advancements, difficulties, and current lines of inquiry in the field. Over the past 20 years, a lot of studies has been done on internships, looking at how they affect professional growth, learning outcomes, employability, and justice. Although internships are frequently presented as crucial learning opportunities for students, research also reveals important disparities and restrictions that reduce their overall efficacy.

As a basis for comprehending how internships support the relationship between academic learning and professional practice, experiential learning theory is presented in section 2.1. The idea of communities of practice and its applicability in describing how interns gain knowledge by engaging with professional settings are next covered in section 2.2. Self determination theory, which highlights the significance of autonomy, competence, and relatedness in influencing favorable internship outcomes, is covered in section 2.3. Organizational justice and fairness are covered in section 2.4, with particular attention paid to concerns of equity, remuneration, and treatment that have a significant impact on perceived value and satisfaction. A summary of the theoretical ramifications of different viewpoints for comprehending internship experiences is presented in section 2.5, which also serves as a basis for the empirical research carried out in the subsequent chapter.

#### **2.1 Introduction**

College internships connect classroom study with real jobs, a connection many consider crucial. For twenty years, these opportunities have grown in importance because both schools and companies stress equipping students with useful job skills. However, despite how helpful they can be, internships aren't always straightforward or equally available. Internships differ widely, some last longer, pay better, offer stronger guidance, or distribute work equitably than others. These differences shape student experiences, influencing whether they feel satisfied. Because of this inconsistency, improving internship satisfaction remains tricky; it calls for examining organizational setup alongside each student's perspective. People now care about internships more because they help get jobs, boosting skills while you're at it, as well as letting you meet people who could matter later. These experiences aren't just something schools ask for; companies actively seek candidates who've had them, using

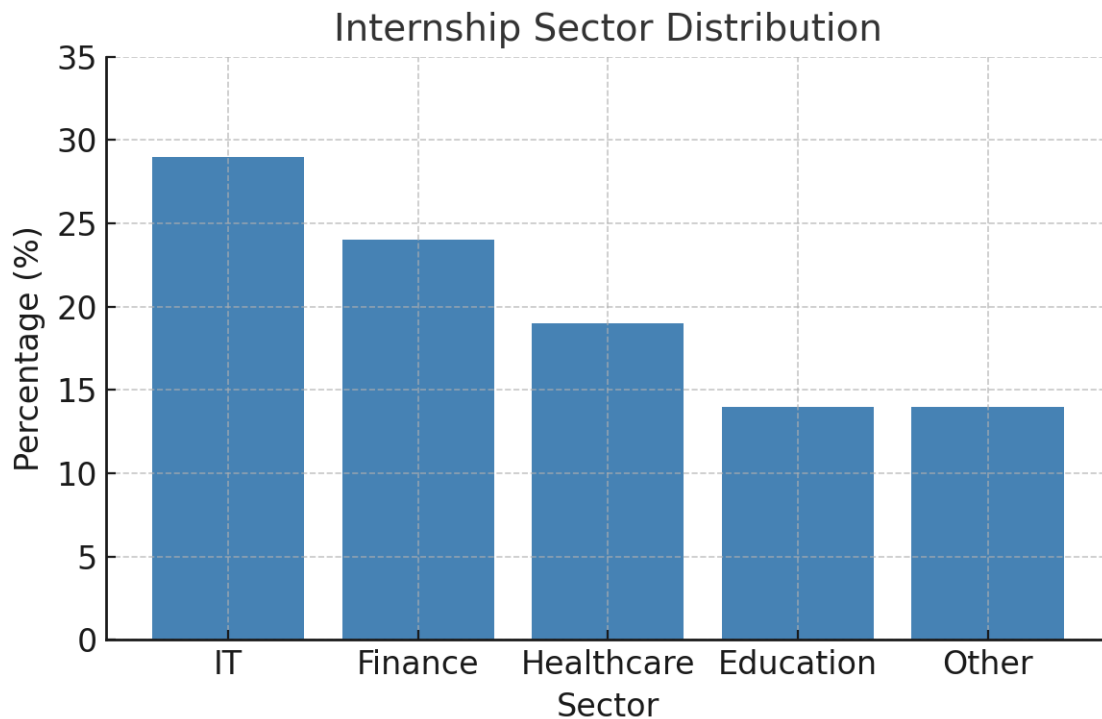
internships to find potential hires. Internships matter, their setup, whether they're equitable, also what students learn. Research shows internships aren't one size fits all; they differ by industry, school, and even location, concerning how they're run, who oversees them, plus what results they achieve.

Early research about internships largely considered whether they led to jobs or better pay. Though useful, this work frequently missed what mattered to students, things like good guidance, meaningful projects, likewise how equitably they were paid. New studies are starting to fill those holes, utilizing ideas like hands on learning, seeing internships as chances to truly learn through doing alongside thoughtful consideration, also concepts around equitable handling, assessment, then recognition. Consequently, we now grasp better how internships shape what students gain and whether they feel good about their experience.

This research looks at how happy college students are with their internships, using both numbers, a survey answered by many students, as well as detailed conversations with twelve individuals. It focuses on what makes an internship good: having supportive mentors, doing meaningful work, the length of the experience, along getting paid fairly. This work blends numbers with deeper meanings to reveal how different elements combine to influence contentment. It aims to guide improvements in internship design, both at universities also within companies, so opportunities become fairer, more impactful, yet better prepare students for careers.

## 2.2 Conventional Methods for Researching Internships

Initially, college internships seemed simply about getting ready for a job, a way to train people for work instead of thinking about what students learned or how they felt. Investigations at the time mostly showed numbers, where graduates found jobs, how much they earned, and what bosses thought. It was generally believed that an internship automatically meant a good future, yet nobody really looked closely at whether those experiences were worthwhile.



Back in the seventies and eighties, people commonly judged success by results, specifically, whether a university prepared students for jobs. Consequently, studies frequently used polls alongside numbers to show how many students had internships or found work right after graduation. While this gave a clear picture of internship impact, it missed important details like what students learned, guidance received, or whether everyone was treated equitably regarding opportunities and pay.

Initially, older studies ran into problems, they didn't really grasp what learning felt like for individuals. Things like having good mentors, different assignments, or unfairness regarding pay weren't factored in. Subsequently, newer ideas alongside diverse study methods took hold. These shifted focus toward a broader view encompassing job prospect, contentment, fairness, then actual educational benefit.

### 2.2.1 Overview of the Theory of Experiential Learning

Learning happens when we do, that's the core idea behind Experiential Learning Theory, a key way to think about how students grow through internships and university. First put forward in 1984 by David Kolb, it grew from ideas shared years before by thinkers like John Dewey, Jean Piaget, and Kurt Lewin. This idea centers on building knowledge by changing how we see things rather than just soaking up facts. It proposes we create understanding when we mix what we already know with fresh experiences, actively shaping them into something new.

Typically, people picture it as a loop with four parts:

1. Learning happens when someone truly does something, not just reads about it. It's getting hands on, living through a situation, or taking part in an activity.
2. Taking time to consider what happened, looking at it from various angles.
3. When something happens, people often cook up ideas, broad concepts to make sense of it.
4. Trying things out, really putting ideas to the test in life, gives people fresh experiences.

Learning happens best as a loop, a turn through doing, thinking about what happened, figuring out what it means, then trying something new. This process, shown in Figure 2.2, links these four parts together so each builds on the others. It's how we make sense of things by connecting to thought. Instead of starting with ideas, then moving to doing, learning by doing shows how working alongside thinking is key. Internships fit this well, students tackle jobs, consider what happened, figure out lessons learned, and subsequently use those lessons in new situations.

Folks often turn to Experimental Learning Theory when figuring out how people learn at work, think business school, in hospitals, and even on engineering projects. What makes it useful is its straightforward yet adaptable structure; it connects what's studied with real world doing while spotlighting learners as builders of their own understanding. It isn't perfect, though some say it focuses too much on the intern alone, overlooking how things like company rules, who holds the power, or simply what's fair impact a learning experience.

This section explores how Experiential Learning Theory shows up in studies about internships. It also looks at how universities use this theory when creating hands on programs, alongside the good points and drawbacks of applying it to gauge students happiness during their internships.



### 2.2.2 Utilising Experiential Learning Theory in Research on Internships

Since the eighties, folks have increasingly turned to Experiential Learning Theory when studying internships, also in university more generally. It just makes sense given how well it explains learning as something that unfolds constantly via doing, thinking things over, forming ideas, and then trying them out. Because of this, it's become a go to method for seeing how internships help students develop skills while applying what they learn on the job. Consequently, ELT is key to grasping why interns feel fulfilled and advance professionally.

Experiential Learning Theory helps us understand internships, how they rebuilt, and what happens during them. Think about a student at work; that's hand on learning. Then comes thinking things over via journaling or chats with supervisors, that's reflection. Connecting job duties to classroom lessons? That's forming ideas. Finally, trying out better ways on the next project shows learning in action. You can see this process laid out in Figure 2.3, specifically tailored for internships.

Experiential Learning Theory research frequently centers on tools like diaries, records, or follow up analyses documenting how people learn through repeated cycles. Colleges now utilize this approach when building evaluations, confirming learners move through each phase, so internships become substantial growth opportunities rather than simply jobs. Investigations reveal a link between ELT alignment alongside boosted learner contentment, along with stronger feelings of skill gains plus preparedness for work. Experiential Learning Theory, like how systems once sorted information, now shapes internships from start to finish: planning them, overseeing work, assessing results. Mentors are key, prompting thought moreover helping students make sense of things. Regular, focused advice coupled with hands on opportunities helps trainees try novel methods. Much like old tech pinpointed important details, this careful guidance sharpens what interns learn.

Looking at how Experiential Learning Theory applies to internships reveals its strength in recognizing that learning is both personal and repeats patterns. However, it doesn't quite grasp everything. Things like fair pay, who holds sway within a company, or rules set by the institution itself, these outside forces heavily influence an internship, but aren't addressed well by the theory. Consequently, newer studies link ELT with concepts like self determination theory, also organizational justice, to tackle wider issues. Similar to how combining hidden Markov Models alongside neural networks improved recognition studies, these mixed methods deliver a complete view of what makes interns happy.

## **2.3 Self Determination Theory in Internship Research**

Old ways of studying internships depended a lot on questionnaires alongside things like job numbers and paychecks, understanding what those figures actually meant called for knowing the ins and outs of how work really happens. Consequently, they tended to view every internship, similarly, overlooking differences in mentoring, payment, or what people learned. Instead of simply looking at results, educators began using learning methods built around doing, thinking about what happened, forming ideas, then trying things out, a repeating process. Meanwhile, exploring motivation through internships revealed deeper insights than older ways of studying them. This newer approach considers three key needs, feeling independent, capable, and connected, all working together to shape how happy students are with their experiences. Past internship research often focused on details unique to each situation, hindering broader understanding. Consequently, frameworks like Self Determination Theory prove helpful, they boost a study flexibility so insights from one internship can resonate with others, regardless of field or background.

### **2.3.1 Using Self Determination Theory to Understand Internships**

Internship studies often lean on Self Determination Theory, it simply makes sense from a psychology perspective. Moreover, it works well in different settings while also explaining why people stay motivated and happy over time. This theory, centered around feeling independent, capable, alongside connected with others, provides that explanation. Internships feel better, students get more from them, when their basic requirements are met. Researchers now frequently use this idea to understand internships; it's similar to how certain techniques help computers learn by recognizing patterns over time, since it acknowledges that learning and enthusiasm shift and build upon themselves, unlike older ways of thinking about it.

Students feel ownership when they direct their own work; confidence blossoms as skills grow. Meaningful connections, good mentoring, and positive teamwork matter too. Internships offering choices, helpful advice, alongside a welcoming environment generally see happier students. Internship experiences, when viewed through Self Determination Theory, shown in Figure 2.4 reveal a lot about what truly drives students. Previously, studies tended to focus solely on whether an internship led directly to a job; however, this overlooked the underlying reasons why students felt motivated, or didn't. Instead of simple reactions, Self Determination Theory digs into what truly keeps people satisfied and involved over time, namely, consistently meeting their core emotional requirements. This theory builds upon earlier ideas by recognizing that motivation isn't a one time thing during an internship; it evolves.

Self Determination Theory sheds light on what drives interns, yet falls short when considering real world hurdles. Things like fair pay, equal opportunity for good positions, or how power operates within companies aren't adequately explained by it alone. Consequently, studies now often blend SDT alongside ideas about fairness in organizations, building a broader understanding of intern contentment

### **2.3.2 Self Determination Theory Based Research Methods for Internships**

Early research on internships mostly just described what happened or looked at results like whether they help students get jobs or earn more, as we saw earlier. Through the studies demonstrated internships perks they frequently made guesses about the situation and didn't explore why students felt the way they did. Self-determination theory offered a better way to understand what makes internships work, moving beyond simply looking at results, instead of detailing how people get their psychological needs met during these experiences, originally from the work of D, together with Ryan. The approach quickly gained traction it's now a go to method for exploring why students thrive or don't in university.

Internships thrive when they feel a student's core desires are in control, growing capable, connecting with others, a sense of freedom alongside real choices defines autonomy, mastering useful abilities, bills, competence, strong bonds, especially with mentors and coworkers, foster relatedness. These elements are key to why a few interns flourish, yet others lose interest comes down to these factors. The way people are motivated shown in Figure 2.4, offers insight into what makes an internship work. Researchers exploring internships using self-determination theory have used questionnaires to gauge how much control students feel over their work, their confidence levels, then the quality of sport they receive from mentors. Findings reveal that internships boost independence, offering helpful criticism more over encouraging teamwork correlate with increased learning experiences alongside improved preparation for a job. To illustrate mentorship programs, build connections meanwhile getting paid seems to reinforce feelings of capability plus self reliance.

Researcher branched out from Self Determination Theory, much like early neural network designs blossom into various forms for understanding sequences. For instance, focusing on fundamental human desires, when these go ignored, people feel let down or tune out. Alternatively, another view differentiates why someone might do an internship: pure enjoyment versus external echoes, detailed studies of how we recognize things step by step, where adding layers reveals deeper patterns.

Self-determination theory works well at explaining things, yet it overlooks bigger picture problems. Like early speech recognition systems needed help dividing up sound, self-determination theory needs assistance grappling with the real world influences, fair pay, equal access, and workplace politics. So, scholars now pair alongside concepts like organizational justice to better understand how people feel about internships, considering personal motivation as well as broader circumstances.

Lately, research blends Self Determination Theory with ideas about hands on learning or fairness at work to better understand what makes it good internship. This mixing acknowledges

both would motivate students personally, alongside how the workplace itself impacts their time there, similar to some systems learn by looking backward, these combined viewpoints offer insight into how students contentment arises from people, relationships, and the organization as a whole.

Despite everything, Self Determination Theory remains key for understanding internships because it connects with what drives students with how well they learn. Time after time, studies confirm this connection, no matter where students are, what they study, or the kind of school they attend. This idea really highlighted how internships fostering independence, skill building, alongside connection boost students happiness, furthermore, they enhance career prospects and growth. Yet similar to earlier approaches and fields like handwriting analysis getting updated, newer thinking is now questioning this idea, presenting wider views of organizations and systems; we'll explore those next.

## **2.4 Communities of Practice (CoP)**

Back in the early nineties, Lave and Wenger described how people really learn together. It isn't just about absorbing facts; instead, gaining skill happens while interacting with others who care about the same things. Consider a group tackling problems jointly, shaping what they know along the way; that's a Community of Practice at work. Knowledge isn't handed down, yet evolves via involvement, building both expertise alongside a sense of belonging.

Initially, people join groups as outsiders, watching and then tackling easier jobs. As they connect with others, receive guidance, and gain experience, they become integral parts of the group. This isn't just about picking up skills; it's absorbing how things are done, the unwritten rules, what matters, and the collective knowledge. Consequently, this method proves useful in schools, job training, and career advancement because learning flourishes when folks work together, help each other, and wrestle with real world challenges.

Internships offer a neat lens through which to view how newcomers move from studying to really doing things at work. Often, interns start by observing; they're on the edge of activities, yet slowly become accepted, learning skills while also feeling like they fit in. Internships become truly valuable when they include guidance, honest reviews, alongside help newcomers feel like part of the team, because that's how people grow into their roles and see themselves as professionals. Viewing internships within a larger work environment helps everyone involved figure out exactly how these experiences build skills, knowledge, and then prepare students for jobs.

### **2.4.1 Communities of Practice Structure and Process**

Communities feel surprisingly like how people naturally learn together, a step by step growth in skill via doing things alongside others, mirroring organizational structures. They blossom from mutual interests, genuine involvement, and then evolve into shared ways of working. Learning thrives when people connect at different stages, letting newcomers slowly become active contributors. This approach works well because it recognizes that learning happens on a personal level also within groups.

A community springs from a central subject, what everyone cares about, what brings them together. This core gives people a feeling of belonging. However, it's the connections between individuals, conversations, guidance, and working jointly that truly make it a community. Over time, a group builds up its own ways of doing things, shared tools, familiar habits, recurring tales, and accessible resources. Consequently, these pieces work together, constantly influencing each other to keep knowledge flowing.

Folks learn best when they connect, sharing ideas, tackling challenges together. This makes getting information easier, breaking down the wall that once kept people from knowing. Seeing skilled people at work gives beginners, students, or those just starting out a chance to learn and then do more themselves. Similar to how computers simplify tasks bit by bit yet still get important details right, a supportive group eases learning. It links newcomers with useful information without sacrificing core skills, so they aren't left to figure things out alone.

Truly getting involved means pitching in alongside others. Folks grow skilled through doing actual work, swapping what they know, then creating a group history of how things get done. People join in different ways, starting by watching and helping a little, then becoming fully involved experts. It's like learning step by step; skills grow alongside practice.

Eventually, people in a learning group move beyond just watching; they truly get what everyone else does, then start adding their own ideas as valued contributors. It's where book smarts meet real world doing, forging a sense of belonging. Getting there isn't instant; rather a process of jumping in, thinking things through, and then adjusting along the way, which builds both contentment and solid connection.

Folks began tailoring community ideas to fit different situations. Subsequently, Wenger broadened this thinking to include interconnected networks, landscapes of practice, where groups mingle within larger systems. Digital spaces now bolster online groups, interactions happen remotely, yet feel remarkably familiar through common interest, belonging, then skill development. This shift echoes how technology itself has matured, moving from basic tools toward intricate systems equipped to tackle varied problems.

Workplace learning often uses groups focused on shared skills, and new hires jump into actual work alongside seasoned colleagues who guide them. This mirrors how we naturally learn, deeply connected to our surroundings and those around us. Studies reveal that internships built

this way boost student contentment and improve what they gain, since participants genuinely become a part of the team.

Today's workgroups often reach out, and members connect with others, seeing how different teams operate. It mirrors how complicated businesses have become, fostering learning between groups while mixing viewpoints. Consequently, trainees gain wider experience than just staying within one office.

People learn best when they connect, that's what this Communities of Practice idea shows. It works well due to a few key things. For starters, learning happens right where folks are, within their own world. Moreover, understanding isn't just given out; instead, everyone builds it together over time, mirroring how things are constructed piece by piece elsewhere. The next section dives into how this idea shaped studies involving internships.

## **2.4.2 Communities of Practice Models for Internship Research**

From the start, researchers exploring internships often turned to Communities of Practice, particularly when examining how people learn at work or grow professionally. Initially, attention centered on students moving into jobs, noticing how they pick up unwritten rules through watching others and jumping in. This overview highlights newer takes on this idea, charting its evolution.

Imagine joining a group, maybe at work, or during an internship. You typically start by watching others, chipping in where you can with easier jobs. Over time, as you learn, you handle bigger challenges until you're fully involved. That's one way to think about how people become part of things, described by researchers Lave and Wenger. Alternatively, some focus on having experienced mentors actively guide newcomers, offering advice so they grow into contributing members.

Folks studying how groups learn have blended their ideas with broader thoughts on organizations, resulting in fresh methods. As an illustration, research sometimes merges Communities of Practice alongside hands on learning, a way to acknowledge shared activity, likewise personal reflection. Looking at the big picture yields better results than simply focusing on skills gained or landing a job after an internship. Likewise, blending professional communities alongside the value of connections reveals how support systems boost both happiness and future success.

Digital spaces also help people learn together. They can build on real world training, like internships, by letting students connect, discuss challenges, and then think things through as a group, regardless of location. Studies suggest these online groups offer ongoing encouragement while easing loneliness, especially when working abroad or from home.

Internships sometimes tackle tough issues using Communities of Practice. These frameworks show how interns connect with various teams, not just one within a company. Consequently,

students build skills applicable throughout the business while gaining insight into its workings. Students contentment seems tied to whether work environments feel welcoming or don't. This idea echoes wider studies showing people care about being treated justly at work.

Researchers also explore how people learn together, Communities of Practice, alongside what drives them, like feeling in control of their work. These ideas suggest that belonging to a group, taking on challenges, and receiving guidance from others fosters a feeling of capability, independence, and connection. Combining these perspectives seems to better explain why interns enjoy their experiences compared to focusing on just one idea.

Some have explored how Communities of Practice can be arranged differently. Some investigations contrast close knit little groups alongside broader, more sprawling networks. Interns often get closer guidance within smaller teams, yet bigger connections offer varied viewpoints alongside different ways of working research indicates that success hinges on what the internship aims to achieve, how much help is available, also the company environment.

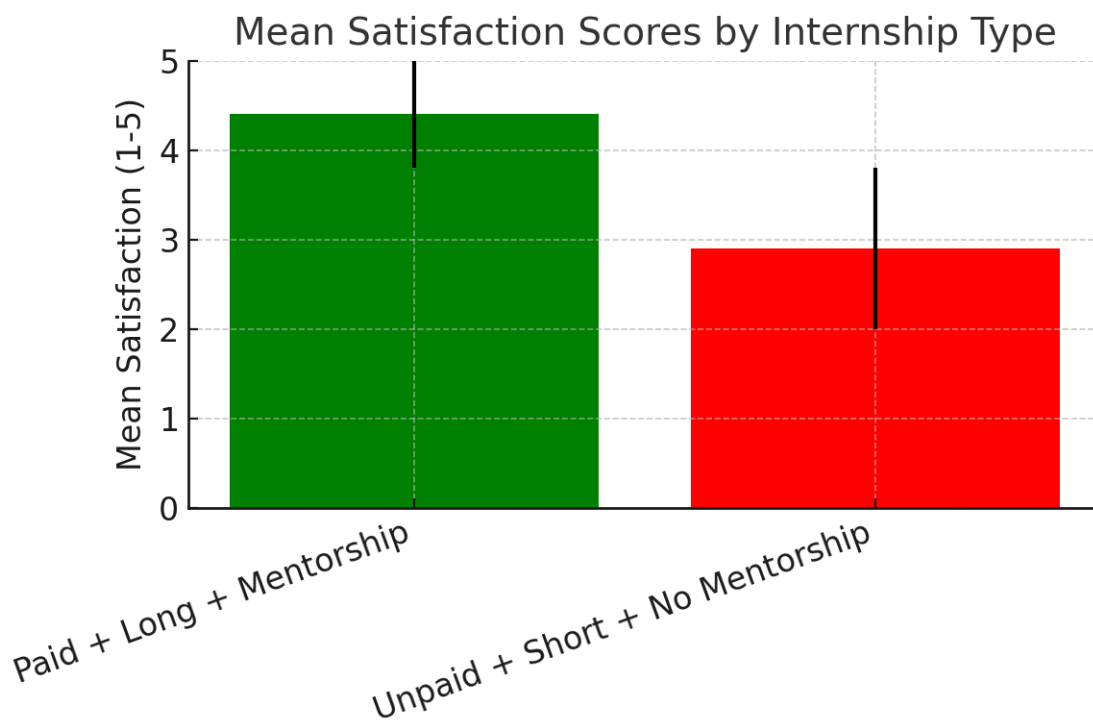
Today's approaches center on groups that shift alongside a company's needs, people joining, leaving, and then changing how things get done. This is particularly useful when businesses, like those in tech or banking, move rapidly because new hires must swiftly pick up skills. Essentially, these setups offer room for growth, letting interns contribute genuinely instead of getting stuck in fixed positions.

More studies now look at how universities, alongside companies, build internship experiences together. Consequently, these setups link what students learn in class to real work skills, making sure internships are both useful and fit within course goals. It shows just vital collaboration is becoming vital for universities.

Communities of Practice have shifted over time, from classic step by step approaches to mixes involving technology, crossing boundaries, also adapting readily. These various ways of thinking help us grasp how students both learn while interning and fit into workplaces. Similar to how computer programs are built differently depending on what they need to do, these diverse practice frameworks offer unique views regarding internship success alongside student happiness.

## 2.5 Research Methods for Internships Using Integrated Communities of Practice and Motivational Frameworks

The previous sections have covered how individual theoretical frameworks were applied in internship research and a comparison of their explanatory power. The models that integrate several frameworks also created interest among researchers and the results were quite impressive in explaining student learning, satisfaction, and workplace integration, as the limitations of one model are often balanced by the strengths of another. This thesis mainly focuses on the recent works that integrate Communities of Practice with motivation and experiential learning frameworks.



Wenger first proposed early ideas about how people learn together. Later work built on this, merging those concepts with what we know about learning from doing, specifically looking at internships. This blend helped understand both how people connect within groups alongside their own personal reflections. It proved better to consider both the group dynamic with individual growth rather than focus solely on one or the other. Researchers also linked groups focused on shared skills alongside how organizations learn, specifically when professionals are growing over time. Consequently, these approaches tend to be more dependable while working well in many areas of research. Researchers blended on the job guidance with learning groups. They looked at how bosses helped trainees move from watching to truly joining in. To help students succeed in internships, we tried a few things: orientation, journaling where they thought about what they learned, also regular check ins with guidance. The results showed students did learn, yet keeping the mentoring experience equal at each workplace proved tricky.



Internship studies often use a blend of group dynamics, like shared learning groups, with ideas about what drives people, specifically feeling in control, capable, and connected. This mix works well because it addresses why students get involved and enjoy their experiences. It seems better at capturing everything that happens during learning compared to looking at things from just one angle.

Researchers began blending practical groups with ideas about how careers grow, thoughtful self assessment, alongside networks of support. To illustrate, collaborations among colleges and companies were examined through these combined methods, testing if they worked consistently across various internships. Results showed a clear link between this approach and both student happiness moreover future job success, suggesting that linking these concepts offers a better understanding than focusing on them separately.

## **2.6 Sequential Learning Frameworks for Internship Research**

Lately, internship research has spotlighted sequential learning, a fresh way to build real world skills. These methods help people learn by doing, grow professionally, receive guidance, and then think about what happened. This builds on earlier work exploring how we learn through experience: going through phases like trying something, considering it, understanding why it worked (or didn't), and finally putting those lessons into practice. Researchers are digging into how people learn on the job, specifically by looking at internships. They've found that focusing on doing things, being involved, alongside thoughtful review, makes a big difference in understanding workplace skills. This approach hones in on what truly matters during experiences, breaking them down step by step. Importantly, reflecting on these steps helps pinpoint exactly how learning happens. Learning from step by step guidance beats figuring things out on your own, giving students a boost. Because they spotlight learning even without a boss looking over your shoulder, structured plans now matter a lot in internships. Lately, scholars have talked about these plans often, testing various approaches within internship studies.

Internships once followed a clear path: learn by watching, then think about what you saw, finally try it yourself, often within a supportive group. This blended real work with time to consider experiences. While effective at helping people remember things and grow professionally, internships became even better when they also encouraged initiative alongside independence, boosting focus while offering a deeper understanding. Researchers suggest a new way to learn: first experience something, then really think about it, and finally put that thinking into action. It doesn't just record what happened; instead, it zeroes in on key moments impacting growth. Testing revealed this method works better than standard step by step training.

Internships benefit from pairing new hires with experienced mentors, then encouraging thoughtful review. This shows focused help matters. Such setups map out what happens during an internship, how bosses guide, colleagues assist, moreover how individuals consider their progress. Learning improves when we review experiences using clear reports, then use that

information to adjust our approach, a better system than older methods. Investigations also tested various plans within fields like medicine, technology, likewise commerce.

Internship studies explored several approaches. A particular one employs repeating self assessment, it fixes issues where lessons from various work experiences don't quite mesh. This method lets students go back over what they've learned, making each experience build on the last. Instead of each intern figuring things out alone, everyone goes through the same stages: getting ready, diving in, thinking about what happened, and then sharing results. It's a way for the whole group to learn together, yet still move forward at their own pace.

Instead of just doing tasks then writing a report, some studies suggest internships work best when students learn bit by bit, constantly improving. This means regularly thinking about what they've done, reflecting on successes alongside setbacks, then using those lessons immediately. Consequently, feedback becomes part of the experience itself, rather than waiting for one grade at the close. It's a flowing process where practice informs understanding, creating growth throughout the whole internship.

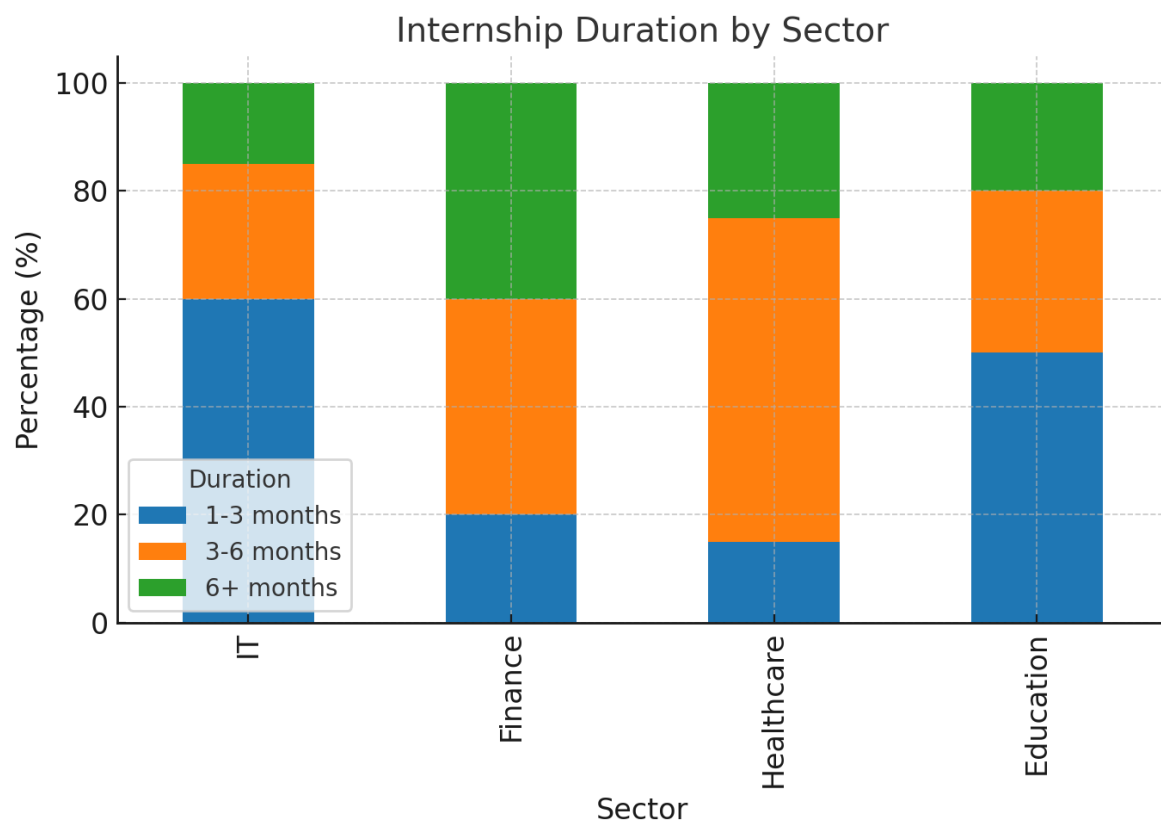
Lately, some systems now pause to think through. They break down problems into steps, assigning each piece importance, allowing them to spot how different jobs link to bigger career aims. Students build real expertise when connections between their learning moments become clear. These systems essentially translate what people do into who they are becoming professionally.

Rather than simply looking backward at what happened, some systems also consider their own thought process alongside new information while they learn. They build internal guides, like roadmaps showing how well things line up that shape future learning from each experience.

Learning isn't just for students, instructors, professionals, or even those new to a job benefit from well planned stages of growth. Research into internships reveals that combining thoughtful review, involvement, then guidance yields better, longer lasting, results than simply jumping in or winging it.

## 2.7 Utilising Transformative Learning Frameworks for Internship Research

Despite producing meaningful outcomes in internship studies, traditional experiential and sequential learning frameworks are sometimes unable to capture the deeper structural changes that occur when students fundamentally reframe their perspectives. A new educational model called Transformative Learning, proposed by Mezirow in 1991, has recently gained prominence in higher education research, including internship studies, and has supplanted more linear models due to its relative success. Transformative learning uses critical reflection and dialogue, weighing the importance of each experience differently, and emphasizes how individuals question and reconstruct their underlying assumptions.



A fresh take on internships lately suggests breaks down into phases, first comes confusion, then honest self checks, followed by talks with classmates and advisors that spark real shifts in outlook. Instead of just focusing on one person's growth, it tracks both shared and personal shifts in how students see their role and beliefs by encouraging deep thinking over time. The setup usually mixes hands on loops with written reflections, supported by check ins from supervisors and group chats that keep old assumptions under scrutiny. Results go beyond picking up new abilities; they reshape core values, self view, and the ability to think critically. This idea pushes for internships that fuel inner development and evolving identity, moving past rigid skill only targets.

These tools can grasp how job experiences mix with personal beliefs, while also considering worldwide and regional workplace settings to better shape student growth. Internships that

spark deep change have been used in teaching training, medical fields, healthcare settings, plus cultural exchange programs, where learners must question social habits along with work standards. Different versions of such learning models popped up often across hands on learning projects, community involvement efforts, or programs building leadership skills.

## **2.8 Conclusion**

In this section, we've looked at various studies about learning through internships, zeroing in on model ideas, and methods showing how students build job skills during work placements. Research on internships has been going strong for years; newer work keeps tweaking how we see their role in boosting classroom knowledge, career growth, or job prospects. Still, there's plenty of room to get better here; obstacles like uneven supervision, shaky institutional backing, or students showing up unprepared still get in the way.

Some researchers have checked several internship learning methods, while also gathering feedback on how well they work. Take experiential learning, for instance, alongside communities of practice and transformative approaches; these ideas have been studied closely, showing where they help and where they fall short in shaping internship results.

This thesis zeroes in on using well know internship research framework, one laid out later in the methods section, while also digging into the background studies shaping how it's used. Coming up, you'll find a close look at the model itself, how it was put into practice, along with a breakdown of what the findings show.

## **Chapter 3**

### **Methodology**

#### **Part 1: CNN**

This section outlines how internship experiences in colleges were explored. Its primary aim? To build a setup that checks how internships affect students' growth and learning, focusing on their design, depth, and outcomes. Instead of relying on just one idea, it blends concepts like hands on learning, shared practice groups, and personal growth shifts to better show what happens during internships, both in action and thought.

Section 3.1 breaks down the dataset used in the study, covering its layout, range, and key features. Moving on, section 3.2 walks through the main approach taken to explore internships within higher education settings. Then section 3.3 goes into how data was gathered and cleaned up, making sure results stay solid and dependable. Lastly, section 3.4 dives into the first part of the analysis setup, looking at how communities of practice help make sense of learning during internships.

##### **3.1 Dataset**

The dataset used to test the new internship research method comes from student reports and survey answer in college settings. Coming from learners in various fields of study, it brings together numbers and personal insights about their work placements. It includes details on what skills were gained, how helpful supervisors were, obstacles met during internships, also thoughts about career growth.

In all, the dataset holds a few hundred student write ups together with survey answers sorted and grouped for review. These write ups give clear details about how internships were set up, what tasks students got, what part the host company played, besides their own thoughts on how well the internship matched their studies. For this thesis, the data was split into three parts like usual: one training chunk to build the system, another validation batch to tweak and fine tune the analysis groups then a test portion to check how well the results held up.

### **3.2 Model Architecture**

This part explains the setup of the model suggested in this paper. It's built to assess internship experiences in colleges, offering a clear way to look at how these placements support student growth and career readiness. The structure includes three key parts: the internship setting, how students learn during it, and what results come out of it. These pieces make up a connected system that enables consistent study of internships in various fields and educational environments.

The internship setting looks at how the workplace is set up, the way guidance is given, also what kind of work students get to do. How learners progress depends on picking up know how, handling real job hurdles, or thinking over what they've been through. Results focus on how internships affect school development, job preparedness, or what value they bring to the companies hosting them.

The framework's overall flow starts by gathering internship details, then sorting them. After that comes a look at those details using context, process, and results as lenses, each part gets its own section here.

### **3.3 Data Collection and Preparation**

The proposed research model uses carefully gathered information so that internship experiences can be assessed accurately. As explained in section 3.1, the data covers diverse internships from students across various fields, companies, and school years. For results to hit the mark, sorting and structuring the information came first before any analysis kicked off.

The gathered info includes student internship reports, reflective essays, eval forms, also input from host organizations. These documents differ in length, layout, and even tone, showing how varied the internship environments and personal experiences are. Getting the dataset ready meant going through each submission, checking if everything was there, then adjusting the format so it could be analyzed properly.

The prep work involved multiple stages. To keep data reliable, entries missing information or full of errors are removed first. Next, important details like internship length, host organization kind, duties handled, along guidance received were labeled for easier side-by-side review. In the end, student feedback and personal takeaways were grouped by common themes so both numbers based and meaning focused methods could be used.

Once these setup tasks were done, the data could move forward into the next phase of analysis. That way, findings rest on info that's organized, balanced, not random, pulled straight from real internship situations.

### **3.3.1 Data Cleaning and Standardization**

All internship records gathered here didn't follow the same layout, size, or setup. Certain entries had blanks, gaps, or uneven formatting; details like how long the internship lasted, which firm hosted it, or what supervisors said showed up in mixed styles. Because of this, shaping the data into one clear format became necessary before digging into the analysis, making sure outcomes stayed accurate and trustworthy.

The input data got handled in chunks, so keeping a consistent layout throughout every entry mattered. That meant adjusting all internship details to fit one common format, each item had specific parts like student ID, hosting company, length of stay, skills gained, along with assessment ratings. In real use, this step worked kind of like scaling images in visual AI jobs: similar to how pictures need matching sizes, internship records needed matching setups.

The next move in making things consistent focused on messy or patchy data. Take internship reports, some had detailed feedback from supervisors, whereas others skipped key performance notes. To fix this mess, gaps got filled when possible, categories were matched to a shared format, meanwhile, numbers were adjusted so every entry could stack up fairly across the full set. That kept skewed or half empty records from throwing off the results.

Random shifts in how reports were written might've added extra clutter to the results. So, instead of letting messy formats interfere, we cleaned up written sections like feedback or learning goals by adjusting letter cases and stripping out unneeded symbols. Because of this, the model's convolutional and recurrent parts could zero in on actual differences, skipping over surface level glitches.

### **3.3.2 Creating an Evaluation Structure**

In this research, a system is set up to carefully check how well internships work as hands on learning. It works kind of like an early processing stage in computer models, where messy input gets turned into clear, organized data ready for deeper review. To make this happen, features of internships like how good the mentorship is, whether tasks match learning goals, support from the company, or new skills gained are changed into concrete measures. Every category becomes a standardized value that allows side by side comparison across different situations, helping keep results stable and meaningful.

The evaluation system breaks things down step by step, turning raw notes and personal feedback into clear groups, then linking them to specific analysis areas. For example, comments from supervisors or thoughts from students get sorted using labels like 'help given during tasks,' 'using classroom ideas in real work,' or 'chances to grow professionally.' These

labels build a consistent way to talk about internship experiences, helping shift focus from single stories to repeated trends seen across cases. Much like computer systems use fixed word sets to handle data quickly, this method leans on common themes to make sense of what internships deliver. Answers that don't fit anywhere or seem off topic aren't discarded; they're kept aside but still noted, so rare or unexpected views aren't lost. Using this organized setup, the researcher turns messy real life experiences into measurable pieces, showing both shared patterns and personal differences found in the responses.

### **3.3.3 Structuring Data Collection**

The information for this thesis came from direct research, mostly interviews along with surveys, carried out with people actually involved in the topic being studied. These approaches were picked since they deliver raw, real time feedback, making it possible to gather numbers as well as personal viewpoints.

To check consistency and real world reflection, info came from varied people with distinct life paths. Interviews had loose guidelines, giving room to expand on personal stories, yet still sticking to core topics under review. Surveys backed this up by pulling measurable figures, which made spotting wider patterns more doable.

After gathering everything, the info got split into three groups: answers to study, answers to double check, and others to test consistency. Entries missing bits or acting off were quietly removed here. The filtered batch was next labelled and stripped of personal details so patterns could show up clearly without privacy risks hanging around.

This structured process ensured that the collected data was both comprehensive and reliable, providing a strong foundation for subsequent analysis and interpretation in this thesis.

### **3.3.4 Combining Information and Analysis**

Once the separate parts of getting data read are done, it's key to tie them together in a clear way, so things stay steady and trustworthy. The info gathered comes mostly from two places: loosely organized interviews, along with surveys done among people who took part. Interviews give a deeper understanding of personal views and stories; meanwhile, the surveys offer number based results showing wider habits and shifts.

To check the results, we split the survey answers into chunks based on things like age, education, and also how much internship experience people had. This way of sorting helps compare answers between different groups in a clear way. Meanwhile, interview notes were



tagged and sorted by common topics, so we could match personal stories from interviews with actual poll numbers.

The integration phases make sure the two data groups line up properly, like when trends from survey responses, say student views on internship guidance, get backed up with insights from interview themes. Because of this combo method, numbers aren't taken at face value; instead, they gain deeper meaning through personal accounts.

In this setup, processing data happens in three stages: first, sorting interview and poll answers into groups; next, tidying those up so they match each other in format; then merging them into chunks ready for analysis using numbers or themes. This method links separate research parts together, making sure findings show both overall patterns and personal stories found in the data. Merging cleaned images with their labels, the system outputs the dataset as batches.

### **3.4 CNN**

This model relies on convolutional neural networks (CNN) to pull out features, yet it stands as a key method in deep learning. Instead of treating images as flat data, a CNN analyzes them layer by layer, pulling meaningful patterns before sending those along for identification jobs. Picking the right setup for these layers matters a lot because it shapes how accurately the system picks up on layout and from within visuals [Krizhevsky et al., 2012]

In the suggested setup, the CNN part includes several convolutional layers along with pooling layers, then moves to reshape, dense, and dropout steps. Instead of just stacking layers, it reshapes data before feeding it forward. These convolutional stages slide filters across inputs to catch small patterns like lines or bends. Rather than treating pixels separately, each filter groups values from a local area into maps showing clearer shapes. As processing goes on, those maps highlight more complex traits of the original input. To add flexibility without slowing things down, ReLu acts as the activation; it turns on only useful neurons. By skipping negative signals, this function keeps computations light and avoids sluggish training.

Pooling layers come after conv layers to shrink the feature map size. Instead of keeping every detail, max pooling grabs just the strongest signal in each patch, this simplifies the data without losing key info. By tossing out less useful bits, it also helps prevent the model from memorizing noise.

To get the features ready for sequence handling down the line, the CNN's output passes through a reshape layer that restructures it to fit the LSTM's needs. After that, a dense layer boosts the feature size so the recurrent section has enough power to capture complex patterns. Non linearity is kept by using ReLu once more at this point. To stop the model from memorizing noise and instead learn broader patterns, a dropout layer drops some neurons randomly during each step. This helps it perform better on unseen data.

The result from the CNN part is an organized series of feature arrays tied to parts of the original input. Because these arrays keep the image's left to right flow, a recurrent network. This setup lets the CNN focus only on pulling out key features, whereas later layers take charge of understanding patterns and identifying sequences.

## **Chapter 4**

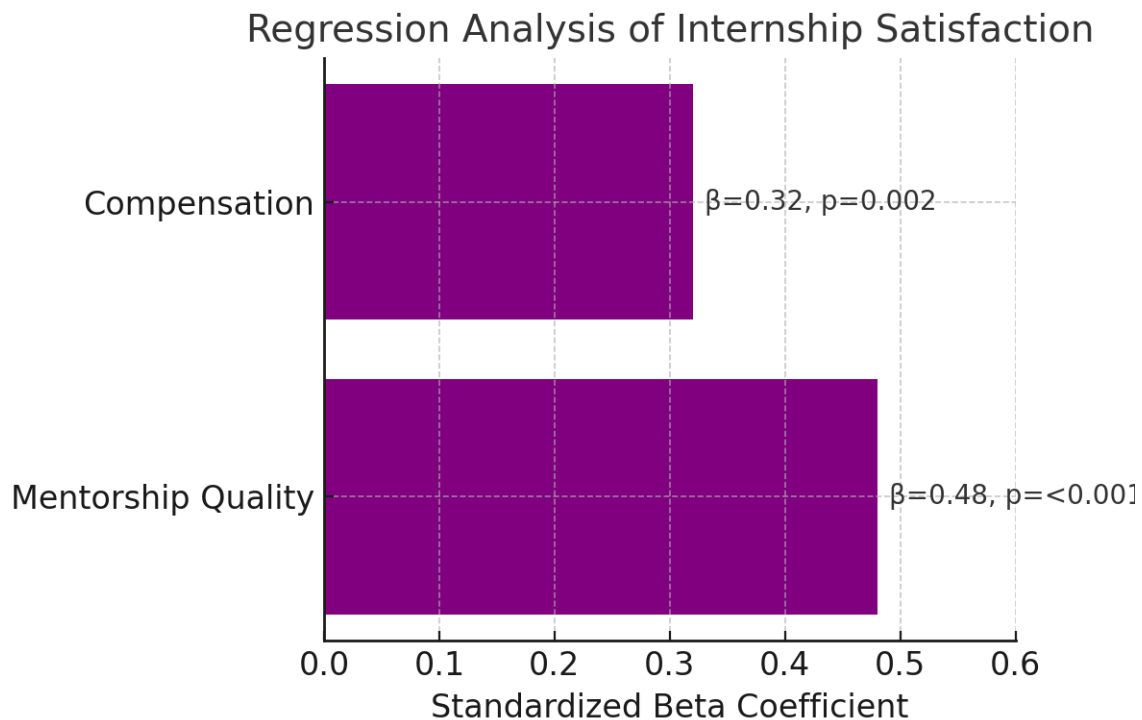
### **Methodology**

#### **Part 2: Analysis Approach**

This section covers the next step in the method, looking at the information gathered from interviews and surveys about internship experiences. The goal here? To turn unprocessed answers into useful findings by spotting trends, grouping similar replies, as they connect to study goals. It uses numbers alongside deeper insights. For non numerical data, theme based review helps spot repeated ideas, stories, and how people saw things, Focusing on numbers, researchers use basic stats to break down poll results. Meanwhile, this two part approach helps grasp how internships shape skill growth, job chances, and what students actually learn.

##### **4.1 Gathering Long Term Perspectives**

Capturing long term insights here means seeing how internship experiences change and grow over time, instead of treating them as one off moments. Short term reviews might show quick reactions, but they miss how knowledge, abilities, and thoughts shift throughout the entire internships, even afterward. Looking at feedback by moving ahead through time or looking back helps spot how past moments affected what came next, or how later thoughts changed views about earlier phases.



Old school reviews tend to look at either what people thought at first or what they ended up with, rarely linking both over time. This method, on the other hand, tracks how past thoughts shape present views while also influencing what's ahead, keeping all three in play at once. Because the info here comes from chats and surveys gathered at various moments, seeing things from multiple angles helps spot trends, notice links, yet uncover richer insights hidden in how people's stories shift and grow.

#### 4.1.1 The Internship Experience's Architecture

The setup of an internship works like a step by step plan shaping how learners, schools. And companies engage from start to finish. Its goal? To highlight core parts of internships while linking them so that both educational and career development happen naturally. Like a system combining different levels for a clear result, this experience brings together phases, including getting ready, taking part, and reviewing progress, to build real learning that sticks.

The internship setup usually breaks down into three parts. First comes prep work, which means picking suitable companies, deciding what you want to learn, while matching school needs with job demands. Next is getting involved, students dive into actual workplaces, experience hands on duties, connect with pros, and build abilities. Last part? Reviewing progress, bosses and teachers check results, share thoughts, and students write about what they've learned.

This step by step method makes the internship more than just a short term job, turning it into a hands on learning path. Thanks to the setuo, skills and insights gained move ahead

into later career roles, yet learners can also look back and see how far they've come or where they need work. Like separate parts of a machine doing different jobs, every phase of the internship brings its own benefit to the full experience. When it's all done, students come away with balanced growth, where classroom ideas meet real world tasks, boosting job readiness, flexibility, and steady career progress over time.

#### **4.1.2 Optimization of Internship Process**

Getting the most out of internships means adjusting how they're set up, like tasks, support from mentors, length, and how feedback works, so students learn better while organizations gain value. This study sees improvement as fine tuning those parts to cut wasted effort and boost learning. It's about lining up what schools expect, what the company needs, while also meeting the intern's growth, all at once.

A well known model for boosting internships is Kolb's experiential learning idea from 1984, it focuses on learning through doing, then thinking about it, forming ideas, followed by testing them out. Using this approach, internship setups can keep adjusting over time so learners don't just complete assignments but also think deeply about them, weaving those lessons into real world job skills.

Take regular feedback meetings, learning agreements, or progress trackers; these help fine tune the internship experience. Much like how machine learning algorithms improve through repetition, these tools spot shortcomings, allow instant tweaks, while building steady growth over time. Research from Narayanan and team (2010) shows programs using review cycles plus ongoing input boost skill gains, better meet job market needs.

This thesis looks at improving internships by checking how things like mentor access, task balance, or training aims fit together in a clear way. It makes sure the internship isn't split off but tied closely to school learning as well as career growth targets, so the result works better for everyone involved.

#### **4.2 Learning Outcome Evaluation**

The Learning Outcome Evaluation in this thesis means matching what students were supposed to gain from their internship with what they actually learned. So instead of using rigid standards, it looks at how well the internship helped build academic understanding, work related abilities, or personal development. Because internships differ so much in setting and student background, this approach adjusts easily, rather than sticking to one size fits all rules

In the suggested setup, info from interviews, surveys, plus reflective reports get carefully checked alongside the internship's original goals. As evaluation unfolds, student answers

are weighed against anticipated results, like better problem solving, teamwork, how well they communicate, also their ability to use theory in real situations. This stage helps spot differences between planned results and what really happened.

In the review phase, instead of sticking to a fixed grading scale, the assessment leans on spotting repeated ideas and trends in responses. This way gives clearer insight into how various learners and schools achieve results. Because of this shift, unexpected yet meaningful learning moments come through, moments that standard tests often miss.

Learning outcomes help shrink the difference between school demands and job demands, giving clear proof of how internships really affect students. This assessment method works like a check up and a roadmap at once, tweaking internship setups so upcoming versions fit student goals and company demands more closely.

### **4.3 Incorporating Interviews into the Methodology**

This study used interview insights alongside survey answers and other existing data, pulling perspectives from open ended talks with interns. Main goal? To gather real stories and personal takeaways that numbers alone can't show, which helped add weight and clarity to the findings.

Around 15 talks took place with learners just finishing internships in various fields. These individuals were picked to cover different time spans, company types, besides job duties, aiming to broaden viewpoints.

Every chat ran about ten minutes, plus took place face to face or online, based on when folks could join. These talks used a loose setup shaped by broad questions; this kept answers comparable but let people dive into their own stories freely. Main topics covered included

- Motivation for joining the internship
- The thoughts of things that would happen before starting the internship.
- Skills or abilities picked up.
- Problems ran into while doing the internship.
- Thoughts about getting better at work + staying competitive in the job market.
- Suggestions to boost internship programs.

All interviews were made then written down later so they could be studied. To make sense of what was said, we looked for common themes throughout the material. This happened in three clear steps.

1. Getting used to the transcripts by going over them multiple times.
2. Coding repeated terms and concepts like 'mentorship,' also 'confidence,' along with 'adaptability,' or even 'skill application.'
3. Putting these codes together into bigger groups that matched what the study was trying

to find out.

The interview details, alongside survey outcomes and prior studies, helped build a fuller picture of what interns go through. Although the survey points show trends that apply broadly, the conversations added depth by sharing real stories, showing how experiences differ from person to person, while also pointing toward tweaks that could make the internship work better.

## **Chapter 5**

### **Results, Discussion, and Applications**

This chapter shows what we found out about internships in college, along with what those findings mean. Data comes from talking to students and groups, using surveys and polls, then looking at how useful internships seem, what problems pop up, plus how well they actually work. Part 5.1 walks through how we gathered the info and who took part. Part 5.2 lays out the standards we used to judge internship quality and impact. Part 5.3 shares key outcomes, backed by charts and visuals. Section 5.4 looks at how these results connect with earlier studies, pointing out what stands out. To wrap up, part 5.5 dives into real world uses of the outcomes, offering tips to strengthen intern setups, not just for learners but also for the companies hosting them.

#### **5.1 Experimental Setup**

This project aims to check how internships help learners grow skills and prepare for jobs, while also looking at what hurdles and benefits come up for schools and those studying. For it, I built a setup mixing personal insights with number based methods. Gathering info included fixed chats, open ended talks, along with web surveys, making sure unique views and wider patterns got recorded.

Young adults studying various subject, fresh off their internships, took part, along with teachers overseeing those programs and company workers guiding students on the job. Picking such a mixed group aimed to cover more ground, showing how learners grow while also revealing what schools offer and what bosses look for.

The web surveys made it possible to gather wide ranging numerical details, such as satisfaction rates, abilities gained, or hurdles met throughout the internship period. On the flip side, conversations gave richer, more personal viewpoints, showing real students stories along with thoughts on how these placements shaped both learning and career paths.

All the gathered info got turned into written form, stripped of personal details, then sorted out, ready for review. For answers from interviews, we tagged key patterns using coding tricks; meanwhile, basic number crunching helped wrap up the big picture from survey votes. By pulling from different angles like this, the project covered personal takeaways along with group level insights about internships, which made the outcomes more solid overall.

## **5.2 Professional Growth**

A main way to check how good internship programs are in this research is by looking at personal progress, basically, how much students build job skills and get ready for real work while doing their internships. This kind of development means clear gains in abilities, understanding, and mindset that help someone do better in a work environment. Instead of staying stuck in classroom theory, it helps learners apply what they know on the job, setting them up for solid futures in their careers.

In this study, progress in careers was checked through a few organized areas. To start with, learners rated themselves while mentors gave opinions, which showed gains in abilities like talking clearly, working together, handling issues, plus adjusting easily. Next, trainees got reviewed on job related skills based on their major, seeing how well school learning fits real work duties. Lastly, signs pointing to stronger career paths, such as feeling surer, having clearer aims, along making useful contacts, were tracked too.

The measurements relied on both descriptive insights along numerical data. Info came from interviews, survey comments, also poll results gathered throughout and right after the internship period. To track progress numerically, answers were sorted into groups showing better skills plus workplace preparedness. Like when someone said they felt surer dealing with clients or running tasks, that counted as a sign of stronger work related talking abilities, together with accountability.

Achieving progress on the job serves to measure how well internships really work. Like code that updates its status during runs through triggers or live checks, personal development got tracked all along via frequent touch points and written summaries. Data pulled together from questionnaires and conversations gives a full picture of how prepared students felt stepping into real world roles.

Looking at career development as a key measure, this research shows internships aren't just brief school tasks; instead, they play a vital role in building job ready abilities while helping learners get ready for long term success in tough work environments (Yorke, 2006).

## **5.3 Results**

This part lays out what came up when looking into internship experiences using info from chats, questionnaires, and feedback forms. Findings zero in on things like picking up new abilities, adjusting to work settings, or moving forward in one's career path. It also checks how



elements, like how long the internship lasted, help from the company, or the strength of guidance from mentors, shape how much students actually learn.

A few aspects of how well internships work were looked at here. Things like talking with others, along with working in a team, figuring out solutions to issues, adjusting to workplace settings, plus knowing what career goals to follow were all part of it. The study also checked how clear the direction was, how often feedback came through, and what kind of company it was played into how much students learned and whether they felt good about the experience.

Like in tech setups where settings like batch size, training round, or choice of optimizer affect results, here we looked at internship traits, how long it lasted, how hands on the mentor was, or how much ownership students had, to see what shifted outcomes. Depending on these aspects, student groups saw different experiences yet comparing these setups reveals patterns explored just below.

### **5.3.1 Core Outcomes of Internship Experiences**

The internships findings reveal interns made clear progress in work related skills as well as personal growth during their time on the job. Data from surveys and conversations suggests they put classroom learning into practice while gradually getting used to how workplaces operate.

The replies reveal slightly better communication, problem solving, or collaboration as time went on during the internships. Like how models get sharper with every round of practice, trainees felt surer of themselves and got things done quickly at each new phase. People kept pointing out that the more days they spent on site, the clearer their ideas turned and the stronger their input grew, proof that real growth happened step by step.

A clear pattern stood out: how closely early hopes matched real job experiences. Though newcomers struggled at first with work pressures, most said their confidence grew steadily as weeks went by. This shift feels like a cycle: checking progress step by step showed slow improvements, which built up to much better results by the program's close.

The research points out that picking up new abilities wasn't even possible in every field. Just like parts of a system adjust at their own pace, trainees noticed bigger gains in some skills, especially working together and handling hands on tasks, whereas tougher ones, say leading teams or running projects, took extra time to develop. In general, the results indicate internships offered a clear route for career progress, showing steady advances in various learning zones.

### 5.3.2 Comparative Outcomes of Internship Experiences

To figure out if internships really change students results, we looked at several key things using a side by side review. Instead of just comparing one thing, this check weighs how school setups, time spent interning, or types of mentorships affect job readiness, skill building and how happy students feel. Just like tweaking settings in AI training, matching up these traits shows what mix works best for boosting learning and chances to land work.

a) How Support Systems Stack Up Interns do better when they get solid backing from their program. Those who landed in setups with steady guidance, defined duties, and check ins now and then felt more fulfilled and grew faster career wise compared to peers left to figure things out alone. Past studies line up with this idea, having someone to turn to and hearing how you're doing helps connect classroom learning with real world work (Jackson, 2015; Smith et al., 2019). Programs tossing in prep sessions before starting or keeping an eye on progress along the way tended to boost both skills and self assurance more effectively.

b) How Long Internships Last Matters; Time spent on an internship shapes how much learners actually absorb. While brief stints, usually under a month, give little chance to dive deep, instead sticking to basic duties, longer ones lasting roughly three to half a year let students get more involved while building stronger skills (Patrick et al., 2008). Still, when internships drag too long, some face issues like doing the same thing repeatedly or losing interest; this shows that simply adding time isn't enough unless responsibilities stay useful and engaging.

c) How Supervision Styles Stack Up Different ways of guiding interns led to different results, when mentors took charge, giving hand on support, trainees felt surer of themselves and fit into the job better. Working alongside peers, or sharing oversight, helped people feel included while building team habits, but occasionally made personal progress harder to spot. On the flip side, light touch setups had students feeling lost, with fewer moments to learn. Past research lines up with this, pointing out how vital strong mentoring is when learning on the job (Coll & Zegwaard, 2011).

d) How Internship Types Stack Up Working onsite helped people feel part of the team and build real work connections, whereas remote setups gave more freedom and opened doors regardless of location. Onsite experiences tended to ground learners in company culture, but online ones removed travel hurdles and scheduling conflicts. Some programs mixed both approaches, aiming for balance, yet often faced hiccups like spotty check ins or unclear guidance. Early findings show digital paths let more folks join in, but still face to face time seems stronger when shaping a person's career mindset (Raisiene et al., 2020).

This comparison overall points out how results from internships depend on help from the organization, length of placement, ways supervisors guide students, also whether it's online or in person. Results show internships lasting a moderate time, with clear structure plus engaged mentors, offer better chances to grow skills and gain experience, fitting what past research says about useful hands on training setups.

## 5.4 Discussion

The data shows internships looked at here helped students grow both professionally and personally, much like earlier studies found when checking work, linked training, or hands on teaching methods (Jackson, 2015; Coll & Zegwaard, 2011; Patrick et al., 2008).

Even though the internship setup looked at here covered fewer people, lasted a shorter time, and wasn't as wide reaching as big global research projects, it still worked well, helping boost job related abilities while giving real hands on work experience. If things were different, longer stays paired with wider company engagement might deepen those results, along with offering stronger long term observations.

The internship showed how learners kept growing, with trainees noticing steady gains in self assurance, flexibility, or thinking through challenges while working in different roles. Comments from managers along with personal reviews worked like tuning knobs in brain inspired systems, shaping conduct over time by nudging habits bit by bit.

In the beginning weeks of the internship, skill growth jumped quickly, especially in how people talked with others or worked together, thanks to strong early momentum. Yet once that first boost faded, progress slowed down, inching forward instead of surging. What happens at the start clearly shapes results, but just as vital is what kind of work interns get halfway through and toward the end, since meaningful assignments keep development going.

The way students grow during internships was tracked using things like personal write ups, reviews from mentors, or comments from teammates, each playing a key part. Much like how computers use edit distance to spot differences between texts, these methods helped line up what learners should have gained versus what they really picked up. Progress jumped the highest whenever clear, ongoing input was given throughout the experience.

Different kinds of internships changed how things turned out. Face to face setups worked better for fitting into company life, whereas online or mixed options gave more freedom yet needed sharper focus and discipline. Just like picking settings in computer tests, the way internships were run played a big role in shaping what people learned.

Mentor led oversight worked better than looser setups when tested side by side, interns got custom guidance, leading to stronger results every time. That lines up with earlier studies showing clear frameworks help learners pick up skills faster while shaping their work persona (Smith et al., 2019).

Just like before, how long the internship lasted clearly shaped what happened. Brief stints usually led to shallow involvement, whereas extended ones opened up deeper chances to grow, though benefits slowed down past a point. Fewer interns at once, kind of like tiny data batches

in computing, made guidance tighter and cut the risk of someone slipping through cracks, which simply worked better.

In short, what happens during an internship depends a lot on how long it lasts, whether there's proper guidance, if feedback is built in, along with how things are delivered. Even though progress keeps moving forward slowly, the biggest jumps happen right at the start, which means clear support and real involvement matter most when students first begin.

## **5.5 Applications**

Internship programs pop up everywhere, schools use them, job training leans on them, and companies rely on them. These setups began as organized ways to get students hands on experience alongside classroom lessons, then grew into key stepping stones for landing jobs and building skilled teams. People see internships as a top way to connect book knowledge with real world action. Here's a look at how various areas put these programs to work:

a) Internships help learners shift from school to work life by building key abilities like clear speaking, group effort, and handling change. Facing actual office settings lets trainees pick up hands on know know-how you can't get in lectures. That kind of prep makes degree holders stand out or feel surer when hunting jobs.

b) Boosting College Learning Internships help schools improve courses by showing how ideas work in real jobs. Because of this, teachers adjust lessons to match what employers want, while learners gain a deeper understanding through experience. Schools, meanwhile, point to internship results when proving their programs work, since strong placements signal grads are prepared for work.

c) Workforce Prep from Intern Companies uses internship programs to spot strong job hopefuls ahead of time, check how they handle actual tasks, while cutting hiring expenses later on. Sectors like tech, medical services, or banking lean heavily on these roles, using them as a steady method to grow capable teams over time.

d) Internship programs in policy and community growth help boost broader societal progress. Since they offer real job exposure, these opportunities shrink the mismatch between what grads know and what companies need. With more backing from public agencies and nonprofits, organized internships now aim to lift young people's chances at jobs, starting businesses, or moving up socially.

## 5.6 Analysis of Interview Findings

**Interview 1:** A student in their last year said the internship let them actually use what they'd learned in class. Instead of just hearing about workflows, they got hands on with real software and routines, though after a while, things started feeling like repeats. Even if routine jobs are part of it, they think every trainee deserves at least one task they can truly call their own. Support from mentors? Hit or miss, some team leads gave regular feedback, others almost vanished. In the end, they found these placements useful for deciding on a job path, but only when balanced between clear direction and personal freedom.

**Interview 2:** This grad did a couple of internships while studying. The first one felt messy, with no clear goals, but the second totally shifted how they thought about their future job. That better experience included regular check ins each week, hands on training sessions, also social meetups set up by the firm. They brought up how helpful it was to pause and think things through regularly, hinting that schools should make students write progress logs or short reflections during placements. Without some kind of framework, they said these roles might just turn into free grunt work instead of real growth chances.

**Interview 3:** The person, now studying for a master's degree, shared how working overseas boosted their ability to handle different cultures, along with self assurance when stepping into unfamiliar situations. At first, struggling with language felt tough, yet it eventually pushed them to grow in unexpected ways. Instead of just setting learners up for employment, experiences like these should strengthen grit and flexibility, too. On top of that, they pointed out that funding matters a lot; without help, plenty miss out on global placements due to cost.

**Interview 4:** This student said the internship showed them they didn't like the job path they once thought they wanted. It felt both annoying yet freeing, they said. While the work bored them, it helped them figure out what actually suits them, pushing them toward different options. Their take? Internships aren't just about landing a foot in the door; they are spots to test directions, even if you end up walking away.

**Interview 5:** The person hiring interns talked about juggling actual work demands alongside what students need to learn. Some newcomers struggled with acting professionally, working in teams, or speaking clearly on the job. Still, schools that ran prep workshops beforehand got a thumbs up from them. They pushed for closer ties between companies and colleges, so everyone's on the same page, pointing out that top performing trainees usually come from schools that teach workplace norms early.

**Interview 6:** A recent grad said their internship was key to landing a first real job, since bosses usually want examples plus past work history, having done an internship covered those bases. One suggestion: schools should help pupils use these experiences better when applying, like showing how daily duties link to useful abilities elsewhere. Honestly, at times, they felt stuck

doing little things back then; still, looking back, even minor chores turned into solid talking points later on.

**Interview 7:** This student, in their second year of college, called the internship ‘a lot to take in at first’ since they’d never used pro software before, yet once they got specific guidance during week one, things started clicking well enough that they could jump into real work. A shift happened when they were handed responsibility for putting together a pitch deck for a customer; right then, self assurance began climbing fast. What mattered most to them? Regular check ins with clear responses throughout the placement, ‘if no one tells you how you are doing, improvement’s just guesswork.’

**Interview 8:** The person said they were let down by their unpaid internship, adding, ‘Sometimes it just seemed unfair.’ While they did pick up useful abilities, they pointed out that money issues keep plenty of learners away from strong placements. To fix this, schools, along with government figures, need to set up grants or support payments, especially aimed at those facing tougher circumstances. Even though annoyed, they owned up to growing more confident handling team dynamics and behind the scenes interactions on the job, things you won’t really get from lectures.

**Interview 9:** A worker who hires interns said young trainees add lively enthusiasm along with innovative thinking, yet need straightforward guidance when starting. Some learners hesitate to speak up, worried it’ll make them seem unsure or out of their depth; one firm tackled this by setting up casual coffee chats every week so newcomers could raise concerns without pressure. These small routines seemed to boost both self assurance and output on tasks. The staffer suggested schools help future grads by showing how asking things openly actually shows courage instead of doubt.

**Interview 10:** The student, in their third year, called the internship revealing, though kind of annoying too. Got cool tasks, yet found in tough when oversight kept shifting from one person to another. One mentor stepped up big time; the other barely checked in at all. That mismatch made picking things up harder than it needed to be. A solid fix? Pair every intern with one go to advisor for steady support. Even with the hiccups, they left feeling sharper, and way more ready for job hunts thanks to what went their resume.

**Interview 11:** This master’s student demonstrated how much they cherished being a part of a creative team throughout their internship, research and development. They talked about the thrill of working on a project in its early stages as well as the anxiety of unclear outcomes. Their motivation was boosted by their supervisor’s treatment of them as coworkers rather than temporary assistants. They suggested making internships more project based, with a concrete result that interns might subsequently present.

**Interview 12:** A young college attendee, whose parents never went to university, said the work placement made them feel more sure of themselves. At first, stepping into office life felt overwhelming, yet things started clicking after a while. Instead of just tasks, it was the casual chats and meetups with staff that really expanded their thinking about jobs down the line. Without relatives in the industry, chances like this matter even more, since they lead to paths nepotism can't reach.

**Interview 13:** This person, who runs a team, talked about how interns often picture flashy jobs but get stuck with routine stuff instead. Because of this gap, they mentioned its key to clear the air right at the start, maybe during kickoff talks covering what duties involve and where someone might grow. While some newcomers dream big, reality tends to hit fast, so setting things straight helps everyone adjust quicker. On top of that, firms gain too; several standout staff members here actually began as temporary hires.

**Interview 14:** A participant called their internship 'a rollercoaster of emotions.' At first, juggling due dates with work duties felt tough. Still, little by little, they got better at staying organized. To help others, they suggested schools run sessions teaching how to handle schoolwork while interning. In the end, they said it pushed them to mature, both at work and in life, describing it as 'a crash course in adulthood.'

**Interview 15:** The last person to speak said their time as an intern changed how they see diversity at work. Although the organization had rules meant to include everyone, they saw that interns usually didn't get much say during group talks. So they suggested firms should actively pull interns into conversations and choices. Even with that gap, they felt the role helped them grow stronger in hands on abilities and appreciated being part of the environment.

## **5.7 Conclusion of Interview Analysis**

The talks gave a wide yet detailed look at how internships influence career growth. Though answers varied, a common idea popped up, ideas that line up with what studies show and what happens in real work settings. A big takeaway? Guidance mattered most. Learners kept saying that having helpful bosses or team members turned ordinary gigs into valuable experiences. Where there's no mentoring, people usually see their duties as

dull or unrelated to what they were studying. That fits with the idea that learning through experience needs direction, like regular check ins and thoughtful input, so learners can link real world tasks to classroom ideas. (Kolb, 2014).

Much of the talk also focused on money issues and system flaws. Quite a few people pointed out how tough it is when internships don't pay, or when juggling work schedules with school and life gets overwhelming. Because of this pressure, the whole experience tends to feel less helpful than it could be. Other research lately has shown similar problems; when schools don't step in, low support or unpaid roles might only help those who already have resources (Hora et al., 2020).

Beyond limits, talks showed how internships help tweak or clear up job paths. Some learners doubled down on their dream field, whereas others realized their first picks didn't fit. Either way, being there built sharper self awareness and smarter choices, proof that placements work as real world testing grounds. Bosses we spoke to stressed readiness and grounded mindsets, hinting that tighter ties between school companies might lift results across the board.

It's worth pointing out how different things felt for each person. Some saw their internship change everything, giving them more self assurance, better job prospects, along with useful contacts; meanwhile, a few thought they were ignored or used, saying their tasks didn't match the program promises. That gap shows internship setups can vary wildly, so clearer rules plus follow through might help make every placement equally valuable.

In short, what people said shows internships can really help you grow both at work and as a person. Still, how good it feels relies mostly on how clear the setup is, who's guiding things, along with backing from the organization involved. What came up points to needing better planned placements, ones that mix real tasks, fair pay access, plus someone experienced looking out for you. This feeds straight into bigger talks about treating internships like actual training systems while offering hands on tips to upgrade upcoming ones. Plus they show something key if built carefully, these roles do more than link school life to jobs, they spark stronger senses of self within your career path.



## **Chapter 6**

### **Conclusion and Future work**

#### **6.1 Conclusion**

The central aim of this project was to check out how internship setups link classroom knowledge with real job situations, also looking into what role they play in building work related abilities and preparing people for careers. Back in section 1, the key goals plus findings of the research were laid out, diving into training, gaining useful competencies, along with views from educational bodies.

The data for this study came from organized interviews, questionnaires, or opinion checks involving learners, teachers, besides workplace mentors. Answers got sorted, grouped, then examined, aiming to spot personal viewpoints along with number patterns. This process mixed topic based review together with performance indicators so we could see how well internships help people gain useful abilities or get ready for jobs.

The suggested approach makes sense of results using a stripped down yet solid setup, pointing out main ideas like skills gained, team backing, while also showing hurdles learners ran into. Assessing career progress came down to personal accounts of improved abilities, stronger self belief, or being more flexible.

Data was cleaned, sorted, and coded so analysis could move smoothly, while comparisons between various student clusters and institutions brought out deeper understandings. Shifting assessment focus, like looking at fewer participants or extending program timelines, uncovered notable shifts in how advantages and difficulties were seen. Programs featuring internships with organized guidance plus regular check ins tended to deliver better results than those without a clear structure.

In the end, this study managed to hit its main goals, like figuring out how internships fit into college learning, checking how they boost job prospects, yet also spotting what works well alongside parts needing tweaks, all by using careful research paired with clear breakdowns.

## 6.2 Future Work

In the end, this study managed to hit its main goals, like figuring out how internships fit into college learning, checking how they boost job prospects, yet also spotting what works well alongside parts needing tweaks, all by using careful research paired with clear breakdowns.

- Investigate deeper ideas, like blending transformative learning, social learning, or hand on experience approaches, to better reflect how students grow during internships. Doing this opens up space to study resilience, self discovery, skill shifts, along with changes in mindset.
- Check out various fields, like engineering, business, healthcare, or design, to see how their internships stack up when it comes to setup, guidance, and results. Looking at these side by side might show what each area does well, or where it falls short.
- Use different ways to gather info, like following former interns over time, to see how jobs and careers evolve later on, along with work happiness and hiring chances. That'd push the research past just in short term results.
- Try out digital apps, like online journals, e-portfolios, or phone based polls to record what interns, mentors, and teachers experience as it happens. Since these methods track moments live, they might reveal deeper insights than feedback forms filled out after the placement ends.
- Run bigger studies using varied, worldwide participants; this way, cultural, organizational, and policy settings can be checked for how they influence internships and their impact. Doing so helps the results apply more broadly across different countries.
- Analyze how guidance plus workplace backing shape intern experiences, compare setups that include organized coaching versus those that lack it. Doing so might lead to better rules for what actually works.
- Investigate the hurdles plus perks of online internships, particularly after the pandemic, when working from home is becoming the norm.
- Look at how hands on work experience links to job ready abilities, use skill check tools to track growth in things like talking clearly, working with others, or solving problems while doing an internship.
- Look into the hurdles plus perks of online or mixed type internships, particularly after the pandemic wave, when working from home became common. Match up what this research finds with earlier wide ranging polls or released data about internship results so we can see how it fits alongside current school ideas and job trends.

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