



Analysing the Effectiveness of Learning Outcomes in Internship Setting

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Abstract

Internships have emerged as one of the most prominent and effective experiential learning opportunities for students in recent years. The significance of internships is not only limited to the immediate benefits to individual students but also encompasses broader societal and economic implications. By assessing the effectiveness of internship experiences in cultivating these desirable attributes, educators, employers, and policymakers can better align educational curricula and pedagogical approaches with the evolving demands of the labour market, thereby enhancing students' employability and ensuring the long-term vitality of the workforce.

This study investigates the relationship between internship satisfaction and perceived benefits among interns, focusing on skill development, professional growth, and overall program effectiveness. Utilizing a sample size of 100 respondents, the research employs descriptive statistics, correlational analysis, and multivariate tests to examine key metrics and their interrelations. The findings indicate that interns generally express positive sentiments towards their internship experiences, with mean satisfaction ratings reflecting a high level of contentment. Strong correlations exist between overall satisfaction and various perceived benefits, including skill acquisition, professional growth, and preparedness for future careers. Effective supervision, quality feedback, and networking opportunities are key to successful internships. Aligning educational curricula with practical experiences is vital for relevance and better preparation for careers. This study provides insights for enhancing internship programs to boost students' professional success.

Keywords: Internships, Skill Development, Professional Growth, Program Effectiveness, Career Preparedness

Objectives of the study

1. Assessing the extent to which interns perceive an acquisition of new skills, knowledge, and competencies during their internship experiences.
2. Identifying key factors contributing to the effectiveness of internship programs in facilitating learning outcomes, such as supervision quality, feedback mechanisms, etc.

3. Evaluating interns' satisfaction and perceived benefits of their internship experience.

Introduction

Internships are a vital component of experiential learning, offering students practical experience that complements their academic studies. In a competitive job market, employers prioritize graduates who demonstrate not only theoretical knowledge but also practical skills, adaptability, and professional readiness. This study evaluates the effectiveness of internships in cultivating these attributes by examining interns' satisfaction, skill development, and overall program effectiveness.

The purpose of this research is to provide insights that can guide educators, employers, and policymakers in enhancing internship programs. By aligning educational curricula with the needs of the labour market, we can improve student employability and ensure a skilled and adaptable workforce.

Using data from 100 survey respondents, this study explores how satisfied interns are with their experiences, the extent of new skill development, and the impact of supervision and feedback quality. It also assesses the value of networking opportunities provided during internships. Our findings highlight the key factors contributing to successful internships and offer recommendations for optimising these programs to benefit students and employers alike.

Literature Review

Internships are pivotal in higher education, providing students with experiential learning opportunities that bridge the gap between academic theory and professional practice (Kolb, 1984). According to Kolb's experiential learning theory, learning occurs through a cyclical process of concrete experience, reflective observation, abstract conceptualization, and active experimentation, highlighting the importance of hands-on learning experiences in fostering deep understanding and skill development.

Research on internship pedagogy and practice underscores the significance of structured, well-supervised internship programs in facilitating student learning and development

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(Rojewski, 1991). Rojewski emphasizes the importance of integrating classroom learning with workplace experiences and providing students with opportunities for mentorship and professional networking. Studies have also identified factors influencing internship effectiveness, such as program structure, supervisor support, and the nature of tasks assigned to interns (Gault et al., 2010).

Empirical studies have documented a wide range of learning outcomes associated with internship experiences, including the acquisition of technical skills, communication skills, problem-solving abilities, and teamwork skills (Rivera, 2016). Rivera highlights the transformative nature of internships, noting their role in enhancing students' confidence, adaptability, and self-efficacy. Moreover, internships have been shown to have a positive impact on academic achievement, post-graduation employment rates, and career advancement (Hegewisch et al., 2019).

In recent years, there has been increasing attention to issues of diversity, equity, and inclusion in internship programs (Smith & Campbell, 2020). Smith and Campbell examine disparities in internship access and opportunities based on factors such as race, ethnicity, socioeconomic status, and gender. They emphasize the importance of creating inclusive internship environments that support the diverse needs and experiences of all students.

Methodological considerations in internship research include challenges related to sample selection, data collection, and measurement of learning outcomes (Merriam & Tisdell, 2016). Merriam and Tisdell discuss various research designs and approaches used in internship studies, highlighting the need for rigorous methods to ensure the validity and reliability of findings.

The study by Fokiya Akhtar Tarannum Parker (2023), contributes to the existing literature by employing Kirkpatrick's framework to assess internship outcomes within the context of the College of Communication and Media Sciences. Focusing on the "reaction" and "learning" constructs, the study analyzes 64 student reports from a

semester-long online internship in various UAE organizations during COVID-19. By highlighting the strengths and areas of improvement in aligning academic instruction with real-world applications, the study offers valuable insights into the efficacy of internship programs in preparing students for the workforce amidst challenging circumstances.

The literature on internship experiences and learning outcomes provides valuable insights into the benefits, challenges, and complexities of internships in higher education. By building upon existing research and addressing gaps in knowledge, this study aims to contribute to the ongoing discourse on experiential learning and its role in student development and success.

Methodology

The study adopts an analytical, cross-sectional, and quantitative approach. Analytical techniques like correlation and regression analysis are employed to explore relationships between variables. Data is collected at a single point in time, offering a snapshot of interns' experiences. Quantitative data from a structured survey questionnaire is analyzed using statistical methods. Primary data is collected directly from interns through survey questionnaires. This firsthand information allows for tailored data collection, ensuring relevance and specificity to the research objectives. The survey method is utilized, involving administering a structured questionnaire to interns. Surveys serve as standardized tools for gathering data on attitudes, behaviours, and experiences.

Results

Through descriptive statistics analysis, we explore interns' perceptions and experiences during their internship programs. By examining key metrics such as satisfaction levels, perceived skill development, and program effectiveness, we aim to gain insights into the overall effectiveness of internship programs and identify areas for improvement.

Figure 1 Mean Clustered Column Chart

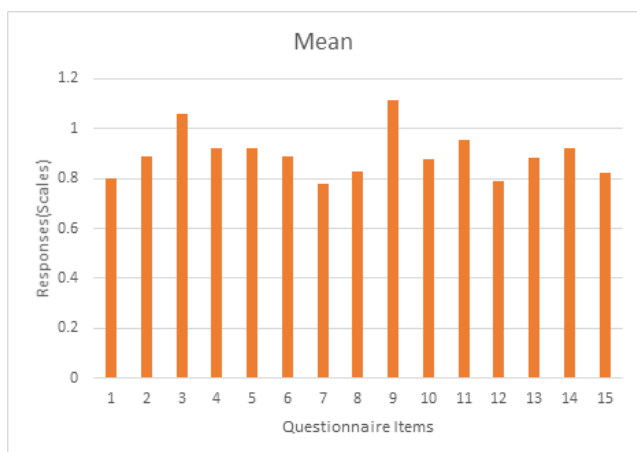


Figure 2 Standard Deviation Clustered Column Chart

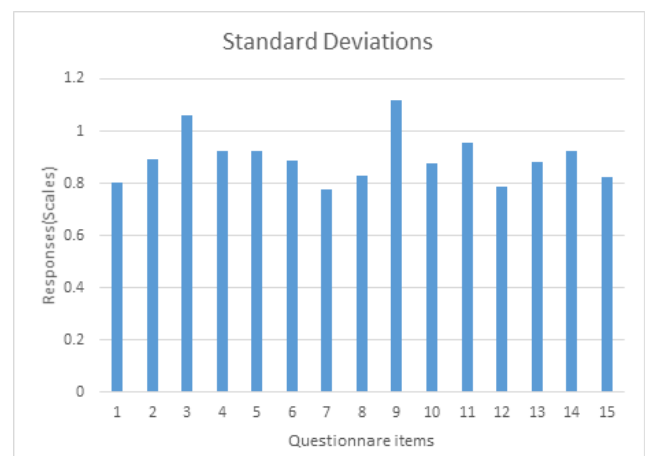


Table 1 Statistics

	How satisfied are you with your overall internship experience?	To what extent do you feel your internship contributed to the development of new skills?	How relevant do you feel your classroom learning was to your internship tasks?	How effective was the supervision you received during your internship?	How would you rate the quality of feedback provided by your supervisor or mentor?	How much do you feel your internship contributed to your professional growth and development?	How do you perceive the learning outcomes of your internship experience?	How prepared do you feel for your future career as a result of your internship experience?	How valuable were the networking opportunities provided during your internship?	To what extent have your internship experiences helped you develop problem solving skills?	How would you rate your experience collaborating with colleagues or team members during your internship?	How confident do you feel in applying the knowledge and skills gained during your internship to real-world situations?	How would you rate your improvement in professional communication skills as a result of your internship experience?	How effective were you in managing your time and staying organized during your internship?	How would you rate your overall learning experience during your internship?
N	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean	3.77	3.88	2.84	3.8	3.83	4.04	4.02	3.59	3.69	3.83	3.82	3.94	3.9	3.66	4.01
Median	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4
Mode	4	4	2*	4	4	4	4	4	4	4	4	4	4	4	4
Std. Deviation	0.802	0.891	1.061	0.921	0.922	0.887	0.778	0.83	1.116	0.877	0.957	0.789	0.882	0.924	0.823
Range	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

* multiple modes exist. The smallest value is shown

The descriptive statistics analysis of interns’ perceptions and experiences during their internship programs reveals generally positive trends, with areas for potential enhancement identified. Interns generally express satisfaction with their overall internship experience, as indicated by a mean rating of 3.77 with a standard deviation of 0.802, though there is some variability in responses. Notably, interns perceive significant benefits in terms of skill development (mean = 3.88, SD = 0.891) and professional growth (mean = 4.04, SD = 0.897), suggesting a fruitful experience overall. However, there is room for improvement in aligning classroom learning with internship tasks, as indicated by a lower mean rating of 2.84 (SD = 1.061), with varying perceptions among interns. In terms of skill acquisition, interns generally perceive positive outcomes, with mean ratings above 3.5 for various aspects, albeit with some variability (SD ranging from 0.779 to 0.924). The effectiveness of internship programs is influenced by factors such as supervision (mean = 3.80, SD = 0.921), feedback quality (mean = 3.83, SD = 0.922), and networking opportunities (mean = 3.69, SD = 1.116). While these factors contribute significantly to interns’ learning outcomes and overall satisfaction, there is notable variability in perceptions among interns regarding their effectiveness.

Correlational Analysis

A correlational analysis was conducted to explore the relationship between interns’ satisfaction with their internship experience and perceived benefits. The correlational analysis revealed strong positive associations between interns’ satisfaction with their internship experience and various perceived benefits. Higher satisfaction correlates with greater perceived skill development, professional growth, learning outcomes, preparedness for future careers, and other aspects of the internship. Additionally, networking opportunities, problem-solving skills development, collaboration experience, and improvement in professional communication skills also show positive associations with overall satisfaction and perceived benefits.

Multivariate Tests

In the multivariate tests, we assess the overall significance of differences among groups in interns’ perceptions of skill acquisition, program effectiveness, and satisfaction levels.

Table 3. Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai’s Trace	.981	462.627 ^b	10.000	90.000	<.001
	Wilks’ Lambda	.019	462.627 ^b	10.000	90.000	<.001
	Hotelling’s Trace	51.403	462.627 ^b	10.000	90.000	<.001
	Roy’s Largest Root	51.403	462.627 ^b	10.000	90.000	<.001

- a. Design: Intercept
- b. Exact statistic

The multivariate tests yielded significant findings regarding interns’ perceptions of skill acquisition, program effectiveness, and satisfaction levels ($p < .001$). This indicates notable variations among groups in terms of the combined dependent variables, suggesting differing levels of acquisition of new skills, knowledge, and competencies across various internship experiences.

The Pillai’s Trace statistic, a measure of overall significance, yielded a high value of 0.981, indicating strong evidence against the null hypothesis. Similarly, Wilks’ Lambda,

Hotelling’s Trace, and Roy’s Largest Root, all demonstrated substantial evidence against the null hypothesis, with values of 0.019, 51.403, and 51.403 respectively.

These findings suggest that interns perceive differing levels of skill acquisition, program effectiveness, and overall satisfaction across different internship groups, such as departments or supervision levels. The significant differences among groups underscore the importance of considering various factors that contribute to interns’ experiences and outcomes during their internship programs.

Table 4. One Sample Test

One-Sample Test									
	t	df	Significance		Test Value = 3	95% Confidence Interval of the Difference			
			One-Sided p	Two-Sided p		Mean Difference	Lower	Upper	
To what extent do you feel your internship contributed to the development of new skills?	9.879	99	<.001	<.001	0.88	0.7	1.06		
How much do you feel your internship contributed to your professional growth and development?	11.729	99	<.001	<.001	1.04	0.86	1.22		
How do you perceive the learning outcomes of your internship experience?	13.107	99	<.001	<.001	1.02	0.87	1.17		
How valuable were the networking opportunities provided during your internship?	6.181	99	<.001	<.001	0.69	0.47	0.91		
How would you rate your experience collaborating with colleagues or team members during your internship?	8.564	99	<.001	<.001	0.82	0.63	1.01		
To what extent do you feel your internship experience helped you develop problem-solving skills?	9.466	99	<.001	<.001	0.83	0.66	1		
How prepared do you feel for your future career as a result of your internship experience?	7.109	99	<.001	<.001	0.59	0.43	0.75		
How effective were you in managing your time and staying organized during your internship?	7.146	99	<.001	<.001	0.66	0.48	0.84		
How would you rate your improvement in professional communication skills as a result of your internship experience?	10.205	99	<.001	<.001	0.9	0.73	1.07		
How confident do you feel in applying the knowledge and skills gained during your internship to real-world situations?	11.913	99	<.001	<.001	0.94	0.78	1.1		

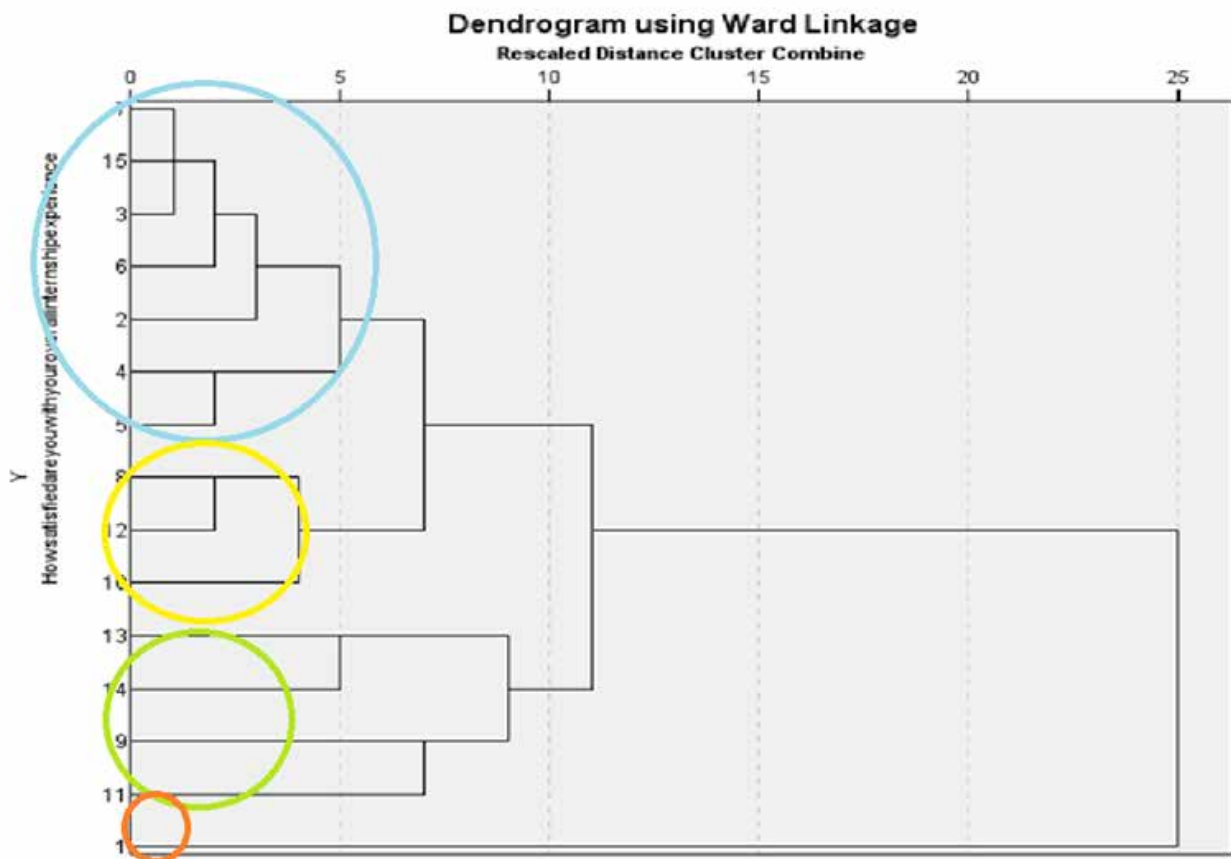
One Sample T-test

The one-sample t-tests revealed that interns' perceptions significantly exceeded neutrality ($p < .001$) across various aspects of their internship experiences, including satisfaction, skill development, and program effectiveness. Mean differences were consistently positive, indicating that

interns perceived their experiences more positively than the neutral reference value of 3.

Cluster Analysis: Cluster analysis identified distinct groups of interns based on their perceptions and experiences during the internship programs. Three clusters emerged, each representing different aspects of the internship experience:

Figure 3. Cluster analysis with interpreted clusters



Cluster 1: Focused on overall internship experience, learning outcomes, relevance of classroom learning, skill development, supervision effectiveness, feedback quality, and professional growth.

Cluster 2: Associated with career preparation, confidence in applying gained skills, and problem-solving skills development.

Cluster 3: Linked to networking opportunities, collaboration experience, preparedness for future careers, and development of professional communication skills.

Item 1, which seems to be the only item in its cluster, may represent a unique aspect of the internship program. This could be an overarching factor that influences the interns' overall perception of the program, such as the organization's reputation, program structure, or cultural fit.

Multiple Linear Regression Analysis

Table 4. Coefficients

Model		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.263	.363		.725	.470
	How satisfied are you with your overall internship experience?	.033	.077	.034	.429	.669
	To what extent do you feel your internship contributed to the development of new skills?	.270	.083	.308	3.246	.002
	How relevant do you feel your classroom learning was to your internship tasks?	.025	.048	.034	.530	.598
	How effective was the supervision you received during your internship?	.132	.072	.157	1.828	.071
	How would you rate the quality of feedback provided by your supervisor or mentor?	.080	.078	.095	1.021	.310
	How much do you feel your internship contributed to your professional growth and development?	.273	.081	.311	3.351	.001
	How prepared do you feel for your future career as a result of your internship experience?	-.154	.088	-.164	-1.754	.083
	How valuable were the networking opportunities provided during your internship?	.045	.055	.065	.825	.412
	To what extent do you feel your internship experience helped you develop problem-solving skills?	.002	.075	.002	.027	.979
	How would you rate your experience collaborating with colleagues or team members during your internship?	.002	.055	.002	.030	.976
	How confident do you feel in applying the knowledge and skills gained during your internship to real-world situations?	.243	.085	.246	2.874	.005
	How would you rate your improvement in professional communication skills as a result of your internship experience?	.050	.066	.057	.758	.450
	How effective were you in managing your time and staying organized during your internship?	-.049	.061	-.058	-.802	.425

a. Dependent Variable: How do you perceive the learning outcomes of your internship experience?

The multiple linear regression analysis identified significant predictors of interns' perceived learning outcomes. Variables such as perceived contribution to new skill development, professional growth, and confidence in applying gained knowledge and skills demonstrated statistically significant associations with perceived learning outcomes. Other variables, including satisfaction with the internship experience, supervision effectiveness, and networking opportunities, did not show significant associations.

Independent-Samples T-test

The independent-samples t-test compared mean scores between two groups of interns, revealing no statistically

significant difference in perceived learning outcomes between interns who completed multiple internships and those who completed only one internship. While there was a slight difference favouring interns who completed only one internship, this difference was not statistically significant.

ANOVA

How do you perceive the learning outcomes of your internship experience?

Table 5. Independent-Samples test

		Independent Samples Test		t-test for Equality of Means (t)							
		Levene's Test for Equality of Variances (F)	Significance (Sig.)	t	df	Significance (One-Sided p)	Significance (Two-Sided p)	Mean Difference	Error Difference	95% Confidence Interval of the Difference (Lower)	95% Confidence Interval of the Difference (Upper)
How do you perceive the learning outcomes of you internship	Equal variances assumed	1.022	0.315	-1.263	98	0.105	0.21	-0.199	0.158	-0.512	0.114
	Equal variances not assumed			-1.236	79.24	0.11	0.22	-0.199	0.161	-0.52	0.122

Table 6. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.099	3	.700	1.161	.329
Within Groups	57.861	96	.603		
Total	59.960	99			

ANOVA explored differences in interns' perceptions of learning outcomes across multiple groups based on internship duration. The analysis found no statistically significant difference in learning outcomes among different duration categories, suggesting that internship duration does not significantly impact interns' perceptions of learning outcomes.

Alignment with Theory: These findings align with theories such as social learning theory, contingency theory, and expectancy theory. Social learning theory suggests that interns learn and develop skills through observation and modelling, highlighting the importance of workplace experiences in skill development. Contingency theory emphasizes the role of effective organizational practices, such as supervision and feedback, in enhancing employee performance and satisfaction. Expectancy theory posits that positive experiences and perceived benefits contribute to individuals' motivation and satisfaction, underscoring the importance of designing internship programs that prioritize supportive supervision, feedback mechanisms, and meaningful networking opportunities.

Conclusion

The analysis delves deeply into interns' viewpoints on their internship experiences, offering valuable insights into skill acquisition, program efficacy, and overall satisfaction. Through meticulous alignment with research objectives, these findings provide nuanced conclusions, enhancing comprehension of internship dynamics and their educational implications. Interns universally recognize the importance of internships, evident in high mean ratings across skill enrichment, professional growth, and learning proficiency domains. Such immersive workplace experiences align closely with social learning theory, contributing significantly to skill acquisition and vocational maturation. Critical factors for program effectiveness, including supervision efficacy, feedback quality, and networking prospects, emerge prominently. Positive feedback mechanisms and supportive supervision are noted for enhancing interns' performance and satisfaction, resonating with contingency theory principles. Moreover, interns express overall satisfaction with their experiences, correlating positively with skill elevation, professional growth, and networking opportunities. This alignment between positive experiences, perceived benefits, and satisfaction reflects expectancy theory principles. In sum, internship programs wield a significant influence on interns' skill development, professional growth, and satisfaction. By prioritizing effective supervision, robust feedback mechanisms, and networking opportunities, these programs can optimize interns' learning experiences, preparing them

effectively for future career endeavours while nurturing holistic development.

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