Importance of Work Integrated Learning Among College Students – An Indian Context

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Abstract: **There has been a growing concern about teaching and learning performance and its outcome in the business education which is one of the main concerns of the higher education participants. There is an increasing gap between what an industry wants and what institutes provide. The gap between academic attributes and industries requirements do not only refer to the lack of employment readiness of students, but it also to their insufficient generic and technical skills.**

Work-Related Learning technique improves the student's industrial knowledge and generic skills. In India, the WIL presents a challenge or test in its formation and implementation for higher education systems due to its limited resources, lack of awareness about its importance and function ability, large and varied student groups, and the ever-present pressure on students to top in academics with book knowledge rather than actual practical applications. (Brett, Mark and Craig, 2011)

The main focus of the paper is to understand the degree of awareness students of various backgrounds have towards Work integrated learning programmes and whether they find it beneficial. It provides an insight about the importance and necessity to implement WIL programmes in education institutes.

Keywords: **work integrated learning**

1. Introduction

In modern day work environments, industries prefer employing students having more technical knowledge rather than students who have excelled in book knowledge in the academic front. There is a growing gap between the what an industry requires and attributes graduates and also the technical know-how of the work environment.

Work Integrated Learning (WIL) is a programme of educational activities which seeks to integrate academic knowledge with practical application in the work place. It is important for universities to introduce WIL as an explicit feature for all undergraduate and postgraduate programs by stressing upon student-centred learning. By embedding WIL as a formal aspect of degree courses universities are able to prepare students to transit into the workforce with generic graduate capabilities.

WIL programmes make sure that students are able to recognise and ease potential risks, solve job-related problems and manage diversity and uncertainty at work.

WIL provides opportunities for students to evaluate their work place experiences helping them to convert their learning experiences into practical knowledge. But this role often fails to gain the curriculum space and the attention it deserves. The WIL activities are internships, fieldwork, clinical studies, work placements, industrial projects, work stimulations, earn and learn facilities etc.

The first step toward WIL is for educational institutes to have a good tie up and relation with the various business organisations and community organisations. Effective partnership with such stakeholders will provide valuable learning opportunities and increases the notion of work readiness beyond basic academic knowledge.

Effective WIL activities help to meet the needs of the industry, the students and also the universities in developing, providing and reflecting upon learning experiences that are beneficial to all stakeholders.

There's significant evidence of the constructive impact of authentic work-based participation within courses from various studies. It is believed that the future of the country depends on strong partnerships between the university and the industries.

But in India, there is a slow rise in the awareness of WIL in various universities and educational institutions, but no significant and efficient implementation of the same. Educational institutes focus on academic knowledge rather than practical knowledge.

Educators and students have to understand that along with theoretical knowledge from classroom teachings, it is equally important to have effective practical work familiarity in order to create work ready students with efficient generic skills. (Janice Orrell, Finders University)

This paper focusses on the extent of awareness students in Bangalore have towards WIL, importance associated with such programmes and whether these programmes are inculcated in academics in a prominent level.

2. Literature review

- Work integrated learning (WIL) is grounded in the discipline of experiential learning (McLennan & Keating, 2008).
- The relationship between 'experiential learning', or WIL, and enhancing student graduate attributes and employability is another area that has been well documented by authors (Baker, 2014; Brimble & Freudenberg, 2010; Patrick et al., 2008).
- There is a renewed perspective on the role of taking the

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student out of the classroom and providing them with authentic learning that mimics 'real-life'. Experiential education is seen as a way to revitalize the curriculum and cope with the many challenges facing higher education (Kolb, 2014).
- Many subjects within the tertiary sector, due to well documented benefits of experiential learning, are taught by providing students with realistic work situations. WIL is a pedagogy that assists learners to develop professional competence and skills (Brimble & Freudenberg, 2010).
- As a consequence, a growing number of WIL opportunities are being embedded into tertiary institute curriculums (Martin et al., 2011a). With this expansion arises a need for greater clarity of terms in use and consensus of definitions.

3. Objectives of the study

- To determine how familiar students in Bangalore colleges are with the concept of Work Integrated Learning.
- To identify whether educational institutions incorporate activities of WIL.
- To determine whether students are in favour of WIL in their curriculum.
- To identify whether students agree that WIL programmes actually makes them work ready when they graduate.

4. Scope of study

The scope of the research will be limited to students based in Karnataka, mainly Bangalore and the programmes related to WIL in their respective institutions.

5. Methodology

The type of research carried out for the paper is descriptive. Data was collected from well-planned questionnaire. The questionnaire used in the research consists of structured, close-ended questions to extract the view points of the respondents. Analysis of the primary date was carried out using SPSS software version 20.

Secondary Data includes the collection of data to form review of literature, introduction and abstract. It was carried out by way of referred journals, books, websites.

6. Sampling design

A simple random method of sampling was selected to collect the primary information. A total of 120 samples were selected from the total population. The selected sample included students from the UG, PG and doctoral courses.

7. Limitation of the study

The major limitation of the study is time constraint for gathering the data. A Sample size of 120 may not be sufficient to generalize the findings and the sample was chosen randomly.

8. Analysis and interpretation of data

Table 1
A frequency distribution table - Gender

Gender		Frequency	Percent
Valid	Male	51	41.5
	Female	69	56.1
	Total	120	97.6
Missing	System	3	2.4
Total		123	100.0

From the above frequency table, it is observed that majority of the respondents are females, that is, 56.1% of the total respondents and the remaining 41.5% are males.

Table 2
Frequency distribution - Age Group

Age		Frequency	Percent
Valid	18-20	31	25.2
	20-24	65	52.8
	24 and above	24	19.5
	Total	120	97.6
Missing	System	3	2.4
Total		123	100.0

From the above frequency table, it is observed that majority of the respondents, that is, 52.8%, belong to the age group of 20-24 years.

Table 3
Frequency distribution table – level of education qualification.

Level		Frequency	Percent
Valid	UG	42	34.1
	PG	63	51.2
	Doctorate	15	12.2
	Total	120	97.6
Missing	System	3	2.4
Total		123	100.0

The above frequency table shows that 51.2% the respondents belong to the post graduate level and the remaining 46% belong under graduate and doctorate.

Table 4
Frequency distribution table - Course of study.

Course of study		Frequency	Percent
Valid	Arts	15	12.2
	Science	17	13.8
	Commerce	56	45.5
	Professional	32	26.0
	Total	120	97.6
Missing	System	3	2.4
Total		123	100.0

The frequency table shows that 45.5% of the respondents are from the Commerce background. 26% belong to Arts and Science and the remaining 26% belong to professional courses.

Table 5
Frequency distribution table - Types of Institutions

Type of institution		Frequency	Percent
Valid	Private	26	21.1
	Government	10	8.1
	Autonomous	57	46.3
	Affiliated to Bangalore university	27	22.0
	Total	120	97.6
Missing	System	3	2.4
Total		123	100.0

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From the results of the frequency table it is observed that 46.3% of the total is from Autonomous institutions. 43% are from Private Colleges and colleges affiliated to the Bangalore University and remaining 8% belong to Government Colleges.

Table 6
Frequency distribution table - familiarity with the concept of WIL

Familiarity with the concept of WIL		Frequency	Percent
Valid	Yes	68	55.3
	No	27	22.0
	Maybe	25	20.3
	Total	120	97.6
Missing	System	3	2.4
Total		123	100.0

From the above frequency table, it is observed that majority of the respondents, that is, 55% of the respondents are familiar with the concept of WIL, whereas the remaining 42% were either unaware or slightly aware of the concept.

From table 7, it is observed that the respondents have agreed that University Graduates possess the relevant skills required by the industry. (Mean value = 3.77), but they also disagree that only book knowledge is sufficient to get a good position at work (Mean value = 2.32).

Respondents believe that having activities like group discussions, brain storming, seminar, lectures etc., help develop students and provide necessary work exposure as part of the curriculum to adapt to the work environment at a faster pace. (Mean value = 3.47). They agree that graduates need to perform within a diverse working environment and possess the appropriate competencies and attributes (Mean value = 3.54). But they do not agree that having only the knowledge about WIL is adequate rather than practical application about WIL

(Mean value = 2.90). It is agreed that WIL helps to bridge the gap between what a business wants and the attributes of a graduate (Mean value = 3.67) by providing work integrated education programmes (Mean value = 3.53) and helps students to function as an active and competent member of a team and employee to the industry. (Mean value = 3.62). Though they agree that WIL programme aims to prepare students for the workplace by developing generic and specific competencies (Mean value = 3.66) but most of the universities or colleges do not implement such WIL programmes. (Mean value = 2.03). Respondents agree that it's necessary for educational institutes to have separate WIL programmes to prepare graduates to be work ready. (Mean value = 3.58)

From table 8 it is evident that males agreed more (Mean Value 3.92) than females (mean value 3.65) that university graduates possess relevant skills required by the industry and they were neutral about whether having only knowledge about WIL is enough rather than having practical application about it. (Mean value 3.06) They disagreed more (Mean Value 2.76) than women (Mean Value 1.99) that book knowledge was sufficient to get a good position at work. Whereas females agreed more in other aspects such as whether graduates required practical in order to have appropriate competencies and attributes.

Females also agree that WIL programs helped to bridge the gap between industry needs and graduate attributes and believed that it's necessary for educational institutions to provide separate WIL for graduates to be work ready. (Mean Value 3.77).

Table 7
A table containing the Mean and Standard Deviation

	Mean	Std. Deviation
6.1. University graduates possess relevant skills required by industries	3.77	1.051
6.2. Book knowledge is sufficient to get a good position in your job.	2.32	1.296
6.3. Having activities like group discussions, brainstorming sessions etc. help to develop students	3.42	1.313
6.4. Giving work exposure to students in the curriculum helps them to adapt to the work environment at a faster pace	3.47	1.276
6.5. Graduates should perform within a diverse working environment, hence it's important to possess competencies and attributes.	3.54	1.166
6.6. Having knowledge about WIL is enough rather than institutions having the practical application about it.	2.90	1.253
6.7. Having earn and learn programs, projects and cases on current business problems makes a graduate a better prospect to be employed by the industry.	3.53	1.188
6.8. WIL program helps students to function as an active and competent member of a work-team.	3.62	1.131
6.9. WIL programs aim to prepare students for the workplace by developing generic and specific competencies	3.66	1.199
6.10. WIL help to bridge the gap between what industry wants and the attributes of a graduate.	3.67	1.109
6.11. Does your university/college implement programmes related to WIL.	2.03	.893
6.12. Necessity for educational institutes to have separate WIL programmes to train graduates to be work-ready.	3.58	1.300

Table 8
Comparison of mean as per gender on the concept of work integrated learning

Gender		q6.1	q6.2	q6.3	q6.4	q6.5	q6.6	q6.7	q6.8	q6.9	q6.10	q6.11	q6.12
Male	Mean	3.92	2.76	3.02	3.27	3.37	3.06	3.27	3.25	3.33	3.45	1.90	3.33
	N	51	51	51	51	51	51	51	51	51	51	51	51
	Std. Deviation	1.055	1.436	1.393	1.372	1.399	1.489	1.313	1.339	1.438	1.270	.878	1.395
Female	Mean	3.65	1.99	3.71	3.61	3.67	2.78	3.72	3.90	3.90	3.84	2.12	3.77
	N	69	69	69	69	69	69	69	69	69	69	69	69
	Std. Deviation	1.041	1.078	1.177	1.191	.950	1.041	1.056	.860	.926	.949	.900	1.202
Total	Mean	3.77	2.32	3.42	3.47	3.54	2.90	3.53	3.62	3.66	3.67	2.03	3.58
	N	120	120	120	120	120	120	120	120	120	120	120	120
	Std. Deviation	1.051	1.296	1.313	1.276	1.166	1.253	1.188	1.131	1.199	1.109	.893	1.300

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Table 9
Analysis of Variance (ANOVA) results of perception on WIL according to gender

Hypothesis:
H₀: There is no difference in respondent's preference on concepts of work integrated learning as per gender.
H₁: There is difference in respondent's preference on concepts of work integrated learning as per gender.

		Sum of Squares	df	Mean Square	F	Sig.
q6.1	Between Groups	2.128	1	2.128	1.942	.166
	Within Groups	129.338	118	1.096		
	Total	131.467	119			
q6.2	Between Groups	17.805	1	17.805	11.533	.001
	Within Groups	182.162	118	1.544		
	Total	199.967	119			
q6.3	Between Groups	13.983	1	13.983	8.631	.004
	Within Groups	191.183	118	1.620		
	Total	205.167	119			
q6.4	Between Groups	3.275	1	3.275	2.028	.157
	Within Groups	190.592	118	1.615		
	Total	193.867	119			
q6.5	Between Groups	2.537	1	2.537	1.880	.173
	Within Groups	159.255	118	1.350		
	Total	161.792	119			
q6.6	Between Groups	2.237	1	2.237	1.430	.234
	Within Groups	184.563	118	1.564		
	Total	186.800	119			
q6.7	Between Groups	5.942	1	5.942	4.330	.040
	Within Groups	161.925	118	1.372		
	Total	167.867	119			
q6.8	Between Groups	12.149	1	12.149	10.242	.002
	Within Groups	139.976	118	1.186		
	Total	152.125	119			
q6.9	Between Groups	9.368	1	9.368	6.840	.010
	Within Groups	161.623	118	1.370		
	Total	170.992	119			
q6.10	Between Groups	4.451	1	4.451	3.702	.057
	Within Groups	141.874	118	1.202		
	Total	146.325	119			
q6.11	Between Groups	1.343	1	1.343	1.693	.196
	Within Groups	93.582	118	.793		
	Total	94.925	119			
q6.12	Between Groups	5.543	1	5.543	3.344	.070
	Within Groups	195.623	118	1.658		
	Total	201.167	119			

According to the above ANOVA table, there is a high statistically significant difference among male and female respondents on whether:
- Q.2: only book knowledge is sufficient to achieve a good position at work.
- Q.3: Conducting activities like discussion and seminars help develop students.
- Q.8: WIL program helps students to function as a competent and active member of the team.

Hence, the alternative hypothesis (H1) is accepted in these cases, where in there is a difference in the respondents' perception based on gender.

There is a moderate significant difference among the male and female respondents on whether:
- Q.7: Having practical activities helps a graduate to be a better employee to the industry.
- Q.9: WIL develop generic and specific competencies of students.
- Q.10: WIL help to bridge the gap between industry needs and graduate attributes.
- Q.12: necessity for educational institutions to have separate WIL program to train graduates to be work-ready.

But there is no significant difference between male and female respondents on whether:
- Q.1: university graduates possess relevant skills required by the industry.
- Q.4: providing work exposure to students helps to adapt to the work environment faster.
- Q.5: graduates need to have appropriate skills to perform within a diverse working environment.
- Q.6: having only knowledge about WIL is sufficient than its practical application.
- Q.11: educational institutions implement WIL programs.

Hence, the null hypothesis (H0) is accepted in these cases, where in there is no difference in the respondents' perception based on gender.

Table 10
Table title comes here

		q6.1	q6.2	q6.3	q6.4	q6.5	q6.6	q6.7	q6.8	q6.9	q6.10	q6.11	q6.12
q6.1	Pearson Correlation	1	.289**	-.008	-.006	-.157	-.063	-.135	-.145	-.077	-.159	-.110	-.139
	Sig. (2-tailed)		.001	.930	.949	.088	.497	.141	.114	.402	.082	.231	.129
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.2	Pearson Correlation	.289**	1	-.221*	-.237**	-.259**	.175	-.323**	-.394**	-.368**	-.243**	-.130	-.290**
	Sig. (2-tailed)	.001		.015	.009	.004	.056	.000	.000	.000	.007	.156	.001
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.3	Pearson Correlation	-.008	-.221*	1	.610**	.477**	.215*	.471**	.553**	.566**	.440**	-.059	.418**
	Sig. (2-tailed)	.930	.015		.000	.000	.019	.000	.000	.000	.000	.521	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.4	Pearson Correlation	-.006	-.237**	.610**	1	.540**	.171	.561**	.501**	.528**	.334**	-.077	.488**
	Sig. (2-tailed)	.949	.009	.000		.000	.061	.000	.000	.000	.000	.405	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.5	Pearson Correlation	-.157	-.259**	.477**	.540**	1	.400**	.615**	.474**	.488**	.404**	-.070	.488**
	Sig. (2-tailed)	.088	.004	.000	.000		.000	.000	.000	.000	.000	.450	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.6	Pearson Correlation	-.063	.175	.215*	.171	.400**	1	.386**	.270**	.195*	.309**	-.035	.212*
	Sig. (2-tailed)	.497	.056	.019	.061	.000		.000	.003	.033	.001	.702	.020
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.7	Pearson Correlation	-.135	-.323**	.471**	.561**	.615**	.386**	1	.663**	.607**	.573**	-.021	.684**
	Sig. (2-tailed)	.141	.000	.000	.000	.000	.000		.000	.000	.000	.823	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.8	Pearson Correlation	-.145	-.394**	.553**	.501**	.474**	.270**	.663**	1	.767**	.753**	.043	.647**
	Sig. (2-tailed)	.114	.000	.000	.000	.000	.003	.000		.000	.000	.644	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.9	Pearson Correlation	-.077	-.368**	.566**	.528**	.488**	.195*	.607**	.767**	1	.706**	-.016	.674**
	Sig. (2-tailed)	.402	.000	.000	.000	.000	.033	.000	.000		.000	.867	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.10	Pearson Correlation	-.159	-.243**	.440**	.334**	.404**	.309**	.573**	.753**	.706**	1	.059	.622**
	Sig. (2-tailed)	.082	.007	.000	.000	.000	.001	.000	.000	.000		.521	.000
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.11	Pearson Correlation	-.110	-.130	-.059	-.077	-.070	-.035	-.021	.043	-.016	.059	1	-.056
	Sig. (2-tailed)	.231	.156	.521	.405	.450	.702	.823	.644	.867	.521		.543
	N	120	120	120	120	120	120	120	120	120	120	120	120
q6.12	Pearson Correlation	-.139	-.290**	.418**	.488**	.488**	.212*	.684**	.647**	.674**	.622**	-.056	1
	Sig. (2-tailed)	.129	.001	.000	.000	.000	.020	.000	.000	.000	.000	.543	
	N	120	120	120	120	120	120	120	120	120	120	120	120

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

From the above correlation table, the following results were drawn:

- There is a high positive correlation of 0.767 between WIL program helping students to function as an active member in the workplace and preparing students for the workplace by developing generic and specific competencies.
- There is a moderate positive correlation of 0.684 between having earn and learn programs, paid internships etc. which help graduates to be a prospective employee and the necessity for educational institutes to have separate WIL programmes to train graduates to be work ready.
- WIL education program prepares students for the workplace and helps to bridge the gap between industry needs and attributes of the graduate with a positive correlation of 0.706.
- There is a negative correlation between only book knowledge being sufficient in order to get a good job and WIL program necessary to help students to be an active and competent employee.
- There is also a negative correlation of -0.056 between universities/colleges implementing WIL programmes and whether institutes should have separate WIL programmes to train graduates to be work-ready.

9. Summary of findings

From the analysis of data collected from the sample on WIL among college students, the findings drawn were that there is a difference in the perception of concepts related to WIL as per gender. Book knowledge alone is not sufficient to get a good position at work and graduates require appropriate skills and attributes to perform within a diverse working environment through work-exposure and practical activities in their curriculum. It is necessary to have practical application of WIL programs in order to develop generic and specific competencies to prepare for the workplace. Implementation of WIL as part of the curriculum help in bridging the gap between industry needs and student attributes and helps graduates to be work ready but majority of the educational institutes do not implement an efficient WIL program for the students.

10. Suggestions and recommendations

Few of the recommendations towards WIL among college students based on the research findings are to understand the skills and attributes possessed by students and to connect the programs of the curriculum with it and increase practical activities such as internships, case studies on present business situations etc. to help students understand the concept and work environment better.

Institutes need to create in-depth understanding about the meaning and benefits of WIL among students and educational institutes should tie-up with the government and industries to provide more efficient WIL programs.

11. Recent trends

- On the regional level, WIL is being designed to be applied in classroom teaching to produce hands-on graduates who can meet the demands of the industries.
- As for ASEAN, there is a promotion of workforce mobility among the ASEAN countries. Students are expected to take internship in different countries to gain more work experience and other important skills.
- In India, BITS PILLANI has taken constructive steps towards implementing WIL in their curriculum and has recently set up a full-fledged program for individuals and organisations.

12. Conclusion

From the present research study, it can be concluded that WIL is an important aspect in trying to bridge the gap between what industry wants and the attributes a graduate possess. It is necessary for educational institutions to inculcate WIL programs in the curriculum of a student rather than concentrating only on book knowledge.

According to the research not all students are familiar with the concept of WIL but they understand the individual programs that come under WIL. It is believed that WIL has a positive effect on the growth of the competencies and skills of a graduate making them work-ready and an efficient part of the company. In India, a few educational institutes incorporate effective WIL programs. It is necessary to take effective steps towards the implementation of WIL in all streams of education.

With the skills and knowledge, the nation has, it is necessary to train and expand them in-tune with the industrial needs in order to support economic-growth and Work integrated learning is one of the solutions in improving the economic condition of the country.

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