



A Pilot Study To Test The Reliability And Validity Of The Research Instrument Designed For Enhancing Employability Skills Amongst Students

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Abstract	
CC License CC-BY-NC-SA 4.0	<p>Employability is a set of skills, achievement, personal attributes which makes the student more employable. This research paper tries to explore the factors which can be most influencing for the purpose of enhancing employability skills amongst students. The research is based on survey where simple technique of data collection through Google form is used. As we know that before starting collection of primary data the pilot study is very important. This study focuses on testing the reliability and validity of the designed questionnaire. The questionnaire focuses on questions related to teaching pedagogies, parts of teaching pedagogies which are important other than classroom teaching and to check if the students are kept well informed about their analysis of their skills. In this study SPSS is used to test the reliability and validity of the research instrument.</p> <p>Keywords: <i>Employability, Skills, Questionnaire, Reliability, Validity, Pilot Study.</i></p>

Introduction:

For University today one of the most challenging factor is to increase the chances of employability of students. The ranking of the colleges and Universities is generally based on the number of campus placements done by the educational institution. This factor is equally responsible for retention and acquisition of students. Employability is of great concern to all the stakeholders of the educational institution. As there is a gap in Industry and Academia this is a challenging problem faced by the university and institution. Steps should be taken by the educational institution to make reforms in their teaching and learning process as per the requirements and demands of the current market. To make the students industry ready they should possess all required skills which the market demands.

Employability skills are the skills which help the person to get a secured job. Along with the academic skills there are many other skills which a student should acquire for getting job. Students should not only gain theoretical knowledge about the subject but they should have overall knowledge about the practical

understanding of the subject, its implementation etc. Along with the classroom learning the students should also be well equipped with the practical implementation of the concept in real life. Students should be kept well informed about their known skills. A proper time to time analysis provided to the students can become helpful to them to upgrade their skills and increase their chances of employability. According to the study of Yasmeeen Bano, S. Vasantha (2019) it is found that there is a big gap between ability of the employee and the employer expectation. This gap is due to the dynamic changes in the market. Steps should be taken by the institute to reduce the gap by collaborating with Industry and making students learn through Internship and live projects.

According to the study done by L. Kalvani and Maheshwari (2015) it is found that one of the main aspect of measuring quality of education has been the employability of graduates from these institutions. According to the case study done it was found that the employability skill set comprise of technical knowledge, effective communication, core competency, interpersonal skills, team work, positive attitude, self-confidence, managerial skills, integrity, adaptability and so on. There is a gap between perceptions of the graduates and the employers, which can be filled by a proper interaction among them and necessary changes in curriculum as per the demand of industry and corporate world. The study done by Chandra Mohan Singh, Ashok Chandra (2018) reveals that the student do not possess the required soft skills as per the requirement of the Industry. According to the study done it was found that the students lack in Aptitude and Numeracy skills. It is the need of the hour to find out the issues, take timely action and give the students the chance to improve and upgrade their skills.

II. Pilot Study of Validity and Reliability:

According to Altman et al. (2006), a pilot test is a test done on a small scale to test the quality of the instrument used in the actual study. Therefore, validity and reliability are very important elements to determine the quality and correctness of an instrument used. Validity means a measurement that is the extent to which it successfully measures what it wants to measure. While reliability means testing on a small scale that is as an experiment before the items are used with real samples (Pratt, 1980). Often, reliability is tested by using a sample that has almost the same homogeneity as the real sample so that the test is more accurate. Pilot study is the imitation done of the real survey. The purpose of the pilot study testing is to find out if there is any flaw in the research instrument used.

III. Objective of the Research Study:

- i. To design a survey based questionnaire for checking the factors on which employability skills of students can be enhanced.
- ii. To check the reliability of the research instrument.
- ii. To check the validity of the research instrument.

IV. Methodology:

The conceptualization and development of the questionnaire was based on the existing literature. A 5-point Likert scale was used in this study. The questionnaire contained questions based on 3 sections. The first part of the section contained questions based on the teaching pedagogies adopted by teacher while teaching. Second part contained questions based on which other teaching methodology are important apart from classroom teaching and the third part contained questions based on if the students are kept well informed of the analysis of their skills obtained. The questionnaires was circulated to the Undergraduate students with the help of Google form designed. A total of 25 responses was collected from U.G. students for the purpose of analyzing the reliability and validity of the research instrument designed.

Tools Used

For the purpose of testing the reliability and validity of the pilot testing, statistical package for social sciences SPSS was used.

V. Results and Analysis:

The data was collected for pilot study from 25 respondents of Undergraduate level. There were total of 56% Male student respondents and 44% Female student Respondents. All the student respondents were from Undergraduate level.

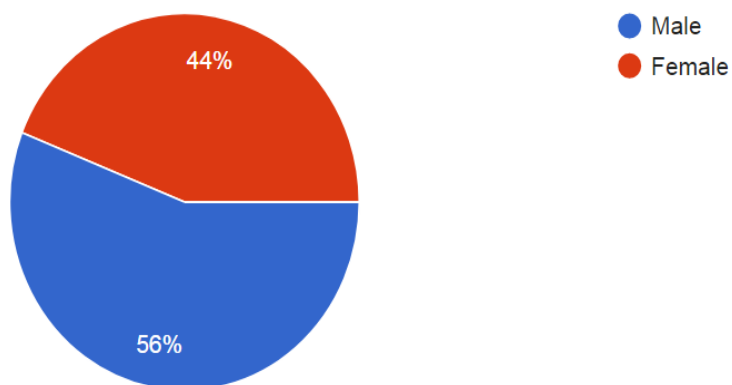


Fig (1) Chart Showing Genderwise Classification of Data

The result of reliability test obtained using SPSS is as follows:-

Reliability Statistics			Reliability Statistics		Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Cronbach's Alpha	N of Items	Cronbach's Alpha	N of Items
.769	.978	21	.976	9	.942	5

The result of Validity test obtained using SPSS is as follows:-

Is teaching done using Case Studies based learning	Pearson Correlation	Total	Co-Curricular Activities	.816**
	Sig. (2-tailed)	.712**		.000
	N	25		.25
Is teaching done using Collaborative Learning"	Pearson Correlation	.000	Extra-Curricular Activities"	.912**
	Sig. (2-tailed)	.828**		.000
	N	25		.25
Is teaching done by giving Practical Demonstration "	Pearson Correlation	.000	Aware of analysis of Personality skills	.908**
	Sig. (2-tailed)	.925**		.000
	N	25		.25
Does teacher give Real World Concept Mapping while teaching	Pearson Correlation	.000	Aware of analysis of Aptitude skills	.912**
	Sig. (2-tailed)	.810**		.000
	N	25		.25
Does teaching include Discussion on Current Trends and Technologies and Innovation in Current trends	Pearson Correlation	.000	Aware of analysis of Communication Skills	.922**
	Sig. (2-tailed)	.741**		.000
	N	25		.25
Induction Program"	Pearson Correlation	.000	Aware of analysis of Technical Skills	.852**
	Sig. (2-tailed)	.865**		.000
	N	25		.25
Guest Lectures on varied topics	Pearson Correlation	.000	Aware of analysis of Academic Projects	.934**
	Sig. (2-tailed)	.914**		.000
	N	25		.25
Industry Visits	Pearson Correlation	.000	V21	.999**
	Sig. (2-tailed)	.708**		.000
	N	25		.25
Personality Development Lectures	Pearson Correlation	.000	Total	1
	Sig. (2-tailed)	.899**		.25
	N	25		.000
Mock Interview Sessions	Pearson Correlation	.000		.25
	Sig. (2-tailed)	.943**		.000
	N	25		.25
Research/Innovations Lectures	Pearson Correlation	.000		.000
	Sig. (2-tailed)	.891**		.25
	N	25		.000
Alumni intraction lecture	Pearson Correlation	.000		.25
	Sig. (2-tailed)	.891**		.000
	N	25		.25

The validity of the research instrument was tested using Pearson’s coefficient. It was found that the obtained value > Critical Value in the statistical table.

VI. Conclusion:

According to the pilot study done and the responses it is observed that teachers give more focus on Collaborative learning and Practical Demonstration and less focus is given on Case based learning. But if the teachers increase the focus on Case based learning it will help to improve the whole teaching learning process. As Case based method is learner-centered with intense interaction between participants and is useful in building their knowledge and work together as a group to examine the case. Also more focus should be given on discussion of current trends and technologies while teaching so that it will help to make the students aware of the real world activities and help them to increase their level of employability. Also students should get more exposure on other parts of teaching and learning process apart from the classroom teaching. Industry visits, Guest Lectures, Arranging mock interviews, Alumni interaction lectures, Research and innovation lectures and conduction of different activities should be made a part to increase the overall employability of students.

The research study main aim was to test the reliability and validity of the questionnaire. The reliability and validity of the research instrument was done using SPSS tool. By using Cronbach's alpha it was found that the research instrument is reliable and the value of Cronbach's alpha obtained is 0.769 and also the validity testing was done using Pearson's coefficient and it was found that the obtained value is greater than the critical value for each case.

VII. References:

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