
Using Regression Analysis to Establish the Relationship Between Perception on Outcome-Based Education and Employability Skills among Postgraduate Students

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Abstract

Purpose: The purpose of this study was to determine using regression analysis to establish the relationship between the perception of outcome-based education and the employability skills of postgraduate students.

Methodology: The investigator adopted a descriptive survey method using a sample of 1110 post-graduate students from universities in various districts in Tamil Nadu.

Sampling technique: The simple random sampling technique was used for the present study.

Tools used: In the present study outcome-based education scale has been constructed and standardized for higher education levels among post-graduate students. This scale consists of 30 statements. The second tool used to find the employability skills scales was developed by the investigator, which contained 40 statements and six personal management skills, teamwork skills, positive attitude, fundamental skills, resilience, and ICT skills.

Results: The results of the study showed that there is a significant influence of employability skills of postgraduate students in their perception of outcome-based education.

Keywords: perception of outcome-based education, employability skills, postgraduate students

1. Introduction

Education plays a great role in the life of everyone all throughout life. Getting proper education is very necessary to get success and happy life just like food is necessary for a healthy body. Higher education has a significant role in supporting knowledge-driven economic growth strategies and in the construction of democratic, socially cohesive societies. Perception of outcome-based education is an educational theory that is grounded on maintaining, monitoring, and improving quality. Learning outcomes that are obtained by the students through every activity of the educational processes are the direct first-handed instruments/entities that assure attainment of quality (Spady, 1994). Skill is the ability to perform a specific task, and employability is about having the capability to gain initial employment, maintain employment, and obtain new employment if required. Employability criteria encompass knowledge, attitudes, beliefs, and skills (Hillage & Pollard, 1998). Employability skills along with academic technical skills are critical components of college and career readiness. Documenting employability skills that are embedded in classroom practice helps students to realize the connection between education and employment.

2. Purpose of the Study

Education is one of the major investments undertaken by contemporary society and the level of educational attainment has been steadily increasing worldwide. Educational attainment is a measure of human capital and is indicative of the skills of a population. Outcome-based education can be useful if they are shared with the postgraduate students in the form of study guides for tests and then used as the basis of test preparation. When students have a clear understanding of what is expected of them, it may help them to prepare themselves better and meet the expectations. They can also help assess learning and teaching methods and establish feedback mechanisms for postgraduate students, employers, and other stakeholders. Learning outcomes, especially when mapped to specific educational experiences, can also be used by the students to do self-assessments of their own

progress. This study aims to identify the student's employability skills needed in the career field and the way to integrate them into the instructional process. Employability skills refer to a set of transferable skills and key personal attributes which are highly valued by employers and essential for effective performance in the workplace. Professional or technical skills, these employability skills are generic in nature, rather than job-specific, and are common to all work roles and workplaces across all industry types - for instance, communication and teamwork.

3. Research Questions

- ❖ Is there any significant difference between the perception on outcome-based education and the employability skills of postgraduate students?
- ❖ Is there any significant association between the perception on outcome-based education and the employability skills of postgraduate graduate students?
- ❖ What are the predictors of perception on outcome-based education of university post graduate students?

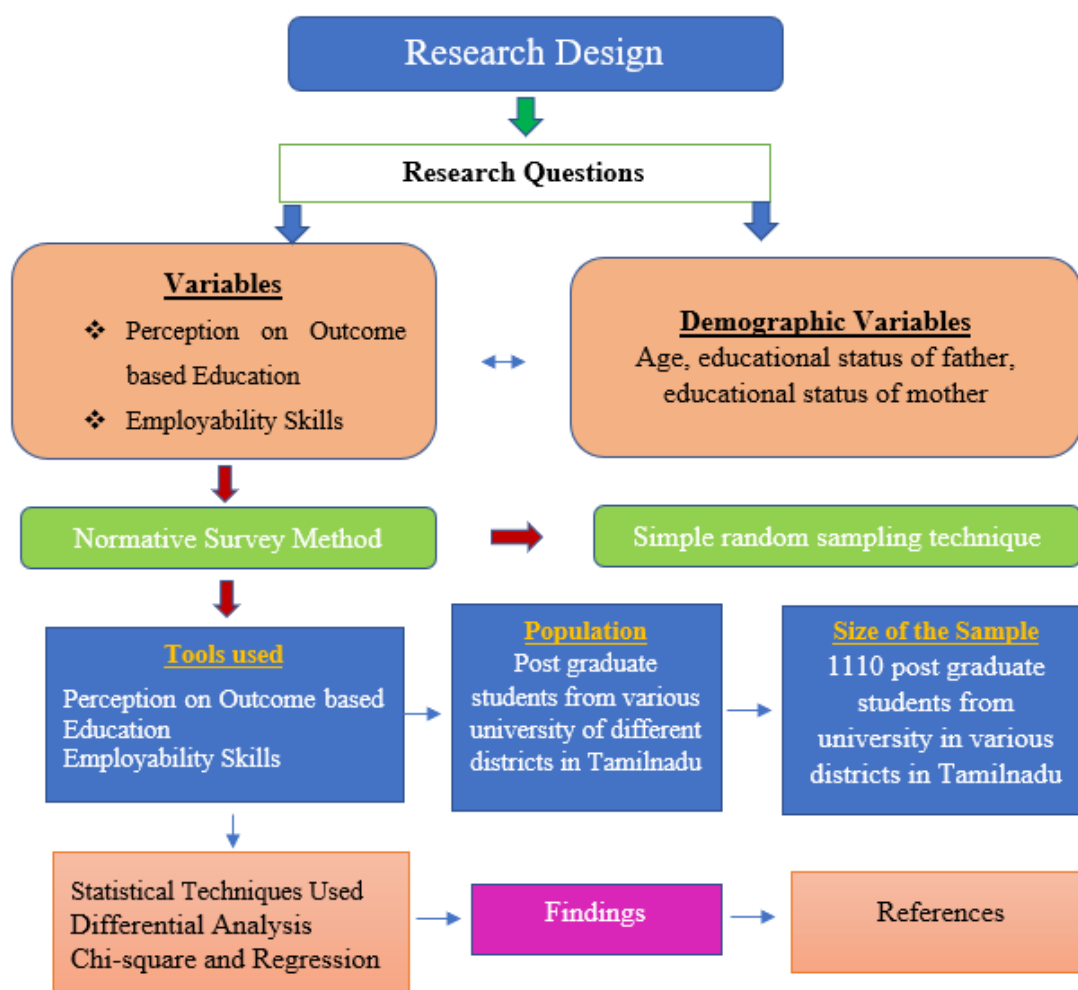
4. Research Methodology

Method: Descriptive survey method was used in the study.

Population: The population of the present study includes post-graduate students studying in universities from various districts (Salem, Chennai, Coimbatore, Karaikudi, Chidambaram, Madurai, Kodaikanal).

Sample of the study: The sample of the study consists of 1110 post graduate students from university in various districts (Salem, Chennai, Coimbatore, Karaikudi, Chidambaram, Madurai, Kodaikanal)

Research Design



Tools used

- [a] Post Graduate Students personal data
- [b] Perception on Outcome-Based Education Tool
- [c] Employability Skills Tool

[a] Post Graduate Student's personal data

The investigator has taken post-graduate students' personal data for the present study. They are the age, educational status of the father, and educational status of the mother.

[b] Perception on Outcome-Based Education Tool

The perception on outcome-based education tool was developed by the investigator. It contains 30 test items and measures the perception on outcome-based education on the post graduate students with five alternatives to respond as (5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree) marks were given accordingly. Perception on outcome-based education tool consisted of statements with five dimensions such as general awareness about OBE, commitment towards OBE implementation, teaching-learning process, the role of the teacher, and assessment. The maximum value is 150 and the Minimum value is 30. The estimated reliability of the scale in the present study is high (Cronbach's alpha 0.887).

[c] Employability Skills

The employability skills tool was developed by the investigator. It contains 40 test items and measures the employability skills of the postgraduate students with five alternatives to respond as (5=Always, 4=Often, 3=Sometimes, 2=Rarely, 1=Never) marks were given accordingly. The employability skills tool consisted of statements with six dimensions such as personal management skills, teamwork skills, positive attitude, fundamental skills, resilience, and ICT skills. The maximum value is 200 and the minimum value is 40. The estimated reliability of the scale in the present study is high (Cronbach's alpha 0.874).

5. Analysis and Interpretation

Research Question:1 Is there any significant relationship between the perception on outcome-based education and the employability skills of postgraduate students?

Table 1 Difference between up to 22 years old and above 22 years old Post Graduate Students in Perception on Outcome Based Education

Dimensions	Age	N	Mean	SD	't' value	Table Value at 5% level	Remark
General Awareness about OBE	Up to 22	438	23.00	3.308	1.926	1.96	NS
	Above 22	672	23.39	3.280			
Commitment towards OBE Implementation	Up to 22	438	23.03	3.754	0.544	1.96	NS
	Above 22	672	23.16	3.582			
Teaching Learning Process	Up to 22	438	24.25	3.482	4.362	1.96	S
	Above 22	672	23.29	3.677			
Role of Teacher	Up to 22	438	23.68	3.795	3.954	1.96	S
	Above 22	672	22.78	3.622			
Assessment	Up to 22	438	23.19	3.662	0.774	1.96	NS
	Above 22	672	23.36	3.672			
Outcome Based Education	Up to 22	438	117.15	14.741	1.311	1.96	NS
	Above 22	672	115.98	14.509			

Interpretation: The calculated 't' value is greater than the table value at 5% level of significance. Therefore, there is significant difference between up to 22 years old and above 22 years old postgraduate students in teaching learning process and role of teacher. But there is no significant difference between up to 22 years old

and above 22 years old postgraduate students in general awareness about OBE, commitment towards OBE implementation, assessment and perception on outcome-based education.

Table -2 Difference between up to 22 years old and above 22 years old Post Graduate Students in Employability Skills

Dimensions	Age	N	Mean	SD	't' value	Table Value at 5% level	Remark
Personal Management Skills	Up to 22	438	32.24	4.049	2.598	1.96	S
	Above 22	672	31.59	4.080			
Teamwork Skills	Up to 22	438	24.76	3.620	7.655	1.96	S
	Above 22	672	23.06	3.606			
Positive Attitude	Up to 22	438	20.93	3.054	6.632	1.96	S
	Above 22	672	19.69	3.024			
Fundamental Skills	Up to 22	438	36.45	5.330	5.166	1.96	S
	Above 22	672	34.77	5.295			
Re-silence	Up to 22	438	19.89	3.939	5.733	1.96	S
	Above 22	672	18.58	3.554			
ICT Skills	Up to 22	438	29.62	4.847	5.578	1.96	S
	Above 22	672	28.00	4.674			
Employability Skills	Up to 22	438	163.89	19.632	7.000	1.96	S
	Above 22	672	155.69	18.697			

Interpretation: The calculated 't' value is greater than the table value at 5% level of significance. Therefore, there is significant difference between up to 22 years old and above 22 years old postgraduate students in personal management skills, teamwork skills, positive attitude, fundamental skills, re-silence and ICT skills and employability skills. Hence, the hypothesis is rejected.

Research Question:2 Is there any significant association between perception on outcome-based education and employability skills of post graduate students?

Table 3 Association between Educational Status of Father and Perception on Outcome Based Education of Post Graduate Students

Variables	Degrees of freedom	Calculated Value of ' χ^2 '	Table Value of ' χ^2 '	Remarks at 5% Level
General Awareness about OBE	8	7.306	15.507	NS
Commitment towards OBE		11.817		NS
Implementation				
Teaching Learning Process		17.488		S
Role of Teacher		19.281		S
Assessment		8.727		NS
Outcome Based Education		18.028		S

Interpretation: The calculated ' χ^2 ' value is greater than the table value at 5% level of significance. Therefore, there is significant association between educational status of father and teaching learning process, role of teacher and outcome-based education of postgraduate students. But there is no significant association between educational status of father and general awareness about OBE, commitment towards OBE implementation and assessment of postgraduate students.

Table 4 Association between Educational Status of Mother and Outcome Based Education of Post Graduate Students

Variables	Degrees of freedom	Calculated Value of ' χ^2 '	Table Value of ' χ^2 '	Remarks at 5% Level
General Awareness about OBE	8	12.913	15.507	NS
Commitment towards OBE Implementation		12.723		NS
Teaching Learning Process		21.685		S
Role of Teacher		19.138		S
Assessment		11.932		NS
Outcome Based Education		14.162		NS

Interpretation: The calculated ' χ^2 ' value is greater than the table value at 5% level of significance. Therefore, there is significant association between educational status of mother and teaching learning process and role of teacher of postgraduate students. But there is no significant association between educational status of mother and general awareness about OBE, commitment towards OBE Implementation, assessment, and perception on outcome-based education of postgraduate students.

Table 5 Association between Educational Status of Father and Employability Skills of Post Graduate Students

Variables	Degrees of freedom	Calculated Value of ' χ^2 '	Table Value of ' χ^2 '	Remarks at 5% Level
Personal Management Skills	8	8.308	15.507	NS
Teamwork Skills		22.044		S
Positive Attitude		19.382		S
Fundamental Skills		15.766		S
Re-silence		7.853		NS
ICT Skills		12.931		NS
Employability Skills		20.010		S

Interpretation: The calculated ' χ^2 ' value is greater than the table value at 5% level of significance. Therefore, there is significant association between educational status of father and teamwork skills, positive attitude, fundamental skills and employability skills of postgraduate students. But there is no significant association between educational status of father and personal management skills, re-silence, and ICT skills of postgraduate students.

Table 6 Association between Educational Status of Mother and Employability Skills of Post Graduate Students

Variables	Degrees of freedom	Calculated Value of ' χ^2 '	Table Value of ' χ^2 '	Remarks at 5% Level
Personal Management Skills	8	7.331	15.507	NS
Teamwork Skills		40.261		S
Positive Attitude		10.318		NS
Fundamental Skills		18.515		S
Re-silence		15.045		NS
ICT Skills		16.104		S
Employability Skills		13.148		NS

Interpretation: The calculated ' χ^2 ' value is greater than the table value at 5% level of significance. Therefore, there is significant association between educational status of mother and teamwork skills, fundamental skills and ICT skills of postgraduate students. But there is no significant association between educational status of mother and personal management skills, positive attitude, re-silience, and employability skills of postgraduate students.

Research Question:3 What are the predictors of perception on outcome-based education of post graduate students?

Table 7 Multiple Correlations among Perception on Outcome Based Education and Employability Skills of Post Graduate Students

Variables	Cognitive Ability	Employability Skills	Outcome Based Education	Multiple Correlations	df	Calculated value of 'F'	Remarks at 5% Level
Employability Skills	-0.257	1.000	0.496	0.247	2,1007	181.175	S
Outcome Based Education	-0.104	0.496	1.000				

(At 5% level of significance, for 2, 1107 df the table value of 'F' is 3.00)

It is inferred from the above table that there is significant influence of employability skills of post graduate students in their perception on outcome-based education. Hence, the null hypothesis is rejected.

Table 7 (a)

R	R Square	Regression F
0.497	0.247	181.175

- ❖ The R value is 0.497. So, the Outcome Based Education has a positive relationship with Employability Skills of post graduate students.
- ❖ Since the R square value is 0.247, 25 percent of the variation in Outcome Based Education is enhanced by Employability Skills of post graduate students.
- ❖ The F value is significant at 1% level of significance. It means Outcome Based Education of post graduate students is more reliable.

6. Findings

- There is significant difference between up to 22 years old and above 22 years old postgraduate students in teaching learning process and role of teacher and there is no significant difference between up to 22 years old and above 22 years old postgraduate students in general awareness about OBE, commitment towards OBE implementation, assessment, and perception on outcome-based education
- There is significant difference between up to 22 years old and above 22 years old postgraduate students in personal management skills, teamwork skills, positive attitude, fundamental skills, re-silience and ICT skills and employability skills.
- There is significant association between educational status of father and teaching learning process, role of teacher and outcome-based education of postgraduate students.
- There is no significant association between educational status of father and general awareness about OBE, commitment towards OBE implementation and assessment of postgraduate students.
- There is significant association between educational status of mother and teaching learning process and role of teacher of postgraduate students.

- There is no significant association between educational status of mother and general awareness about OBE, commitment towards OBE Implementation, assessment, and perception on outcome-based education of postgraduate students.
- There is significant association between educational status of father and teamwork skills, positive attitude, fundamental skills, and employability skills of postgraduate students.
- There is no significant association between educational status of father and personal management skills, re-silience, and ICT skills of postgraduate students.
- There is significant association between educational status of mother and teamwork skills, fundamental skills and ICT skills of postgraduate students and there is no significant association between educational status of mother and personal management skills, positive attitude, re-silience, and employability skills of postgraduate students.
- There is significant influence of employability skills of post graduate students in their perception on outcome-based education.

7. Conclusion

The main aim of the study is to find out the significant difference between the using regression analysis to establish the relationship between perception on outcome-based education and employability skills among postgraduate students. The major findings of the study revealed that there is significant association between educational status of father and teaching learning process, role of teacher and outcome-based education of postgraduate students. There is significant association between educational status of father and teamwork skills, positive attitude, fundamental skills, and employability skills of postgraduate students. There is significant association between educational status of mother and teamwork skills, fundamental skills and ICT skills of postgraduate students and there is no significant association between educational status of mother and personal management skills, positive attitude, re-silience, and employability skills of postgraduate students. There is significant association between educational status of mother and teaching learning process and role of teacher of postgraduate students. The results also showed that there is no significant influence of outcome-based education on employability skills of post graduate students.

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