Education Through ODL Mode: An Analytical Study of Students and Their Perceptions

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1. Introduction

The literacy and education levels of a nation's population are basic indicators of a developed society. It is generally believed that a modern civilized society is characterized by overall development of individuals wherein literacy plays a major role. Distance education is considered a major tool in increasing the levels of education of population all over the world.

1.1 Significance of the Study

As per Ministry of Human Resource Development, Government of India(2016) the overall literacy rate in India in 2011 is 69.3% wherein the male and female literacy rates were 78.8% 59.3% respectively and 11% of total enrolled students in the country are in the distance learning mode. Thus, there is a tremendous need to conduct academic studies to understand the nuances and challenges of this ever-increasing mode of alternate education in this world and more so in a developing country like India.

1.2 Statement of the Problem

Distance education as an alternate mode of education has achieved several milestones both with regards to aspects of implementation and social acceptance. Thus, it is imperative to study the characteristics of the distance learner and investigate or examine their perception towards Open Distance Learning (ODL) under local conditions.

1.3 Literature Review

In a study Potashnik and Capper (1998) states that the overall dropout rate of distance course can be attributed to students' low peer or instructor interaction, or loss of interest or motivation owing to the slow feedback they receive in the form of graded assignments or due

to work pressures and family life. Saba (2005) stated that for distance education programmes to remain effective, they must respond to individual student needs, develop differential starting and ending points and focus on developing competency based education models. Chopra and Lal (2013) states that the existing a "One-size-fits-all" approach in distance education system is not very effective.

Aderinoye and Ojokheta (2004), UNESCO report (2002) and Peters (2003) found that open or distance learning balances inequalities between age group in terms of geographical access to education in multidisciplinary subjects without affecting work life or family life in a very cost effective manner. Bryant, Kahle and Schafer (2005) identify five critical areas namely institutional commitment, curriculum and instruction, faculty support, student support and evaluation and assessment in education through the ODL mode. A report of the Ministry of Human Resource Development, Government of India (2011) highlighted the importance of very high quality learning materials for students in order to sustain high motivation among students and overcome hindrances in the ODL mode existing because of lack guidance from faculty.

1.4 Gap in Reviewed Literature:

The reviewed literature highlights scant resources available in the area of studying the student perception on the present ODL environment as a whole and that existing in the North East India in particular. The researcher has been guided by the earlier studies in terms of identification of variables to be considered to gain an insight on the students' perception towards ODL mode of education. The objective of the current research enquiry has been formulated keeping in mind the issues, challenges and findings of the available literature.

1.5   Objectives:

The objectives of this study are defined as follows:

i. To find out the popular level of education and streams opted for by the respondents and examine its relationship with the demographic, social and economic status of the respondents.

ii. To analyse the reasons for joining distance education mode and also observe the effect of demographic, social and economic status of the respondents on the same.

iii.To study the challenges perceived by the respondents in terms of the distance learning programme

iv. To examine the perceived satisfaction level of the respondents and its relationship with the chances of recommending ODL to others.

2. Research Methodology:

The research design is exploratory followed by descriptive design. The target population for this research enquiry may be defined as under:
- Elements- Students pursuing open distance learning programmes
- Extent- Guwahati City
- Time Frame of data collection : June – July 2017

2.1 Sampling Design and Data Collection Process:

Convenient sampling has been used for this study and primary data from 150 samples have been collected from six ODL study centers of Guwahati. A structured questionnaire was used to collect primary data. The questionnaire used for the purpose of the survey was initially pre tested on approximately 30 participants to identify and eliminate potential problems. The respondents for the pre test was drawn from the same target population. Certain changes were incorporated in accordance to the problems identified in administering the questionnaire mainly in terms of the language and understandability.

2.2 Tools for Data Analysis:

In this study, frequency distributions in terms of absolute count and percentages have been used for data analysis. Cross tabulation of relevant data has been done. Measures of central tendency i.e. mean have been used. Hypothesis testing has been done through independent samples 't test' and one-way analysis of variance (ANOVA). Pie charts have been used for data presentations.

3. Results and Discussion

The discussion and findings pertaining to each of the four objectives of this research enquiry have been analysed and presented below: 6

3.1 Educational Levels at which Course is Pursued and Streams chosen with respect to Demographic and Socio-economic Variables of Respondents:
With reference to the first objective of the study the respondents

were asked to choose the educational level (viz. Undergraduate, Graduate, Post Graduate and above, Diploma/Certificate courses) at which they have joined the ODL program. Also the respondents were asked to select the streams (viz. Arts, Science, Commerce/Management, General Studies/Others) in which they have opted for ODL mode of education. Cross tabulation of the data pertaining to education level at which course is pursued with respect to gender, age group, employment status and family/self monthly income have been done and presented in Table 1.1

The following observation can be made from **Table 1.1.**

i. The most popular education level at which ODL is pursued is "Post Graduate and above" (57%)

ii. Out of the above, highest number of females (54.12 %) have opted for "Post graduate and above" level courses.

iii. Majority of the respondents in the age group of below 25 (52.94 %) have enrolled for "Post graduate and above" level courses.

iv. Majority of the respondents with family/self-monthly income from Rs 10001 to Rs 50000 (48.24%) have enrolled for "Post graduate and above" level courses.

v. Highest number of respondents who have opted for "Post graduate and above" level courses are unemployed (57.65 %)

Table 1.1: Cross tab of education level at which course is pursued with demographic and socio economic variables

			Undergraduate	Graduate	Post graduate and above	Diploma/ certificate course	Total
Gender	MALE	Count	0	24	39	10	73
		%	0	77.42	45.88	52.63	48.67
	FEMALE	Count	15	7	46	9	77
		%	100	22.58	54.12	47.37	51.33
Total		Count	15	31	85	19	150
		%	10.00	20.67	56.67	12.67	100.00
Age Group	BELOW 25	Count	13	24	45	17	99
		%	86.67	77.42	52.94	89.47	66.00
	ABOVE 25	Count	2	7	40	2	51
		%	13.33	22.58	47.06	10.53	34.00
Total		Count	15	31	85	19	150
		%	10.00	20.67	56.67	12.67	100.00
Family/ Self Monthly Income	MORE THAN Rs.50000	Count	5	5	34	3	47
		%	33.33	16.13	40.00	15.79	31.33
	From rs. 10001 To Rs. 50000	Count	7	12	41	10	70
		%	46.67	38.71	48.24	52.63	46.67
	Below Rs.10000	Count	3	14	10	6	33
		%	20.00	45.16	11.76	31.58	22.00
Total		Count	15	31	85	19	150
		%	10.00	20.67	56.67	12.67	100.00
Students employment status	Unemployed	Count	5	26	49	17	97
		%	33.33	83.87	57.65	89.47	64.67
	Employed	Count	4	4	27	1	36
		%	26.67	12.90	31.76	5.26	24.00
	Self employed	Count	6	1	9	1	17
		%	40.00	3.23	10.59	5.26	11.33
Total		Count	15	31	85	19	150
		%	10.00	20.67	56.67	12.67	100.00

Cross tabulation of the data pertaining to streams chosen by the respondents with respect to gender, age group, employment status and family/self monthly income have been done and presented in **Table 1.2.**

The following observation can be made from **Table 1.2**.

i. The most popular stream in which ODL is pursued is "Arts" (52%)

ii. Out of the above, highest number of male respondents (51.28%) have opted for "Arts" courses.

iii. Majority of the respondents in the age group of below 25 (69.23%) have enrolled for "Arts" courses.

iv. Majority of the respondents with family/self monthly income from Rs 10001 to Rs 50000 (42.31%) have enrolled for "Arts" courses.

v. Highest numbers of respondents who have opted for "Arts" courses are unemployed (73.08 %).

Table 1.2 : Crosstab of Streams Chosen with Demographic and Socio economic Variables

			Arts	Science	Commerce/ management	General studies/ others	Total
Gender	Male	Count	40	4	25	4	73
		%	51.28	20.00	58.14	44.44	48.67
	Female	Count	38	16	18	5	77
		%	48.72	80.00	41.86	55.56	51.33
Total		Count	78	20	43	9	150
		%	52.00	13.00	29.00	6.00	100.00
Age Group	Below 25	Count	54	11	29	5	99
		%	69.23	55.00	67.44	55.56	66.00
	Above 25	Count	24	9	14	4	51
		%	30.77	45.00	32.56	44.44	34.00
Total		Count	78	20	43	9	150
		%	52.00	13.00	29.00	6.00	100.00
Family/ Self Monthly Income	More than rs.50000	Count	20	5	21	1	47
		%	25.64	25.00	48.84	11.11	31.33
	From rs. 10001 to rs. 50000	Count	33	12	17	8	70
		%	42.31	60.00	39.53	88.89	46.67
	Below rs.10000	Count	25	3	5	0	33
		%	32.05	15.00	11.63	0.00	22.00
Total		Count	78	20	43	9	150

Students Employment Status		%	52.00	13.00	29.00	6.00	100.00
	Unemployed	Count	57	7	28	5	97
		%	73.08	35.00	65.12	55.56	64.67
	Employed	Count	15	4	13	4	36
		%	19.23	20.00	30.23	44.44	24.00
	Self employed	Count	6	9	2	0	17
		%	7.69	45.00	4.65	0.00	11.33
Total		Count	78	20	43	9	150
		%	52.00	13.00	29.00	6.00	100.00

3.2 Reasons for Joining ODL Mode of Education and Its Relationship Demographic and Socio-economic Variables of Respondents:

With reference to the second objective of the study the respondents were asked to select the main reason for adopting the ODL mode of education. The cross tabulation of the reasons selected by the respondents for joining ODL mode of learning with respect to gender, age group, employment status and family/self-monthly income has been presented in Table 1.3.

The following observations can be made from the above Table 1.3:

i. The most important reason for joining ODL mode of education as perceived by the respondents is "to improve his/her qualifications" (70%)

ii. Highest number of male respondents (51.54 %) has opined that they have joined the course to improve their qualification.

iii. Majority of the respondents in the age group of below 25 (69.53%) have opined that they have enrolled for the course to improve their qualification.

iv. Majority of the respondents with family/self monthly income from Rs 10001 to Rs 50000 (43.81%) have enrolled for the course to improve their qualification.

v. Highest numbers of respondents who are unemployed (66.67%) have enrolled for the courses to improve their qualifications.

Table 1.3 : Cross tab of reasons for joining ODL mode of education with demographic and socio economic variables

			For promotional prospects	To increase knowledge	To improve my qualifications	I have nothing else to do	Total
Gender	Male	Count	3	14	54	2	73
		%	33.33	43.75	51.43	50.00	48.67
	Female	Count	6	18	51	2	77
		%	66.67	56.25	48.57	50.00	51.33
Total		Count	9	32	105	4	150
		%	6.00	21.00	70.00	3.00	100.00
Age Group	Below 25	Count	5	18	73	3	99
		%	55.56	56.25	69.52	75.00	66.00
	Above 25	Count	4	14	32	1	51
		%	44.44	43.75	30.48	25.00	34.00
Total		Count	9	32	105	4	150
		%	6.00	21.00	70.00	3.00	100.00

Family/Self Monthly Income						
More than rs.50000	Count	2	9	36	0	47
	%	22.22	28.13	34.29	0.00	31.33
From rs. 10001 to rs. 50000	Count	7	15	46	2	70
	%	77.78	46.88	43.81	50.00	46.67
Below RS.10000	Count	0	8	23	2	33
	%	0.00	25.00	21.90	50.00	22.00
Total	Count	9	32	105	4	150
	%	6.00	21.00	70.00	3.00	100.00
Students employment status						
Unemployed	Count	3	20	70	4	97
	%	33.33	62.50	66.67	100.00	64.67
Employed	Count	4	5	27	0	36
	%	44.44	15.63	25.71	0.00	24.00
Self employed	Count	2	7	8	0	17
	%	22.22	21.88	7.62	0.00	11.33
Total	Count	9	32	105	4	150
	%	6.00	21.00	70.00	3.00	100.00

3.3 Challenges Perceived by the Respondents in terms of the ODL Mode of Education and Its Relationship with Demographic and Socio economic Variables:

This section attempts to find out the greatest challenge as perceived by the respondents in terms of ODL mode of education. The frequencies of the respondent's agreement/disagreement to 14 pre-identified statements were analysed for this purpose. A score of 1 indicated strong disagreement and a score of 5 indicated strong agreement to the statements. The weighted average of the responses was also computed to find out the greatest challenge as perceived by the respondents. It has been computed in the following manner:

Weighted Average of: Guidance required for completion of assignments = (1×13+2×31+3×23+4×63+5×20) ÷ 150= 3.31

Likewise, the weighted average has been calculated for the other 13 statements. A higher mean indicates higher agreement to the mentioned statements. All the statements are then arranged in the ascending order of the mean (lowest mean first) to find the top five challenges perceived by the respondents.

Hence, the top five challenges as indentified through the process of the lowest weighted mean can be interpreted as follows:

1. Guidance for completion of assignments.

2. Job orientation of courses.

3. Regularity of contact sessions.

4. Availability of course related information.

5. Timely receipt of study materials/assignments

Table 1.4: Top Five Challenges on the basis of the Computed Weighted Average

rank	challenges faced:	sd	d	n	a	sa	weighted average
1	guidance is required for completion of assignments	13	31	23	63	20	3.31
2	the course is very job oriented	11	22	40	57	20	3.35
3	contact sessions are conducted regularly	8	25	20	85	12	3.45
4	all course related information is easily available	14	21	9	81	25	3.55
5	study material /assignments are received on time.	10	15	32	66	27	3.57
6	physical quality (print, paper, binding etc.) of study material is satisfactory	10	12	25	80	23	3.63
7	the study materials is very helpful for self learning	11	11	28	70	30	3.65
8	grading of assignments is consistent with counsellors 'comments on the assignments.	6	9	33	86	16	3.65
9	the course enhances knowledge on the subject matter	7	11	33	75	24	3.65
10	the course is adequately priced	3	23	13	92	19	3.67
11	sufficient time is provided for writing the assignments.	8	10	27	79	26	3.70
12	study centres are easily accessible by the students	0	15	27	87	21	3.76
13	course enrolment and pursuance process is easy and hassel free (admission, fees payment process etc)	6	16	13	84	31	3.79
14	examination forms are received from the university in time.	3	13	16	87	31	3.87

(Here SD=strongly disagree, D=disagree, N =neutral, A=agree and SA=strongly agree)

The researcher also attempted to examine the effect of gender, age group, employment status and family/self monthly income on the five challenges perceived by the respondents.

3.3.1 Effect of Demographic and Socio economic Variables on Perceived Challenges:

An Independent sample t-test at a significance level of 5% ($\alpha=0.05$) is carried out to determine whether the means of the perceived challenges differ across their gender. Hence, the following hypothesis was framed and tested:

H_0: There is no significant difference between the means of the perceived challenges with respect to the gender of the respondents' at 95% confidence level.

H_1: There is significant difference between the means of the perceived challenges with respect to the gender of the respondents' at 95% confidence level.

The five perceived challenges is taken as the test variables (dependent variable) while the respondents gender is taken as the grouping variable (independent variable).However the results of the independent samples t test was not found to be statistically significant. This implies that the perceived challenges do not vary with respect to the gender of the respondents.

In a similar manner as shown above the following null hypothesis were formulated and tested.

H_0: There is no significant difference between the means the perceived challenges with respect to the age group of the respondents' at 95% confidence level.

The results of the independent samples t test indicated that the difference in the means of the perceived challenges was not statistically significant.

In order to observe the effect of employment status and family/self monthly income on the perceived challenges of ODL a one way ANOVA was conducted to test the following hypothesis:

H_0: There is no significant difference among the means of the perceived challenges with respect to the employment status of the respondents' at 95% confidence level.

The results of the one way ANOVA revealed the following:

The difference among the means of the perceived challenge in terms of regularity of the contact sessions was found to be statistically significant (Table 1.5).

Table 1.5 : Results of One way ANOVA to test significant differences in the means of the perceived challenges w.r.t employment status

Perceived Challenge:		df	F	Sig.
Regularity of contact sessions	Between Groups	2	4.639	0.011
	Within Groups	147		
	Total	149		

From the descriptive statistics (Table 1.6) it is observed that respondents who are unemployed perceives regularity of contact sessions as a challenge , more than employed and self employed respondents because they are less agreeable to the statement that " contact sessions are conducted regularly."

Table 1.6 : Descriptive Statistics for significant differences in the perceived mean on the regularity of the contact sessions w.r.t employment status

Challenges identified		N	Mean
Contact sessions are conducted regularly	Unemployed	97	3.268
	Employed	36	3.778
	Self employed	17	3.824
	Total	150	3.453

In a similar manner as shown above, a one way ANOVA was conducted to test the following hypothesis.

H_0: There is no significant difference among the means of the perceived challenges with respect to the family/self monthly income of the respondents' at 95% confidence level.

The results of the one way ANOVA revealed that the differences among the above means were not statistically significant.

Therefore, it can be concluded demographic and socio economic status of the respondents does not significantly affect their perception on the top five challenges associated with ODL mode of education.

3.4 Satisfaction with Respect to ODL and its Relationship with Spread of Positive word of Mouth:

The respondents were asked to rate their satisfaction level with respect to pursuance of ODL mode of education on a scale of 1 to 5. A rating of one implied high dissatisfaction and five implied high level of satisfaction. The frequency distribution of the responses has been shown in Table 1.7.

Table 1.7 : Overall satisfaction level with respect to the ODL course

Satisfaction Level	Frequency	Percent
Very low	9	6
Low	8	5
Medium	97	65
High	35	23
Very high	1	1
Total	150	100

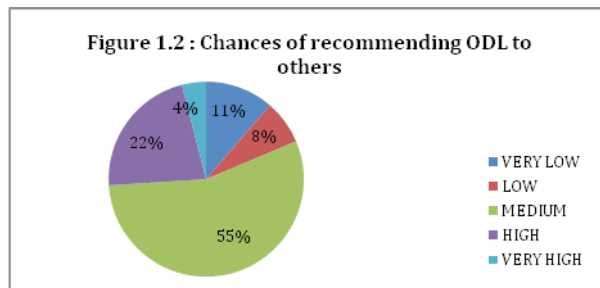Figure 1.1: Overall satisfaction level with respect to the ODL course
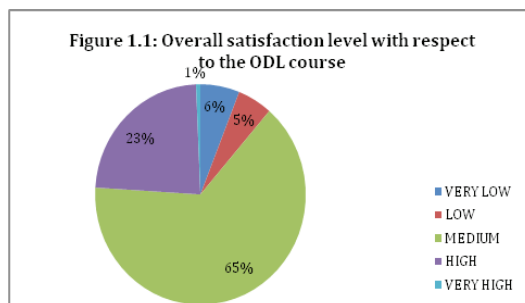
From Table 1.7 and Figure 1.1 it is observed that majority of the respondents (65%) perceive overall satisfaction as " medium" i.e. neither high nor low. 23 % of the respondents perceive high satisfaction level with respect to ODL mode of education.

Similarly, Table 1.8 and Figure 1.2 show the perceived likelihood of recommending ODL mode of education to others.

Table 1.8 : Chances of recommending ODL to others

	Frequency	Percent
Very low	17	11
Low	11	7
Medium	83	56
High	33	22
Very high	6	4
Total	150	100

Figure 1.2 : Chances of recommending ODL to others

From Table 1.8 and Figure 1.2 it is evident that majority of the respondents (56%) perceive their likelihood of recommending ODL to others as "medium" i.e. neither high nor low. 22% of the respondents perceive a high likelihood of recommending ODL courses to others.
In order to investigate if there is a statistically significant association between the overall satisfaction level of the respondents with respect to ODL courses on the likelihood of recommending ODL courses to others, a correlation was computed.
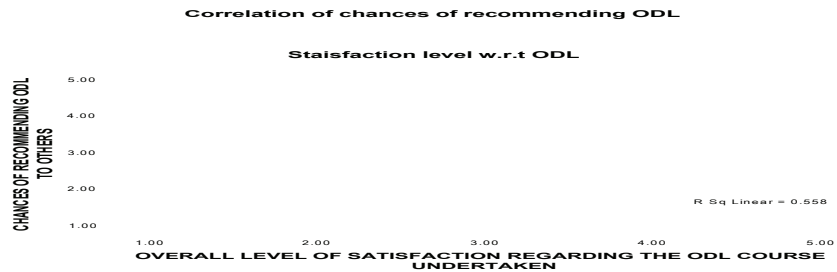
Figure 1.3: Best fit for a straight linear regression line

Figure 1.3 shows the best fit for the straight linear regression line. It is observed that the point fit the line quite well and this indicates that the linear assumption is not violated and Pearson correlation may be used as an appropriate statistic to test the following hypothesis.

H_0: There is no significant association of overall satisfaction level with respect to ODL courses and the chances of recommending ODL courses to others.

The Pearson Correlation coefficient is 0.75; the significance level or p is 0.00 and the number of participants with both the variables is 150. Thus, we reject the null hypothesis of no association and state that there is a significant association between overall satisfaction with respect to ODL course and the chances of recommending ODL courses to others and vice versa. Because the correlation is positive it means that higher satisfaction, level is generally associated with higher chances of recommending ODL to others.

Table 1.9 : Correlations between Overall Satisfaction Level and Chances of Recommending ODL to others [a]

		Overall level of satisfaction regarding the ODL course undertaken	Chances of recommending ODL to others
Overall level of satisfaction regarding the ODL course undertaken	Pearson Correlation	1.00	0.75
	Sig. (2-tailed)		0.00
Chance of recommending odl to other	Pearson Correlation	0.75	1.00
	Sig. (2-tailed)	0.00	

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

[a] List wise N=150

4. Recommendations:

- Efforts may be directed towards increasing the popularity of Under Graduate, Graduate and Diploma/Certificate courses.

- There is a need to popularize streams like science, commerce/ management and general studies and employment oriented programs.

- ODL institutions should focus on increasing satisfaction level of the existing students by way of proper guidance, regularity of contact session.

5. Conclusion:

Distance education in this region has been found to be an accepted alternate educational activity. Students in the NE Region have been greatly benefited by way of their increased education levels. However, increasing the effectiveness of the programs by improving and introducing employment oriented programs is a great challenge for ODL institutions.

5.1 Limitations:

The study was limited to students of distance learning in urban area in the state of Assam. It also did not include students under the Open School system. The study was conducted from the viewpoint of the students.

5.2 Scope for Further Research:

There is a need to conduct further studies on effectiveness of long distance programs from the organisational perspectives to understand the problems and intricacies of improving the functioning of open learning systems as a whole.

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