

Teaching in mainstream schools by teachers with visual impairments: model for inclusive employment

Kamal Lamichhane, Ph.D.
**Research Institute, Japan International Cooperation Agency
(JICA)**
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Background

- Employment of persons with disabilities is one of the major issues.
- Emerging evidence shows a vicious cycle of low education and subsequent poverty among them (Filmer, 2008; WHO and World Bank, 2011).
- These people are “less likely to acquire the human capital that will allow them to earn higher incomes” (Filmer, 2005).
- For the employed individuals with visual impairments, the trend seems that they have limited occupational choice and depending on the countries, they are strongly involved in one pattern of jobs.

Background (cont.)

- In Japan-Massage and acupuncture- 30% of this group involved (Ministry of Health, Labor and Welfare of the Government of Japan, 2008).
- In South Korea- massage therapist - 9.6% currently work (Lee, Suh, & Park, 2001).
- In Turkey- lawyer, judicial adviser, teacher of schools for blind students, and project coordinator (Bengisu, Izbirak & Mackeih, 2008).
- Other jobs available- administrative support, including clerical work, operators, fabricators, laborers, and executive, administrative, and managerial level (Wolffe & Spungin , 2002).

What are the jobs available for them in Nepal?

- Majority of the educated persons with visual impairments greatly involve in teaching profession in mainstream schools that is, in schools which serve mainly students without disabilities.
- 41.46 percent of them worked as teachers in mainstream schools (lamichhane, 2012).
- There are approximately 1000 individuals with visual impairments having University degree and 400 among them are involved in teaching profession.

How this remarkable accomplishments made possible?

- Advocacy and lobbying by educated visually impaired individuals after the restoration of democracy in 1989 with the demand that they be provided teaching job in local mainstream schools.
- Government then decided to allocated 20 quotas for the first time.
- In 2007, the ammended civil act has made 45 % quota reservation to marginalized people including, women, low caste and indigenus people and people with disabilities in all Government jobs.
- This 45% is converted into 100% and 5% of the 100 is allocated for disabled people

Data collection

- Students studying in seven mainstream schools were the participants for the survey.
- The students' size in these schools is ranged from 12,00 to 15,00.
- These schools have been providing teaching opportunity for TVIs for long.
- I administered questionnaires to all students from grade six to nine where TVIs were teaching.

Data collection (cont.)

- The number of students participating in the survey was 3022.
- The survey was conducted in six-week sessions from January to February of 2011.
- The survey covers a wide variety of socioeconomic information including demographic characteristics, educational background, strengths and difficulties of VITs' teaching.
- Though most of the questions related to students' individual information were closed-ended, they were asked to write freely the strengths and difficulties of both non-TVIs and TVIs.

Techniques for data analysis 1

- The analysis of students' responses is done mainly descriptively. Socio-demographic characteristics and educational information of the students are presented in percentage points.
- Students' perception on the strengths and difficulties of teaching by TVIs are presented in percentage points.
- Those freely written answers were read by 3 people including the author separately and generated different categories and codes.

Students' perception on Strengths of non-TVIs in Classroom Performance

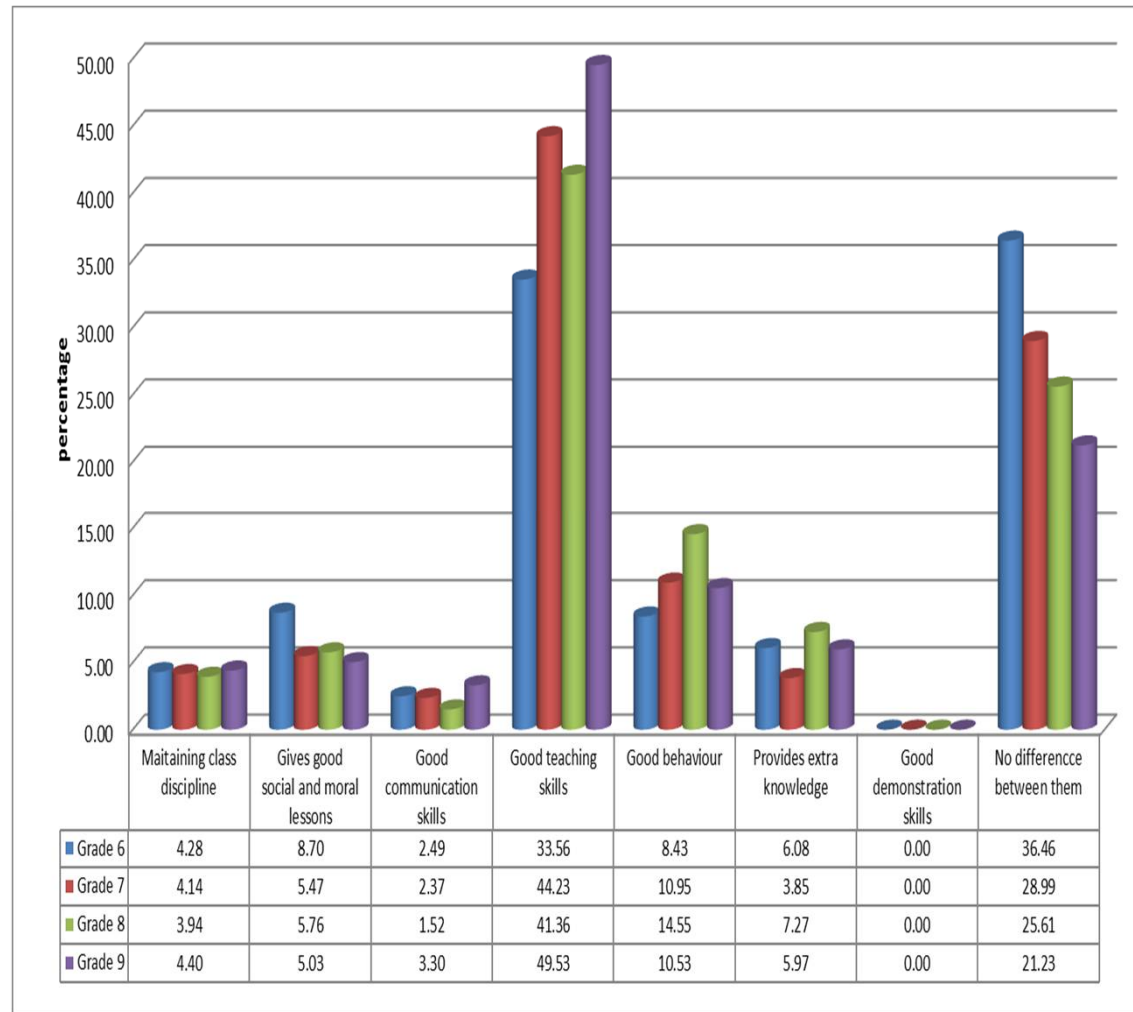


Figure 1: Students' perception on Strengths of TVIs in Classroom Performance

Students' perception on Strengths of TVIs in Classroom Performance

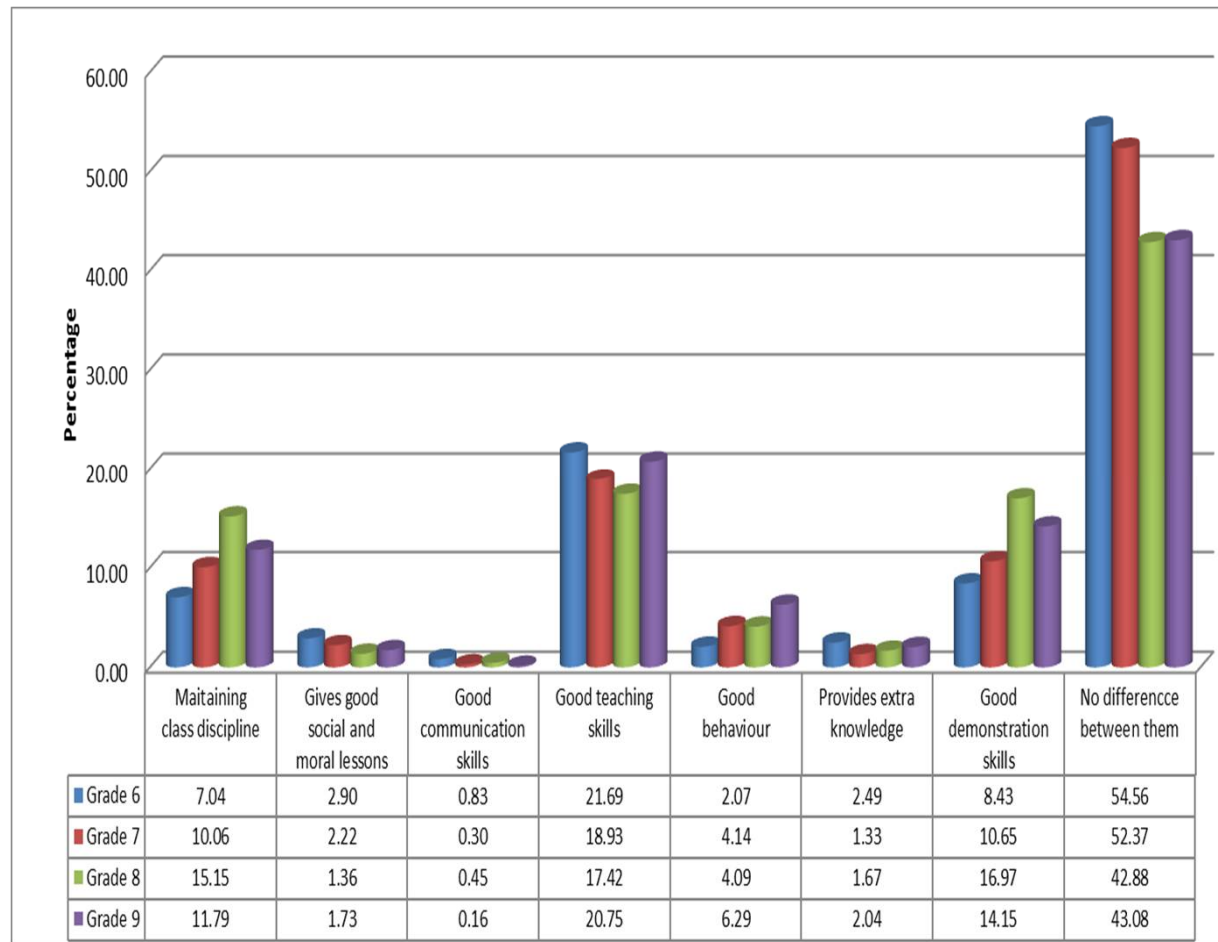


Figure 2: Students' perception on Strengths of non-TVIs in Classroom Performance

Technique for data analysis 2

Operationalization of main concept

- In each grades of these seven schools, there are at least two sections, A and B.
- These school assign students into different sections of the same grades through the annual test
- Students who get odd number of places are assigned to one section and the rest of students are assigned to the other.
- Students' assignment into different sections is random and occurs exogenously.

Technique for data analysis 2 (cont.)

- A hypothetical and subjective question was asked to reveal their preferences whether to take classes taught by TVIs or non-TVIs next year given the condition that the contents of the classes will be exactly same
- Three choices were given: taking classes of TVIs; taking classes of non-TVIs; and do not care which teacher teaches.

Technique for data analysis 2 (cont.)

Assumptions:

1. There will be counterpart classes in which TVIs teach in one and non-TVIs teach in another.
2. Students are rational and they have accurate information on both TVIs and non-TVIs. Therefore, they care only about their educational
3. They will be given opportunity to make their preference decision
4. They are also independent not to specify any group of these teachers

Specification of variables

Table 1: Definition of variable

Variable	Definition
Dependent Variable	
Choice of teacher	1 if a student chooses TVIs, 2 if chooses Non-TVIs and 0 if any teacher is chosen
Independent Variables	
(1) Characteristics of Students	
Disability specific variables	
Persons with disability in family or community	1 if person with disability in student`s family or community, 0 otherwise
Interaction to friend with disability	1 if student speaks, asks and tells to friend with disability, 0 otherwise
Individual and family Characteristics	
Age	Age of student in years
Male	1 if gender of student is male, 0 otherwise
Family income	Monthly income of family in thousands Nepalese Rupees (NPR)
Household size	Number of family members
Living with family	1 if student is living with family, 0 otherwise
Father`s schooling	Years of schooling of student`s father
Mother`s schooling	Years of schooling of student`s mother
Father`s white color job	1 if father does white color job, 0 otherwise
Mother`s white color job	1 if mother does white color job, 0 otherwise
Economic status by ethnic group	
Poor and marginalized	1 if student is from poor and marginalized group, 0 otherwise
Poor and indigenous	1 if student is from poor and indigenous group, 0 otherwise
Others	1 if student is from other groups than above, 0 otherwise
Religion	
Hindu	1 if student has Hindu religion, 0 otherwise
Buddha	1 if student has Buddha religion, 0 otherwise
Others	1 if student has other than Hindu and Buddha religion, 0 otherwise
(1) Characteristics of Teachers	
Age TVIs	Age of teacher with visual impairments in years
Age Non-TVIs	Age of teacher without visual impairments in years
Schooling TVIs	Years of schooling of teacher with visual impairments
Schooling Non-TVIs	Years of schooling of teacher without visual impairments
Experience TVIs	Teaching experience of teacher with visual impairments in years
Experience Non-TVIs	Teaching experience of teacher without visual impairments in years
Training TVIs	1 if teacher with visual impairments has at least one training
Training Non-TVIs	1 if teacher without visual impairments has at least one training

Descriptive Statistics

Table 2: Descriptive statistics

Variable	Mean	Std. dev.	Min	Max
Dependent Variable				
Choice of teacher	0.25	0.60	0	2
Independent Variables				
(1) Characteristics of Students				
Disability specific variables				
Persons with disability in family or community	0.56	0.49	0	1
Interaction to friend with disability	0.42	0.49	0	1
Individual and family Characteristics				
Age	14.33	1.84	10	24
Male	0.42	0.49	0	1
Family income	7.48	9.56	0	60
Household size	6.28	1.91	1	17
Living with family	0.93	0.25	0	1
Father`s schooling	5.54	4.27	0	17
Mother`s schooling	3.29	3.92	0	17
Father`s white color job	0.08	0.27	0	1
Mother`s white color job	0.03	0.16	0	1
Economic status by ethnic group				
Poor and marginalized	0.08	0.27	0	1
Poor and indigenous	0.42	0.49	0	1
Others	0.50	0.50	0	1
Religion				
Hindu	0.86	0.34	0	1
Buddha	0.09	0.28	0	1
Others	0.05	0.20	0	1
(1) Characteristics of Teachers				
Age TVs	32.40	5.18	25	43
Age Non-TVs	39.24	12.02	19	57
Schooling TVs	15.25	1.99	12	17
Schooling Non-TVs	14.72	2.25	12	17
Experience TVs	7.00	5.53	1	20
Experience Non-TVs	17.03	12.26	1	39
Training TVs	0.23	0.42	0	15
Training Non-TVs	0.37	0.48	0	1

Note: Total observations-2786

Result

Table 3: Teacher Preference Decision

Dependent variable: Choice of teacher, reference: do not care						
	All Students					
	Prefer TVIs			Prefer Non-TVIs		
	Coeff	OR	OR-1	Coeff	OR	OR-1
(1) Characteristics of Students						
Disability specific variables						
Persons with disability in family or community	0.36***	1.43	0.43	0.04	1.04	0.04
Interaction to friend with disability	0.46***	1.58	0.58	-0.46***	0.63	-0.37
Individual and family Characteristics						
Age	-0.02	0.97	-0.03	-0.03	0.97	-0.03
Family income	-0.01	0.99	-0.01	0.01	1.01	0.01
Household size	0.03	1.03	0.03	0.08***	1.08	0.08
Living with family	-0.42*	0.65	-0.35	-0.04	0.96	-0.04
Father`s schooling	-0.03*	0.96	-0.04	-0.02	0.98	-0.02
Mother`s schooling	0.03	1.02	0.02	0.01	1.01	0.01
Father`s white color job	-0.29	0.74	-0.26	0.44*	1.55	0.55
Mother`s white color job	0.80**	2.24	1.24	-0.11	0.89	-0.11
Economic status by ethnic group						
Poor and marginalized	0.55**	1.74	0.74	0.15	1.16	0.16
Poor and indigenous	0.30	1.35	0.35	0.16**	1.17	0.17
Religion						
Hindu	0.30	1.36	0.36	-0.16	0.85	-0.15
Buddha	0.45	1.57	0.57	0.08	1.08	0.08
(1) Characteristics of Teachers						
Age TVIs	0.04	1.04	0.04	-0.13***	0.87	-0.13
Age Non-TVIs	-0.03	0.96	-0.04	-0.04**	0.95	-0.05
Schooling TVIs	-0.08	0.92	-0.08	-0.02	0.98	-0.02
Schooling Non-TVIs	0.04	1.04	0.04	-0.01	0.99	-0.01
Experience TVIs	0.01	1.01	0.01	0.02	1.01	0.01
Experience Non-TVIs	0.02	1.02	0.02	0.06***	1.06	0.06
Training TVIs	0.16	1.17	0.17	-0.26	0.77	-0.23
Training Non-TVIs	0.17	1.18	0.18	0.08	1.09	0.09
Constant	-2.63***	0.07	-0.93	2.90***	18.22	17.22
Pseudo R-squared						0.06
Chi-square						172.20***
Log likelihood value						-1466.95
Observations						2785

*** significant at 1%, ** significant at 5%, * significant at 10% level

Result (cont.)

Table 4: Teacher Preference Decision for Students who have Learning experience with TVI

Dependent variable: Choice of teacher, reference: do not care						
	Students who have Learning experience with TVI					
	Prefer TVIs			Prefer Non-TVIs		
	Coeff	OR	OR-1	Coeff	OR	OR-1
(1) Characteristics of Students						
Disability specific variables						
Persons with disability in family or community	0.36**	1.43	0.43	-0.06	0.93	-0.07
Interaction to friend with disability	0.49***	1.64	0.64	-0.60***	0.55	-0.45
Individual and family Characteristics						
Age	0.01	1.01	0.01	-0.01	0.99	-0.01
Family income	-0.01	0.99	-0.01	0.02**	1.01	0.01
Household size	0.04	1.04	0.04	0.09**	1.10	0.10
Living with family	-0.30	0.74	-0.26	-0.15	0.85	-0.15
Father`s schooling	-0.03	0.97	-0.03	-0.03	0.97	-0.03
Mother`s schooling	0.03	1.03	0.03	0.03	1.03	0.03
Father`s white color job	-0.25	0.78	-0.24	0.63**	1.88	0.88
Mother`s white color job	0.79**	2.19	1.19	-0.03	0.96	-0.04
Economic status by ethnic group						
Poor and marginalized	0.47*	1.60	0.60	0.26	1.29	0.29
Poor and indigenus	0.28	1.32	0.32	0.32***	1.37	0.37
Religion						
Hindu	0.21	1.23	0.23	-0.06	0.94	-0.06
Buddha	0.22	1.24	0.24	-0.01	0.99	-0.01
(1) Characteristics of Teachers						
Age TVIs	0.05	1.05	0.05	-0.12***	0.88	-0.12
Age Non-TVIs	-0.04	0.96	-0.04	-0.04*	0.96	-0.04
Schooling TVIs	-0.06	0.94	-0.06	-0.02	0.98	-0.02
Schooling Non-TVIs	0.04	1.04	0.04	0.01	1.01	0.01
Experience TVIs	-0.01	0.99	-0.01	0.02	1.02	0.02
Experience Non-TVIs	0.02	1.03	0.03	0.04**	1.05	0.05
Training TVIs	0.33	1.40	0.40	-0.13	0.87	0.87
Training Non-TVIs	0.07	1.06	0.06	0.02	1.02	0.02
Constant	-3.48***	0.03	-0.97	1.81	6.12	5.12
Pseudo R-squared						0.06
Chi-square						154.55***
Log likelihood value						-1206.69
Observations						17 2404

*** significant at 1%, ** significant at 5%, * significant at 10% level

Result (cont.)

Table 5: Teacher Preference Decision for Male Students

Dependent variable: Choice of teacher, reference: do not care						
	Male Students					
	Prefer TVIs			Prefer Non-TVIs		
	Coeff	OR	OR-1	Coeff	OR	OR-1
(1) Characteristics of Students						
Disability specific variables						
Persons with disability in family or community	-0.09	0.92	-0.08	0.06	1.05	0.05
Interaction to friend with disability	0.39*	1.48	0.48	-0.62***	0.53	-0.47
Individual and family Characteristics						
Age	0.08	1.09	0.09	0.03	1.03	0.03
Family income	-0.01	0.99	-0.01	0.02*	1.02	0.02
Household size	-0.06	0.94	-0.06	0.14***	1.15	0.15
Living with family	0.11	1.12	0.12	-0.07	0.93	-0.07
Father`s schooling	-0.02	0.98	-0.02	-0.01	0.99	-0.01
Mother`s schooling	-0.01	0.99	-0.01	-0.01	0.99	-0.01
Father`s white color job	-0.62	0.53	-0.47	0.15	1.16	0.16
Mother`s white color job	0.84	2.32	1.32	0.08	1.09	0.09
Economic status by ethnic group						
Poor and marginalized	0.71*	2.04	1.04	0.38	1.46	0.46
Poor and indigenus	-0.31	0.73	-0.27	0.23	1.26	0.26
Religion						
Hindu	-0.32	0.72	-0.28	-0.42	0.66	-0.34
Buddha	0.15	1.16	0.16	-0.17	0.84	-0.16
(1) Characteristics of Teachers						
Age TVIs	0.03	1.03	0.03	-0.16***	0.85	-0.15
Age Non-TVIs	-0.05	0.95	-0.05	-0.10***	0.90	-0.10
Schooling TVIs	0.01	1.01	0.01	-0.01	0.99	-0.01
Schooling Non-TVIs	0.03	1.03	0.03	-0.02	0.98	-0.02
Experience TVIs	-0.05	0.94	-0.06	0.05	1.05	0.05
Experience Non-TVIs	0.07**	1.07	0.07	0.11***	1.11	0.11
Training TVIs	0.45	1.57	0.57	-0.13	0.88	-0.12
Training Non-TVIs	-0.49	0.60	-0.40	-0.14	0.88	-0.12
Constant	-3.53	0.03	-0.97	4.36**	78.13	77.13
Pseudo R-squared						0.09
Chi-square						127.25***
Log likelihood value						-657.31
Observations						1179
*** significant at 1%, ** significant at 5%, * significant at 10% level						

Result (cont.)

Table 6: Teacher Preference Decision for Female Students

Dependent variable: Choice of teacher, reference: do not care						
	Female Students					
	Prefer TVIs			Prefer Non-TVIs		
	Coeff	OR	OR-1	Coeff	OR	OR-1
(1) Characteristics of Students						
Disability specific variables						
Persons with disability in family or community	0.60***	1.82	0.82	0.06	1.06	0.06
Interaction to friend with disability	0.55***	1.73	0.73	-0.36*	0.70	-0.30
Individual and family Characteristics						
Age	-0.07	0.93	-0.07	-0.11	0.90	-0.10
Family income	-0.02	0.98	-0.02	0.01	1.01	0.01
Household size	-0.08*	1.08	0.08	0.01	1.01	0.01
Living with family	-0.65	0.52	-0.48	0.19	1.21	0.21
Father`s schooling	-0.05	0.95	-0.05	-0.03	0.96	-0.04
Mother`s schooling	0.05	1.04	0.04	0.03	1.02	0.02
Father`s white color job	0.04	1.03	0.03	0.70	2.02	1.02
Mother`s white color job	0.80*	2.24	1.24	-0.64	0.52	-0.48
Economic status by ethnic group						
Poor and marginalized	0.37	1.44	0.44	-0.14	0.87	-0.13
Poor and indigenous	0.63**	1.88	0.88	0.05	1.05	0.05
Religion						
Hindu	0.91	2.50	1.50	0.24	1.27	0.27
Buddha	0.94	2.57	1.57	0.50	1.65	0.65
(1) Characteristics of Teachers						
Age TVIs	0.05	1.05	0.05	-0.11***	0.90	-0.10
Age Non-TVIs	-0.03	0.97	-0.03	-0.01	0.99	-0.01
Schooling TVIs	-0.11	0.89	-0.11	-0.03	0.97	-0.03
Schooling Non-TVIs	0.07	1.07	0.07	0.03	1.03	0.03
Experience TVIs	0.03	1.03	0.03	-0.01	0.98	-0.02
Experience Non-TVIs	-0.01	0.99	-0.01	0.02	1.02	0.02
Training TVIs	-0.05	0.95	-0.05	-0.43	0.65	-0.35
Training Non-TVIs	0.58**	1.78	0.78	0.32	1.38	0.38
Constant	-3.27**	0.04	-0.96	1.69*	5.54	4.54
Pseudo R-squared						0.08
Chi-square						128.48***
Log likelihood value						-771.91
Observations						1607
*** significant at 1%, ** significant at 5%, * significant at 10% level						

Concluding remarks

- Having opportunity to interact with disabled friends and having members with disabilities at home or in community appear to be positively correlated with the likelihood of preferring TVIs.
- Policies promoting the inclusive participation of people with disabilities in social and economic activities are likely to be instrumental to change mindsets of people to the right direction.

Concluding remarks (cont.)

- Frequent interaction is possible through inclusive education and inclusive work environment
- These policies not only helps reduce poverty and make them economically independent but also help make labor market more inclusive for all.
- One of the implications of this study therefore, is that the policy Nepal has adapted in providing opportunity to qualified individuals with visual impairments to teach in mainstream schools can be extended in other parts of the world.