Teachers Attitudes About SignWriting

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INTRODUCTION

SignWriting (SW) is a way to read and write sign language. It started and was first developed by Valerie Sutton in 1974. Teachers and parents began using SW all over the world.

SignWriting was studied wide world (e.g. Vasquez,1998,

Rosenberg, 1999, Roald, 2000, Abushaira, 2002, Flood, 2002, Abushaira,2007, Galea, 2013)

- Some researches indicated to attitudes about SignWriting but attitudes was not studied specifically, **that is justify this study**

What is an attitude

It is "a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols" (Hogg, Vaughan, 2005).

Attitude

"..a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly, Chaiken, 1993).

Structure of Attitudes

- **Affective** : person's feelings / emotions.
- **Behavioral :** attitude influences our behave.
- **Cognitive** : person's belief / knowledge.

Positive attitudes apparent in the following ways:

- Positive thinking.
- Constructive thinking.
- Creative thinking.
- Optimism.
- Motivation and energy to do things
- Accomplish goals.
- An attitude of happiness.

A positive helps in:

- Expecting success.

- Inspiring your feels.

- Passing obstacles.

- Converting failure and problems into success and chances

- Enhancing abilities.

- Enhancing confidence of self-esteem.

- Sasson (   )

Attitudes about SW in researches

- Rosenberg,(1999). "sign language literacy" may open the door to literacy in an oral language.
- Success for this writing system is likely, as evidenced by its use in the deaf communities of many countries.

Rosenberg (1999) stated : Writing ASL would open many intellectual avenues to Deaf people.

She quoted ("I feel SignWriting will help them improve their skills in both languages" Cynthia Frey of Jordan Vocational High School)

- Roald (2000) explained that SW is natural means of conserving and communicating signs when not in eye-to-eye contact with my audience.

Hoffman (2011) declared that positive attitude about SW related to ability of capture **nuance of** language and reflects the way it is signed

Using SignWriting (paper format) will improve literacy rates among (a) the rural and isolated Deaf, (b) the older generation of Deaf, (c) the semi-literate Deaf (d), and the well connected, urban Deaf. **Barreto(2014).**

Stumpf (2014).

sign language writing, when incorporated in the education of deaf children, can represent a significant advance in the <u>consolidation</u> of a really bilingual education, as well as in the evolution of sign languages, and also indicates the possibility of new approaches to the teaching of oral language as a second language.

Madeson ( ). they are pleased in performing activities of reading and writing correctly by associating grapheme-phoneme and by comparing the signs they have already known.

Negative attitudes about SW

- First regards the small number of Deaf people who will need SW since Deafness is decreasing with the increase of cochlear implants

- Second concern expressed was about the large amount of glyphs available for writing Maltese Sign Language(LSM). The large choice is 'confusing' when it comes to deciding on how to write LSM. (Galea, 2013)

Negative attitudes about SW

Frost **(2014).** Writing by hand takes too long and is impractical

Study problem

- What is the Teachers Attitudes About SignWriting?

- Is there   significant differences between Teachers Attitudes About SignWriting according study variables ?

- what are most frequented SW software?

The Goal

- In this study we want to investigate teachers attitudes and perspectives about SW..

Important of the study

It gives indicators

- how far SignWriting can go

- It gives indicators about abilities to pass the obstacles faced SignWriting users (Deaf people, parents ,teachers researchers..)

Study methodology and tool

Survey study conducted by applying questionnaire of three parts

1- Cover Letter.

2-Demographic information.

3-(14) Paragraph.

The primary copy consisted of 20 paragraphs it was reviewed by 5 reviewers (one of them was Valerie Sutton)

Validity, Reliability of the survey

Validity :

1- Correlation between paragraphs and total score.
2- Agreement of reviewers

Reliability:

Cronbach's Alpha = .756 15

P	correlation
1	.825**
2	.731**
3	.716**
4	.545*
5	.895**
6	.634**
7	.825**
8	.697**
9	.780**
10	.857**
11	.901**
12	.877**
13	.429
14	.664**

Participants

The survey distributed online
https://app.keysurvey.com/votingmodule/s180/f/761291/173b/

We got 17 responds

According to the variables of : Country, Sex, Education level, SW skills, SW model , SW experience and SW software.

The participants was as following

Participants by Country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Brazil	4	23.5	25.0	25.0
	Colombia	1	5.9	6.3	31.3
	France	1	5.9	6.3	37.5
	Germany	3	17.6	18.8	56.3
	Saudi Arabia	2	11.8	12.5	68.8
	Tunisia	1	5.9	6.3	75.0
	United Stat	4	23.5	25.0	100.0
	Total	16	94.1	100.0	
	Missing	1	5.9		
Total		17	100.0		

Participants By Sex

Sex		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	11	64.7	64.7	64.7
	female	6	35.3	35.3	100.0
	Total	17	100.0	100.0	

Participants By Education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ph.D	4	23.5	23.5	23.5
	Master	7	41.2	41.2	64.7
	Deploma	3	17.6	17.6	82.4
	Bachelors	1	5.9	5.9	88.2
	other	2	11.8	11.8	100.0
	Total	17	100.0	100.0	

Participants by SW skills

SW Skills					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Just learn about it	2	11.8	11.8	11.8
	low	2	11.8	11.8	23.5
	Moderate	4	23.5	23.5	47.1
	High	9	52.9	52.9	100.0
	Total	17	100.0	100.0	

Participants by SW model

		Frequency	Percent	Valid Percent	Cumulative Percent
Writing SW by					
Valid	Hands	0	0	0	0
	Software	5	29.4	31.3	31.3
	Both (Hands & Software)	11	64.7	68.8	100.0
	Total	16	94.1	100.0	
Missing	System	1	5.9		
	Total	17	100.0		

Participants by Education level

Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ph.D	4	23.5	23.5	23.5
	Master	7	41.2	41.2	64.7
	Deploma	3	17.6	17.6	82.4
	Bach	1	5.9	5.9	88.2
	other	2	11.8	11.8	100.0
	Total	17	100.0	100.0	

Results

- We made analysis of data to get the results as following

- To answer the first question: what is the attitude of the teachers (participants) about SW?

	Paragraph	Mean	Std. Deviation
1	SW appearance is acceptable.	4.2941	.68599
2	I use SW in communication.	3.8235	1.33395
3	I use SW in teaching Deaf students.	3.8824	1.31731
4	I use SW in my daily life.	3.9412	1.34493
5	SW helps in increasing spoken language vocabulary.	4.2353	.75245
6	SW helps in increasing sign language vocabulary.	4.52941	.624264
7	SW improves reading skills.	4.3529	.86177
8	SW helps in sign language skills.	4.5882	.61835
9	SW improves self-image for Deaf people.	4.3529	.70189
10	SW improves educational achievement for Deaf people.	4.2941	.77174
11	SW helps in applying (full inclusion) for Deaf students.	4.2941	.77174
12	SW improves translation levels between spoken and sign languages.	4.3529	.70189
13	Using SW makes sign language equal to spoken language.	4.1176	1.16632
14	SW is enjoyable.	4.5882	.61835
	total score of attitudes	59.6471	8.91586
	Valid N (listwise)		

Ranking the at

Excellent	70	61
V.good	<61	52
Good	<52	43
normal	<43	34
weak	<34	25
Bad	<25	16

total score of attitudes
Mean of total score = **59.6**
Std. Deviation =8.91

- To answer the 2ⁿᵈ question:

- Is there   significant differences between Teachers Attitudes About SignWriting according study variables ?

- We calculated means and Std. Deviation according study variables and we tested the significant of means differences as following:

Means according to country

Country	Mean	N	Std. Deviation
Brazil	60.2500	4	6.55108
Colombia	55.0000	1	
France	49.0000	1	
Germany	58.3333	3	10.69268
Saudi Arabia	68.0000	2	1.41421
Tunisia	70.0000	1	
United Stat	58.2500	4	12.84199
Total	59.9375	16	9.12483

ANOVA

total score of attitudes

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	394.771	6	65.795	.693	.662
Within Groups	854.167	9	94.907		
Total	1248.938	15			

Differences according of sex

Group Statistics					
Sex		N	Mean	Std. Deviation	Std. Error Mean
total score of attitudes	male	11	64.3636	6.10365	1.84032
	female	6	51.0000	6.41872	2.62043

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
total score of attitudes	Equal variances assumed	4.240	15	.001*	13.36364	3.15192	6.64547	20.08180

Means according to **Education level**

Report			
total score of attitudes			
Education	Mean	N	Std. Deviation
Ph.D	60.5000	4	9.29157
Master	57.0000	7	10.80123
Deploma	68.0000	3	2.64575
Bach	56.0000	1	
other	56.5000	2	2.12132
Total	59.6471	17	8.91586

ANOVA
according to Education level

ANOVA					
total score of attitudes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	294.382	4	73.596	.903	.492
Within Groups	977.500	12	81.458		
Total	1271.882	16			

Means according SW skills

Report			
total score of attitudes			
SW Skils	Mean	N	Std. Deviation
Just learn about it	57.0000	2	1.41421
low	44.5000	2	6.36396
Moderate	56.2500	4	6.60177
High	65.1111	9	6.23387
Total	59.6471	17	8.91586

ANOVA according SW skills

ANOVA					
SW Skills					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.471	10	1.547	3.094	.090
Within Groups	3.000	6	.500		
Total	18.471	16			

Means according SW model

Group Statistics					
Writing SW by total score of attitudes		N	Mean	Std. Deviation	Std. Error Mean
	both	11	62.7273	7.81141	2.35523
	Software	5	56.8000	5.71839	2.55734

T test SW model

Independent Samples Test								
		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
total score of attitudes	Equal variances assumed	1.511	14	.153	5.92727	3.92390	-2.48866	14.34321

To answer the 3d question : what are most frequented SW software?

We asked the participants what are the most SW software (participant can chose more than one choice)

The results indicated that the most software used is SignPuddle Online 15 of 17

And no participant used SignWriter Studio

Software frequency

Software	Frequency]
SignPuddle Online	15
SignWriter Studio	0
Delegs Editor from Germany	6
SWEdit from Brazil	5
SignMaker 2015	3
SignWriter DOS	2
Other software	3
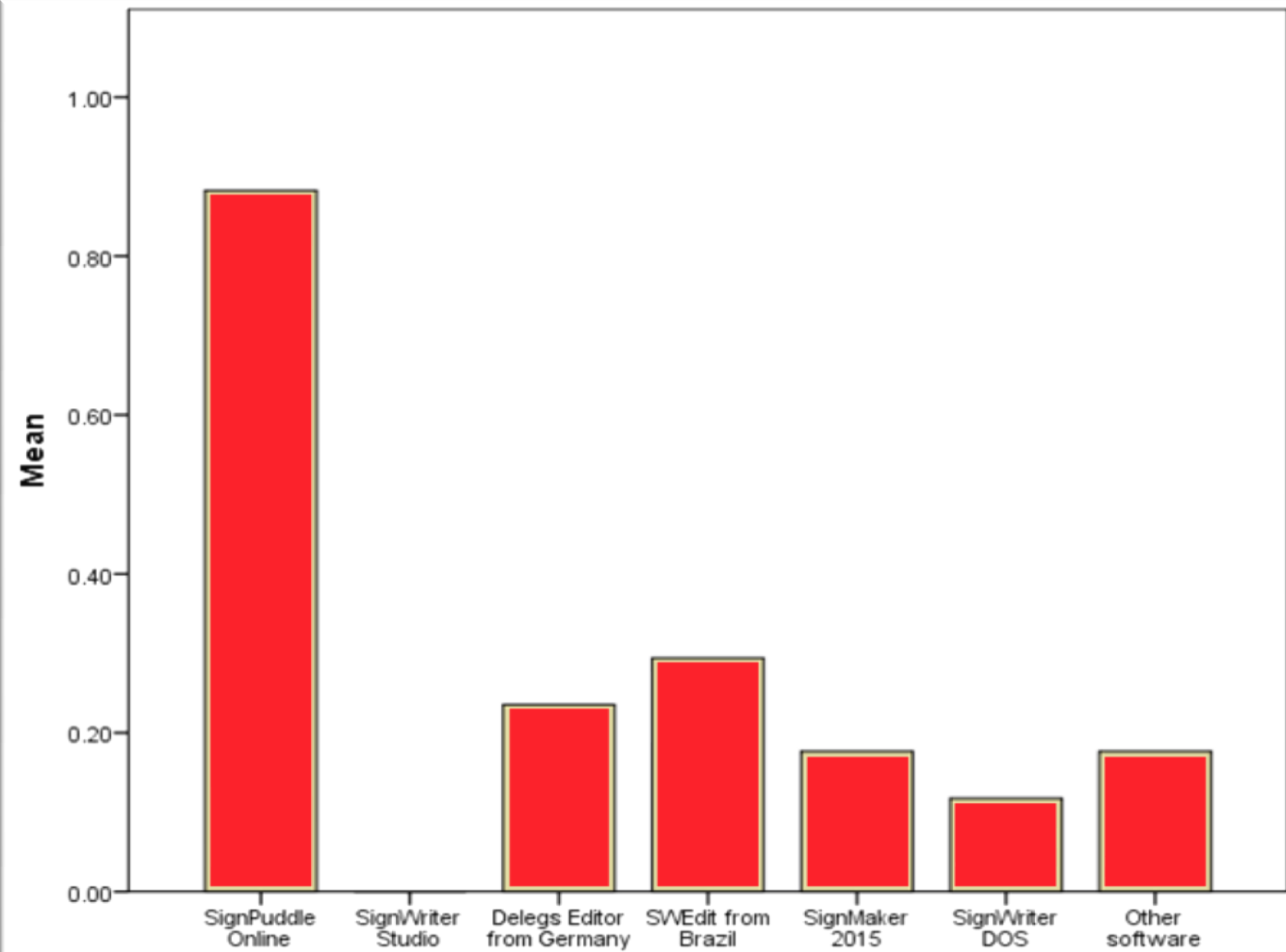
Discussion

- According to 1st question(What is the Teachers Attitudes About SignWriting?) : Attitudes about SW in general is positive

Means of responds on paragraphs :(P2)I use SW in communication. M= 3.82-(P14) SW is enjoyable .M= 4.5882 of 5

Mean of total score = 59.64

that shows positive high attitudes about sw.

This result give an impression that SW future will be fare good, it agree with the positive attitudes in (Galea,2013, Abu shaira,2002,2007 , Hoffman,2011).

Structure of attitude about SW

Affective : person's feelings / emotions	Behavioral : attitude influences our behave	Cognitive : person's belief / knowledge
1-SW appearance is acceptable 14-SW is enjoyable	2- I use SW in my daily life 3- I use SW in teaching Deaf students 4- I use SW in communication	5. SW helps in increasing spoken language vocabulary 6. SW helps in increasing sign language vocabulary 7. SW improves reading skills 8. SW helps in sign language skills 9. SW improves self-image for Deaf people 10. SW improves educational achievement for Deaf people 11. SW helps in applying (full inclusion) for Deaf students 12. SW improves translation levels between spoken and sign languages 13. Using SW makes sign language equal to spoken language

Discussion

- According to 2nd question: Is there significant differences between Teachers Attitudes according study variables ?

There are no significant differences between Teachers Attitudes according to variables(: Country, Education level, SW skills, SW model , and SW experience.).

Discussion

- These results can explained in the light of

Easier learning of SW.

Grate of benefit of SW in daily life and communication, and education. That is agree with all researches conducted on SW(flood,2002؛ abushaira,2007؛Galea, 2013)

Discussion

but there are significant differences between Teachers Attitudes according to sex favor of male. that is maybe refers to higher level of anxiety in learning writing among female than its level among male. Muhaisen, Al-Haq (2012).

For SW software it was obvious that SignPuddle is the most used software to write sign language that maybe refers to grate support from Valerie Sutton and Steve Slevinski, and the ability to access online that is facilitating its use.
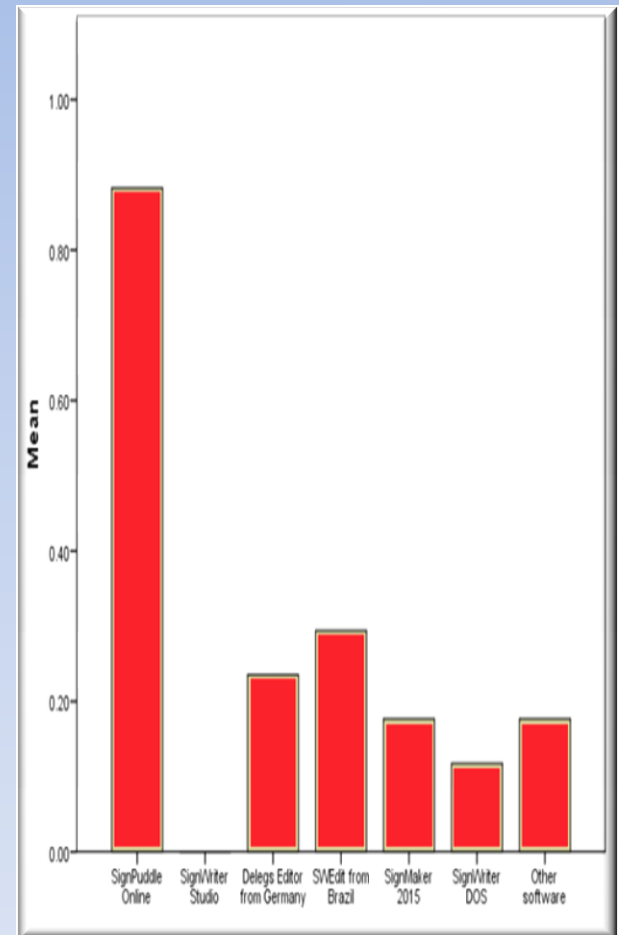
Recommendations

- We need more investigation of community and decision maker attitudes.

- We need more investigation about real rejection reasons of SW in some areas in the world.

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