Media and Information Literacy of Student Teachers in Yangon Region

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Abstract

The current study aims to examine media and information literacy of student teachers by gender, socioeconomic status, and schools. A total of 716 student teachers from Yangon University of Education, Hlegu Education College and Yankin Education College participated in this study. Media and Information Literacy Questionnaire (MILQ) was used as the research instruments. The subscales of Media and Information Literacy were categorized into six parts; understand, access, analyze, create, reflect and act. Significant gender differences were found to be on access and reflect subscales of Media and information literacy. In addition, regarding socioeconomic status, mean score of student teachers from the high socioeconomic status families have higher than those of the student teachers from the low and average socioeconomic status families .Next, mean scores of student teachers on 5 out of 6 subscales of Media and Information Literacy were significantly differed among education institutions.

Keywords: Media and Information Literacy, Understand, Access, Analyze, Create, Reflect, Act

1. Introduction

1.1. Significance of the Study

Nowadays, all societies across the world are driven by information and knowledge. The amount of information and media content that is being created, shared and consumed every day is greater than ever before. Therefore it is important to acquire a new set of competencies (knowledge, skills and attitudes) that allow citizens to consume, share and produce information in critical and effective way. Therefore, Media and Information Literacy (MIL) is important in teaching and learning processes.

MIL is a combination of two concepts, Information Literacy and Media Literacy, and each concept refers to a specific set of knowledge, attitudes and skills. Information literacy puts the focus on accessing information, evaluating the ethical use of that information. Media Literacy refers to the ability to understand the functions and roles that media play in society, and could evaluate the performance of those functions and, based on that, engage with media in a critical way for the purpose of self-expression (UNESCO, 2011) [1]. Moreover, teachers are the most important person to conduct a multiplier effect: from information-literate teachers to their students and eventually to the whole society (UNESCO, 2013) [2].

Media and information literacy is very important competency for teachers. In order to assess media and information literacy of teachers, there is an urgent need to develop a valid and reliable scale to assess media and information literacy. In order to fulfil this gap, this study tried to construct the media and information literacy scale by using exploratory factor analysis. Specifically, media and information literacy scale is based on a broader framework of Media and Information Literacy such as Explore, Engage, and Empower Model: Integrating Media and Information Literacy (MIL) for Sustainable Development in Communication Education Curriculum (UNESCO, 2011) [1].

1.2. Purpose of the Study

The main purpose of this study is to examine media and information literacy of student teachers.

The objectives of the study are:

To find out the gender related difference on media and information literacy of student teachers.

To find out the any differences on media and information literacy of student teachers by socioeconomic status, schools.

Definition of the Key Terms

Media and Information Literacy: Media and Information Literacy is defined a set of competencies that empower citizens to access, retrieve, understand, evaluate and use, create, as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way, in order to participate and engage in personal, professional and societal activities. (UNESCO, 2013) [2]

Understand: Understand is defined as understanding about finding and sharing appropriate and relevant information.

Access: Access is defined as knowing how to find comprehend media messages and how to use media technology.

Analyze: Analyze is defined as knowing interpreting and evaluating various forms of print and non-print messages.

Create: Create is defined as creating media messages.

Reflect: Reflect is defined as thinking about impact of media message.

Act: Act is defined as making to improve quality of life in their community, country and world.

2. Literature Review

2.1 Benefits and Requirements of Media and Information Literacy

Media and information literacy fosters the capacity of people to enjoy the Universal Declaration of Human Rights in Article 19, which states that 'Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers'.

The main benefits of Media and Information Literacy are that:

1. In the process of teaching and learning, it enhances the knowledge of teachers to empower future citizens.
2. Media and information literacy imparts important knowledge about the operations of media and information channels in democratic societies, understand reasonably about the performance of those functions and basic skills of evaluating the performance of media and information providers.
3. A society that is media and information literate enhance to develop free, independent and pluralistic media and open information systems(as cited in Wilson, Grizzle, Tauzon, Akyempong & Cheung , 2011) [3].

3. Methodology

3.1. Sample of the Study

A total of 716 student teachers from Yangon University of Education, Hlegu Education College and Yankin Education College participated in this study.

3.2. Instrumentation

After studying the related literature, researcher tried to develop the operational definition of media and information literacy. According to operational definition, there are six factors which call for media and information literacy (MIL). Based on the above mentioned six factors, research developed the item pool of MIL which consists of 92 items. After preparing the item pool, expert review was conducted for face validity and content validity by 10 experts from Yangon University of Education who have special knowledge and close relationship with the field of Educational Psychology. As an initial phase of this study, the pilot testing was carried out at the first of December, 2018. Pilot testing was conducted with 700 student teachers from Yangon University of Education, Hlegu Education College and Yankin Education College. Based on the result of the pilot study, the researcher improved the wording of the items and changed kinds of questions which are inappropriate and could get incomplete responses. The alpha reliability coefficient of the scale was found to be .85. Exploratory factor analysis was conducted to determine for the 6 factors of MIL. According to factor analysis results, there are 6 factors with eigenvalue over one for determining Media and Information Literacy levels of student teachers. This instrument is with a total of 67 items questionnaire. Item number 1 to 15 stands for analyze and Item number16 to24 stands for create subscales. Item number 25 to 38 stands for act

subscale. Item number 39 to 46 stands for reflect subscale and item number 47 to 57 stands for access subscale. Item number 58 to 67 stands for reflect subscale. Five point Likert scale was used (1= strongly disagree, 2= disagree, 3=undecided,4= agree, 4= strongly agree). Obtained results showed that the scale which is reliable and valid measurement tool can be used to determine the perceptions of media and information literacy towards students across teacher education institutions in Myanmar. In this sense, it is a novel contribution to current efforts to measure media and information literacy of students across teacher education institutions in Myanmar.

4. Data Analysis and Results

After developing the required instruments and applying these instruments for data collection, Media and Information Literacy of student teachers were investigated. Moreover, the other influencing factors such as gender, socioeconomic status, schools on student teachers' Media and Information Literacy were explored. By using the statistical analyses, results are discussed in the following section.

Table 1 Independent sample t-test results of media and information literacy of student teachers by gender

Variable	**Gender**	**Mean**	**SD**	***t***	***p***
Understand	M	32.98	4.87	1.75	0.080
	F	32.38	4.01		
Access	M	41.4	5.42	**-2.06***	**0.040**
	F	42.21	4.76		
Analy	M	51.3	7.2	1.13	0.256
	F	50.7	6.62		
Create	M	30.9	5.32	1.45	0.148
	F	30.3	5.66		
Re	M	30.74	4.19		
	F	31.81	3.62	**-3.67*** **	**0.000**
Act	M	45.13	7.41	1.84	0.065
	F	44.1	7.16		
Media and Information	M	21.84	43.61	**-4.4*** **	**0.000**
	F	22.99	24.85		

Note: *** $p<0.001$.

Regarding the gender, it was found that the mean scores of student teachers on overall subscales and the two subscales; access and reflect of Media and Information Literacy by gender. Female's score was found to be significantly higher than male on the access and reflect subscale and overall subscales of Media and Information Literacy. Except the access and reflect subscales, gender related difference was not found to be on other four subscales such as understand, analyze, create and act. The results of independent sample t-test confirmed that there was significant difference in media and information literacy of student teachers by gender. It can reasonably be said that the female student teachers from three selected teacher education institutions show higher media and information literacy especially for on access and reflect subscales than those of male student teachers. This finding is consistent with previous investigations done by Abdulkerim Karadeniza (2014). Their results showed that media literacy of female prospective teachers is higher than male teachers.

To observe information for socioeconomic status of student teachers, the demographic data were coded. The mean value of SES was 23.43, standard deviation was 6.26 and P25 = 19, P_{50} = 23 and P_{75} = 27. Based on the percentile results, the values above P_{75} was regarded as high socioeconomic status, the values between P_{25} and P_{75} could be described as middle socioeconomic status and the values below was identified as low socioeconomic status.

Table 2. ANOVA results of media and information literacy of student teachers by socioeconomic status

Variable	SES	Mean	SD	*F*	*p*
Understand	Low SES	32.04	4.18	**8.75*** **	**0.000**
	Middle SES	32.97	4.66		
	High SES	**34.2**	4.70		
	Total	32.69	4.48		
Access	Low SES	41.17	5.01	**12.99*** **	**0.000**
	Middle SES	41.54	5.23		
	High SES	**43.78**	5.16		
	Total	41.75	5.18		
Analyse	Low SES	50.28	6.78	**2.43**	**0.089**
	Middle SES	50.98	7.13		
	High SES	**53.19**	6.74		
	Total	51.00	6.94		
Create	Low SES	30.03	5.27	**13.44*** **	**0.000**
	Middle SES	30.36	5.45		
	High SES	**32.71**	5.68		
	Total	30.62	5.48		
Reflect	Low SES	30.88	3.96	**6.80** **	**0.001**
	Middle SES	30.98	4.02		
	High SES	**32.61**	3.81		
	Total	31.23	4.00		
Act	Low SES	43.89	7.32	**6.013** **	**0.003**
	Middle SES	44.56	7.30		
	High SES	**46.93**	6.79		
	Total	44.63	7.30		
Media and Information Literacy	SES Low	21.76	35.7	**9.08*** **	**0.000**
	SES Average	22.40	33.1		
	SES High	**23.51**	40.9		

** p<01, *** p<.001

According to Table 2, student teachers who come from high socioeconomic status families showed higher mean scores on all subscales of Media and Information Literacy. ANOVA result confirmed that mean scores of student teachers on 5 out of 6 subscales of Media and Information Literacy were significantly differed among three levels of socioeconomic status.

Table 3 Post- hoc analysis of media and information literacy of student teachers by socioeconomic status

Dependent Variable	(I) SES Level	(J) SES Level	Mean Difference (I-J)	Std. Error	*p*
Understand	Low SES	Middle SES	-0.93	0.40	0.053
		High SES	**-2.16*** **	0.45	**0.000**
	Middle SES	Low SES	0.93	0.40	0.053
		High SES	**-1.23***	0.51	**0.043**
Access	Low SES	Middle SES	-0.37*	0.46	0.711
		High SES	**-2.61*** **	0.52	**0.000**
	Middle SES	Low SES	0.34	0.46	0.711
		High SES	**-2.24** **	0.60	**0.001**
Analyse	Low SES	Middle SES	-0.70	0.62	0.503
		High SES	**-2.91*** **	0.70	**0.000**
	Middle SES	Low SES	0.70	0.62	0.503
		High SES	**-2.21***	0.79	**0.015**
Create	Low SES	Middle SES	-0.34	0.47	0.767
		High SES	**-2.68*** **	0.54	**0.000**
	Middle SES	Low SES	0.34	0.47	0.767
		High SES	**-2.34*** **	0.62	**0.000**
Reflect	Low SES	Middle SES	-0.10	0.35	0.957
		High SES	**-1.73*** **	0.40	**0.000**
	Middle SES	Low SES	0.10	0.35	0.957
		High SES	**-1.63** **	0.45	**0.001**
Act	Low SES	Middle SES	-0.67	0.65	0.555

		High SES	**-3.04*** **	0.74	**0.000**
	Middle SES	Low SES	0.67	0.65	0.555
		High SES	**-2.37***	0.83	**0.013**

* p<.05, ** p<.01, *** p< .001

Results evidently shows that there were significant differences in media and information literacy of student teachers on all subscales between high socioeconomic status families and low socioeconomic status families at 0.001 level. Similarly, significant differences were also found to be among student teachers from high socioeconomic status families and middle socioeconomic status families at 0.05 levels. It would be interpreted that student teachers from the high socioeconomic status families have higher media and information literacy than those of the student teachers from the low and average socioeconomic status families.

Table 4 ANOVA Results of Media and Information Literacy of Students Teachers by School

Variables	School	Mean	SD	*F*	*P*
Understand	YUOE	35.48	4.09	**8.755**	**0.000**
	HEC	32.44	4.25		
	YEC	32.82	5.24		
Access	YUOE	45.1	4.05	**12.992**	**0.000**
	HEC	41.82	5.014		
	YEC	40.31	5.749		
Analyze	YUOE	53.37	6.859	2.43	0.089
	HEC	50.92	6.941		
	YEC	50.62	6.904		
Create	YUOE	35.03	3.824	**13.445**	**0.000**
	HEC	30.36	5.522		
	YEC	30.4	5.205		
Reflect	YUOE	32.88	3.26	**6.806**	**0.001**
	HEC	31.32	3.861		
	YEC	30.34	4.596		
Act	YUOE	47.82	7.99	**12.992**	**0.000**
	HEC	44.17	7.199		
	YEC	45.62	7.23		
Media and Information Literacy	YUOE	2.48	22.35	**30.80*** **	**0.000**
	HEC	2.26	30.43		
	YEC	2.04	52.70		

** p<.01, *** p< 0.001

According to Table 4, student teachers from YUOE showed higher mean scores on all subscales of Media and Information Literacy. ANOVA result confirmed that mean scores of student teachers on 5 out of 6 subscales of Media and Information Literacy were significantly differed among three selected teacher education institutions.

Table 5 Post- Hoc Analysis of Student Teachers' Media and Information Literacy by School

Dependent Variable	(I) school	(J)school	Mean Difference (I-J)	*p*
Understand	YUOE	HEC	**3.033***	**0.000**
		YEC	**2.655****	**0.003**
	HEC	YUOE	**-3.033***	**0.000**
		YEC	-0.378	0.674
Access	YUOE	HEC	**3.286***	**0.000**
		YEC	**4.793***	**0.000**
	HEC	YUOE	**-3.286***	**0.000**
		YEC	**1.507***	**0.013**
Analyze	YUOE	HEC	2.449	0.09
		YEC	2.751	0.086
	HEC	YUOE	-2.449	0.09

		YEC	0.302	0.905
Create	YUOE	HEC	**4.668***	**0.000**
		YEC	**4.629***	**0.000**
	HEC	YUOE	**-4.668***	**0.000**
		YEC	-0.039	0.997
Reflect	YUOE	HEC	4.668*	**0.000**
		YEC	**4.629***	**0.000**
	HEC	YUOE	**-4.668***	**0.000**
		YEC	-0.039	0.997
Act	YUOE	HEC	**3.655****	**0.007**
		YEC	2.2	0.225
	HEC	YUOE	**-3.655***	**0.007**
		YEC	-1.456	0.11

** $p < .01$, *** $p < 0.001$

Table 5 showed that there were significant mean differences in media and information literacy of student teachers on 4 out of 6 subscales between student teachers from YUOE and HEC at 0.001 levels. Similarly, significant differences were also found to be among student teachers on 4 out of 6 subscales from YUOE and YEC at 0.01 levels. It could be interpreted that student teachers from YUOE have higher media and information literacy than those of the student teachers from HEC and YEC. And then, student teachers from HEC have higher media and information literacy than that of student teachers from YEC. Finally, students teachers' from YEC are significantly lower mean scores on all subscales of MIL than those of students teachers' from YUOE and HEC.

5. Conclusion

The female student teachers from three selected teacher education institutions show higher media and information literacy especially for on access and reflect subscales than those of male student teachers. Further, the student teachers from the high socioeconomic status families have higher media and information literacy than those of the student teachers from the low and average socioeconomic status families. This may be due to the fact that media and information literacy of student teachers increase according to their background socioeconomic status. It was observed that student teachers from HEC have higher media and information literacy than that of student teachers from YEC. Finally, students teachers' from YEC are significantly lower mean scores on all subscales of MIL than those of students teachers' from YUOE and HEC. So, it can be said that media and information literacy of students teachers can vary their school environments which can create opportunity to learn media and information literacy.

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