

Preparing Language Teachers for ICT-based Language Learning: A Focus on Student Teachers' Multimodal Literacy Level

Satrio Aji Pramono

School of Postgraduate Studies
Indonesia University of Education
Bandung, Indonesia
satrioajip@upi.edu

Abstract—A growing number of English language learners who involve in digital environment has led to the importance of skill mastery in understanding and producing meaning conveyed through various modes such as images, gestures, audio, and written as well as oral language. English language learning is therefore required to provide learners the opportunity to learn in multimodal environment. Likewise, it is important for teachers to have good multimodal literacy. This study seeks to investigate the multimodal literacy levels of student teachers by using questionnaire consisting of several statements related to multimodal literacy as a data collection technique. Forty participants who are students of *Pendidikan Profesi Guru (PPG)* of English education were involved in this study. Conclusions are drawn and suggestions are made for the English education program and further research as well.

Keywords: *multimodal literacy, student teacher, ICT-based language teaching, PPG*

I. INTRODUCTION

The fact that technology nowadays plays essential role in human life has led to the changing nature of how people communicate. In the past, communication was mainly in the form of written language, especially text; at the present time, we rarely use only one mode of communication. Language along with other types of mode i.e. visual, sound, gesture, and gaze has redefined the way people interact in this era. In educational setting, learners are certainly involved in various multimodal texts because of their participation in social media which is highly active and everyday usage of mobile devices (Ganapathy & Seetharam, 2016).

There have been various theories covering the impact of technological developments on literacy. Several terms are proposed by scholars, including new literacies (Lankshear & Knobel, 2003), digital literacies (Jones & Hafner, 2012), electronic literacies (Warschauer, 1999), and multiliteracies (New London Group, 1996; Cope & Kalantzis, 2000). All of those terms are actually based on the same understanding that those literacies deal with the ability to engage in digitally mediated communication, which is multimodal in nature. Multimodal texts are characteristically attendant with digital technologies since in many digital texts, different modes such as

visual, gestural, aural, and spatial as well as linguistic come together to construct meaning (Eksi & Yakisik, 2015).

This new involvement of other modes than merely language in communication met by the learners' demands education to provide them with sufficient digital literacy. In order to be able to function in nowadays world, literacy training from a conventional sense need to be shifted to understanding as well as producing texts which involve various modes of communication resources including verbal, visual, and gestural (Leu, 2002). Teachers are then not only required to have deep understanding about subject matters and materials delivery but also to master skills and knowledge needed to accommodate intervention of information and communication technology in the classroom. It means that teachers need to have what is so called as multimodal literacy which is defined as a framework which requires collective interpretation of two or more modes such as text, visual, graphics, videos, gestures, sound, facial expression, and animation for creating meaning (Kress 2010). Multimodal literacy is about accepting that there are different way of meaning-making and knowledge representations, comprehending discourse by understanding semiotic resources contribution such as gestures, images, or languages to produce meaning and understanding how different modalities are co-working in constructing a coherent text.

Even tough multimodality is inevitable in language learning, teacher may be resistant to incorporate multimodality in their teaching (Warschauer, 2008). The factors of the resistance can be in the form of time constraint or perceptions that multimodal practices hinder academic language and literacy, takes much preparation time, and (Yi & Choi, 2015). Regarding authenticity, there is a view as Lotherington and Jenson (2011) argue that importance of multimodal literacy that reducing L2 or foreign language learning to the 'flat literacies' of paper based resources in EFL classroom raises questions of authenticity in L2 learning. Notwithstanding those views, multimodal texts enable the learners to develop their out-of-school literacy which may help them perform better in the classroom (Sewell & Denton, 2011). Therefore, although perceptions and views of teachers regarding multimodality in language learning may vary, multimodal

approach in language learning is highly suggested thus teachers' multimodal literacy becomes crucial.

A study conducted by Eksi & Yakisik (2015) found that pre-service English language teachers in a University in Turkey have quite high multimodal literacy levels. In Indonesian education context, a professional teacher is required to join a program called *Pendidikan Profesi Guru (PPG)* or teacher professionalism program in order to have good theoretical and practical understanding about teaching. Taking into account the importance of multimodal literacy for teachers of foreign language, this study seeks to reveal the multimodal literacy levels of student teachers who join *PPG* program in Indonesia.

II. METHOD

A. Design

This study is aimed at investigating multimodal literacy levels of EFL student teachers in Indonesia. A questionnaire comprising of items related to demographics and participants practices and the Multimodal Literacy Scale which is developed by Bulut, Ulu, and Kan (2014) is used to collect the data. The scale contains 17 items which cover (1) expressing oneself using multimodal structure; (2) Interpretation of the content presented in multimodal structure, and (3) Preferring multimodal structure. There will be five options representing the participants' preference, ranging from Strongly Disagree to Strongly Agree.

The participants are 40 students of PPG, a program which is aimed at preparing teachers to fit the need of what professional teacher should be.

B. Data Analysis

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III. FINDING AND DISCUSSION

Based on the analysis of the result of questionnaire, the demographics of the participants in term of their gender, year of joining training program, year of teaching, and time they spend on the internet are shown in the table below.

TABLE I. The Participants' Demographics

		N	%
Gender	Male	12	30%
	Female	28	70%
Year of joining training program	2015	7	17.5%
	2016	17	42.5%
	2017	16	40%
Year of teaching	Less than 1 year	20	50%
	1-2 year	16	40%
	2-3 year	4	10%
Time on the internet	1-3 hours	10	25%
	3-5 hours	11	22.5%
	More than 5 hours	19	52.5%

Related to the agreement levels of student teachers for each of the statements about multimodal literacy, the table below shows descriptive statistic in the form of mean scores and standard deviations for each statement. The researcher has determined the score intervals that the score of 1 – 1.79 show total disagreement, 1.80 – 2.59 show disagreement, 2.60 – 3.39 show undecided, 3.40 – 4.19 shows agreement, and 4.20 – 5.00 show total agreement.

TABLE II. The Means Scores and Standard Deviations of Statements about Multimodal Literacy

Statements	Mean	St. dev
<i>Expressing oneself using multimodal structure</i>		
Using various elements (such as music and images) in my presentations makes it easier to make my point	4.2000	0.96609
I use visuals such as graphics, tables, pictures and photographs in my writings	3.7750	0.83166
I prepare an interactive presentation making use of music, visuals and animations	3.9750	0.80024
I organize my thoughts systematically in my presentations thanks to various visual elements (such as tables and graphics)	4.0500	0.87560
I express myself more explicitly in environments in which writing, sound and images exist together	3.8500	0.66216
<i>Interpretation of the contents presented in multimodal structure</i>		
I pay attention to the body language of the individuals I am listening to	3.9250	0.82858
I can realize how visual, auditory and written elements influence individuals	4.0500	0.81492
I use body language which is in harmony with the words I choose when speaking.	3.9000	0.74421
I relate various visual and verbal information on various media tools to each other	3.9000	0.74421
I interpret the information that I gather from numerous resources	4.0000	0.71611
I relate the information I have access to each other using visual and auditory elements.	3.6750	0.61550
I can decide whether contents that are presented on various media (newspaper, TV, social media etc.) are true or not.	3.7250	0.67889
<i>Preferring multimodal structures</i>		
I don't like trying to interpret images, sounds, graphics and writings simultaneously	2.5000	0.93370
I only believe in the power of verbal expressions when sharing my thoughts	2.7500	1.03155
I get distracted in electronic environments in which visual, auditory and written elements are used together	2.4250	0.78078
The use of visual, auditory and written elements together leads to laziness of the mind	2.1750	0.78078
I get bored in communication in which written, auditory and visual elements are used together.	1.9250	0.82858

The following table displays student teachers' multimodal literacy levels in terms of the three subscales, namely expressing oneself using multimodal structure, interpretation of the contents presented in multimodal structures, and preferring multimodal structures.

TABLE III. Level of Multimodal Literacy of Student Teachers in term of Subscale

	Mean	St. dev
<i>Multimodal literacy skills</i>		
Expressing oneself using multimodal structure	3.97	0.8382
Interpretation of the contents presented in multimodal structures	3.882	0.7408
Preferring multimodal structures	2.355	0.9127

From the table above, it can be seen that the scores indicate agreement in two multimodal literacy skills, namely expressing oneself using multimodal structure and interpretation of the contents presented in multimodal structures, while the score of in preferring multimodal structures indicates disagreement. Since the statements of the latter skill were negatively constructed, the score of disagreement means that the preference of multimodal literacy structures is high. All in all, student teachers seem to be able to use, construe and prefer multimodal structure at high levels.

Further analyses involve gender, year of taking training program, year of teaching, and time on the internet. The tables below show the scores of multimodal literacy levels with reference to those aspects.

TABLE IV. Multimodal Literacy Levels and Gender

	Gender	N	Mean	Std. Dev	p
Expressing oneself using multimodal structure	Male	12	3.9167	0.65759	0.694
	Female	28	3.9929	0.68092	
Interpretation of the contents presented in multimodal structure	Male	12	3.8000	0.35929	0.208
	Female	28	3.9179	0.59818	
Preferring multimodal structures	Male	12	2.4333	0.69194	0.300
	Female	28	2.3214	0.48485	

TABLE V. Multimodal Literacy Levels and Year of Taking Training Program

Subscales	Years	N	Mean	Std. Dev	F	p
Expressing oneself using multimodal structure	2015	7	3.46	0.978	2.736	0.078
	2016	17	4.08	0.637		
	2017	16	4.08	0.437		
Interpretation of the contents presented in multimodal structure	2015	7	3.63	0.85	0.953	0.395
	2016	17	3.93	0.471		
	2017	16	3.94	0.429		
Preferring multimodal structures	2015	7	2.46	0.772	0.155	0.857
	2016	17	2.32	0.592		
	2017	16	2.35	0.403		

TABLE VI. Multimodal Literacy Levels and Year of Teaching

Subscales	Years	N	Mean	Std. Dev	F	p
Expressing oneself using multimodal structure	Less than 1 year	20	4.18	0.425	2.151	0.131
	1-2 years	16	3.74	0.822		
	2-3 years	4	3.85	0.806		
Interpretation of the contents presented in multimodal structure	Less than 1 year	20	4.01	0.391	1.718	0.193
	1-2 years	16	3.69	0.628		
	2-3 years	4	4.03	0.532		
Preferring multimodal structures	Less than 1 year	20	2.34	0.455	1.231	0.304
	1-2 years	16	2.28	0.619		
	2-3 years	4	2.75	0.661		

TABLE VII. Multimodal Literacy Levels and Time Spent on The Internet

Subscales	Time	N	Mean	Std. Dev	F	p
Expressing oneself using multimodal structure	1-3 hours	10	3.82	0.959	0.867	0.429
	3-5 hours	11	3.85	0.507		
	More than 5 hours	19	4.12	0.563		
Interpretation of the contents presented in multimodal structure	1-3 hours	10	3.59	0.674	3.193	0.053
	3-5 hours	11	3.81	0.394		
	More than 5 hours	19	4.08	0.466		
Preferring multimodal structures	1-3 hours	10	2.44	0.685	0.163	0.850
	3-5 hours	11	2.35	0.336		
	More than 5 hours	19	2.32	0.590		

From the table above, it can be seen that there is no meaningful significance of multimodal literacy levels of student teachers in term of gender and year of taking training (PPG)

program. However, in term of year of teaching, a quite significant difference is seen between those who teach less than 1 year and those who teach 1-3 years. It seems that the more time they have to teach, the less multimodal literacy they possess. It is probably because the curriculum or environment where they teach does not sufficiently support multimodal practice. Another factor can be in the form of changing perception toward the importance of multimodal literacy as well as its practice.

In term of the time on the internet daily, the finding suggests a quite significant difference in the multimodal literacy. It seems that the multimodal literacy levels increase in accordance with time spent on the internet.

IV. CONCLUSION

A growing number of language learner who engage in digital environment which is rich of resources in nature demands English teachers to have the ability to learn and to use various kinds of modes in order to be able to teach students in 21st century. Based on the findings of this study, student teachers of English have quite high multimodal literacy levels. In specifics, this literacy levels increase in accordance with time spent on the internet. The more time they have to spend in the internet, the more literate the student teachers become. However, their multimodal literacy levels may decrease after some time when they are teaching regardless their gender. Regardless of this study limitation which is conducted in a small scale, this findings can become a consideration in teacher education institutions. Finally, similar studies with bigger sample are suggested to be conducted for more comprehensive result.

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AUTHOR PROFILE

Satrio Aji Pramono is a student in Indonesia University of education, majoring in English Education. His research interests include English language teaching and multimodality.