Understanding the Paralinguistic Features Disclosure Depicted in the Lecturer's Visual Modes of Writing Class Instruction

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ABSTRACT

Today's writing instruction performance is greatly aided by oral and nonverbal communication. This study intends to contextualize the lecturer's visual modes regarding the paralinguistic features in writing class. Data were gathered from the PSETs' self-rated questionnaire and the lecturer's visual modes that were durably video recorded. Data were analysed using the IBM SPSS version 20 for descriptive and factor analysis, as well as the ELAN's software to contextualize the non-verbal linguistic matters. The findings showed that the paralinguistic features, namely gesture, articulation, and loudness were strongly visible, whereas sonority and facial expression and lips setting were visible relating to the lecturer's visual modes (r = .833, n = 243, p<.05). Meanwhile, Eigenvalue and factorial analysis affirmed two rooted paralinguistic features components of 83.803% (68.128% for component 1 and 15.675% for component 2). Further, ELAN analysis qualitatively contextualized the lecturer's visual modes performance corresponding with the meta-discourse taxonomy through the portrait of the quoted material, dysfluencies, and discourse organization on introducing, delimiting, adding, and concluding the topic through the normative and pre-planned types of spoken data in the writing class activities. This study synchronizes the verbal and non-verbal viewpoints regarding both the PSETs and the lecturer's understanding of the paralinguistic features in the writing class.

Keywords: ELAN analysis; Meta-discourse taxonomy; paralinguistic features; writing instruction

INTRODUCTION

Recently, the substantiation of fulfilling a better English teaching performance becomes a basic necessity and trend among lecturers to bridge and stimulate pre-service English teachers' (PSETs') learning activities. However, lecturers' teaching performance intentionally show the multimodal expressions in visual modes (Dunn & Sweeney, 2018), embody the pedagogical circumstance inclusiveness (Butler, 2017), and portray the eligibly colourful modes of communication verbally and non-verbally (Daffurn, 2019). The processes also acknowledge students' identification and performance into the qualified and appropriate textual communications which transform the models (Cooney et al., 2018) through brainstorming and

sharing of ideas (Carneiro & Oliveira, 2017). So far, they focus on language emphasis and contents that link skills, gestures, and emotions integration (Santoso, 2019), although some measurements can be potentially absurd upon the solely collected information (Sumekto & Setyawati, 2018).

As a culture of writing instruction upon the substantial presumption, lecturer's non-verbal communication continually accommodates PSETs' interactions. This can be reflected from lecturer's gestural expressions–head and face, eyes and gazes, physical appearance, smiling lips (Uçar, 2012), hand and arm motions, postures and other body movements (Wasike, 2018), feelings, thoughts, and behaviours (Acosta, 2014). The gestural expressions undertake speech volume and setting, speaking speeds, changes, mistakes, potential fluency distortions (Sikorski, 2012), qualities of expressive vocalization, auditory segregation, and voice characteristics (Perera et al., 2009).

This present study addresses paralinguistic features' measurability in the lecturer's contextual teaching orientation in writing class relating to gesture, articulation, loudness, sonority, and facial expression, and lips setting. Further, the writing lecturer's visual modes performance corresponding with the meta-discourse taxonomy through the portrait of lecturer's quoted material, dysfluencies, and discourse organization, and concluding the topic through the normative and pre-planned types of spoken data in the writing class activities were synchronized as well.

LITERATURE REVIEW

ORAL AND NON-VERBAL COMMUNICATION

Oral and non-verbal communications support the spoken language actualization (Agris et al., 2008), which synonymously verbalize and show the perceivable relationships (Rusu & Chiriţă, 2017) with a sizable percentage of the spoken information (Anh, 2017). They show the positive impact on language learning processes (Acosta, 2014) upon lecturer's instructions. In short, both oral and nonverbal address effective communication in the search of proximity, posture, lip-setting, vision, facial expression, appearance, gesture, and other miscellaneous paralinguistics (Shams & Elsaadany, 2008) to foster participation and engagement upon the learning activities accessibly (Acosta, 2014). Conversely, PSETs' writing experience and knowledge may neglect and become the improper backwash of inaccurate, emotional, and unproductive academic rhythms, if the paralinguistics disclosure is ineffectively fulfilled.

The paralinguistic facets meaningfully address today's real-life communication (Schuller et al., 2018) between students and lecturer's communicative properties (Bonaccio et al., 2016) in writing instruction. They may create learning autonomy with the participation enjoyment (Gholamshahi & Pazhakh, 2015) and be aware of collaboratively working in writing class. In real-life communication, the paralinguistic facets naturally include gestures (Johnston, 2014), which show lecturer' facial emotional expression representing the substantial categories (Turabzadeh et al., 2018), such as sadness, happiness, disgust, anger, fear (Lausic, 2009), surprise, neutral (Guarnera et al., 2015), and disdain (Matsumoto & Ekman, 2008) based on emotional stimulus types–face, eyes, and mouth area (Guarnera et al., 2015).

PARALINGUISTIC FEATURES

The paralinguistic features currently link students and lecturer's relationships into spoken multimodal expressions (Berge et al., 2016). Meanwhile, facial expression involves investigating the pattern of recognizing adults' own emotions (Guarnera et al., 2017). It

intrinsically links and shows the combinations of other gestural movements (Vercauteren & Orero, 2013), that combine speech and gaze (Madeo et al., 2017) based on the facial mimetic musculature movements (Matsumoto & Ekman, 2008). For example, facial expression directly assesses a critical information extraction (Roy et al., 2015) and conveys the dynamic functions (Sjögreen et al., 2011) on writing instructions. This can reflect lecturer' emotions, constitute the sign language (Agris et al., 2008), and positively implicate the instruction in terms of non-verbal immediacy behaviours (Aydin et al., 2013).

Lecturer's temporal relation deals with other modalities, relationships to discourse and dialogue context (Wagner et al., 2014), cognitive, emotional, and interactive processes in different forms of self-regulatory processes (Lausberg & Sloetjes, 2009) to attract students' visual attention. The gestural principle function assists the communicative needs (Wagner et al., 2014) and encompasses the articulatory movements conveying spoken, signed words (Wilcox, 2004), and associated sentences (Spasova, 2011). The lecturer's voice tones empower students to be active in the classroom (Koch, 2017), which depends on the unprocessed and processed lecturer's loudness speech (Zorilă et al., 2016). Voices modulate signal (Rennies et al., 2010) and influence vocal characteristics of pitch, volume, resonance, and speech rate and fluency (Ethier, 2010). The interactional prosody also supports lexical tone and intonational language tone and conveys the pragmatic expression (Ha & Grice, 2017) to indicate lecturer's intentions, moods, powers, and attitudes (Chakhachiro, 2016) with a deep learning-based approach (Khan, 2018).

Some paralinguistic feature studies aimed at transforming roles and functions lecturer's visual modes' existence. Gestures that are widely related to non-content-carrying are used to reinforce or control speech intonation and to enhance speech content (Kong et al., 2015). Herein, a wave of someone's facial expression and lips setting could be identified from his or her face, eyes, and mouth (Guarnera et al., 2015). Meanwhile, articulation addressed a great feature of messages' clarity and credibility in any transferable dialects or enunciations (Reid, 2013). Articulation must be supported by the equalization of a long-term loudness that has become the best technique for comparing unprocessed and processed sentences (Zorilă et al., 2016), although the voice might sometimes be lacking in getting reaction in sonority profiles (Parker, 2017). Of all these reasonable features, a significant correlation between verbal and nonverbal communication in paralinguistic features is evident (Vogel et al., 2018).

The theoretical review engages the conceptual framework beyond a comprehensive understanding in PSETs' writing class contextualization. Figure 1 addresses the key concepts and their relationships in the contact of paralinguistic features.

FIGURE 1. Conceptual framework of paralinguistic features

Regarding the connectivity with this present study's significance, the paralinguistics attempts to address two research questions, as follows: (1) Does lecturer's visual modes– gesture, articulation, loudness, sonority, and facial significantly influence PSETs' writing class activities? (2) How do lecturer's synchronized oral and non-verbal linguistics viewpoints address a meaningful writing class instruction to accomplish PSETs' communication engagement? By contextualizing the background, this study intends to contextualize lecturer's visual modes in the framework of the writing class to produce communicative engagements.

METHOD

This study used mixed-methods design that aimed at contextualizing lecturer's writing class visual modes, such as gesture, articulation, loudness, sonority, and facial expression and lips setting. In this study, the topic relied on lecturer's class on 'Using contextual vocabulary, pronunciation, and standard writing style'. The study was undertaken at a private university in Purworejo District, Central Java, Indonesia, whose core business was affiliated with Muhammadiyah, one of the largest and credible Islamic organizations.

Data were collected from a male lecturer who taught writing in the parallel classes and 243 PSETs of 404 population in the second semester of the 2019/2020 academic year to be the respondents. This study used a 5-Likert scale of self-rated questionnaire and recorded lecturer's videotape on his visual modes. As filed in the database, 37% (n = 90) freshmen, 32% (n = 78) sophomores, and 31% (n = 75) juniors participated in completing the questionnaires. Respondents' age was recorded from 17 to 23 years old (Mage = 20; SD = 4.242) when they completely returned the questionnaires. Of 243 respondents, .53% (n = 13) was 17; 19% (n = 46) was 18; 21% (n = 50) was 19; 16.4% (n = 40) was 20; 15.2% (n = 37) was 21; 14% (n = 34) was 22 years old; and .94% (n = 23) PSETs' age turned 23 years old. Prior study on

Cronbach's alpha (ā) coefficient upon other 75 PSETs proved that lecturers' visual modes–gesture (.828), articulation (.837), loudness (.812), sonority (.807), and facial expression and lips setting (.868) as shown in Table 1.

TABLE 1. Value of Cronbach's alpha coefficient

Variable (Visual Modes)	Items Number	Cronbach's alpha	Decision
Gesture	8	.828	Valid
Articulation	6	.837	Valid
Loudness	7	.812	Valid
Sonority	5	.807	Valid
Facial expression & lips setting	7	.868	Valid

Meanwhile, lecturer's visual modes were measurably applied for one calibrated video–size 589.456 KB, recorded on March 8th, 2020 at 8:40 AM from mini iPad 2 version 9.3.5. The iPad recorded around 1.5 meters from lecturer's standing position. The recordings established the eligibility of lecturer's visual modes transformation upon the symbolic computation performance (Belkhir et al., 2014) as found in writing class. The computation was aimed at detecting, classifying, and recognizing paralinguistic phenomena (Schuller et al., 2013).

Data analysis used the IBM SPSS 20 to address the descriptive and factor analysis verifying the paralinguistic features' principal components analysis using the Eigenvalue as well as Pearson correlations coefficients with 2-tailed significance at $p<.01$ to determine the reliability, whereas lecturer's visual modes were qualitatively analysed by the EUDICO Linguistic Annotator (ELAN) of Max Planck Institute for Psycholinguistics. This ELAN was specifically designed for the language analyses, sign languages, and gestures (Chebotko et al., 2005) and integrated the corresponding digitized video data into a single file, which produced the oral and non-verbal data (Kong et al., 2017).

FINDINGS AND DISCUSSION

PARALINGUISTIC FEATURES' DESCRIPTIVE STATISTICS

Firstly, the descriptive statistics (Table 2 and Figure 2) was used to determine the visibility of lecturer's gesture. The PSETs experientially perceived that lecturer's gesture visibility was portrayed in the moderate category (11.9% or 29), visible category (42.8% or 104), and strongly visible category (45.3% or 110) when the lecturer performed his visual mode in writing class. The highest score of lecturer's gesture received 5.00 (M = 4.37; SD =.677; n = 243). As a result, the total visibility of lecturer's gesture was highly noticeable, as perceived by 45.3% respondents.

TABLE 2. Frequencies of lecturer's gesture visibility

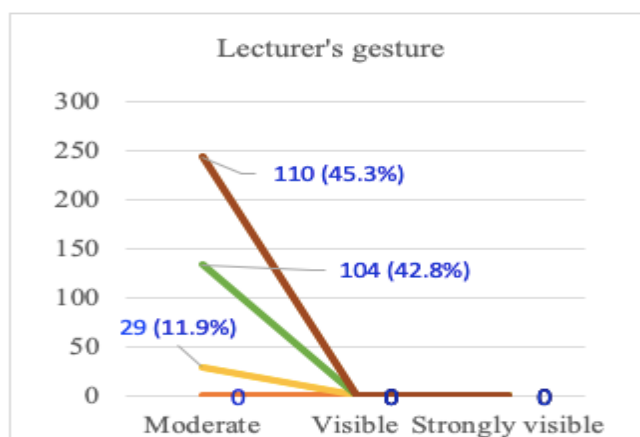|	Likert's scale	Frequency	Percent	Valid percent	Cumulative percent
	3.00 (Moderate)	29	11.9	11.9	11.9
Valid	4.00 (Visible)	104	42.8	42.8	42.8
	5.00 (Strongly visible)	110	45.3	45.3	100.0
	Total	243	100.0	100.0	

FIGURE 2. Lecturer's gestural visibility's stacked line

The lecturer's gestures corresponded with his spoken expressions using the instructional sentences, phrases, words, idioms, and utterances in his instruction. As long as the symbolic gestures were well-identified, the circumstances stimulated PSETs' numerous interpretations and knowledgeably understandings of the meaning. Michel et al. (2019) remarkably noticed that the processes of lexical retrieval, syntactic encoding, and the representation of cohesive relationships, interactive and recursive processes majorly extracted long-term memory into language form concepts. The lecturer's spoken words and symbolic gestures were coded as a single signal, as this signal was used to create a unique communication system (Bernardis & Gentilucci, 2005). Its function pronounced the sentences, pitched the voices and prolonged the pronunciations of definite syllables, and recognized body movement effectively (Naderi & Yazdi, 2018) for showing the lecturer and PSETs' feelings. This situation could be figured out from the lecturer's gestural visibility actualization on strongly visible (45.3%).

Secondly, the lecturer's articulation visibility pertained to the descriptive statistics (Table 3 and Figure 3). The PSETs perceived that the lecturer's articulation visibility was depicted in slightly visible category (9.9% or 24), moderate category (1.6% or 4), visible category (42.4% or 103), and strongly visible category (46.1% or 112) when the lecturer's articulation was actualized in the writing class. The highest score of lecturer's articulation was 5.00 ($M = 4.26$; $SD = .930$; $n = 243$). Therefore, the lecturer's articulation visibility was strongly visible on 46.1%. Regarding the lecturer's articulation, the PSETs needed to include the sound mapping onto a meaning that presented the whole challenge as if the enormous changeability of the delivered signal since this changeability corresponded with the co-articulation of adjoining speech segments to change the words shape impairment (Tavabi et al., 2009). Articulation design broadened an entrance into classroom's formal learning and delivered a faultless route. It might link lecturer's speech quality that led to a better level of quality to introduce the principal substance between connection and equality (Australian Qualifications Framework Council, 2012).

TABLE 3. Frequencies of lecturer's articulation visibility

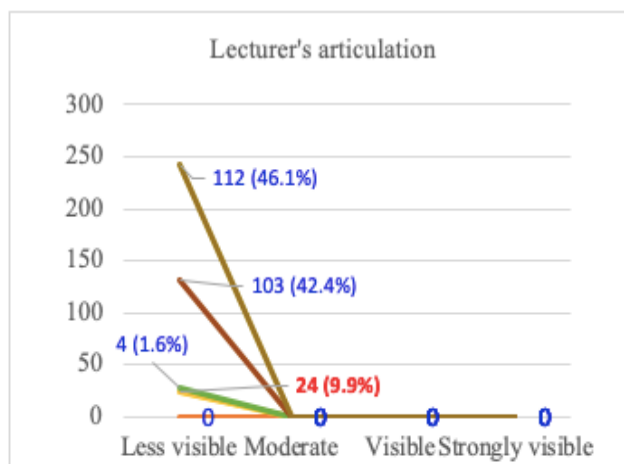|	Likert's scale	Frequency	Percent	Valid percent	Cumulative percent
	2.00 (Slightly visible)	24	9.9	9.9	9.9
	3.00 (Moderate)	4	1.6	1.6	1.6
Valid	4.00 (Visible)	103	42.4	42.4	42.4
	5.00 (Strongly visible)	112	46.1	46.1	100.0
	Total	243	100.0	100.0	

FIGURE 3. Articulation visibility's stacked line

The lecturer's articulation supported the visual modes performance when it was substantially reachable (Sumekto & Setyawati, 2020) among PSETs in writing instruction. In particular, the articulation issue was placed in inter-dental, labiodental, alveolar, and palatal since It conveyed the phonological rules governing the pronunciation of English sounds–aspiration, velarization, and nasalization. Nevertheless, articulation problems still occurred within dysfunction [organic brain injury, cerebral palsy, genetic syndromes, and intellectual disability], anatomy [cleft palate], hearing, and difficult standard language development (Kim et al. (2017). Hence, the articulation mainly specified the phonological loop that was responsible for the short-term memory and manipulation of linguistic information, storing and processing visual, and spatial information (Michel et al., 2019).

Thirdly, lecturer's loudness visibility was attained in the descriptive statistics (Table 4 and Figure 4). The PSETs evaluated the loudness visibility, starting from slightly to strongly visible category. The following results were slightly visible category (11.5% or 28), moderate category (1.2% or 3), visible category (34.2% or 83), and strongly visible category (53.1% or 129) when lecturer's loudness was voiced. The highest score of lecturer's loudness was 5.00 (M = 4.32; SD = .943; n = 243). Herein, lecturer's loudness visibility gained strongly visible with 53.1%. This feature showed lecturer's loudness portrait in the classroom when he was teaching writing to PSETs.

TABLE 4. Frequencies of lecturer's loudness visibility

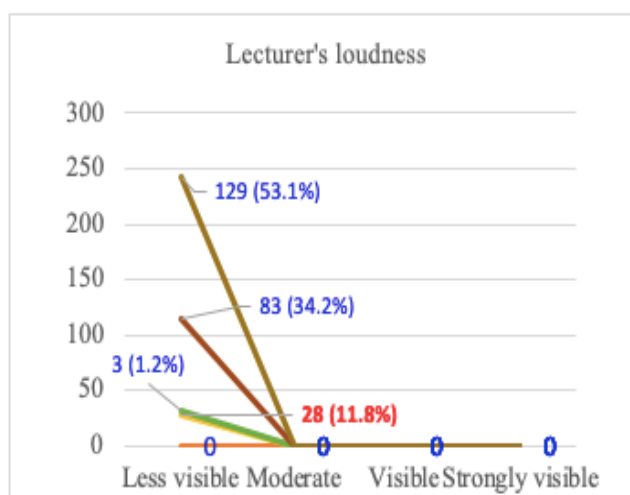|	Likert's scale	Frequency	Percent	Valid percent	Cumulative percent
Valid	2.00 (Slightly visible)	28	11.5	11.5	11.5
	3.00 (Moderate)	3	1.2	1.6	1.2
	4.00 (Visible)	83	34.2	34.2	34.2
	5.00 (Strongly visible)	129	53.1	53.1	100.0
	Total	243	100.0	100.0	

FIGURE 4. Loudness visibility's stacked line

The lecturer's loudness was related to sound, intonation, and pitch control (Glasberg & Moore, 2002). Loudness was influenced by the quality of a periodic lecturer's voice, conversational aloneness, localized and eccentric lingos, and boundaries assessed on the contingency of improved writing (Chakhachiro, 2016). The better vocal quality the lecturer had, the less fear the PSETs experienced with lecturer's loudness (Hsu, 2012). Meanwhile, Chen et al. (2004) connected loudness with finical intonation, intentional determination, and transmission, postures, and feelings.

Fourthly, the descriptive statistics (Table 5 and Figure 5) were used to determine lecturer's sonority visibility. The PSETs confidently addressed that the visibility was obtainable from slightly visible to strongly visible category. The following results were slightly visible category (1.2% or 3), moderate category (13.2% or 32), visible category (65.8% or 160), and strongly visible category (19.8% or 48) when the lecturer's sonority was sonorously toned in his writing class. The highest score of lecturer's sonority was 4.00 (M = 4.10; SD = .561; n = 243). Therefore, lecturer's sonority visibility mostly gained visibility at 65.8%. Sonority was essentially dependent on the nearest sonority peak–a model that must depict predictable situations towards the predicted sonority contour–sonority is linked to unattested phonological sequences (Daland et al., 2011).

TABLE 5. Frequencies of lecturer's sonority visibility

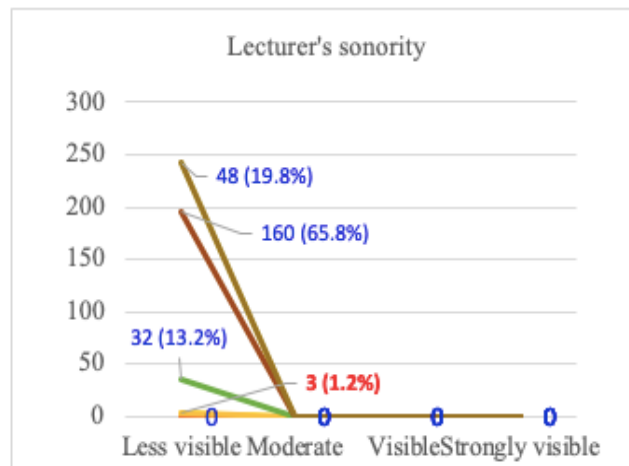|	Likert's scale	Frequency	Percent	Valid percent	Cumulative percent
Valid	2.00 (Slightly visible)	3	1.2	1.2	1.2
	3.00 (Moderate)	32	13.2	13.2	13.2
	4.00 (Visible)	160	65.8	65.8	65.8
	5.00 (Strongly visible)	48	19.8	19.8	100.0
	Total	243	100.0	100.0	

FIGURE 5. Sonority visibility's stacked line

Sonority consists of a nasalized segment constraint hierarchy with a more sonorant segment in nasal harmony (Lin, 2016). Sonority effects were manifested in the level separation, such as obstruents, sonorants, and vowels that were underlaid the formation of phonological inventories (Hauser, 2014) for the sustainable sonority impacts (Parker, 2017). However, the physical nature of sonority dealt with the typical phonological sonority scales from the strongest to the weakest order. The scales might be influenced by the intensity, intraoral air pressure, total airflow, and duration (Parker, 2002). Therefore, the relative sonority distances between sounds across spoken English might be influential (Pons-Moll, 2008).

Fifthly, the descriptive statistics revealed lecturer's facial expression and lips setting (Table 6 and Figure 6). The PSETs rated visibility of these from moderate to strongly visible category. The following results were moderate category (9.9% or 24), visible category (68.3% or 166), and strongly visible category (21.8% or 53) when the lecturer's facial expression and lips setting were conditionally performed in his writing class. The highest score of the lecturer's facial expression and lips setting was 4.00 (M = 4.11; SD = .567; n = 243). Hence, lecturer's facial expression and lips setting visibility gained 68.3%.

TABLE 6. Frequencies of lecturer's facial expression and lips setting visibility

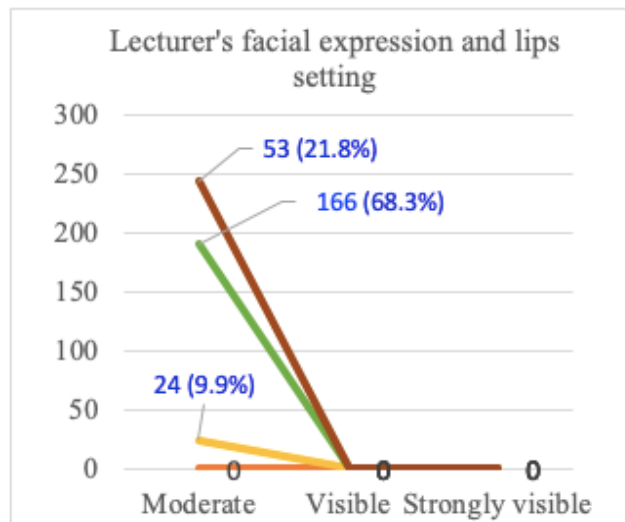|	Likert's scale	Frequency	Percent	Valid percent	Cumulative percent
Valid	3.00 (Moderate)	24	9.9	9.9	9.9
	4.00 (Visible)	166	68.3	68.3	68.3
	5.00 (Strongly visible)	53	21.8	21.8	100.0
	Total	243	100.0	100.0	

FIGURE 6. Facial expression and lips setting's stacked line

Herein, the facial expression and lips setting aimed to understand lecturer's nonverbal behaviour and communication that allowed PSETs to drive their evidence-based expressions (Bonaccio et al., 2016). The PSETs seemed to focus contextually on non-verbal communication through their postures and eye contacts (Hudak et al., 2019) when using a range of paralinguistic strategies to support the writing instruction simultaneously (Daly & Sharma, 2018). Hence, the conversationally physical appearance of gesture, body condition, and eye contact (Naderi & Yazdi, 2018) might be interpretable in getting the expected meanings.

The next analysis addressed the lecturer's influential visual modes, in which the significance value was $r = .833$, $n = 243$, $p<.05$. The highest level of the lecturer's visual modes dealt with voice loudness, whilst the lowest level related to the facial expression and lips setting. However, the lecturer's visual modes were significant ($p<.05$) with 2-tailed significance. Table 7 showed the lecturer's visual modes' using Pearson correlation coefficients in the following sequences, .833**, .766**, .711**, 706**, and .634*.

TABLE 7. Lecturer's visual modes on Pearson correlation coefficients

	Visual modes	M	SD		1	2	3	4	5
	Gesture	4.37	.677	Pearson correlation	1	.540**	.643**	711**	.706**
				Sig. (2-tailed)		.000	.000	.000	.000
				N	243	243	243	243	243
	Articulation	4.26	.930	Pearson correlation	540**	1	.833**	.540**	491**
				Sig. (2-tailed)	.000		.000	.000	.000
				N	243	243	243	243	243
Pearson (r)	Loudness	4.32	.943	Pearson correlation	.634**	.833**	1	436**	766**
				Sig. (2-tailed)	.000	.000		.000	.000
				N	243	243	243	243	243
	Sonority	4.10	.561	Pearson correlation	711**	.540**	.436**	1	.314**
				Sig. (2-tailed)	.000	.000	.000		.000
				N	243	243	243	243	243
	Facial expression & lips setting	4.11	.567	Pearson correlation	.706**	766**	.766**	.314**	1
				Sig. (2-tailed)	.000	.000	.000	.000	
				N	243	243	243	243	243

**Correlation is significant at the .01 level (2-tailed), $p<.05$

PRINCIPAL COMPONENTS ANALYSIS

The writing outputs could be viewed accordingly as the sole points of PSETs' writing construction in the linguistic discourses whilst they produced paragraphs (Lo et al., 2020). The paralinguistics features could contribute to PSETs' understanding of highly specialized grammatical structures and lexical features of the written discourses, paragraphs development, and linguistic patterns identification (Maamuujav et al., 2021) to gain the objective-directed actions effectively (Yu & Monas, 2020). As shown in Table 7, the lecturer's visual modes influentially strengthened PSETs' classroom-based writing processes in terms of gesture (M = 4.37; SD = .677), articulation (M = 4.26; SD = .930), loudness (M = 4.32; SD = .943), sonority (M = 4.10; SD = .561), facial expression and lips setting (M = 4.11; SD = .567).

The next analysis relied on five visual modes to synchronize the paralinguistic features' principal components analysis (PCA). Before synchronizing the PCA, the factor analysis determinant was conditionally adjusted through the correlational matrix examination to confirm the subsistence of achievable coefficients value of .107 or above. The Kaiser Meyer-Olkin returned .612, indicating the value of .6 or above, whilst the significance value of Bartlett's Sphericity test, p = .000. This matrix examination dealt with the statistics' significance and showed the factorability of the correlational matrix. Therefore, PCA's results confirmed the Eigenvalue outreaching 1, provably recorded the level of 68.12%, 15.67%, 11.87%, 2.73%, and 1.58% of the features respectively (Table 8).

TABLE 8. Total variance of lecturer's visual modes

Lecturer's Visual Modes	Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	% of Variance	Cum.%	Total	% of Variance	Cum.%	Total	
Gesture	3.406	68.128	68.128	3.406	68.128	68.128	2.871	
Articulation	.784	15.675	83.803	.784	15.675	83.803	2.085	
Loudness	.594	11.872	95.674	.594	11.872	95.674	2.517	
Sonority	.137	2.732	98.406	.137	2.732	98.406	2.698	
Facial expression & lips setting	.080	1.584	100.000	.080	1.594	100.000	2.425	

Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance

This factorial analysis durably determined two considerable components of 83.803%. This value was undertaken from component 1 = 68.128% and component 2 = 15.675%. In interpreting the lecturer's visual modes, the revolved Oblimin conditionally considered the results (Table 8 and Figure 7). This revolving ascertained a simple structure appearance addressing component 1 and 2. The components established the number of squared loadings with the features partly dealing with component 1. The explication of both components was commonly sensible with lecturer's experientially visual modes. The percentage of confirmed features decreased from the first component to the second component since the first one mostly retained the feature. Either component 1 or 2 showed positive visibility that disconnectedly scaled from these features. The obtainable results of the component plot in rotated space for each feature comprised the pattern and structure matrix for PCA with the Oblimin rotation. By extracting the Eigenvalue from the correlation matrix, the eligible features were possibly calculated. Therefore, the X and Y axes represented the substance of paralinguistic features, R^2 Quadratic = .987 (Figure 7).

Furthermore, the classroom-level orientation shaped the lecturer's instructional writing practices adapting the applicable writing approaches. A meta-synthesis approach was determined to stimulate PSETs' taxonomy through the classroom-based, PSETs' exposition, and programmatic perspectives. The PSETs' taxonomy highlighted the technical and academic

communication to effectively replicate and consistently study the meta-synthesis approach (Melonçon et al., 2020); hence, linguistic self-efficacy could predict a discourse synthesis and strategy. The integrated writing quizzes brought about the PSETs in a more interactive factual synthesis process, like rewriting the sentences to construct ideas based on the content and logical writing organization (Golparvar & Khafi, 2021), to construct PSETs' writing self-efficacy through writing-essentials–synthesis, emotional control, language use, relational-reflective and relationship buildings, including gaps exploration in achieving transformative writing (Mitchell et al., 2021) as well as developing the technical communication (Keane, 2020).
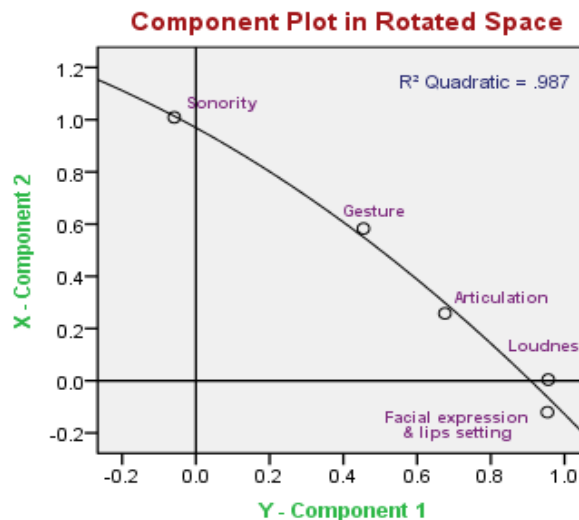

FIGURE 7. Lecturers' visual modes undertaken by the component plot

ELAN'S INTEGRATED ANALYSIS

After that, the lecturer's visual modes conditionally verified the synchronized oral linguistics viewpoints. A well-informed and focused topic, evidence-based development, and textual coherences referred to the logical order and relationships between ideas, and tones which involved writing necessities. The PSETs conditionally relied on both paralinguistic and linguistic references to accomplish their higher-order tasks, specifically, and writing components to generate the comprehensive and transmittable ideas. In this part, the ELAN analysis accomplished Ädel's (2010) meta-discourse taxonomy through the portrait of lecturer's disregarded data–quoted material and dysfluencies and discourse organization–introducing, delimiting, adding, concluding the topic, and marking asides. The following lecture's samples illustrated the disregarded sequence data, for which the discourse extent in focus was written in boldface.

(1)   How about **snow /snəʊ/** and **slow /ˈsləʊ/**, sir? What is the difference?
(2)   It sounds I am familiar… **I think the British are more familiar, like wear /weə(r)/**...**hair /heə(r)/**.

The normative and pre-planned types of spoken data, as documented in the videotape specifically brought about the indisputable dysfluency frequencies. The recorded data conveyed the irregular statement, reiteration, and self-interruption were disregarded based on incomplete meta-discourse taxonomy.

(3)   <u>Irregular statement:</u> It's OK… If it does not change the meaning, but if it changes the meaning, no…
(4)   <u>Reiteration:</u> We… Yea, I used to open the Oxford dictionary… That was what I had, I did not have a Webster dictionary…
(5)   <u>Self-interruption:</u> I used the alarm…caused I truly neglected it… I used to keep teaching over.

These rationales exclusion aimed to avoid boosting the number of occurrences due to the phenomenon that appeared in the lecturer's oral expressions. The discourse organization consisted of its functions dealing with the topic arrangement, such as topic introduction (used to open the topic), topic addition (used to explicitly comment on the addition of a topic or subtopic), topic conclusion (used to close the topic), and aside from making (used to open and close a topic side-track or digression). Most of these functions were in the following display:

<u>Topic Introduction</u>
(1)   …there will be the different pronunciation of into some vocabulary…
(2)   Over and offer were different… **Over** /ˈəʊvə(r)/ and **offer** /ˈɒfə(r)/…

<u>Topic Addition</u>
(3)   Yea, I think it can be used both. If you see from my digital dictionary, the British spelling is red, whilst the American is blue…
(4)   Essay is rather literal. Eeem…
when you are ready with the short story…

<u>Topic Conclusion</u>
(5)   I think free translation will be much better rather than literal translation…I think.
(6)   No question? Yea. Thank you for your attention. *Assalamu'alaikum Warahmatullahi Wabarakatuh.*

<u>Aside Marking</u>
*Written data were NOT available.

The lecturer's videotape annotation (Figure 8) was analysed for common gestural movements, facial expression and lips setting that spontaneously appeared in the lecturer's meta-discourse self-interruption and vocabulary emphasis. The syllabic acceleration and accumulation of lecturer's loudness and sonority were exemplarily presented in this fragment and his kinesics referred to the attractive hand movements as well. For instance, the lecturer extended his right hand and swung it gently to his chain, whereas his left hand was in the crossed-arm position. During his kinesics, the lecturer kept listening to one of students who directly interrupted the session by clarifying the next meeting within uncertain hours. The lecturer soon replied, "There shall be the first session for our class in the morning, not at 1 p.m. I am afraid of changing the session will crash the others". The iconic gesture (Figure 9) conveyed the lecturer's referential messages since he focused his kinesics on concentrating on PSETs' short interruption and intensifying the topic of using contextual vocabulary and standard pronunciation [e.g.: snow /snəʊ/; slow /ˈsləʊ/; wear /weə(r)/; and hair /heə(r)/]. During the writing instruction, the PSETs followed the lecturer's asynchronous word comments and synchronous text-based writing. The communication effectiveness between the PSETs and lecturer had negotiated the dialogic processes and supports the supports writing acquisition

(Ene & Upton, 2018). This communication effectiveness might impact lecturer's lesson plans, decision-making, and classroom practices (Karaca & Uysal, 2021).
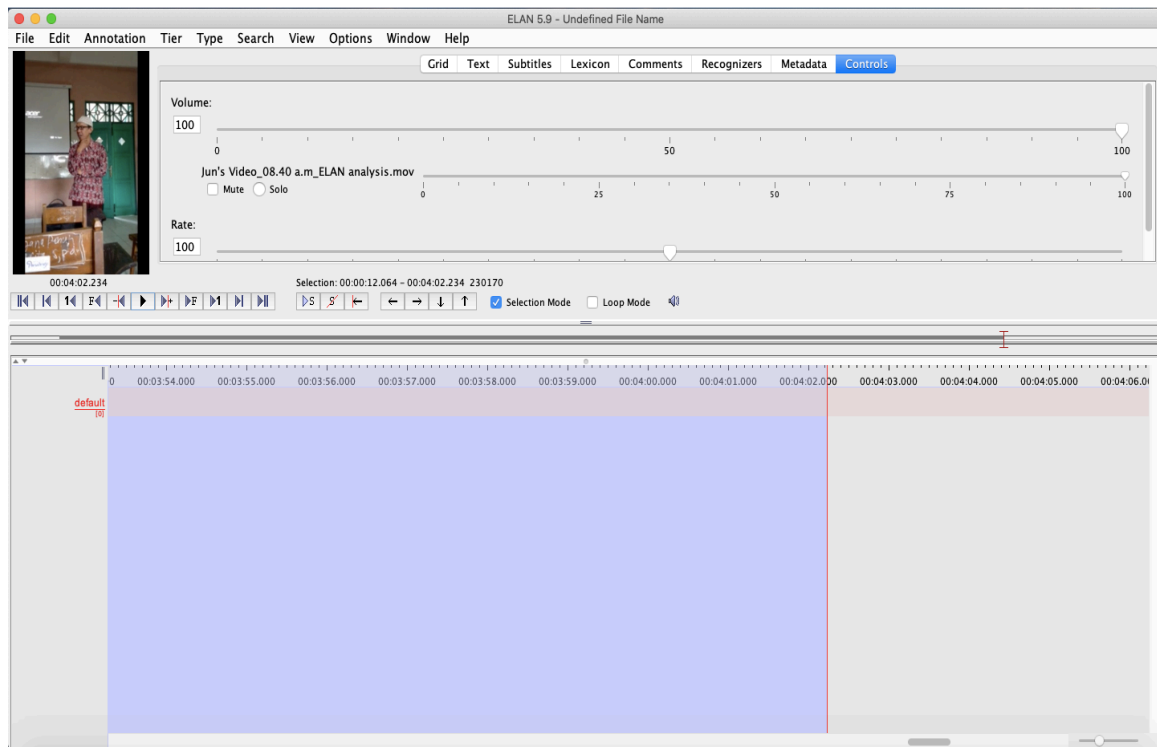

FIGURE 8. Lecturer's annotation mode display. This default mode was the generic modes in which most all functions were available to discuss

Then, the lecturer's synchronization mode enabled the researchers to synchronize the videotape that was solely consequent with ELAN. In this part, the lecture ran smooth and his kinesics looked attractive. But, at the minutes of four and twenty-eight seconds, the lecturer started talking about the schedule, as if replying to a student's interruption regarding the schedule. The session was stopped for a while, and the lecturer pointedly replied, "Right now, we keep lecturing with the currently released schedule since I am afraid of being crashed with the other classes if we change the time". This fragment still referred to the present event. The present event had good attention from the PSETs' classroom. Next, the lecturer incidentally kept his hands moving together (Figure 10). His hands were half-folded together and expanded slightly above his shoulders, whilst his face gently put aside when replying to student's interruption. This position was done twice, hence the kinesics might be considered in terms of understanding his visual modes, although the wholly oral and non-verbal communication design was not sharply outlined. However, these gestural movements would have been conditionally shown in the different moments throughout the writing lectures.

In this respect, Atak and Saricaoglu (2021) highlighted the syntactical components of the writing classroom focus, in which they could gain the benefits from the writing instruction when the progress towards the syntactic complexity development was fulfilled. In a different matter, Tåqvist (2018) accomplished the use of a genre-based approach that might be a fruitful component when the disciplinary discourse use was likely to be fundamental and the disciplinary discourse construction addressed PSETs' academic literacy development.
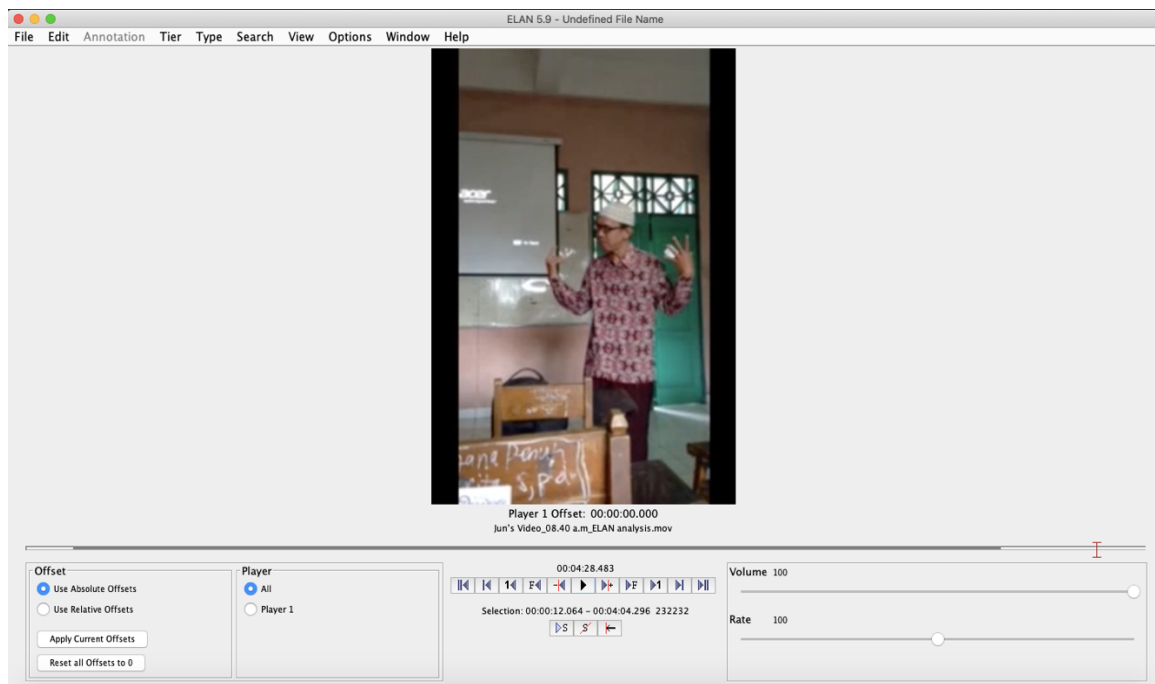
FIGURE 9. Lecturer's media synchronization mode. This mode enabled the researchers to synchronize the videotape that was only consequent with ELAN

These findings synchronized the qualitative analyses in terms of the lecturer's visual modes and supported the non-verbal communication processes among the PSETs. The processes dealt with the acceptable styles of lecturer's visual modes as the symbolized meanings were transformed among PSETs' understanding. Meanwhile, ELAN's data annotation systematically occurred on the tier series, each contributed to the different data supports, and attained multiple hierarchical relationships to each other (Pichler et al., 2010). Figure 10 showed hierarchical screenshot modes that supported ELAN features in terms of compromising with ELAN's other findings.

FIGURE 10. Left-to-right: lecturer's experiential visual modes as sequentially shown in the writing class

The figure addressed the lecturer's experiential visual modes that conditionally identified his sequentially gestural portraits concerning some communicative expressions. The left-to-right experiential visual modes aimed at addressing the figural meanings, such as the lecturer's protractile pose, durational pose, continuative pose, and iterative pose (Wilcox, 2004). To go through these facts, Kong et al. (2017) synchronized the gestural form and function which referred to the rhythmic beating of lecturer's fingers position multiply. The position indicated a moving motion of fingers in an up-and-down or aback-and-forth mode. Another non-identifiable gesture showed an inappropriately meaningful movement relating to

the lack of a certain contribution upon lecturer's other visual modes. In this study, the pedagogical values implicated PSETs' effective use of cohesive devices in their writing processes to diversify the use of sub-types of cohesive connectors (Hung et al., 2021), by delivering them a model task and a script to facilitate PSETs' group tasks engagement (Ulla & Perales, 2021).

CONCLUSION

This study concludes that the lecturer's visual modes influence his writing instruction. The first three modes–gesture, articulation, and loudness indicate strong visibility, whilst the second two modes–sonority and facial expression, and lips setting show visibility through a 5-Likert scale rubric contribution. The lecturer's gesture corresponds to his instructional sentences, phrases, words, idioms, and utterances. It stimulates PSETs' numerous interpretations and knowledgeable understandings of the meaning. Then, the lecturer's articulation constitutes the short-term memory and manipulation of linguistic information, stores, and proceeds to visual and spatial information. Next, the lecturer's loudness relatively harmonizes its memory of tone burst and laughing. After that, the lecturer's sonority considers the nasalized segment constraint hierarchy with a more sonorant segment that is more likely to be nasalized or a less sonorant segment. It nasalizes in nasal harmony and effects manifested in the level separation, such as obstruents, sonorants, and vowels. Finally, the lecturer's facial expression and lips were studied to understand oral and non-verbal behaviour shown through the evidence-based expressions of lecturer's postures and eyes contact. All expressions deal with multilingual contexts when using a range of paralinguistic strategies to support the writing instruction simultaneously.

Meanwhile, ELAN's analysis contextualizes lecturer's visual modes in which the meta-discourse taxonomy of lecturer's disregarded data addresses the quoted material and dysfluencies, and discourse organization that regards introducing, delimiting, adding, concluding the topic, and marking asides. These integrated analyses synchronize oral and non-verbal linguistics viewpoints to support PSETs' understanding. The lecturer's visual modes conditionally verify the synchronized oral linguistics viewpoints. Further, a well-informed and focused topic, evidence-based development, and textual coherences refer to the logical order and relationships between ideas, and tones which included the entire writing necessities. The PSETs perceivably accomplish that the empirical paralinguistic features can support the non-verbal communication processes in writing class. The process addresses the acceptable styles of lecturer's visual modes that contextualizes PSETs' understanding.

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