Engaged at the first sight! Anticipating your audience as a way to think critically in writing an argument

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ABSTRACT
Critical thinking has been subject to various theoretical interpretations. Despite the differences, it has been perceived to principally build upon argumentation skills. One of the skills involves anticipation of the putative reader. This paper establishes an insight into how this knowledge can be grounded for timely reader anticipation to evidence the skills in thinking critically when constructing a written argument. It draws on the interaction of interpersonal meaning patterns from the discourse semantic level in selected sets of low and high achieving texts, with a focus on the macroThemes. The texts were collected from three time points: pre, mid and final pedagogic intervention periods, enacting Teaching and Learning Cycle (TLC) framework, a genre-based pedagogy, in a regular academic writing course. Text analysis employed tools from the APPRAISAL systems of the Systemic Functional Linguistics (SFL). The analysis focused on the deployment of ENGAGEMENT resources in each text's macroTheme. Findings from the analysis revealed a developmental pathway from a non-specific to a predictive and heteroglossic macroTheme. Appropriate ENGAGEMENT resources began to be manipulated to anticipate the argument development and the unfolding of meanings throughout the text. Their deployment became more effective to inform the reader on how the argument would be organised and negotiated. Re-thinking critical thinking through a linguistic lens elucidated exactly which language resources were implicated to indicate some of its important elements, making them visible and accessible.

Keywords: APPRAISAL systems; argumentative writing; ENGAGEMENT; critical thinking; language use

INTRODUCTION
Critical thinking with its continuous significance in present-day education has been subjected to multiple conceptualisations from a variety of theoretical perspectives. Its concept was initially cemented by Socrates with his technique of 'deep questioning' (Gutek, 2009; Leigh, 2007). The technique took account of argumentation practice through exploration, cross examination, analysis, and assessment of differing perspectives to examine the validity of a claim (Gutek, 2009; Lewis & Smith, 1993; Thakur & Al-Mahrooqi, 2015). This practice established a philosophical perspective that underlies critical thinking. It has also been profoundly refined in many epistemological disciplines, such as those from the cognitive psychological and the educational fields.

In conceptualising critical thinking, the cognitive psychological field, for instance, aims specifically at the kinds of skills that are present

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when performing critical thinking (Halpern, 2014; Lewis & Smith, 1993). Such skills can be elucidated and applied in most cases in order to aid people to become successful critical thinkers (Halpern, 1998, 2014). Critical thinking practice can be observed through its products that are principally regarded as cognitive skills, and these skills involve analysing, interpreting, questioning, and critiquing alternative points of view while drawing inferences to establish logical reasoning (Sternberg, 1986, 1987; Willingham, 2008).

Critical thinking conceptualisation from the educational field, on the other hand, has developed among the expanding definitions from diverse epistemological areas (Brookfield, 1990). This perspective puts the emphasis on the context of learning within the education system, which significantly contributes to students' critical thinking development. It encompasses notions proposed by, but not necessarily constrained to, the other intellectual stances and disciplines to some extent. One prominent critical thinking conceptualisation in this field refers to the Bloom's learning objectives taxonomy (Bloom, 1956). The taxonomy is defined as a multi-tiered model with its hierarchy, delineating the skills in thinking critically in relation to objectives to be accomplished in learning, and it is also typically implemented in the teaching and assessment of critical thinking (Anderson & Sosniak, 1994; Bloom, 1956; Huitt, 2004; Krathwohl, 2002). The hierarchical model consists of prescribed classifications due to its being sequential and collective of its skills in thinking critically. The critical thinking skills, sequentially containing 'knowledge', 'comprehension', 'application', 'analysis', synthesis', and 'evaluation', are prescriptively arranged from basic or concrete to difficult or abstract skills. This taxonomy has provided teachers with an essential system to appraise the successes students obtain in improving the skills of critical thinking (Forehand, 2005).

Critical Thinking and the Contemporary Education

Regardless of its various conceptions, critical thinking is indispensable in the reforms of the contemporary education sector. A great number of education institutions have focused on efforts to foster critical thinking and often regarded it as fundamental skills in all disciplinary areas, which are relevant for students and their lives nowadays in an ever-changing society (Dwyer et al., 2014; Willingham & Rotherham, 2009). Such a focus particularly underlined the importance of writing that has long been instrumental to enable students' learning and reflection (Afshar et al., 2017; Mehta & Al-Mahrooqi, 2015). Afshar et al. (2017) argued that writing is a central component in critical thinking since it offers students chances to foster

and review their thinking skills in evaluating evidence to be used to support and develop their argument in a written text. The capacity of writing to enhance students' critical thinking skills in learning English as a second or foreign language has also been investigated through class discussions and the accompanying writing practice tasks (Mehta & Al-Mahrooqi, 2015). Critical thinking skills are often deemed to be of utmost importance to improve learning, particularly in tertiary education institutions, in which the students are often involved in open argumentation and debate (Durkin, 2008; Lun et al., 2010; Tsui, 2002). Such importance has made critical thinking an extensively accepted educational objective.

Because of the prominence of critical thinking in education and the importance of writing to help foster it, a number of studies examining the link between students' ability to think critically and their ability to construct a written argumentative text have been conducted (e.g. Afshar et al., 2017; Barnawi, 2011; Emilia, 2005; Indah, 2017; Preiss et al., 2013). A study in Indonesia, for example, examined the affordance of improving university students' understanding of a given topic in composing a written argument to promote critical thinking (Indah, 2017). The investigation revealed that topic that was originated from students notably improved their performance in constructing an argument in a written text and ameliorated the development of their skills in thinking critically. Such finding has offered valuable understandings into the connection between students' ability to construct a written argument and their skills in thinking critically. However, further research is necessary to comprehend the role of argumentative writing that complements critical thinking skills development, and vice versa.

The seeming prominence of critical thinking for students' learning has led to multiple endeavours to conceptualise it in the education sector in Indonesia. Critical thinking conceptualisation has been recurringly discussed resulting in its being customary to be incorporated in the school syllabi and in the learning assessment following the periodic revolutions in the development of the national curriculum development policy and its direction in Indonesia (OECD/ADB, 2015). The incorporation of the abilities needed to think critically in the Indonesian curriculum nationally began in 1998 during the Reformation period (Emilia, 2005; Gustine, 2014). The period indicated the people's resurgence in establishing democratic values that are critical and analytical towards the Indonesian government (Rao, 2001). The education sector, in particular, was considered to be accountable for becoming a sanctuary to safeguard schoolchildren who were continuously exposed with public debates on sensitive and controversial subjects. In the midst of the propagation of these

issues that are linked to corruption, collusion and nepotism, the sector garnered increasing attention to educating the students with the essential information and proficiencies to reason and to think critically (Alwasilah, 2001). As a result, critical thinking skills were incorporated in the Indonesian national curriculum, and accomplishing such skills became an educational objective in all levels of education during this decisive time. Alwasilah (2001) further reasoned that English language teaching, in particular, was vital in developing students' critical thinking and logical reasoning skills. He explained that teachers who are assigned to teach the English language as well as other teachers teaching other languages should ask themselves this question "What relevance, if any, does teaching EFL have to the current social and political development?" (Alwasilah, 2001, p. 42).

The profound conceptualisations and interpretations of critical thinking, however, are often debated and typically delineated in terms of the cultures surrounding academics of Western universities (Atkinson, 1997; Ten Dam & Volman, 2004). The impact of such cultures is thought to have detached students of a variety of cultural and social backgrounds from learning due to ambiguous critical thinking instructions (e.g. Atkinson, 1997; Ennis, 1998; Kumaravadivelu, 2003). Earlier studies even discovered that several members of academic staff were frequently dissatisfied with several Asian students, as they lacked the potential for thinking critically and were believed to not explicitly display their critical thinking in learning, particularly when applied in terms of the Western academic values and principles (e.g. Durkin, 2008; Lee & Carrasquillo, 2006). This dissatisfaction draws attention to potentially theorising critical thinking based on a linguistic viewpoint. The theorisation will be linguistically established with the incorporation of interpersonal resources of meaning making from the systems of the English language in connection with a robust language theory. The linguistically motivated theorisation will enable the meaning making resources involved in improving the skills to think critically to be accessible, which eventually diminishes the cultural and educational gap between the students and the critical thinking skills that are expected of them.

A Functional Linguistic Perspective on Critical Thinking in Argumentative Writing

The three major critical thinking research traditions – philosophy, cognitive psychology and education – have indicated that the skills implicated also take into consideration a substantial link with argumentation (Paul, 2011). Previously discussed studies have also examined the connection between skills that are expected of students in thinking critically and their ability to write an argumentative text (e.g. Afshar et al., 2017; Indah, 2017). That is,

critical thinking has been perceived to draw principally on the skills related to constructing argumentation (Beyer, 1990; Duffy et al., 1998; Kuhn, 1991, 2005; Kuhn & Udell, 2003; Lipman, 2003). Duffy et al. (1998, p. 6) in their classic work on argumentation strengthened this point of view by proposing that these critical thinking skills are greatly concerned with the process of crafting an argument for a particular stance in terms of the evidence weight and counter arguments, and the examination of an argument implicates exact characteristics that exhibit critical thinking skills. Beyer (1990) further substantiated this viewpoint for the reason that the abilities to "recognise, analyse, judge and formulate valid arguments through the application of reasoning and rules of logic are central to critical thinking" (p. 88). The enactment of reasoning, both deductive and inductive (Braine, 1990; Schauble, 1996), and rules of logic for argumentation, which is concerned with articulating, developing and evaluating arguments (Spector & Park, 2012), has evidenced the nature of thinking critically as skilled crafting of argumentation (Kuhn, 2005).

The significance of crafting argumentation skilfully underlies the provision of a linguistic view on some important aspects of critical thinking. It helps build up knowledge about language (KAL) that students need to craft an effective and coherent argument in an academic text to demonstrate their ability to think critically. This linguistic approach enables the meaning making resources from the English language systems involved in the development of an argumentative text to become more visible and accessible for students to discuss, analyse and execute. The linguistic analysis in this paper employed the systems of meaning making of a social semiotic theory of language that offers a robust set of analytical tools, Systemic Functional Linguistics (SFL). SFL and its viewpoint on the metafunctions of language offer extensive systems of choices of meaning making as well as instruments for thorough textual analyses that may methodically articulate the kinds of language resources express and indicate the skills of critical thinking and the manner of their deployment in crafting a written argument. The linguistically motivated analyses enhance critical thinking 'visibility, as they explicitly exhibit the intricate patternings and choices of specific types of meaning that are deployed for the argument's construction.

SFL principally understands the characteristics and the connection between the whole systems of the English language and text, which in this paper refers to students' argumentative texts, as bi-directional; thus, the texts are regarded 'as a piece of language in use' (Butt, 2012, p. 3). Such understanding is substantial for theorising critical thinking linguistically. The texts in which the students constructed their written arguments are

explicated as particularly instantiating the English language systems, while the systems comprise the entire possibility for making meaning inherent in the English language (Halliday & Matthiessen, 2004). Having explained that, both the students' argumentative texts and the systems of the English language can be viewed as 'two poles of the cline' (Halliday & Matthiessen, 2004, p. 27). Such view affords analysing specific instances of a written argument text to establish what those instances reveal about the systems of the English language. The students learn to write the arguments in English through these systems, and vice versa. The theoretically motivated analysis of those instances can also unveil particular selections that the students made and valued to evidence the skills in thinking critically from within the entire meaning potential inherent in the language systems, particularly the interpersonal meaning-making at the stratum of discourse semantic choices in SFL. The occurrences of changes that the students made in the argumentative texts from the three time points of the enactment of pedagogic intervention characterise the development of students' meaning-making potential, or their ontogenesis that 'provides resources for the instantiation of unfolding texts' (Martin & White, 2005, p. 26). The development accentuates how they learn about the English language systems and how they employ the suitable meaning-making resources from the systems for crafting a legitimate written argument in an academic discourse.

One of the key nuances of writing a coherent argument in an academic text relates to effective engagement with alternative perspectives for anticipating the reader. Hyland (2004) explains that writing within an academic discourse refers to 'an outcome of a multitude of practices and strategies, where what counts as convincing argument and appropriate tone is carefully managed for a particular audience' (p. 3). This management for anticipating the putative reader is instrumental in structuring a written argument with reference to its context with 'staged, step-by-step organization of the genre' so that the text can accomplish its social purpose (Eggins, 2004, p. 59). The macroTheme, or the introductory paragraph of the text, plays a crucial role in anticipating and managing the putative reader. It encapsulates the text's content at a more generalised level and regulates the topics that will be explained and elaborated (Martin & Rose, 2005). In this way, the macroTheme establishes an expectation that the text will be dealing with in the main body paragraphs of the text. Such preview of the text's argument development is particularly set up as a thesis statement, in which reader anticipation is initiated and grounded. To achieve this, choices of ENGAGEMENT resources within the APPRAISAL system that are dialogically expansive or dialogically contractive are essential. These interpersonal resources construed at the discourse semantic level enable meaning to close down space around the argument for anticipated alternatives or open up the space, and thereafter be unpacked in sequence in the following paragraphs.

This paper then establishes an insight into how knowledge about language can be grounded for timely reader anticipation to evidence critical thinking in students' argumentative texts. It focused on the use of language resources, particularly the interplay of ENGAGEMENT choices in the texts' macroTheme. The paper specifically addressed the question: *How is responsibility for the attitudinal meanings negotiated in constructing an effective thesis statement for reader anticipation in students' argumentative texts?* This question dealt with the nature of dialogism of the student writing for the preview of their argument. It is concerned with the degree to which they opened up or closed down the dialogic space for the anticipated contesting viewpoints in their argument to promptly provide an indication to the putative reader which perspectives to align and/or dis-align with. These nuances require sufficient knowledge about important language resources that are implicated, making them visible and accessible to demonstrate critical thinking.

METHOD
Research Design and Context
This research used an approach to a qualitative design that was drawn upon a case study that is action oriented (Babbie, 2004; Burns, 2005; Creswell, 2013, 2014; Lapan et al., 2012; Yin, 2014). The use of this approach enabled an informative application of a systemic theory of language, SFL, that comprehensively models types of meaning with analytical tools to examine how language resources are used in certain contexts to make particular kinds of meaning (Halliday & Matthiessen, 2004; Martin, 1992; Martin & White, 2005). The bi-directional relation between the entire system of the English language and the students' written arguments as a distinct instance of the system, as the theory understands, underpins a robust qualitative methodology. The application of the theory consisted of a comprehensive linguistic analysis of the argumentative texts collected from the three time points of enacting pedagogic intervention. The textual analysis substantiated a theoretically motivated linguistic perspective on critical thinking with reference to an understanding of the meaning patterns in the texts, including the expansion of the evaluative meaning potential at the discourse semantic stratum, and the interaction of choices made at this stratum, particularly the choices from the ENGAGEMENT systems. Thus, such design that examined the logogenesis of the texts, or their development, is largely more related to a qualitative design rather than a quantitative one.

The use of this qualitative design adds a thorough theorisation of several facets of critical thinking in argumentative writing, focusing on the timely anticipation of the putative reader as a preview in the macroTheme, through a linguistic lens.

A more specific approach that was used in this qualitative design was concerned with the application of a single case study (Lapan et al., 2012; Yin, 2014). It was eligible as a single case study approach that is qualitatively designed because the approach was employed to specifically analyse the students' written arguments as instantiated in a discussion text. The students studied in an Indonesian state university majoring in English education, and at the time of the data collection they undertook Writing IV course, a compulsory subject. There were 29 students registered for this course, and all of them were given consent forms prior to collecting the data. Most of the students, 24 of them, consented to this study. As it is a compulsory course, all students had to be in attendance and participative in class, regardless the consent. The University of Wollongong Human Research Ethics Committee (HREC), Australia authorised the ethical considerations. This authorisation preceded the consent forms distribution and the research completion.

Text Collection and Selection Procedures
The data reported in this paper consisted of students' written argument texts. The corpus was relatively small to enable interpretation of the students' choices of ENGAGEMENT resources deployed in the macroThemes and the development of those choices over three periods of data collection (Martin & White, 2005). The data that constituted the focus group students' texts were referred to as the pre, mid, and final data with reference to the three collection periods. The pre data were collected before the enactment of a pedagogic intervention during which a topic for writing an argument was provided along with a series of instructions and a session for discussing ideas. These pre data served as a reference point for student classification into two main focus groups – high achieving and low achieving students' texts. The classifications were based on a holistic writing assessment tool in conjunction with the comprehensive theory of language used that identified the ENGAGEMENT resources the students expanded for constructing the preview in the macroTheme. The other two data sets were collected with the enactment of a pedagogic intervention that was based on Derewianka and Jones' (2016) framework of Teaching and Learning Cycle (TLC). This framework is a version of SFL genre pedagogy that comprises five cycles of *building knowledge of the field*, *supported reading*, *deconstruction*, *joint construction*, and *independent construction*. The pedagogic intervention was implemented in two iterations, which commenced in Week 2 and finalised in Week 16.

A purposeful sampling approach was carried out to select the data sets for textual analysis (Creswell, 2013). The use of such an approach afforded the selection of manageable data, allowing identification of cases that are rich in information (Creswell, 2013, 2014; Gall et al., 2007; Patton, 2015). The data consisted of seventy-two written argument texts with reference to the total number of students who gave their consents. Because of the comparatively vast amount of data, representative samples were selected to allow for more manageable textual analyses. Three students' texts were purposely chosen from each focus group, i.e., three texts from the high achieving group and the other three from the low achieving group. This led to eighteen argumentative texts ranging from pre, mid and final data, as shown in Table 1. In that way, a manageable text analysis was successfully performed.

Table 1
The focus group students' texts

Focus group students		Pre-intervention: *Globalisation*	Cycle 1	Cycle 2	Sub-total texts
			Mid data: *The roles of genetically modified crops/foods in developing countries*	Final data: *Human migration*	
Low achieving students	Student 1	LS1P	LS1M	LS1F	3
	Student 8	LS2P	LS2M	LS2F	3
	Student 10	LS3P	LS3M	LS3F	3
High achieving students	Student 3	HS1P	HS1M	HS1F	3
	Student 5	HS2P	HS2M	HS2F	3
	Student 17	HS3P	HS3M	HS3F	3
Total texts					18

To maintain students' anonymity, coding with reference to the focus group categories and the collection periods was assigned to all of the selected texts. The coded argumentative texts de-identified the students, and this acted in accordance with ethical consideration. To illustrate, the texts from the low achieving student number 1 written in the pre, mid and final intervention periods were coded as LS1P, LS1M, and LS1F, respectively. Meanwhile, the texts from the high achieving student number 17 produced in those three intervention periods were coded as HS3P, HS3M and HS3F, respectively.

In addition, a theory-based purposeful sampling approach was executed to warrant the selected students' representativeness to the cohort (Patton, 2015). The approach afforded the text selection in terms of a theoretical construct that potentially manifested. The manifestation of the construct was based on the development of more strategic selections from the ENGAGEMENT system to negotiate dialogistic positioning with the putative reader and alternative viewpoints in constructing a preview of their argument in the macroTheme.

ENGAGEMENT Analysis of the Texts

In this article, the linguistic analysis examined the interaction of discourse semantic patterns and choices of interpersonal meaning from the English language system that the students deployed in their argumentative texts. These meaning patterns were examined with the ENGAGEMENT analytical tools from the APPRAISAL systems (Martin & Rose, 2007; Martin & White, 2005). The prosody of these interpersonal meaning patterns that unfolded and developed in the macroTheme to establish the preview of the argument development throughout the text can be thoroughly examined with the systems. Martin and White (2005) explain that the systems of APPRAISAL signify an evaluative meaning theorisation that can systematically describe and interpret the distinct evaluative resource enactments that occurred, in which the resources interacted in the entire argumentative text. The APPRAISAL systems can also comprehensively elucidate the enactments of resources of language from the various systems of lexico-grammar.

The selected texts were examined with reference to the various degrees of heteroglossia that the students employed in their macroThemes within the three different periods. The analysis looked at the deployment and expansion of patterns of ENGAGEMENT choices to produce a 'legitimate' macroTheme that previews the text's argument development. It examined how the students learned to make more strategic and appropriate choices from the ENGAGEMENT system to negotiate dialogistic positioning with the putative reader and alternative viewpoints in constructing a preview of their argument in the macroTheme. The selection patterns were primarily explored based on their intersubjective functionality for positioning negotiation with the putative reader and alternative viewpoints – whether these patterns are contractive or expansive dialogically (Martin & White, 2005, p. 97). Due to constraints of space, this paper focused on findings from the ENGAGEMENT analysis in six sets of previews located in the macroThemes of low and high achieving students from the three time points of data collection. The findings served as a foundation for the analysis of the theory affordance in theorising the skill in thinking critically from a linguistic perspective (Patton, 2015).

Table 2 demonstrates the coding system of the two main classifications of heteroglossic resources in analysing the students' texts. The choices of dialogic contractions were underlined. *Disclaim* choices were coded with a double underline, while *proclaim* resources were with a single underline. The coding system for the resources of dialogic expansion, on the other hand, were conducted in two ways. *Entertain* resources were coded in bold, while those of *attributes* were italicised.

Table 2
The ENGAGEMENT choices (Reproduced from Martin & White, 2005, p. 134)

The heteroglossia choices in ENGAGEMENT system			
contract	disclaim	deny (*no, didn't, never*)	
		counter (*yet, although, amazingly, but*)	
	proclaim	concur	affirm (*naturally, of course, obviously*)
			concede (*admittedly ... [but]; sure ... [however]*)
		pronounce (*I contend, the facts of the matter are ...*)	
		endorse (*the report demonstrates/shows/proves that*)	
expand		**entertain** (*perhaps, it's probable that, this may be, must, it seems to me, apparently*)	
	attribute	acknowledge (*Halliday argues that, many Australians believe that*)	
		distance (*Chomsky claimed to have shown that*)	

The use of resources of *contract* diminishes the space for dialogism with alternative perspectives. Martin and White (2005) maintain that these resources disregard or at the minimum refuse, dispute and/or limit the dialogic space of differing views in the text as it unfolds. The meanings resulting from deploying the choices of *contract*, however, still provide a space for dialogism with other value positions in the text. The deployment of the dialogically contractive choices acknowledges the alternative points of view to ultimately *deny* it, as in the use of negation, or to *counter* the existing proposition with another proposition that is invoked. On the other hand, the meanings are re-conveyed to confine the possibility of dialogism with other voices by indicating the shared value of the alternative voices as generally accepted, or to *concur*, by underlining an explicit presence of an authorial voice, or to *pronounce*, and by interpreting the external voices as greatly warranted, or to *endorse*.

Alternatively, *expand* resources open the space for dialogism with differing voices. The formulations of these resources in a text actively makes allowances for alternative perspectives that can be realised through the deployment of either internal or external propositions (Martin & White, 2005). The deployment of the text's internal authorial voice through the formulations of *entertain* resources results in dialogistic expansion for other potential alternative perspectives. The formulations of these resources include evaluations through evidentiality, explicit individual subjectivity, and modal verbs for indicating probability. The use of externally sourced propositions, on the other hand, expands dialogic space through two main formulations. These formulations involve the deployment of *attribute* resources that construe the propositions by *acknowledging* the external voice mostly with reporting verbs, or by overtly *distancing* the authorial voice from the accountability for the proposition with the reporting verb 'to claim' or the use of 'scare' quotes.

FINDINGS AND DISCUSSION

The textual analysis revealed the development of patterns of ENGAGEMENT resources to produce a 'legitimate' macroTheme. The analysis described the particular patterns and combinations of heteroglossic choices in the macroTheme. The analysis was not only concerned with the numbers of those patterns, or the valued categories of the choices employed. It examined how the patterns and/ or the preferred choices that were deployed to preview the argument development in the macroTheme built a salient evaluative position towards the issue while concurrently anticipating the putative reader. Over the three time points of pedagogic interventions, the macroTheme became more successful in managing the competing perspectives and previewing the argument development within the structure of a discussion text. The textual analysis made discernible the resources of ENGAGEMENT that were implicated for presenting multiple viewpoints and integrating these views that negotiate the same knowledge space to establish the students' own position. The management of these ENGAGEMENT resources for the putative reader anticipation will become a basis for conceptualising students' way of thinking critically in a written argument text.

Striving for the Putative Reader Anticipation

The macroThemes from the pre pedagogic intervention period consisted of a significantly high concentration of monoglossic propositions with only a few patterns in heteroglossia choices in their previews. The monoglossic propositions signified the students' failed attempt to anticipate the putative reader, as the previews mostly contained viewpoints that were 'un-dialogised', having not overtly referenced to different alternatives (Martin & White, 2005, p. 99). The propositions offered an individual and monoglosically framed voice without any degree of heteroglossia in their positioning, resulting in recurrent and noticeable large stretches of monoglossia in the macroThemes. The subsequent extracts in Table 3 illustrate the framing of the previews with monoglossic bare assertions in the macroThemes from the representative low and high achieving students.

The noticeable appearances of monoglossic bare assertions in the macroThemes failed to promote the awareness of the putative reader towards the prospective of other voices related to the topic. The bare assertions were particularly evident in high achieving texts. MacroTheme essentially previews for the argument development in the ensuing body paragraphs. A discussion text's macroTheme, for example, sets up a preview that anticipates contesting arguments on the issue in the subsequent Sides stage (Martin & Rose, 2005; Rose & Martin, 2012). Typically, the preview necessitates a proposition that is heteroglossic in nature, which is particularly deployed with the ENGAGEMENT resources of *countering*. The deployment of these resources for *countering* alternative voices leads to the persuasiveness of the text's social purpose, as the resources indicate a different standpoint which may not be commonly believed so as to substitute or counter it. It enables the student to not only provide a preview the development of the argument throughout the text but also establish an early evaluative position regarding the contesting viewpoints.

Nevertheless, some of the pre-intervention macroThemes were able to negotiate a path between monoglossia and heteroglossia framed in the propositions for previewing the argument

development. Both low and high achieving students' macroThemes comprised sporadic propositions that are heteroglossic. The **LS1P** and **LS3P** macroThemes exhibited the students' preferred choices for contracting the space for dialogism through the deployment of *countering* resources of 'but' and 'however'. There were also a few examples of creating up dialogically expansive space with an *entertainment* resource 'can', as in **LS2P** macroTheme. These examples revealed an early developmental stage in the management of the conflicting relationships of dis-aligning or aligning with the alternatives on the issue.

Table 3
Monoglossic framing of pre-intervention previews

		Monoglossic propositions in previewing argument development
High achieving students	HS1P	There are positive effects and the negative effects.
	HS2P	In this case, Globalization has advantage and disadvantage.
	HS3P	Globalization has many possitive and negative sides to the world's economies.
Low achieving students	LS1P	But [counter], does globalization affects the world's economies in positive way?
	LS2P	The effects of globalization to the world's economy can be positive and negative.
	LS3P	However [counter], the development process of globalization has positive and negative sides in its influence in the world economy.

Developing Control of Managing Multiple Perspectives for Reader Anticipation

The writing of both low and high achieving texts' macroThemes after the initial enactment of TLC contained a high degree of heteroglossia. Many of the macroThemes were heteroglossic with the deployment of various resources of ENGAGEMENT to emphasise the presence of contesting viewpoints of the issue in the field. Importantly, the macroThemes involved propositions that were heteroglossic in nature and that were often noticeable to offer a preview for the following body paragraphs of the texts as anticipation of the putative reader. The extracts in Table 4 demonstrate the heteroglossic framing of the high and low achieving texts' macroThemes.

Table 4
Heteroglossic framing of first intervention previews

		Heteroglossic propositions in previewing argument development
High achieving students	HS1M	Nevertheless [counter] there are *some people believe* [acknowledge] that GM food take along so many profits in developing countries, but in the other side [counter], especially for *farmers assume* [acknowledge] that GM food is not [deny] too useful for them and it **will** [entertain] emerge the monopoly system of one side.
	HS2M	*Some argue* [acknowledge] that it is evident that GM crops are resistant to pest, disease and type of herbicide. So it **can** [entertain] make easier to fulfill people want. On the other hand [counter], There are *some of people that think* [acknowledge] of the drawback from this GM crops. If we [pronouncement] use to much chemicals, it **can** [entertain] harm ecosystem and decrease the occupation for employee, and hurt our health.
	HS3M	Although [counter] genetically-modified crops *are claimed* [distance] to have a lot of benefits, the risk of using such crops also still exist.
Low achieving students	LS1M	*Those who pro with it argued that* [acknowledge] it brings benefits for farmer in developing countries while [counter] the other argued it not only cause the using of chemicals increase but [counter] also require big investment for farmers.
	LS2M	However [counter], GM food has some good results to human life, especially on biotechnology. GM food also brings several risks. The using of GM food **can** [entertain] not [deny] be avoided from increasing the use of chemicals and the nutritions of it is more suitable for meat animal than to human.
	LS3M	GM crops indeed [pronouncement] give some advantages for farmers in planting, nevertheless [counter] there are also some disadvantages **appears** [entertain] with GM crops planting.

The deployment of a high degree of propositions that are heteroglossic in the macroThemes realised dialogism and underlined the existing of contesting views on the topic. These heteroglossic macroThemes instituted the preview for the following paragraphs more successfully than the pre-intervention did. They predominantly comprised *countering* strategies contracting the space while acknowledging conflicting positionings towards the topic presented. The heteroglossic propositions were arranged through a number of resources of *counter*, such as 'nevertheless', 'while', 'although', and, 'but'. The arrangement of these assorted ENGAGEMENT choices revealed the logogenesis of the macroThemes or students' emerging skills in establishing formulations to introduce and consider differing viewpoints into the argument. The strategic use of resources of *countering* is essential in constructing an argumentative text, as the resources enable the students to overtly designate the unfolding of the arguments for both disputing views in the ensuing paragraphs. The deployment of such choices also sets up a preview for a change in orientation that will occur in the body paragraphs by restricting and anticipating the differing points of view that may dispute with the proposed argument. In this regard, the writer's stance is explicitly indicated and perceptibly understood by the reader as to which position is supported in the text. The deployment of strategic choices of *countering* in the macroThemes offers a significant symptom of the writer's evaluative position, and this strategy is crucial for effectively constructing the text's preview.

The **HS3M** macroTheme that is excerpted in Table 4, for example, indicated a clear evaluative stance with a strategic deployment of 'although', a *countering* resource. The placement of such resource in the macroTheme was effective, as it was appropriately employed with a resource of *distance* 'claim', as in *'Although genetically-modified crops are claimed to have a lot of benefits, the risk of using such crops also still exist'*. The deployment of the dialogically expansive 'are claimed' in the macroTheme expanded dialogism with an alternative viewpoint, signifying an overt recognition of 'the many benefits of planting genetically modified crops'. Yet, the writer concurrently detached or dissociated him/herself from being responsible for the claim, i.e. the many benefits of genetically-modified crops (Martin & White, 2005, p. 113). Formulating a dialogically contractive resource of 'although' and a dialogically expansive resource of 'claimed' together in the macroTheme effectively negotiated the two contesting views on the topic. It led to a more prominent position, aligning to the hazards rather than to the advantages of consuming crops that are genetically modified. As a result, the macroTheme succeeded in constructing a pathway for composing an argument coherently in the subsequent body paragraphs.

The majority of macroThemes acquired in this iteration of TLC indicated individuation of *countering* resources along with other choices that were strategically deployed. These resources created patterns of contracting and expanding space for perspectives contesting the same issue in the field. Nevertheless, on some occasions their management was rather problematical. The interaction of differing viewpoints and the complexity of deploying various ENGAGEMENT resources could be demanding for English language learners. The **HS1M** macroTheme shown in Table 4, for example, employed three different resources, namely 'in the other side', 'nevertheless', and 'but' for *countering* the anticipated alternative perspectives while simultaneously previewing the unfolding arguments for both perspectives. Such unnecessary and grammatically incorrect deployment of these *countering* resources in an individual clause potentially created an evaluative stance that was too strongly presented. A discussion text's preview is required to appear balanced in dealing with the two contesting positions on an topic (Martin & Rose, 2005; Rose, 2013). Martin and Rose (2005) further maintain that inspite of the balanced alignment approach to managing the topic, the text is to resolve in alignment with one specific viewpoint. This requires a skilful ENGAGEMENT resources management so that the students can gradually manipulate these resources and their interplay in the macroThemes to effectively lead the putative reader to a particular position.

Maintaining Degrees of Heteroglossia in Final Intervention Previews

The final data collection, occurred at the end of the final iteration of enacting TLC pedagogic intervention, was implemented during the Writing IV final examination. The final examination necessitated the students to complete writing their arguments a discussion text under a time constraint, which was within one hour. Following the examination condition, the participating lecturer's and the researcher's support, who were deemed as the experienced others that Painter (2015) considers to be of utmost prominence in learning to write with supervision and collaboration within the framework of shared experience as well as indispensable planning to write was also removed. To a considerable extent, this condition along with the complexities of the ENGAGEMENT system resulted in the differing accomplishments the students obtained in writing an effective argument. The examination provided them with substantial challenges to manage differences in evaluative meaning in a macroTheme that makes salient an evaluative stance and that previews the argument development in the subsequent body paragraphs. It,

on the whole, affected the students' proficiency in managing degrees of heteroglossia to present a legitimate preview.

Nevertheless, attempts to construct degrees of heteroglossia in the macroThemes were still evident. Important *countering* resources, including 'on the other hand', 'but', 'although', and 'however', were employed to construe propositions that are heteroglossic in nature for presenting a preview of the development of the argument in the ensuing body paragraphs. The excerpts in Table 5 illustrate the propositions with heteroglossic framing of the macroThemes preview in high and low achieving students' texts.

Table 5
Heteroglossic framing of final intervention previews

		Heteroglossic propositions in previewing argument development
High achieving students	**HS1F**	<u>Although</u> [counter] the receiving countries have some benefit, <u>but</u> [counter] sending countries have <u>benefit more</u> for the citizen and its nation.
	HS2F	<u>Although</u> [counter] human migration brings benefits to receiving countries, <u>but on the other fact</u> [counter] human migration also make advantages to sending countries.
	HS3F	**Perhaps** [entertain], it **can** [entertain] be a result in a more equal distribution of wealth between the developed countries or receiving and developing countries or sending countries. In this case, it **will** [entertain] bring <u>benefit more</u> to receiving countries than the sending countries.
Low achieving students	**LS1F**	*Some people believed* [acknowledge] that poor sending countries gets <u>more benefit</u> in the National economy development and unemployment decreasing. <u>On the other hand</u> [counter], *there is opinion* [acknowledge] that receiving countries <u>benefit more</u> because of income and service they get.
	LS2F	The receiving countries obtain some benefit of remittances and brain drain. <u>And</u> [counter] the sending countries also get advantages from the two aspects.
	LS3F	<u>But however</u> [counter] it brings Benefit for both sending and receiving countries.

The deployment of resources to *counter* the anticipated perspectives in the macroThemes from the final iteration of TLC implementation indicated that dialogism with other voices was preserved. Most of the macroThemes succeeded in previewing the unfolding of the argument through its generalised summary of the contesting positions, which were the arguments on either receiving or sending countries would receive more advantages from the process of human migration. The manipulation of these resources, however, still presented the students with considerable problems. Similar to what happened in the first enactment of pedagogic intervention, many of them were indicated not to succeed in organising the intricate interplay of these *countering* resources to anticipate alternative viewpoints. Instances of these problems were mostly manifested in the macroThemes of high achieving students' texts.

In **HS1F** macroTheme, for example, the deployment of 'although' and 'but' came together in the construction of a single clause complex, as follows: '<u>*Although*</u> *the receiving countries have* **some benefit**, *but sending countries have* **benefit more** *for the citizen and its nation*'. The presence of the two choices of *countering* made the macroTheme rather unsuccessful to align the putative reader to a particular position of the argument. However, this was made amends with the manipulation of GRADUATION resources that *quantify* an inscribed APPRECIATION choice from the category *valuation*, i.e., 'benefits' obtained by sending and receiving countries with the respective use of 'more' and 'some'. As a result, the macroTheme to an extent succeeded in positioning the reader since it aligned them to the sending countries in terms of the benefits obtained from human migration.

In summary, the findings from the analyses of the macroThemes over the three periods demonstrated that the students became more skilled in employing strategic choices of ENGAGEMENT resources. They varied degrees of heteroglossia that involved alignment and dis-alignment for subtly negotiating with the contesting points of view for anticipating the putative reader and previewing the argument development over the whole text. The effective deployment of choices of *countering* resources in the macroThemes succeeded in maintaining dialogism with alternative voices. It previewed the development of the arguments, indicating a complex discussion in the ensuing body paragraphs. Although the examination conditions in the final data collection presented some significant problems for the students to control framing of heteroglossic propositions, there was still a seeming push around heteroglossic macroThemes.

Functional Linguistic Theorisation of Critical Thinking for Timely Reader Anticipation
Negotiations of dialogistic positioning in the macroThemes contributed considerably to the understanding of students' critical thinking skills in writing an argumentative text. The explicit attention

to dialogism anticipated the reader and created space with various alternatives in the construction of the preview. The students became more skilful in varying degrees of dialogic alignment for these differing views with important resources from the ENGAGEMENT system to close down or to open up the positioning of these views. Prominent syndromes of choices of ENGAGEMENT resources were formed and spread over the whole text to preview the argument development and to subsequently orientate the putative reader to one particular aspect of the argument throughout the text.

Dialogically contractive syndromes, for instance, establish an analytical heteroglossic positioning to evaluations in the macroThemes. The contractive syndromes estimated points of view that would potential be conflicting with the proposed argument in the preview of the discussions on the issue. The deployment of *countering* contractive resources represented the negotiations of the contesting positions in the macroThemes. Its deployment enabled consideration of evaluation of alternative positions while saliently indicating the student's evaluative stance in the discussion on the issue. These contractive syndromes in the macroThemes strategically created and regulated ENGAGEMENT prosodies throughout the discussion texts. It controlled how the arguments for both contesting viewpoints developed with an emphasis on a difference in orientating meaning in the subsequent body paragraphs.

Therefore, from a functional linguistic perspective, a way of thinking critically for a prompt reader anticipation encompasses a comprehension of an intricate yet distinct interplay of patterns of meaning in aligning or dis-aligning the putative reader in a macroTheme. Critical thinking skills can be exhibited in how negotiations of dialogism are conducted to evaluate differing and competing points of view, which lead to a consensus with the reader. The skills to examine contesting viewpoints in the construction of an argument has been principally discerned as a core foundation of critical thinking (e.g. Facione, 1990; Sternberg, 1987). These skills can be evidenced in the proficient enactment of distinct syndromes of choices of ENGAGEMENT resources. The patterns of 'counter and distance' in the macroTheme, for instance, signal how the reader is explicitly aligned with the evaluations construed in the argument while previewing its development in the following body paragraphs. These patterns restrict the potentiality of the anticipated other viewpoints to the authorial voice. The complex patternings and syndromes of ENGAGEMENT choices deployed in the macroTheme signifies the students' emerging critical thinking skills as revealed in their subtle negotiation with the issue being contested. The syndromes enable them to manage the reader's

alignment or dis-alignment with the accepted values that are presented in the text, which in turn reinforce the efficacy of their negotiation for the argument.

CONCLUSION
The considerable importance of critical thinking in educational curriculum reform and policy has led to its many conceptualisations with reference to different epistemological and theoretical points of view. These conceptualisations, however, are often disputed resulted in various concepts of what constitutes critical thinking, presenting substantial challenges to be implemented in education settings. Students as well as teachers require support in managing the demands of explicitly evidencing the skills in thinking critically, particularly in writing. A linguistic focus should provide a robust account of the necessary ENGAGEMENT resources and their strategic deployment for demonstrating the skills of critical thinking in the construction of written argumentation. This focus specifically looked at the patternings of choices of ENGAGEMENT that were deployed in the macroTheme to preview the argument development and anticipate the putative reader.

The complex syndromes of ENGAGEMENT resources afford a complementary linguistic perspective on critical thinking. Such perspective explicitly supports the development of students' skills in thinking critically when anticipating the putative reader as reflected in the macroTheme preview. The analytical APPRAISAL tools from the Systemic Functional Linguistics made the patternings of meanings and their intricate interplay visible for constructing the preview of the argument in the macroTheme. These patternings dispersed distinct prosodies of choices of ENGAGEMENT resources to negotiate dialogism for the argument, which would be discussed throughout the text. The deployment of particular meaning patterns to preview the argument development in the macroTheme can serve as a comprehensive linguistic basis for a theoretically driven critical thinking conceptualisation. Enacting these meaning patterns in the construction of the macroTheme can make early anticipation of the putative reader as a way to think critically become visible in educational contexts. It makes the various interconnected patterns, which are involved, from the whole potential of meaning making in the ENGAGEMENT system discernible and accessible for students in learning writing an argumentative text. However, I do not attempt to propose here that teachers are not mindful of these ENGAGEMENT resources for creating different values of evaluations to construe an 'appropriate' interpersonal stance in previewing an argument development. The majority of the teachers perhaps merely do not have the appropriate linguistic tools to support them in

making these resources explicit for their students with a clear writing instruction (See Macken-Horarik et al., 2011).

This paper only involved and examined small corpora in a very limited number, which were collected from pre and two iterations of pedagogic enactment. Thus, it is fundamental to underline that there is a necessity to further the present study along with its findings to complement the linguistic perspective on students' critical thinking skills in writing. A more detailed linguistic conceptualisation on the process of thinking critically will enable the implicated language resources to be more systematically accessible. In this way, these resources, which previously never have been able to be as distinctly articulated, can be made visible during the process of learning English, providing more explicit support not only to the students but also to the teacher. This support is essential for the development of students' critical thinking and should equip them with the skills that have extensively been recognised as an important learning objective in different levels of education. Such objective is particularly emphasised on the students who learn English as a second and/ or a foreign language.

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