



Portrait of Critical Thinking Disposition among English Education Freshmen: Implication to Teaching Syllabus Design

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Abstract:

The disposition of students to engage in critical thinking is an essential requirement for developing critical thinking skills and significantly impacts their competency in critical thinking. However, the practice of critical thinking is hardly included into educational institutions. Consequently, this study is conducted to determine the portrait of critical thinking disposition among English education freshmen at a state university in Banten, Indonesia. The findings of this study will serve as the foundation for developing teaching syllabus in all subjects in English department. This study utilized descriptive qualitative method to analyze the characteristics of critical thinking disposition among first-year English education students. The study sample comprised of first-semester students who were currently enrolled in the English Education Department comprising 110 first-year students. The California Critical Thinking Disposition Inventory (CCTDI) assessment, developed by Facione in 2011, was employed to gather data regarding students' disposition towards critical thinking. The research findings indicate that, on the whole, English education freshmen possess a favorable disposition towards critical thinking, as 48.18% of the students fall into the positive category of essential thinking ability, followed by 44.52% exhibiting a strong CTD. Meanwhile, 7.3% of the student respondents show an ambivalent CTD. Further, while the top three CTD indicators among the freshmen are truth-seeking, open-mindedness, and analyticity, the bottom three indicators of their critical thinking disposition comprise inquisitiveness, maturity of judgement, and self-confidence. The results suggest that the students are familiar enough in solving problems or seeking truth from diverse points of views, but lack of desire and bravery for learning to process own reasoning and making decisions. Integrating the latest findings into the structure and implementation of the English education syllabus has the potential to enhance students' disposition towards critical thinking, thereby impacting their long-term ability to think critically.

Keywords: critical thinking disposition, English education, freshmen, teaching syllabus design

1. INTRODUCTION

Critical thinking holds a central role in 21st century education as they equip students to navigate real-life challenges and thrive in professional settings (Yuan et al., 2021). In an era marked by intense industrial competition, rapid technological advancement, and societal transitions that lead to uncertainty (Sudarisman, 2015), critical thinking enables learners to analyze information, evaluate problems, and make informed decisions (Barta et al., 2022; Ng & Cheung, 2022). As one of the 4C skills—alongside communication, collaboration, and creativity—critical thinking has been identified as a key focus in educational objectives to achieve success in social and professional contexts (Atalay et al., 2019; ITEFA, 2020; Janse Van Rensburg & Rauscher, 2022). Beyond cognitive processing, critical thinking fosters logical reasoning, skepticism, and problem-solving abilities, making it indispensable for preparing students to function effectively in both workplace and societal contexts (Kaya et al., 2017; National Education Association, 2010).

The notion of critical thinking has components: skills and dispositions. Students can employ critical thinking skills to evaluate different perspectives and choose which one aligns more closely with scientific fact (Fitriani et al., 2018). Critical thinking is a multifaceted cognitive process that involves the advanced mental abilities of analyzing information, making connections, and evaluating problems (Barta et al., 2022; Ng & Cheung, 2022), and is recognized as an intellectual and disciplined process involving conceptualization, application, analysis, synthesis, and active evaluation, including skills developed through scientific processes (Tidar & Suparman, 2019) and task completion (Aizikovitshudi & Cheng, 2015). Critical thinking skills are also concerned in language learning, particularly English as a foreign language, ranging from evaluating students' CT skills (Din, 2020), fostering their CT skills (Liang & Fung, 2021) to reviewing teachers' facilitation of students' HOTS, including CT skills (Singh & Marappan, 2020). In language classrooms, students are taught to notice circumstances, pose inquiries, develop hypotheses, conduct observations, gather data, and draw conclusions, which cultivates logical reasoning, enhances concentration, and promotes analytical thinking (National Education Association, 2010). The acquisition of critical thinking skills through language learning can have a profound impact on students' future lives, enabling them to effectively analyze various real-life challenges and excel in their professional endeavors (Yuan et al., 2021). Thus, integrating critical thinking into language education provides learners with essential tools to interpret meaning, formulate ideas, and engage in reflective learning that supports their intellectual growth.

Another component of critical thinking is critical thinking disposition (CTD), which is fundamental to the execution of the critical thinking process (Facione & Facione, 1993). Critical thinking disposition refers to the disposition to engage in critical thinking and adopt critical behaviours in the context of learning (Facione, 2000; 2011). The term "disposition" is synonymous with the term "attitude". Disposition is characterized as a deliberate, consistent, and voluntary disposition that results in the attainment of specific objectives. These behaviors encompass self-assurance, tenacity, inquisitiveness, and adaptable cognition. Critical thinking disposition refers to an individual's disposition towards engaging in critical thinking activities. It can be assessed by observing specific indications (Syarifah et al., 2019). The critical thinking disposition is an inherent trait of proficient student cognition. The student's disposition towards problem solving will reveal their level of critical thinking. Thus, in order to facilitate the learning process and encourage students to acquire knowledge first hand and independently explore the subjects they are studying, it is imperative to examine a disposition for critical thinking among student (Dastyari et al., 2021).

Possessing a critical thinking disposition is crucial for students in the process of learning. Students with a propensity for critical thinking enhance their ability to think critically, hence improving their grasp of subjects. The disposition of students to engage in critical thinking is an essential requirement for developing critical thinking skills and significantly impacts their competency in critical thinking. However, in actuality, the practice of critical thinking is hardly included into educational institutions. The primary objective of the majority of higher education institutions is to cultivate students' critical thinking abilities. Teaching critical thinking is a significant educational requirement (Morais et al., 2023). Nevertheless, it is crucial to assess students' disposition to employ critical thinking methods when analyzing a topic. An individual's critical thinking disposition has equal significance to their critical thinking skills (Boonsathirakul & Kerdsomboon, 2021).

Empirical investigations on the students' critical thinking disposition have been initiated, involving students and/or teachers as the research participants. From the undergraduate students' perspectives, it was found that most nursing students were confident enough in reasoning as a way of expressing their critical thinking, while less assured in truth-seeking (Boso et al, 2021). Such result resonates with the trends identified among undergraduate students at different levels in Thailand (Boonsathirakul & Kerdsomboon, 2021). Among more than 600 students participated in the study, the students' disposition toward critical thinking score was above 70% in average. Of the seven dimensions of CTD, inquisitiveness (quality of feeling curious to discover new things), systematicity (ability to inquire in an organized, orderly, focused, and diligent process), and analyticity (ability to give reasons) were more evident compared to other dimensions with the mean score above 4.60 of 5.00 scale, respectively. However, they further examined that CTD had no significant correlation to gender and level of their study.

In the English language teaching context, Larenas et al. (2024) examined the level of critical thinking disposition of 205 high school students in Chile. The results generally showed that analyticity, inquisitiveness, and truth-seeking were the indicators of CTD with the highest average score among the students. Open-mindedness obtained the least average score, implying low tolerance for diverse opinions or points of view and lack of consideration for alternative suggestions from peers. Further, they found that critical thinking disposition did not correlate with gender, grade, age, and even interest in learning English. A contrasting evidence was obtained by Manshaee et al. (2014) that students interested in learning a second language (albeit English not explicitly mentioned) demonstrated greater level of critical thinking than their counterpart. Ordem (2017) monitored the way Turkish adult learners of English particularly in a listening and speaking class. The findings unveiled that most learners were good at developing their inquisitiveness, truth-seeking, open-mindedness, and self-confidence. Within the Indonesian learning context, Indah et al. (2022) revealed that undergraduate EFL students have demonstrated fair critical thinking level, such as identifying factual statements and distinguishing between subjective and objective statements. However, their study did not specifically address students' intention and tendency to apply those skills.

Considering teachers as the main agent in fostering students' CTD in the classroom, previous research (Rauscher & Badenhorst, 2021; van Rensburg & Rauscher, 2022) has also delved into the teachers' dispositions and strategies to foster students' critical thinking skills. Using a Likert-scale instrument, Rauscher and Badenhorst (2021) revealed that the teachers exhibited a positive disposition toward critical thinking with self-confidence and inquisitiveness were two dimensions mostly concerned with. Meanwhile, the analysis results in van Rensburg and Rauscher's (2022)

study showcased that the teachers involved mainly apply four main strategies to support students' CTD: assessments, questioning, examples, and constructive classroom environment. The other supporting strategies include discussions, modelling, feedback, and rich resources. In a language learning context, Saputri et al. (2022) revealed that implementing debates in the classroom could indirectly influence students' CTD, self-confidence, and speaking skills of Indonesian learners. More specifically, CTD became the mediating role to increase speaking skills during the debate. In addition to that, Tasgin and Dilek (2023) argued that critical thinking plays an important role in mediating the development of students' self-efficacy and problem-solving skills. An experimental design toward the development of students CTD was also conducted by Ding (2016), particularly seeking the impact of implementing WeChat-assisted problem-based learning on EFL learners' CTD. By conducting another instructional approach, Wale and Bishaw (2020) unfolded that inquiry-based argumentative writing instruction could enhance EFL students' critical thinking skills.

Although students' critical thinking dispositions and teachers' strategies to foster students' critical thinking skills have been investigated quite intensively, empirical evidence regarding freshmen's CTD in the Indonesian English language learning context is still not much known. Recent studies are more concerned with the mediating factors of critical thinking dispositions (i.e., emotional intelligence and gender) among undergraduate students, but not specifically involving English language students (e.g., Hasan & Noor, 2024; Liu & Pásztor, 2023; Sk & Halder, 2020). To fill the void, this study is conducted to determine the portrait of critical thinking disposition among English education freshmen at a state university in Banten, Indonesia. The outcomes of students' portrait on critical thinking abilities can serve as an assessment of the learning that has been conducted and as a basis for devising strategies to enhance future learning. The findings of this study will serve as the foundation for developing prototype designs that will be utilized by researchers in subsequent investigations aimed at enhancing students' critical thinking disposition.

2. LITERATURE REVIEW

2.1 Critical Thinking

Critical thinking is a key aspect of education and is regarded as a means to address the present global concerns. Indeed, critical thinking has been universally recognized as the primary objective in the realm of academia, particularly in higher education (Sk & Halder, 2020). Critical thinking relies on a certain set of abilities and dispositions. While many theories suggest that critical thinking disposition is a multifaceted concept that is influenced by motivation and habits of mind, in addition to abilities, it is also a crucial element in the practice of critical thinking. Critical thinking consists of two essential elements: cognitive skills and disposition skills (Ennis, 1996). Cognitive abilities pertain to the capacity of students to actively participate in tasks involving analysis, inference, evaluation, explanation, and self-correction of issues, decisions, or judgements. Dispositions, in the context of education, refer to the ingrained mental habits that students possess and that promote critical thinking in their beliefs and actions. Disposition skills additionally encourage students to employ cognitive skills while participating in advanced cognitive processes such as problem-solving and decision-making. A person with a strong disposition towards critical thinking as someone who consistently possesses intrinsic motivation to engage in problem-solving and decision-making processes using critical thinking (Facione, 2000).

2.2 Critical Thinking Disposition

The seven critical thinking dispositions are Truth-Seeking, Open-Mind, Analyticity, Systematicity, Self-Confidence, Inquisitiveness, and Maturity (Facione & Facione, 1993). The definition of the seven thinking disposition scales as follows: 1) Truth-seeking refers to the disposition to actively pursue or examine the most accurate information within a specific environment. 2) Open-mindedness refers to the willingness to accept and tolerate diverse perspectives. 3) Analyticity refers to the ability to recognize and connect with existing information in order to solve problems. It involves applying reasoning and evidence to effectively address any issues that may develop. 4) Systematicity refers to the ability to organize information in a methodical and comprehensive manner through inquiry. 5) Self-confidence is the inherent ability to confidently recognize and address inquiries and resolve issues. 6) Inquisitiveness is capable of acquiring knowledge, particularly through a strong desire to explore new information. 7) Maturity is the state of having a mature disposition, characterized by wisdom in decision-making (Facione, 2000).

Proficiency in critical thinking is an essential prerequisite for developing 21st Century abilities in the field of biology. Recognizing the significance of the critical thinking disposition component, it is emphasized that understanding one's thinking disposition is crucial prior to cultivating critical thinking abilities. It is asserted that the critical thinking disposition serves as the fundamental prerequisite for acquiring critical thinking skills (Peter A, 2015). Proficiency in critical thinking refers to an individual's ability to align their disposition with their cognitive processes. There is a positive correlation between thinking skills and disposition (Facione, 2000).

3. RESEARCH METHODOLOGY

3.1 Research Design

This study utilized descriptive qualitative method to analyze the characteristics of critical thinking disposition among first-year English education students at Sultan Ageng Tirtayasa University in Indonesia. The critical thinking disposition assessment is used as an alternative technique to precisely and fully measure students' scores in critical thinking disposition. This allows researchers to assess students' core cognitive processes with enhanced accuracy.

3.2 Research Participants

This study involved first-semester students who were currently enrolled in the English Education Department at the Education Faculty of Sultan Ageng Tirtayasa University. The sample was obtained through purposive sampling, comprising 110 first-year students from the English education department. They were chosen because first-year students (commonly called freshmen) are still at their formative stage in their academic development. They begin to encounter more complex incorporation of higher-order thinking skills to acquire knowledge. Hence, examining their critical thinking skills at this point gives us a better understanding of their pre-existing cognitive orientations in undergoing their academic life.

3.3 Research Instrument and Data Collection

The California Critical Thinking Disposition Inventory (CCTDI) assessment, developed by Facione in 2011, was employed to gather data regarding students' disposition towards critical thinking, comprising a total of 75 items (see Table 1). The objective test consists of possible

answers, which include Strongly Agree, Agree, Somewhat Agree, Somewhat Disagree, Disagree, and Strongly Disagree.

Table 1. The dimensions of Critical Thinking Disposition Questionnaire

No	Dimension	Description	Statement Item Number	Total
1	Truth-seeking	Targets honesty and objectivity with findings, even if the findings do not support one's self-interests or preconceived opinions.	12, 19, 23, 31, 39, 43, 49, 57, 61, 62, 71, 75	12
2	Open-mindedness	Addresses being tolerant of divergent views with sensitivity to the possibility of one's own bias	5, 7, 8, 14, 20, 24, 28, 30, 35, 45, 64, 78	12
3	Analyticity	Targets are prizing the use of reason and evidence to resolve problems	6, 13, 21, 38, 42, 50, 54, 60, 66, 67, 70	11
4	Systematicity	Measures the tendency toward the use of an organized, orderly, focused, and diligent process in the inquiry stage.	3, 4, 9, 22, 25, 26, 29, 33, 58, 63, 74	11
5	Self Confidence	Measures the trust one places in one's own reasoning processes.	10, 16, 27, 36, 40, 48, 52, 56, 69	9
6	Inquisitiveness	Measures one's intellectual inquisitiveness and desire for learning, even when the application of the knowledge is not readily apparent.	2, 15, 18, 34, 44, 47, 51, 55, 59, 65	10
7	Maturity of judgement	Targets the disposition to be judicious (prudent) in one's decision making	1, 11, 17, 32, 37, 41, 46, 53, 68, 72	10
Total Number			75	

The questionnaire gauges respondents' level of agreement with each statement using a six-point Likert scale that goes from Strongly Agree to Strongly Disagree. This format helps researchers gather comprehensive data on each participant's CTD. To ensure consistency and control external variables, the questionnaire was distributed directly to the chosen students as part of the data collection process.

3.4 Data Analysis

Once the students' responses to the questionnaire were gathered, the responses were graded and examined using the scoring criteria that Facione (2011) supplied. Responses were given numerical values that indicate the degree of agreement with each of the seven critical thinking aspects that are represented by each item on the CCTDI. Each dimension's scores were then added together to create the overall cumulative score, which can range from 75 to 450. The guidelines about the interpretation of the acquired scores are detailed in Table 2 (Giancarlo & Facione, 2001).

Table 2. Score Interpretation Terms

Each Indicator	Total Score	Category
50 - 60	369-450	Strong
40-49	294-368	Positive
30-39	226-293	Ambivalence
< 30	< 225	Negative

By using this scoring method, researchers can assess which particular aspects are more or less developed in addition to determining the participants' general critical thinking disposition. Researchers can determine students' critical thinking profiles' strong points and potential areas for development by comparing the scores across dimensions. The results were used to address the implications for designing teaching syllabi.

4. RESULTS

The research findings indicate that, on the whole, English education freshmen possess a favorable disposition towards critical thinking, as 48.18% of the students fall into the positive category of essential thinking ability, as opposed to the ambivalent category's 7.3%. The profile distribution of the degree of critical thinking dispositions is elaborated upon in the subsequent Table 3.

Table 3. The number of students in each CTD category

Category	Number of Students (in percentage)
Strong	44.52
Positive	48.18
Ambivalence	7.3
Negative	0

The established criteria for attaining the CTD indicators are derived from the assessment guidelines. The following criteria determine the CTD profile: a) $x \geq 85$ indicates excellent performance; b) $x \leq 85$ indicates good performance; c) $65 \leq x < 75$ indicates moderate performance; d) $55 \leq x < 65$ indicates low performance; and e) $x \leq 55$ indicates very little. An examination of undergraduates in the English department, categorized by critical thinking disposition indicators, reveals that Truth-Seeking receives the highest average score. The outcomes of each hand's analysis are depicted in the figure below:

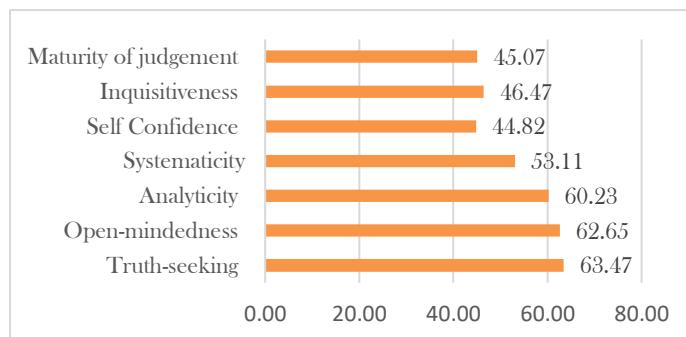


Figure 1. The Average Score of Each CTD Indicator

According to the findings presented in Figure 1, the truth-seeking indicator has the highest average critical thinking disposition among students, with a score of 63.47. The second highest indicator is open-mindedness, with a score of 62.65. Analytical thinking and open-mindedness rank third, with a score of 60.23. Systematicity is the fourth highest indicator, with a score of 53.1. Maturity of judgment is the fifth indicator, while inquisitiveness ranks sixth with scores of 46 and 47, respectively. The self-confidence indicator has the lowest mean score of 44.82.

According to the obtained score on the critical thinking disposition indicator, each indicator falls into the high category, but with varying percentage values.

4.1 Self-confidence

The self-confidence measure of the CTD questionnaire obtains the lowest mean score in the category. According to, the results indicate that self-confidence is a trait possessed by students that can influence the improvement of academic performance (Lint, 2013). Confident students will have confidence in their own talents, which will create the perception that they have more courage, social status, responsibility, and self-esteem. Self-confidence refers to the ability to acknowledge and effectively utilize one's own skills and abilities (Sjöblom et al., 2019). Another perspective suggests that individuals who exhibit confidence are more inclined to engage in new endeavours in unfamiliar circumstances because of their feeling of safety, poise, and capacity to assess their own achievements and setbacks.

Students might display elevated levels of self-confidence when they possess trust in their own capabilities and have the belief that they are competent in achieving a range of life goals. Self-confidence is a fundamental factor that contributes to an individual's potential in life. An individual's complete capacity is forfeited when they cease to possess belief in their own abilities. This encompasses a lack of faith in their life goals, the choices they make, as well as their potential and opportunities. Self-confidence is a quality that can motivate students to face different obstacles with optimism and determination by using their full potential.

4.2 Maturity of judgement

This indicator covers ten statements, concerned with how the students make decisions. It includes students' preference in weighing options before decision-making, avoidance of quick judgments on complex issues, consideration of many alternative answers to phenomena, careful formulation of opinions on important matters, and flexible thinking in understanding complex situations. The results show the second lowest average of this indicator, meaning that the students are not accustomed to making careful decisions in dealing with matters daily. The results also indicate that considering alternatives seems not prioritized in responding to complex situations.

4.3 Inquisitiveness

Inquisitiveness is defined as the tendency to seek knowledge, engage in investigations, and uncover factual information (Heard et al., 2020). Another perspective suggests that inquisitiveness is a component of innate drive that has a significant potential to improve student learning. The CTD indicator of inquisitiveness has a bit higher average score compared to maturity of judgment. Conversely, the measure of inquisitiveness is a scientific habit that need enhancement and is encompassed within the essential and foundational skills of the high school English curriculum. Inquisitiveness is crucial for cultivating students' enthusiasm for learning and their disposition to explore information throughout teaching and learning activities.

Possessing inquisitiveness is a necessary condition for students to actively participate in a productive learning process. Driven by an innate inquisitiveness, students will strive to gain understanding of the topic, either through scientific investigation or self-directed study. Inquisitiveness is a fundamental basis for studying our environment and analysing our own ideas and feelings. It enables us to incorporate new perspectives and experiences (Peter, 2015). Inquisitiveness is crucial for cultivating students' enthusiasm for learning and their disposition to

explore information throughout teaching and learning activities. A rise in students' inquisitiveness towards a subject is directly linked to a more robust affiliation with the learning environment, encompassing collaborative work groups.

4.4 Systematicity

This indicator focuses on the students' preferences in dealing with daily work, tasks, or assignments. It is generally demonstrated an adequate ability to make careful planning before taking action. On average, half of the students preferred to have a step-by-step plan when approaching a complex problem or before starting to investigate a phenomenon. They also revealed a tendency to organize information before drawing conclusions.

4.5 Analyticity

Furthermore, the indicator of analyticity also necessitates additional improvement. The analysis indicator involves the employment of deductive reasoning to resolve problems by employing empirical evidence. The analytical indicator is crucial for aiding students in resolving frequent challenges. The results support the idea that there is a direct relationship between the ability to think scientifically and the ability to tackle complex problems. In particular, more than half of the student respondents admitted that they enjoyed and felt satisfied if they solved problems using logical reasoning and careful thought, and analysis. They also considered the implications of different solutions to a problem, fostering an attitude to seek out supporting data and facts to strengthen the solutions. They believed that breaking down problems into smaller parts can make them understand the problems better.

4.6 Open-mindedness

The students' preferences in applying logical reasoning in solving problems make them more aware of and open to different point of views or perspectives from others. They tended to welcome information that might contradict their current beliefs before evaluating the information and forming their own judgment. This influenced their belief that important decisions should be made with careful deliberation. Additionally, they tried to identify their own assumptions before delving into an argument, meaning that understanding complex situations require flexible thinking.

4.7 Truth-seeking

Last but not least, truth-seeking has obtained the highest score among the freshmen, indicating a preference to valid and credible information or fact, not opinion or ungrounded claim. In this aspect, more than half of the students involved in the present study showed their willingness to change their mind if evidence contradicts their initial beliefs. Such willingness influences their self-perception that their opinions could be subjective and they can make errors in judgments. In its process, the students believed that challenging own assumptions was essential to ensure objectivity and commitment should be demonstrated to find the most accurate information available particularly in the online environment. Such perception renders the willingness to correct own views if new evidence proves them wrong and overcome personal biases to reach fair conclusions.

5. DISCUSSION

The present study aims to examine the preference of Indonesian ELT-major freshmen for a critical thinking disposition. The results show that the truth-seeking indicator has the highest

mean, followed by open-mindedness and analyticity among students' critical thinking disposition categories. This resonates with what Larenas et al. (2024) found that truth-seeking and analyticity are the two most evident CTD among the students involved. It is further reinforced by the finding obtained by Indah et al. (2022) in Indonesian context that EFL students have demonstrated fair ability to identify factual statements and distinguish subjective and objective statements, representing a good command of truth-seeking and analyticity. During the learning process, students seldom seek assistance as they are capable of resolving the challenges independently. Additionally, they exhibit strong collaborative skills when working on assignments, demonstrate the willingness to shoulder entrusted responsibilities, and consistently express their opinions with integrity. Personal maturity is primarily defined by the presence of bravery to embrace life, an individual's self-reliant disposition, unwavering determination, a strong sense of accountability, and the ability to acknowledge and confront the truths of existence (Arnott, 2018). Students with a strong disposition exhibit greater persistence and curiosity, enabling them to acquire more knowledge compared to students without this characteristic. Hence, it is imperative to foster students' critical thinking tendencies during the educational journey. A method to cultivate a critical thinking mindset in students is to pose questions that present a problem that can be resolved through a dialogue between the instructor and students.

The low level of students' critical thinking disposition will lead to suboptimal critical thinking abilities (Allen & Toth-Cohen, 2019; Dissen, 2023; Morris et al., 2018). The research findings indicate that, on the whole, English education freshmen possess a modest level of critical thinking disposition. Individuals with a strong disposition possess a keen interest in studying English and demonstrate exceptional problem-solving skills when encountering difficulties in their learning process. Students possessing a strong disposition towards critical thinking will have the capacity to successfully resolve any difficulty presented by the teacher during the learning process. Students who possess a strong disposition towards critical thinking can accurately solve the presented problems (Giancarlo & Facione, 2001). The findings of this study suggest that, overall, first-year English education students exhibit a strong curiosity towards a given issue. The acquisition of new knowledge can foster students' curiosity, which in turn enhances their capacity for critical thinking and analytical skills. Students who possess a strong disposition towards curiosity are more likely to evaluate and make informed decisions by presenting logical reasoning or supporting evidence while accepting or rejecting a given situation or proposition.

The results of this research are expected to provoke interest and concern within the academic community of the Education Faculty at Sultan Ageng Tirtayasa University, especially among lecturers who specialize in the English education program. Integrating the latest findings into the structure and implementation of the English education syllabus has the potential to enhance students' disposition towards critical thinking, thereby impacting their long-term ability to think critically.

6. CONCLUSION

The present study has delineated the level of Indonesian ELT-major freshmen's critical thinking dispositions, representing their perceptual knowledge and tendency to use critical thinking. The analysis results show that on average, the critical thinking tendency profile of students enrolled in the first year of English education exhibits satisfactory results. This is supported by the fact that the majority of the students demonstrate a good command of CTD, while very few of them show an ambivalent level of CTD. Truth-seeking obtains the highest average score, compared to other

categories. However, self-confidence in making best use of own skills and abilities to solve problems or accomplish tasks becomes the least satisfactory indicator. This means that lecturers are essential components of the educational system to foster the growth of students' disposition for critical thinking; particularly in fostering students' self-confidence, maturity of judgement, and inquisitiveness, which are beneficial for realizing successful academic endeavours as English language education students. Active participation in learning and assessment activities is, therefore, necessary for the development of students' disposition toward critical thinking. This necessitates the development of novel assessment and learning methodologies that aid in the cultivation of critical thinking qualities among students.

Given the established findings and the necessity for enhancing students' critical thinking dispositions, the subsequent suggestions for further investigation are put forth. First, it is crucial to conduct a thorough examination and comparison of various pedagogical methods to assess their influence on the improvement of critical thinking abilities. This may entail evaluating the efficacy of active learning methodologies, problem-based learning, and inquiry-based teaching in promoting curiosity, confidence, and analytical skills among students in the English education program. Second, conducting longitudinal studies is recommended to monitor the progression of critical thinking tendencies over a prolonged duration. This would offer valuable perspectives on the efficacy of educational interventions and the long-term durability of enhancements in critical thinking. Long-term assessments provide a more thorough comprehension of the factors that affect the development of critical thinking. Third, future research can investigate the influence of specialized training and continuous professional development programs for educators in improving their capacity to promote critical thinking in students. In this sense, examining the relationship between lecturers' expertise in critical thinking teaching methods and the enhancement of students' critical thinking scores can be a follow-up inquiry. Last but not least, analyzing the impact of cultural and contextual elements on students' disposition towards critical thinking is also pivotal to examine the multi-faceted nature of critical thinking dispositions among students enrolled in English education programs. This can assist in customizing educational approaches to suit certain cultural and contextual requirements.

7. REFERENCES

Aizikovitsh-Udi, E., & Cheng, D. (2015). Developing critical thinking skills from dispositions to abilities: Mathematics education from early childhood to high school. *Creative Education*, 6(4), 455–462. <https://doi.org/10.4236/ce.2015.64045>

Allen, D. D., & Toth-Cohen, S. (2019). Use of case studies to promote critical thinking in occupational therapy students. *Journal of Occupational Therapy Edition*, 3(3). <https://doi.org/10.26681/jote.2019.030309>

Arnott, S. (2018). Evidence beyond the rules: a critical thinking approach to teaching evidence law to undergraduate students. *Journal Scholarship Teaching Learning*, 18(4). <https://doi.org/10.14434/josotl.v18i4.22812>

Atalay, N., Dilek, S., & Boyaci, B. (2019). Slowmation Application in Development of Learning and Innovation Skills of Students in Science Course. *International Electronic Journal of Elementary Education*, 11(5), 507–518. <https://doi.org/10.26822/iejee.2019553347>

Barta, A., Fodor, L. A., Tamas, B., & Szamoskozi, I. (2022). The development of students critical thinking abilities and dispositions through the concept mapping learning method -

Boonsathirakul, J., & Kerdsoomboon, C. (2021). The Investigation of Critical Thinking Disposition among Kasetsart University Students. *Higher Education Studies*, 11(2), 224. <https://doi.org/10.5539/HES.V11N2P224>

Boso, C. M., van der Merwe, A. S., & Gross, J. (2021). Critical thinking disposition of nursing students: a quantitative investigation. *Nurse education in practice*, 55, 103167. <https://doi.org/10.1016/j.nepr.2021.103167>

Dastyari, A., Zarei Matin, H., Danaeeftard, H., Yazdani, H., & Babashahi, J. (2021). Exploring the Students' Critical Thinking Disposition (Case study: Farabi Campus Students, University of Tehran). *Public Management Researches*, 14(51), 65-93. <https://doi.org/10.22111/JMR.2021.32722.4926>

Din, M. (2020). Evaluating university students' critical thinking ability as reflected in their critical reading skill: A study at bachelor level in Pakistan. *Thinking Skills and Creativity*, 35, 100627.

Ding, X. W. (2016). The Effect of WeChat-assisted Problem-based Learning on the Critical Thinking Disposition of EFL Learners. *International Journal of Emerging Technologies in Learning (iJET)*, 11(12), pp. 28-29. <https://doi.org/10.3991/ijet.v11i12.5927>

Dissen, A. (2023). A critical issue: assessing the critical thinking skills and dispositions of undergraduate health science students. *Discover Education*, 2(1), 2023. 1-20. <https://doi.org/10.1007/S44217-023-00044>

Ennis, R. H. (1996). Critical Thinking Dispositions: Their Nature and Assessability. *Informal Logic*, 18(2). <https://doi.org/10.22329/IL.V18I2.2378>

Facione, P. A. (2000). The Disposition Toward Critical Thinking: Its Character, Measurement, and Relationship to Critical Thinking Skill. *Informal Logic*, 20(1). <https://doi.org/10.22329/IL.V20I1.2254>

Facione, P. A. (2011). *Critical thinking: What it is and why it counts*. The California Academic Press.

Facione, P. A., & Facione, N. C. (1993). Profiling critical thinking dispositions. *Assessment Update*, 5(2), 1-4. <https://doi.org/10.1002/au.3650050202>

Fitriani, H., Asy'Ari, M., Zubaidah, S., & Mahanal, S. (2018). Critical Thinking Disposition of Prospective Science Teachers at IKIP Mataram, Indonesia. *Journal of Englishs: Conference Series*, 1108(1). <https://doi.org/10.1088/1742-6596/1108/1/012091>

Giancarlo, C. A., & Facione, P. A. (2001). A Look Across Four Years at the Disposition Toward Critical Thinking Among Undergraduate Students. *The Journal of General Education*, 50(1), 29-55. <https://doi.org/10.1353/JGE.2001.0004>

Hasan, A., & Noor, H. (2024). *Correlation Between Emotional Intelligence and Critical Thinking Disposition Among Undergraduate Saudi Nursing Students*. SAGE Open Nursing, 10, 23779608241296069.

Heard, J., Scoular, C., Duckworth, D., Ramalingam, D., & Teo, I. (2020). *Critical thinking: Skill development framework*. Australian Council for Educational Research.

Indah, R. N., Toyibah, T., Budhiningrum, A. S., & Afifi, N. (2022). The research competence, critical thinking skills and digital literacy of Indonesian EFL students. *Journal of Language Teaching and Research*, 13(2), 315-324.

International Technology and Engineering Educators Association. (2020). *Standards for technological and engineering literacy: The role of technology and engineering in STEM education*. <https://www.iteea.org/STEL.aspx>

Janse van Rensburg, J., & Rauscher, W. (2022). Strategies for fostering critical thinking dispositions in the technology classroom. *International Journal of Technology and Design Education*, 32(4), 2151-2171. <https://doi.org/10.1007/s10798-021-09690-6>

Kadri, K., Mansor, A. N., & Nor, M. Y. M. (2021). Principal and Teacher Leadership Competencies and 21st Century Teacher Learning and Facilitating Practices: Instrument Development and Demographic Analysis. *Creative Education*, 12(09), 2196-2215. <https://doi.org/10.4236/CE.2021.129168>

Kaya, H., Şenyüva, E., & Bodur, G. (2017). Developing critical thinking disposition and emotional intelligence of nursing students: a longitudinal research. *Nurse Education Today*, 48, 72-77. <https://doi.org/10.1016/J.NEDT.2016.09.011>

Larenas, C., Arancibia Ponce, M., & Castro Freire, A. (2024). Measurement and analysis of critical thinking disposition towards English language learning among secondary school students. *Revista Innovaciones Educativas*, 26(40), 7-25.

Liang, W., & Fung, D. (2021). Fostering critical thinking in English-as-a-second-language classrooms: Challenges and opportunities. *Thinking Skills and Creativity*, 39, 100769. <https://doi.org/10.1016/j.tsc.2020.100769>

Lint, A. H. (2013). E-Learning Student Perceptions on Scholarly Persistence in the 21st Century with Social Media in Higher Education. *Creative Education*, 04(11), 718-725. <https://doi.org/10.4236/CE.2013.411102>

Liu, Y., & Pásztor, A. (2023). Moderated mediating effects of gender among the components of critical thinking disposition in undergraduate students. *Heliyon*, 9(4), 1-13. <https://doi.org/10.1016/j.heliyon.2023.e14664>

Manshaee, G., Dastnaee, T. M., Seidi, A., & Davoodi, A. (2014). Comparison of critical thinking in students Interested and uninterested in learning a second language. *Theory and Practice in Language Studies*, 4(4). 793-799 <https://doi.org/10.4304/tpls.4.4.792-799>

Morais, E. P., Lopes, E., Silva, J., Dominguez, H., Payan-Carreira, C., Imaginário, R., & Santos, C. J. (2023). Dispositions toward Critical Thinking in Portuguese Undergraduate Students. *Educational Process: International Journal*, 12(1), 19-36. <https://doi.org/10.22521/edupij.2023.121.2>

Morris, R. J., Gorham-Rowan, M. M., Robinson, J. H., & Scholz, K. (2018). Assessing and teaching critical thinking in communication science and disorders. *Teach Learn Commun Sci Dsord*, 2(1). <https://doi.org/10.30707/tlcscd2.1morris>

Ng, S.-Y., & Cheung, K. (2022). *Critical Thinking Cognitive Skills and Their Associated Factors in Chinese Community College Students in Hong Kong*. <https://doi.org/10.3390/su14031127>

Ordem, E. (2017). Developing critical-thinking dispositions in a listening/speaking class. *English Language Teaching*, 10(1), 50-55.

Peter A, F. (2015). Critical thinking: What it is and why it counts. Insight assessment. *Journal of Chemical Information and Modeling*, 1(1), 5-8.

Rauscher, W., & Badenhorst, H. (2021). Thinking critically about critical thinking dispositions in technology education. *International Journal of Technology and Design Education*, 31(3), 465-488. <https://doi.org/10.1007/s10798-020-09564-3>

Saputri, M. R. A., Indah, R. N., & Rasyid, F. (2022). Debate, critical thinking disposition, and self-confidence: Do they contribute to speaking proficiency? *Premise: Journal of English Education and Applied Linguistics*, 11(1), 189-207. <https://doi.org/10.24127/pj.v11i1.4533>

Singh, C. K. S., & Marappan, P. (2020). A review of research on the importance of higher order thinking skills (HOTS) in teaching english language. *Journal of Critical Reviews*, 7(8), 740-747. <https://doi.org/10.31838/jcr.07.07.01>

Sjöblom, K., Lammassaari, H., Hietajärvi, L., Mälkki, K., & Lonka, K. (2019). Training in 21st Century Working Life Skills: How to Support Productivity and Well-Being in Multi-Location Knowledge Work. *Creative Education*, 10(10), 2283-2309. <https://doi.org/10.4236/CE.2019.1010164>

Sk, S., & Halder, S. (2020). Critical thinking disposition of undergraduate students in relation to emotional intelligence: Gender as a moderator. *Heliyon*, 6(11). <https://doi.org/10.1016/j.heliyon.2020.e05477>

Sudarisman, S. (2015). Memahami hakikat dan karakteristik pembelajaran biologi dalam upaya menjawab tantangan abad 21 serta optimalisasi implementasi Kurikulum 2013. *Florea: Jurnal Biologi dan Pembelajarannya*, 2(1), 29-35. <http://ejournal.unipma.ac.id/index.php/JF/article/view/403>

Syarifah, T. J., Usodo, B., & Riyadi. (2019). Student's critical thinking ability with higher order thinking skills (HOTS) question based on self-efficacy. *Journal of English: Conference Series*, 1265(1), 012013. <https://doi.org/10.1088/1742-6596/1265/1/012013>

Tasgin, A., & Dilek, C. (2023). The mediating role of critical thinking dispositions between secondary school student's self-efficacy and problem-solving skills. *Thinking Skills and Creativity*, 50, 101400. <https://doi.org/10.1016/j.tsc.2023.101400>

Tidar, U., & Kapten Suparman No, J. (2019). Developing Pre-service English Teachers' Critical Thinking by Using Academic Journal Writing 4.0. Metathesis: *Journal of English Language, Literature, and Teaching*, 3(2), 117-123. <https://doi.org/10.31002/METATHESIS.V3I2.1859>

Wale, B. D., & Bishaw, K. S. (2020). Effects of using inquiry-based learning on EFL students' critical thinking skills. *Asian-Pacific Journal of Second and Foreign Language Education*, 5, 1-14. <https://doi.org/10.1186/s40862-020-00090-2>

Yuan, R., Yang, M., & Lee, I. (2021). Preparing pre-service language teachers to teach critical thinking: Can overseas field school experience make a difference? *Thinking Skills and Creativity*, 40, 100832. <https://doi.org/10.1016/j.tsc.2021.100832>