

## How Reading Aloud Technique (RAT) Impacts the First-Year Computer Engineering (CE)'s English-Speaking Learning Engagement

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### ABSTRACT

Reading aloud technique (RAT) is pervasively known to influence English as a Foreign Language (EFL) learners' language skill acquisition. Only several studies, however, explored the approach's significance on basic dimensions of learning engagement used to reflect students' ability and progress in their learning goals. This qualitative research was conducted to comprehend how RAT, integrated with varied speaking tasks, impacted behavioral, emotional, and cognitive engagement dimensions of non-native English speaking first-year university students majoring Computer Engineering (CE). The main finding interpreted from a series of event-based observations revealed RAT impacted students' learning engagement at a limited-to-average extent of dimension, with exception to one dimension, emotional engagement where RAT was found to relieve students' foreign language anxiety (FLA). This limited extent tendency further led to students' average progress in speaking the target language. The conclusion is RAT represents a challenge toward prior entries about optimistic effects of RAT on EFL learning. This alternative outcome on RAT's impacts contributes to enrich EFL instructors' understanding to suitably merge the technique with other speaking learning modalities.

**Keywords:** Learning Engagement Dimensions, Reading Aloud Technique, English-Speaking

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### INTRODUCTION

English as a Foreign Language (EFL) learners, especially with low verbal proficiency, often feel anxious when using the target language. As traced by Kamal and Khaidzir (2025), this uneasiness serves as emotional and cognitive impediment, hindering active learning engagement creating idle silence (Bao, 2025; Maher & King, 2022).

In a first year Computer Engineering (CE) classroom, where over half of students demonstrated broken English speech resulting from foreign language anxiety (FLA) leading to passive silence in speaking practices, the lecturer attempted to search for an activity increasing students' engagement at their discretion. That selected activity is multisensory, working the learner's mind to process vocalized authored phrases and sentences at once, coined as Reading Aloud Technique (RAT).

The reading aloud approach was integrated with the students' speaking practices as it was regarded to contribute to reducing students' anxiety in speaking tasks, as emphasized by Gryffin (2024). Another reason for the lecturer to deliver her English speaking classes by incorporating this technique was based on Suteja's finding (2024) that RAT-assisted speaking practice grew the learner's confidence in English because the method offered the chance for him or her to casually practice their pronunciation, necessary to foster English speaking quality.

RAT's significance that has fostered students' English speaking through the approach's nature that relaxes students' nervousness while speaking in public indicates this technique's pivotal role in helping non-English native speakers engage themselves in English speaking learning processes.

Past academics works on reading aloud technique (RAT) thematic revolved on the approach's impacts on the learner's basic cognitive skills, or in Silalahi et al. (2022)'s words, lower teaching outcome of learning from Bloom's Taxonomy, such as the language learners' abilities for memorizing, understanding and applying. RAT's constructive impacts on the learner's learning results were particularly reflected from their improved memorizing skill. In this area, scholars with slightly varied cultural contexts from North America and Europe inquiring about different research subjects with their own data collection and analysis method similarly discovered RAT's efficacy on language learners' word memorization skill helping them foster their speaking. MacLeod (2011) in his two-step experiments on the effects of saying words aloud on undergraduate students at Waterloo University, Canada confirmed the modality sharpened students' memory capacity adding to their speaking confidence. Likewise, in context of another foreign language like German, RAT was summed up to well-impact on vocabulary skills of non-native target language speakers besides native speakers, as long as it was applied daily by the learners since child age with the support of surrounding (parents particularly), though the positive effect was also found to become reduced over time for native children (Klein et al., 2014). Then, Forin and MacLeod (2018) disclosed that RAT's production effect contributed to one's unique self-referential auditory input, affecting his or her motor (speech) act. Still examining the role of RAT, Roberts et al. (2023) delivering a series of four oral and silent reading trials with 10 short passages and 50 post reading test materials sourced from Nelson-Denny Reading Test and the Test Prep Review websites on 47 undergraduate students who self-reported being fluent in speaking, reading, and writing English on a pre-screening questionnaire at the University of Waterloo noticed that RAT improved students' memory. Chong (2022), investigating South Korean students' reactions for RAT integrated classroom strategies on 62 college students for 15 weeks by surveying, self-evaluations, and teacher evaluations analyzed using the SPSS t-test, highlighted the students self-evaluated that their speaking skills had improved despite feeling that their pronunciation skill continued to need improvement efforts. After completing an exploratory study at seven advanced English speaking international students in a major UK university recruited purposively using in-person and snowballing approaches and WhatsApp groups-via advertisement, Mok (2023) came to a conclusion that RAT would support word recognition or working memory if it was integrated strategically into silent reading (SR) and audio-assisted reading (AR).

Meanwhile, existing studies on RAT integration with language learning processes carried out by researchers globally, e.g. from Far East Asia, England, and Spain also highlighted the uselessness of this technique in promoting other fundamental cognitive skills, like increasing text comprehension, improving spoken words recognition, and establishing the speech fluency through speaking speed progress. Chinese scholars learned that read-aloud (RAT) had no vigorous effects on L2 English test takers' perceived item understanding and test performance despite the approach's role in drawing the test takers' attention to written test instructions (Hui et al., 2022). The following inquiry measuring the impacts on 51 undergraduates' coherence building processes where they were instructed to read and complete a post-reading test on complementary texts about natural selection unveiled RAT's weaker effect than that of the SR on the students' reading comprehension. This study demonstrated participants treated with RAT instructions had lower quality in their constructed responses than those receiving SR instructions. Natural Language Processing (NLP) analyses used in this study indicated that participants prompted to use RAT were lexically less cohesive during reading and had worse performance on the post-reading test (McCrudden et al., 2024). Finally, Fuentes and Diaz (2023)'s reflections on Spanish speaking undergraduate students using explanatory sequential approach to a mixed-methods design recorded that RAT was ineffective in advancing students' speech rate (wcpm), though it might have improved other prosodic features and students' self-confidence.

Gavino et al. (2025) observed this technique's insignificance on students' cognitive engagement. In their study on 48 English-dominant Spanish-English bilinguals testing a hypothesis that bilingual language control mechanisms varying, depending on the extent of competition for selection, Gavino et al. proved RAT did not trigger the inhibition of reversed language dominance. Instead, the strategy involving pictures' use became the strongest signature effect for switching languages in single words' production. In other words, RAT was viewed to have a mere average effect on the cognitive engagement expected to help students progress in their speaking gradually.

Furthermore, RAT-related studies in Indonesian context tend to discuss the relation between RAT and speaking skills. Among early publications on this theme, RAT was found to have helped American pupils to deal with their anxiety and increase their learning motivation (Harmer, 2009). Nurlaily et al. (2021) studying RAT effects on 40 second grade students in a junior high school using Experimental Design with Non-equivalent Control Group Design proved its effectiveness and amusing nature for teaching and learning in class. A later mixed method study on 32 eighth grade students at a junior high school highlighted that RAT largely contributed to students' higher speaking participation (Anjasmara & Wijayanto, 2023). Putri and Gaffar (2023) employing observation, field notes and interviews in their qualitative study to explore how RAT worked on 36 Network Computer Engineering students at a vocational higher school found one of its benefits boosting students' courage to express their ideas. In other words, their study indicates the capacity of that technique to increase students' confidence by decreasing their anxiety in speaking assignments. A pre-experimental design study, targeting 32 eighth-grade students selected through purposive sampling, utilizing one-group pre-test and post-test approach with paired-sample t-test by Hasriani et al. (2025) shows RAT is substantial in EFL's speaking enhancement through its role that boosts the learner's confidence, leading to deep motivation to dive in speaking exercises, even if the mode is recommended be combined with other interactive speaking activities for optimal results.

Overall, prior literature on RAT's impacts on a language learning process imply the technique's roles in enhancing students' basic cognitive skills particularly by stimulating students' word recognition and recollection abilities together with managing students' psychology domain through moderating students' anxiety, leading to their confidence augmentation. Available RAT-linked publications also expose RAT's inadequacy on other basic cognitive skills like reading comprehension, speaking fluency, plus cognitive engagement.

All these RAT's varied but inconsistent impacts on the performance of language learners indicate RAT's hidden effects or consequences on a language learning. To illustrate, it will be eye-opening to explore RAT's impacts on students' psychological domain concerning their motivation and will to engage in autonomous learning, imperative for any learning goal reaching success in any field. As generally aimed at a learning process, students are expected to engage behaviorally through their hard work, demonstrate enthusiasm indicating the emotional engagement, and study strategically and deeply implying cognitive engagement to develop better skills, satisfy a psychological need, and attract greater teacher support (Kristiansen et al., 2024). To the researcher's best knowledge, in Indonesian context, few investigations have existed on RAT impacts on the broader collective EFL speaking learning engagement dimensions of tertiary level students, whose characteristics are distinct from those of the non-tertiary level students usually targeted in preceding studies (Anjasmara & Wijayanto, 2023; Hasriani et al., 2025; Nurlaily et al., 2021; Putri & Gaffar, 2023). Indeed, in native English context, RAT-thematic studies targeting university educated adults are also narrow in their inquiry focus. Researchers are likely to repeat examining RAT impacts on basic cognitive skills, like its impacts on the learner's memorization, reading comprehension, and speaking fluency (Forin & MacLeod, 2018; MacLeod, 2011; Mok, 2023; Roberts, et al, 2023) without attempting to measure RAT's efficacy on other than cognitive domain supposed to be far from less crucial. In addition, the subject's background in previous studies needs broadening to reach a wider outlook on RAT impacts on students' English learning process, particularly in this study focused on speaking skills.

Thus, the question guiding this study is: What are the impacts of Reading Aloud Technique (RAT) on learning engagement dimensions of the first-year CE students, as EFL learners, in varied English speaking tasks? This study aims to reveal the extent of RAT impacts assessed from assorted speaking tasks to basic dimensions of learning engagement which should be demonstrated by EFL students if they seriously intend to reach meaningful progress and results in speaking performance.

The implication of this study is an unconventional insight to be considered by EFL instructors in their process of decision to integrate reading aloud (RAT) strategy or protocols with speaking practice of non-native English adult students at tertiary-education level.

#### ***Theoretical Framework***

This framework provides a scientific lens for observing the extent of RAT impacts to aspects in each learning engagement dimension of CE students as the subject of this study. The theoretical foundation gives rationales for the aspects that need to be analyzed to produce the findings comprehensively answering the research question and achieving the study objective, formulated following the review of a series of recent literature on the technique's effects on EFL speaking practice. The concepts synthesized in this section include common types of students' engagement expected to demonstrate as an indication for a learning progress.

#### ***Dimensions of Engagement***

Dimensions of learning engagement usually observed comprise behavior, emotion and cognition (Delfino, 2019, Fredricks et al., 2016). According to Reeve, Cheon, and Jang (2019), behavioral, emotional, and cognitive engagements consist of a range of activities seeking to help students make academic progress, satisfy their motivations, and create motivationally supportive learning environments for themselves. In onsite learning environments, behavioral, emotional and cognitive engagements are recognized fundamental in affecting students' self-efficacy, academic achievement, and overall success (Bowden et al., 2021; Chen et al., 2020). Following are brief overviews on each type of engagement.

#### ***Behavioral engagement***

This typical engagement represents school norms defiance, efforts and active participation in class-related and extra-curricular activities (Fredricks et al., 2004; Pino-James & Daly, 2018), imperative for achieving positive academic outcomes (Finn, 1989; Skinner, Wellborn, & Connell, 1990). Classroom participation may appear by students' efforts, attention, and contribution to class discussions and presentations (Fredricks et al., 2004). In essence, this engagement indicates students' consciousness and persistence to invest a high proportion of energy into learning activities (i.e., work hard) (Skinner et al., 2009).

#### ***Emotional engagement***

Furthermore, emotional engagement reflects emotional reactions to learning activities, such as enjoyment, enthusiasm, and satisfaction (Finn, 1989). It is likely to represent students' experience of positive intrinsic attractiveness and energy-mobilizing emotions (e.g., interest, work enthusiastically) during a learning activity or in other words, positive emotional reactions to the school activities (Lu et al., 2023, Walker, Greene, & Mansell, 2006; Martin & Borup, 2022). Both interests in and valuing of the academic content (Voelkl, 1997) are presumed to increase students' attachment to class learning, which influence their willingness to do the work (Skinner et al., 2009). By intrinsic process, emotional engagement refers to the sense of feeling connected and expression (Lim et al., 2020). Becoming emotionally connected is a psychological state where learners go through a sense of belonging, reflecting a common personal experience in the community (Lacoste & Dekker, 2016). This typical engagement is established through an individual's emotional expression via texts, pictures, facial expressions, and gestures, through which people communicate their internal state to others (Caspi & Etgar, 2023).

In concepts elaborated by Schitzler et al. (2020), emotional engagement indicators include students' interest and enjoyment to classroom learning activities and affective reactions that create students' emotional connectedness to class due to safe feeling in the classroom, further increasing motivation by decreased negative emotions, like high anxiety. They emphasized the importance of stimulating positive emotional engagement as positively emotionally engaged students will feel relaxed and enjoy their involvement in the learning activity.

Emotional engagement yet can be negative reactions to learning environment and activities, called negative emotions. This is a manifestation of students' anxiety and isolated feeling toward learning environments and activities. Like positive emotion, negative reactions have similarly remarkable associations with academic and psychological outcomes (Wang et al., 2015), so instructors should treat the strategies of engaging students painstakingly.

#### *Cognitive engagement*

Lastly, cognitive engagement concerns the learners' readiness to build sufficient and continuous persistence for countering challenges and doing deep learning (Blumenfeld et al, 2005; Pellegrino & Hilton, 2012). This refers to students' strategic mental effort to process information to execute classroom tasks. Cognitively engaged students undertake strategic problem-solving and forward-looking mental simulations to optimize their forthcoming performances and outcomes (i.e., work strategically). It consists of a student's level of mental investment in learning. It includes being self-regulated, employing deep learning strategies, and investing the willingness to go beyond what is required for complex ideas comprehension (Zimmerman, 2002).

## **METHOD**

### *The research design*

This study employed the qualitative method in which the subject of the study, utilizing RAT in their three planned speaking tasks, was observed directly by the researcher in three (3) separate event times. This method was selected because it would academically meet the determined research objective, which was to figure out RAT impacts on students' learning engagements in speaking tasks. Students' facial, gestures, attitudes and behaviors during speaking practices with RAT instruction were directly noticed and recorded by the researcher guided with a valid and reliable checklist. The results were categorized by themes in tables and analyzed to provide in-depth answers to the research question.

### *Research subject*

The subject in this study involved 45 first-year CE students in Odd Semester of the academic year of 2025/2026. They passed the intermediate English entrance test consisting of grammar and structures, vocabulary knowledge, and reading comprehension, so they actually already had background knowledge for achieving the goals set in their English speaking tasks. Despite the background knowledge, the students were daily observed to still perform weakly in speaking English. In addition, the students had to live in a dormitory with rigid timetables and participate in busy academic as well as extracurricular activities inherently influencing their learning time allocating ability.

### *Time and place for the study*

The students were directly observed inside the classroom when practicing in three varied speaking tasks, each for 100 minutes during the practicum session in three weeks in the row. The observation notes recorded by the researcher provided the raw data analyzed during several weeks following the events' observation throughout the Odd semester in the year of 2025/2026. All observations for the data collection and analysis were carried out inside classrooms at the CE study program of the Vocational Faculty in a technology campus located in a small sub-district of North Sumatera province near Lake Toba, Indonesia.

### *Procedure of research and instruments*

In order to gather the data that would expose students' patterns of behavior, emotional, and cognitive engagements when completing their speaking tasks by incorporating RAT, an event-based checklist to record how they engage themselves in the tasks' completion was used for the research instrument. This checklist format was selected as it was validated and reliably suitable for infrequently occurring but significant presence of students' engagement. However, the two (2) categorization Yes/No choices to mark the extent of dimensions of the students' engagement was modified into five (5) observation categories. In addition, only the relevant features were observed for each engagement dimension.

The instrument was utilized to understand the three basic dimensions of engagement that students indicated in three varied English speaking tasks in altered time. The observation

process was conducted by an event in the classroom. The first task held two weeks before the mid-term exam schedule required that each student watch a 30 minute TedTalk video on a computing topic and give their video summary presentation before their classmates and the lecturer within a week of preparation. The second and third tasks assigned in two weeks consecutively before the final exam were delivered in Focus Group Discussion (FGD) and British Parliamentary (BP) debate mock-up. In FGD and BP debate practices, how every student proposed their responses and arguments to peers was also pointed out.

All the speaking practices were integrated with RAT to embolden students to accomplish objectives of the speaking tasks. However, this RAT was tolerated intermittently rather than all the time of speaking. The reason for allowing the use of RAT in limited time during speaking practice was due to the nature of the task of drilling students to reach a particular competency in building and pronouncing an oral content at a certain fluency. Thus, RAT was treated as a mode of assistance to stimulate students when facing brain fog in the middle of speech.

**Data collection and analysis**

The data were gathered qualitatively by observing relevant aspects of behavioral, emotional and cognitive engagement of 45 first year CE students as the subject of this study. The data were elaborated based on thematic analysis, meaning the notes resulting from three times in-class observation, each taking place for 100 minutes, were coded and categorized according to themes adjusted to the features of each dimension of engagement determined in the theoretical framework.

**Research validation and reliability**

So as to ensure the validity and reliability of the findings, the researcher implemented confirmation check strategies established for the trustworthiness of a qualitative research, which were checking the credibility (truth value/validity), dependability (consistency/reliability), transferability (applicability) and generalizability (Franklin & Ballan, 2001; Noble & Smith, 2025). Confirmation checks for this study’s credibility was carried out by member checking, comparing the results to students’ experiences on RAT integration with their three speaking tasks. Then, the dependability was reached by implementing clear protocols in data gathering and analysis and thoroughly reviewing the step-by-step research process or audit trail. However, due to limited time, applicability and generalizability check procedures to verify if the research results were applicable for different contexts and settings could not be conducted.

**RESULTS AND DISCUSSIONS**

This section explores dimensions of students’ engagement interpreted based on event-based observations in the classroom. The sub-dimensions attended encompassed students’ attention, effort, initiative and involvement for behavioral engagement, students’ enthusiasm/interest, anxiety, and task attachment depending on their motivation rate for emotional engagement, and self-regulated learning inclination as well as persistence upon task completion for cognitive engagement. Some engagement aspects were excluded, though, such as deep learning for cognitive engagement due to time shortage for out-of-classroom observations and impromptu speaking tasks to test students’ skill in applying their speaking practice results for separate authentic contexts.

These tables illustrate the extent of sub-dimensions of students’ learning engagement to three speaking tasks delivered independently and collaboratively. Students were supposed to achieve a good-to-excellent level in order for their speaking competence to be regarded significantly improved.

Table 1. RAT impacts on students’ dimensions of learning engagement on individual video summary presentation task

| Dimensions of Engagement | Number of students (%) |        |            |      |           |
|--------------------------|------------------------|--------|------------|------|-----------|
|                          | Limited                | Little | Sufficient | Good | Excellent |
| Behavioral engagement    |                        |        |            |      |           |
| a. Attention and effort  | 6.67%                  | 28.33% | 30%        | 20%  | 15%       |

|                                                                                                       |       |        |     |     |     |
|-------------------------------------------------------------------------------------------------------|-------|--------|-----|-----|-----|
| b. Initiative and involvement                                                                         | 10%   | 5%     | 41% | 24% | 20% |
| Emotional engagement                                                                                  |       |        |     |     |     |
| a. Enthusiasm                                                                                         | 6.67% | 13.33% | 35% | 20% | 25% |
| b. Reduced anxiety                                                                                    | 2%    | 1%     | 27% | 50% | 20% |
| c. Increased motivation                                                                               | 2%    | 1%     | 27% | 50% | 20% |
| indicating attachment to the task                                                                     |       |        |     |     |     |
| Cognitive engagement                                                                                  |       |        |     |     |     |
| Self-regulated and persistent preparation indicated from the quality of the RAT-assisted presentation | 6.67% | 28.33% | 30% | 20% | 15% |

Based on table 1, integrating RAT with an individual presentation task gave rise to a small extent only to nearly all dimensions of students' learning engagement except for one aspect in emotional engagement. First, RAT affects the way students behaviorally engage in the presentation task. Among the whole class only 15% proved their deep attention to the task instructions next emboldening their best efforts into the presentation, joined by 20% implying the attention and efforts almost as tremendous as the top 15 percent, pointed to from their presentation content without reading it aloud all the time. Three-tenth nevertheless confirmed the average amount of attention and efforts, whereas 28.33% of students little responded to the task, followed by 6.67% ignored what they were supposed to showcase, implied from their poor performance. Furthermore, only 20% students expressed high initiative when requested to share their summary in front of classmates, and 24% were also ready to give their presentation before classmates, though their faces hinted at some anxiety while delivering it. Above 40% students signified reluctance to be actively involved in presentation at will, always waiting for their names to be called first. Around 5%-10% others were even worse in their initiative and participation, refusing to share their summary in front of class, even though with RAT, with the excuse that they were not ready yet.

Meanwhile, students' emotional engagement indicated slightly varied features. RAT was likely to raise positive emotional engagement by reducing students' stress when speaking to the audience. As seen from the table, 20% of the class utterly relaxed when delivering their presentation followed by the half displaying only a little tension, usually at the presentation opening. Other 27% students, however, remained quite nervous because they could not read aloud over and over throughout the presentation, indicating a lack of speaking preparation in advance. Then, in spite of RAT's part in diminishing students' fear upon speaking independently in public, the approach tended to minor affect students' interest in the task, driven by low motivation causing little task attachment. More than half of students implied very low-to-modest enthusiasm for the task from the beginning, regardless of RAT assisted-presentation, for they had to keep recalling word choices and structures in the task. This led to limited or at least only sufficient motivation, represented from the insignificant attachment to the assigned speaking exercise on over 50% students. Only the fourth students looked enthusiastic to the task, along with 20% thinking the task combining listening and speaking was creative. They viewed the task as quite easy to handle, as they were allowed to sometimes read amongst their oral sharing to recharge bits of vocabulary loss.

Concurrently, a large percentage of the class, slightly above 70% students, still produced limited-to-mediocre presentations despite RAT incorporation into the task. This epitomizes the fact that most students have cared little about persistence and self-regulated learning to prove their best at the task performing, inseparable from their tendency to lack initiative, involvement, interest and motivation.

Table 2. RAT impacts on students' dimensions of learning engagement at Focus Group

| Dimensions of Engagement | Discussion (FGD) task  |        |            |      |           |
|--------------------------|------------------------|--------|------------|------|-----------|
|                          | Number of students (%) |        |            |      |           |
|                          | Limited                | Little | Sufficient | Good | Excellent |

|                                                                                                       |        |     |     |        |        |
|-------------------------------------------------------------------------------------------------------|--------|-----|-----|--------|--------|
| Behavioral engagement                                                                                 |        |     |     |        |        |
| a. Attention and effort                                                                               | 11.11% | 10% | 40% | 16.67% | 22.22% |
| b. Initiative and involvement                                                                         | 11.11% | 20% | 40% | 16.67% | 12.22% |
| Emotional engagement                                                                                  |        |     |     |        |        |
| a. Enthusiasm                                                                                         | 10%    | 20% | 45% | 15%    | 10%    |
| b. Reduced anxiety                                                                                    | 10%    | 10% | 20% | 40%    | 20%    |
| c. Increased motivation indicating attachment to the task                                             | 11.11% | 10% | 40% | 16.67% | 22.27% |
| Cognitive engagement                                                                                  |        |     |     |        |        |
| Self-regulated and persistent preparation indicated from the quality of the RAT-assisted presentation | 15%    | 25% | 45% | 10%    | 5%     |

Table 2 specifies evidence that RAT produces a pretty mixed outcome to the extent of students' learning engagement. First, approximately 40% of the whole class as usual pooled mediocre attention causing mere fair participation in discussions. Nonetheless, this proportion was competed with nearly 29%-to-40% of those highly attentive and putting their greatest efforts in the task as well, often involving in exchanging questions/opinions/responses/feedback. These students could be claimed to take good-to-excellent initiative traced from their continuous or at least frequent voluntary interactions with peers within their discussion team during question and response sessions. In the meantime, above two out-of-every five students kept rarely displaying attention and initiative indicating quite-to-complete disengagement. Those poorly engaged students were practically silent in discussions.

In addition, RAT raised a positive-to-confident feeling to around 60% of the class. About 20% of the class expressed full poise simultaneously with 40% students successfully regulating their anxiety upon the FGD process. Only 10% students seemed restless when taking turn to share their responses in a group and another 10% refused to make speaking attempts, despite their being welcomed to read their notes aloud. Still, such positive engagement by that speaking confidence enhancement was not well-reflected into students' enthusiasm and motivation to attach to the task, at the end impacted insignificantly on students' behavioral engagement. Only a small number of students, between 10% and 15%, showed their good-to-high enthusiasm, whereas 45% expressed boredom and rare participation in discussion, and proposed questions or responses/feedback only if told by the lecturer. The rest of the students, 30%, indeed looked relatively distant in discussions.

Likewise, less than 40% students exhibited closer attachment to the task indicating higher motivation opposed to approximately 60% of those with 40% among them worked in the discussion with flat attachment due to weak-to-less than enough motivation. Meanwhile, ignorance to basic responses from more than 80% of the class reflected negligence to self-learning and ignorance in sustained learning effort to accomplish the actual task purpose, speaking drills. Inherently, observation on merging RAT into speaking practice in FGD marked average roles of this approach in promoting students' speaking performance.

In Speaking Task 3 encouraging students to argue and rebut over a controversial issue, RAT impacts on students' learning engagement are outlined as follows:

Table 3. RAT impacts on students' dimensions of learning engagement in British Parliament (BP) debate mock-up task

| Dimensions of Engagement      | Number of students (%) |        |            |       |           |
|-------------------------------|------------------------|--------|------------|-------|-----------|
|                               | Limited                | Little | Sufficient | Good  | Excellent |
| Behavioral engagement         |                        |        |            |       |           |
| a. Attention and effort       | 22.22%                 | 20%    | 56.62%     | 4.40% | 10%       |
| b. Initiative and involvement | 22.22%                 | 12.78% | 50%        | 10%   | 5%        |
| Emotional engagement          |                        |        |            |       |           |
| a. Enthusiasm                 | 5%                     | 73.30% | 10%        | 6.7%  | 5%        |

|                                                                                                       |        |     |        |        |     |
|-------------------------------------------------------------------------------------------------------|--------|-----|--------|--------|-----|
| b. Reduced anxiety                                                                                    | 10%    | 15% | 60%    | 10%    | 5%  |
| c. Increased motivation indicating attachment to the task                                             | 22.22% | 20% | 56.62% | 4.40%  | 10% |
| Cognitive engagement                                                                                  |        |     |        |        |     |
| Self-regulated and persistent preparation indicated from the quality of the RAT-assisted presentation | 10%    | 50% | 12.78% | 22.22% | 5%  |

In the debate-based speaking task, the extent to how RAT impacts the dimensions of students' learning engagement even weakened. Even though the extent of engagement observed actually turned higher than it was typically indicated from day-to-day basis class participation, the good-to-excellent continuum of engagement goal stayed marginally accomplished. Observations for students' performance on their third speaking task, a BP debate simulation, suggested 50%-60% learners demonstrated a rather inconsiderable extent to every engagement dimension. Among observed students, virtually 50%-56.62% exhibited a typical amount of attention and initiative to the task, resulting in lessening tendency for attempts in the task's perfect performance and for participating at will. Meanwhile, 12.78%-22.22% displayed even less attention, initiative, and commitment to the task implementation.

Furthermore, the extent of students' emotional engagement fell into the negative area in the debate task. In the class, 60% seemed worried upon arguing and refuting, whereas 10% to 15% expressed even more nervousness. Over 73% students moreover shared almost zero enthusiasm due to the task complexity demanding students' critical thinking to build cases. RAT application for this BP debate just had a trivial impact on students' motivation which in turn, at large fostered their task attachment just sufficiently, parallel to their mediocre attention and effort. Flaws in arguments and rebuts, signifying students' basic speech quality in addition to low fluency and correct pronunciation, highlighted students' limited-to-little cognitive engagement. Around half of students were short of self-commitment to work at well-developed and spoken arguments or rebuts. The components generally indicating speaking proficiency, such as vocabulary arrangement in proper structures, fluency and pronunciation, voice tones and intonation quite failed to be represented through students' arguments and refutations, despite the RAT incorporation into the BP debate task to ease students' arguing process.

Overall, in the last speaking task integrating RAT on purpose, the share of students lingering at a very low-to-fair dimension of engagement was larger than that of those showcasing good-to-excellent engagement for all sub-dimensions. This lack of engagement was also found more intense on certain aspects forming the emotional and cognitive engagements.

### **Discussions**

The unique result revealing insignificant implications of RAT to most dimensions of the students' speaking learning engagement has rendered an insight for EFL instructors and learners that the reading aloud technique alone is not enough if the main speaking task purpose is to promote students' speaking skills. In order for RAT to function at best in boosting all learning engagement dimensions in speaking (behavioral, emotional and cognitive engagements), the technique should be merged with varied selective approaches.

Findings of this research highlight variations from what have been asserted by previous scholars on reading aloud approaches to EFL teaching and learning. Firstly, observations related to students' behavioral engagement during the three assigned RAT-integrated speaking tasks demonstrate 74.98% students in average show poor-to-mere attention and effort, leading to 70.70% students on little-to-fair extent to initiative and involvement (speaking participation in voluntary). Then, students display limited-to-sufficient extent to dimensions of emotional engagement at large, despite RAT integration with the assigned three speaking practices. On the enthusiasm aspect, 71.77% of the class exhibited a poor-to-fair amount with 85.30% almost utterly hesitant to participate in task 3, BP debate mockup at will. Simultaneously, above half of the class keep aloof from their tasks, displaying hesitance to be attached to their tasks suggesting lack of motivation. This motivation absence also looks mostly relevant to task 3 on

BP debate simulation in which 98.84% students demonstrated poor-to-inconsiderable extent to task attachment. In self-regulated learning and persistence constituting students' cognitive engagement, 74.26% have implied low-to-second rate engagement.

These RAT impacts differ from Voelk's theory (1997) and association of typical actions-related theories. The theories established by these scholars stating positive emotions-mobilizing class activities, e.g. RAT decreasing anxiety in speaking a foreign language (FLA), should deepen motivation, enthusiasm, initiative, and efforts for greater involvement (participation) in class (Lu et al., 2023; Walker, Greene, & Mansell, 2006; Martin & Borup, 2022; Schitzler et.al, 2020). In contrast, this research unveils that RAT, as a speaking confidence-boosting learning activity supposed to be reliable in stimulating students' emotional connectedness to their learning task and environment, has supported such connectedness at only a minor extent. In this research, RAT was identified to mobilize positive emotions to the learning environment just partially. This research exposes dimensions of students' behavioral and cognitive engagement along with a large part of emotional engagement dimensions, have lingered at short-to-fair extent. Moreover, the main finding yielded from this research has varied from Anjasmara's and Wijayanto's (2023) emphasis on the broad role of RAT for increasing EFL students' speaking participation. This study also uncovers unsubstantial relevance of RAT to improve EFL speech as described in Nurlaily et al. (2021) and Chong (2022).

Such state happens because of students' hesitancy for doing deep learning, which is in this case doing speaking drills regularly outside the classroom. The ignorance for deep learning has brought a large group of the class nowhere, as speaking competence encapsulating the learner's vocabulary, grammar, structures, pronunciation and fluency abilities can be only successfully acquired by discipline and constant self-regulated exercises. In that regard, though students' FLA could be moderately relieved with RAT integration with speaking tasks, learning engagement other than anxiety remains disappointing, on over half of the class on average.

This students' unwillingness for deep learning inalienable from their cognitive engagement has been observed to be affected by students' main objective in learning English. The subject group studied consist of those whose first learning goal is to succeed in their core subjects to build the competence expected from their study program amidst busy academic schedule and tight monitored dormitory life. In the learning process, they tend to be influenced by scale of priority due to busy academic life under limited time. In their major, English is a requirement from the university to enhance their soft skills to win among global job competitions after graduating. Yet, most students view the low-credited English course remains less imperative than their core subjects. These students must thrive in core courses to develop their key professional competence as a Computer Engineer later in a tight academic and dormitory life schedule, where they must live daily under time constraints. Hence, students who have hard time management, are easily distracted in class, practicum, and independent study, lack social skills to take best advantage of collaborative learning with their classmates, tend to miss what they are supposed to showcase as their learning goal accomplishment. These students have turned to be satisfied with merely passing the least important considered classes, like English. Consequently, they become lack of motivation, have only mere attention, act minimally, and are usually short of initiative and willingness to involve (participate) in class activities.

This research further presents that RAT has inadequately enriched students' vocabulary range, opposite prior production effect findings found by (Forin & MacLeod, 2018; MacLeod, 2011; Mok, 2023; Robert et al., 2023). This second finding reveals the remaining below standard vocabulary range at most students despite RAT use in speaking exercises, reflected from their speech in the three speaking tasks. This condition has emerged from two factors. The first is students' background observed in this research has varied from that of the participants examined by the referred scholars. Students in this research are non-native English who do not have unlimited range of vocabulary for expressing their speech by default, whereas participants in studies conducted by (Forin & MacLeod, 2018; MacLeod, 2011; Mok, 2023; Robert et al., 2023) are the speakers of English as the first language, endorsing them to recall new words and phrases to promote their speech skill just by reading them aloud. The second variable is the low cognitive engagement of students observed in this study, probably inseparable from their time

constraint and weak motivation to prevent from being distracted when having to do continuous reviews for acquiring new words and phrases.

In addition to fundamental differences between what this research illustrates and prior inquiries regarding reading aloud and EFL speaking learning, this research demonstrates a finding connected to what have been recorded by Harmer (2009) and Griffin (2024) on the technique capacity to reduce students' foreign language anxiety (FLA). This study furthermore entries RAT's indirect effect resulted from students' moderated anxiety, which is enhancing students' speaking confidence, the same results conveyed by Putri and Gafar (2023), Suteja (2024) and Hasriani et al. (2025).

The study implicates EFL language teaching and learning policies through its clarification on boundaries of RAT impacts on advancing EFL students' speaking performance. Careful observations on three different speaking tasks completed by the CE class by utilizing controlled reading aloud technique demonstrates RAT vaguely affects almost all dimensions of learning engagement supposed to accomplish in order for the students to reach meaningful speaking progress. The exception is for RAT's effectiveness for reducing EFL students' anxiety to a certain level, helping increase their English-speaking confidence in public.

## CONCLUSION

RAT impacts only the standard on the major sub-dimensions of EFL students' speaking learning engagement, except for one key aspect constituting the emotional dimension, which is reducing FLA further stimulating speaking confidence. Largely, RAT integration with speaking tasks, either independently or collaboratively, shows a fair extent to fostering EFL speaking skills of Computer Engineering students, except for anxiety moderation, which also still emerges in mixed results depending on complexity of the speaking task. Low-to-just sufficient behavioral and cognitive engagement dimensions indicated by average speaking performance represents the inefficacy of reading aloud technique (RAT) to promote students' vocabulary proficiency, usually accomplished through word recognition and memorization. In other words, in this speaking learning case, RAT yields minor significance on boosting the production effect. Lack of prolonged observation time and space along with the absence of procedure for ensuring the applicability and generalizability of the research results to multiple settings and contexts may trigger some bias in inferring the extent of impacts of RAT integration with the designated speaking tasks to the dimensions of students' learning engagement, particularly related to students' cognitive engagement, since observation-based conclusions on this type of engagement should be ideally drawn after longer duration in and outside classroom sustainably. Therefore, this study is recommended to be extended by cross-checking the results through observing the RAT integration with the speaking classroom of students from wider ranges of setting and background using the same protocols. The research method employed for the further study is suggested to be sharpened with more multiple approaches, qualitatively and quantitatively to precisely measure the extent of RAT's impacts on students' EFL speaking progress.

## REFERENCES

- Anjasmara, A. P., & Wijayanto, A. (2023, November 16). *THE USE OF READING ALOUD TECHNIQUE TO REDUCE STUDENT'S SPEAKING ANXIETY*. <https://proceeding.unnes.ac.id/utnc/article/view/2601>
- Bao, D. (2025). A Systematic Review of Multifaceted Silence in Social Psychology. *Behavioral Sciences*,15(9), 1220. <https://doi.org/10.3390/bs15091220>
- Binwei Lu, Fengju Chen, Beng Huat See, Binru Dai & Xin Shao (26 Nov 2024): How institutional resources affect university students' learning outcomes: evidence from the 2023 university student learning experience survey in China, *Studies in Higher Education*,DOI: <https://doi.org/10.1080/03075079.2024.2430373>

- Blumenfeld, P., T. Kempler and J. Krajcik (2005), "Motivation and Cognitive Engagement in Learning Environments", in *The Cambridge Handbook of the Learning Sciences*, Cambridge University Press, <https://doi.org/10.1017/cbo9780511816833.029>.
- Bowden, J. L. H. (2022). Analogues of engagement: Assessing tertiary student engagement in contemporary face-to-face and blended learning contexts. *Higher Education Research & Development*, 41(4), 997–1012. <https://doi.org/10.1080/07294360.2021.1901666>
- Caspi, A., & Shir Etgar. (2023). Exaggeration of emotional responses in online communication. *Computers in Human Behavior*, 146, 107818–107818. <https://doi.org/10.1016/j.chb.2023.107818>
- Chen, L., Chen, P. and Lin, Z. (2020) Artificial Intelligence in Education: A Review. *IEEE Access*, 8, 75264–75278. <https://doi.org/10.1109/ACCESS.2020.2988510>
- Chu Hsien Lim, Prameet Kaur, Emelyne Teo, Vanessa Yuk Man Lam, Fangchen Zhu, Caroline Kibat, Jan Gruber, Ajay S Mathuru, Nicholas S Tolwinski (2020) Application of optogenetic Amyloid- $\beta$  distinguishes between metabolic and physical damages in neurodegeneration *eLife* 9:e52589 <https://doi.org/10.7554/eLife.52589>
- Chong, C. M. (2022). Integrating Reading Aloud, Writing, and Assessment Through Voice Recording With EFL Learning. *STEM Journal*, 23(4), 47–64. <https://doi.org/10.16875/stem.2022.23.4.47>
- Delfino, A. P. (2019). Student Engagement and Academic Performance of Students of Partido State University. *Asian Journal of University Education*, 15, 42–55. <https://files.eric.ed.gov/fulltext/EJ1222588.pdf>
- Forrin, N. D., & MacLeod, C. M. (2017). This time it's personal: The memory benefit of hearing oneself. *Memory*, 26(4), 574–579. <https://doi.org/10.1080/09658211.2017.1383434>
- Franklin, C., & Ballan, M. (2001). Reliability and validity in qualitative research. In B. A. Thyer (Ed.) *Reliability and validity in qualitative research* (pp. 273–292). SAGE Publications, Inc., <https://doi.org/10.4135/9781412986182.n15>
- Fredricks, J. A. et al. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, 74, 59–109. <https://doi.org/10.3102/00346543074001059>
- Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction*, 43, 1–4. <https://doi.org/10.1016/j.learninstruc.2016.02.002>
- Gavino, M. F., Malul, T., Prior, A., Degani, T., & Gollan, T. H. (2025). Competition for selection drives the nature of bilingual language control: Picture naming, but not reading aloud, triggers global inhibition of the dominant language. *Cognition*, 265, 106260. <https://doi.org/10.1016/j.cognition.2025.106260>
- Gryffin. (2024, November 4). The Power of the Spoken Word: Exploring the benefits of reading aloud to children - Readability. *Readability Tutor*. <https://www.readabilitytutor.com/benefits-of-reading-aloud-to-children/>
- Harmer, J. (2009). Is Reading Aloud Allowed? *English Teaching Professional*. Issue 65 November 2009 [www.etprofessional.com](http://www.etprofessional.com) pp4–6
- Hasriani, Madehang, & Ermawati. (2025). Implementing Reading Aloud to Foster Students' Speaking Skills for Grade Eight at MTSN Kota Palopo. *EDUTREND*:

- Journal of Emerging Issues and Trends in Education*, 2(3), 142–159.  
<https://doi.org/10.59110/edutrend.607>
- Hui, B., Wong, S. S. Y., & Au, R. K. C. (2022). Reading aloud listening test items to young learners: Attention, item understanding, and test performance. *System*, 108, 102831. <https://doi.org/10.1016/j.system.2022.102831>
- Kamal, M. a. A., & Khaidzir, M. F. S. (2025). From Silent to Speaking: Reducing Speaking Anxiety in Low-Proficiency ESL Learners through Game-Based Learning. *Arab World English Journal*, 16(4), 257–272. <https://doi.org/10.24093/awej/vol16no4.15>
- Klein, O., Biedinger, N., & Becker, B. (2014). The effect of reading aloud daily – Differential effects of reading to native-born German and Turkish-origin immigrant children. *Research in Social Stratification and Mobility*, 38, 43–56. <https://doi.org/10.1016/j.rssm.2014.06.001>
- Lacoste SM, Dekker J. (2016), “Driving change: the role of “emotional connectedness”- a case study”. *The Learning Organization: An International Journal*, Vo. 23 No. 5 pp. 357-369, doi: <https://doi.org/10.1108/TLP-03-2016-0023>
- Noble, H., & Smith, J. (2025). Ensuring validity and reliability in qualitative research. *Evidence Based Nursing*, 0(0), ebnurs-2024-104232. <https://doi.org/10.1136/ebnurs-2024-104232>
- Nordbø Kristiansen, D.-T., Kukkonen, K., Eriksen, S. G., & Trasmundi, S. B. (2024). Voices in reading literature. *Language Sciences*, 106, 101664. <https://doi.org/10.1016/j.langsci.2024.101664>
- MacLeod, C.M. I said, you said: The production effect gets personal. *Psychon Bull Rev* 18, 1197–1202 (2011). <https://doi.org/10.3758/s13423-011-0168-8>
- Maher, K., & King, J. (2022). ‘The silence kills me.’: ‘Silence’ as a trigger of speaking-related anxiety in the english-medium classroom. *English Teaching & Learning*. <https://doi.org/10.1007/s42321-022-00119-4>
- Martin, F., & Borup, J. (2022). Online learner engagement: Conceptual definitions, research themes, and supportive practices. *Educational Psychologist*, 57(3), 162–177. <https://doi.org/10.1080/00461520.2022.2089147>
- Mok, E. (2023). Inner and outer voices: L2 readers’ experiences of silent reading, reading aloud and reading-while-listening [Master's thesis]. University of Oxford.
- McCrudden, M. T., Huynh, L., Lyu, B., Kulikowich, J. M., & McNamara, D. S. (2024). Coherence building while reading multiple complementary documents. *Contemporary Educational Psychology*, 77, 102266. <https://doi.org/10.1016/j.cedpsych.2024.102266>
- Pellegrino, J. W. and M. Hilton (2012), *Education for Life and Work*, National Academies Press, Washington, D.C., <https://doi.org/10.17226/13398>.
- Pino-James, N. (2018). Evaluation of a pedagogical model for student engagement in learning activities. *Educational Action Research*, 26(3), 456–479. <https://doi.org/10.1080/09650792.2017.1354771>
- Putri, M. Y. & Gaffar, M. A. (2023). The Implementation of Reading Aloud Strategy to Develop Student Skill Responding to Expression of Giving Good and Bad News. *JlIP - Jurnal Ilmiah Ilmu Pendidikan*, 6(11), 8447-8454. <https://doi.org/10.54371/jiip.v6i11.2603>
- Reeve, J., Cheon, S. H., & Jang, H.-R. (2019). A teacher-focused intervention to enhance students’ classroom engagement. In J. A. Fredricks, A. L. Reschly, & S. L. Christenson (Eds.), *Handbook of student engagement interventions: Working with*

- disengaged students* (pp. 87–102). Elsevier Academic Press. <https://doi.org/10.1016/B978-0-12-813413-9.00007-3>
- Roberts, B.R.T., Hu, Z.S., Curtis, E. *et al.* Reading text aloud benefits memory but not comprehension. *Mem Cogn* 52, 57–72 (2024). <https://doi.org/10.3758/s13421-023-01442-2>
- Rodríguez-Fuentes, R. A., & Luzkarime Calle-Díaz. (2023). Fluency development beyond speech rate: A study on the effects of read aloud protocols on EFL learners. *Ampersand*, 11, 100133–100133. <https://doi.org/10.1016/j.amper.2023.100133>
- Schnitzler, K., Holzberger, D. & Seidel, T. (2020). All better than being disengaged: Student engagement patterns and their relations to academic self-concept and achievement. *European Journal of Psychology Education*. 36, 627–652. <https://doi.org/10.1007/s10212-020-00500-6>
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A Motivational Perspective on Engagement and Disaffection: Conceptualization and Assessment of Children's Behavioral and Emotional Participation in Academic Activities in the Classroom. *Educational and Psychological Measurement*, 69, 493–525. <http://dx.doi.org/10.1177/0013164408323233>
- Skinner, E. A., Kindermann, T. A., Connell, J. P., & Wellborn, J. G. (2009). Engagement and disaffection as organizational constructs in the dynamics of motivational development. In K. R. Wenzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 223–245). Routledge/Taylor & Francis Group.
- Silalahi, S. M., Anwar, D., & Damanik, J. Y. (2022). Lecturers' checklist instrument to monitor students' understanding in distance learning. *Journal of Education and Learning (EduLearn)*, 16(4), 464–471. <https://doi.org/10.11591/edulearn.v16i4.20485>
- Suteja, H. (2024). STUDENTS' ATTITUDES TOWARDS READING ALOUD PRACTICE TO IMPROVE PRONUNCIATION. *International Seminar on Language, Education, and Culture (ISoLEC)*, 8(1), 11–17. <https://conference.um.ac.id/index.php/isolec/article/view/9815>
- Voelkl, K. E. (1997). Identification with school. *American Journal of Education*, 105(3), 294–318. <https://doi.org/10.1086/444158>
- Walker, C. O., Greene, B. A., & Mansell, R. A. (2006). Identification with academics, intrinsic/extrinsic motivation, and self-efficacy as predictors of cognitive engagement. *Learning and Individual Differences*, 16(1), 1–12. <https://doi.org/10.1016/j.lindif.2005.06.004>
- Wang, G., Wu, L., & Han, R. (2015). College education and attitudes toward democracy in China: An empirical study. *Asia Pacific Education Review*, 16(3), 399–412. <https://doi.org/10.1007/s12564-015-9386-5>
- Zimmerman, B.J. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory into Practice*, 41(2), 64–70. [https://doi.org/10.1207/s15430421tip4102\\_2](https://doi.org/10.1207/s15430421tip4102_2)