



## Relationships among Self-determination Theory-related Factors, Learning Engagement, and Perceived Learning Achievement in Practice-oriented English Classes

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### Abstract

Practice-oriented English courses increasingly focus on employability and workplace-related skills; however, test-centered instruction may limit learner autonomy. This study, grounded in Self-Determination Theory (SDT), explored changes in learners' perceptions within a practice-oriented TOEIC (LC/RC) course at a higher education institution. The participants were 39 second-year female students from the same department. Over a 15-week semester, pre- and post-surveys were conducted to assess changes in autonomy, rapport with the instructor, self-efficacy, learning engagement, motivation, and perceived learning achievement. The survey instrument included 7-point Likert-scale items and open-ended questions in the post-survey to enhance the quantitative analysis. Survey items were adapted from existing scales to fit the course context. Quantitative data were analyzed using descriptive statistics (means, standard deviations, and change scores), while qualitative data were analyzed thematically. The results indicated the most significant improvement in self-efficacy, particularly in RC self-efficacy. Autonomy and rapport with the instructor saw modest increases; intrinsic motivation rose, whereas extrinsic motivation remained largely stable. While overall learning engagement decreased, perceived learning achievement improved. Open-ended responses highlighted strategy instruction, systematic feedback, vocabulary support, and a nurturing classroom climate as key factors that enhanced learning and engagement. These qualitative insights complemented the quantitative findings and emphasize the importance of instructional design and task structures that sustain engagement while addressing learners' psychological needs in practice-oriented English classes.

## INTRODUCTION

English proficiency is increasingly used as a key indicator of career competency in higher education and employment settings. In particular, the influence of quantitative, score-based assessment continues to expand, promoting practice-oriented higher education institutions to provide relevant instructional materials and online training to help learners achieve their target proficiency levels. At the same time, there is growing recognition of the importance of instructional design that

sustains or enhances learners' motivation and engagement. However, score-focused classes, while emphasizing short-term achievement, can increase learners' workload and undermine autonomous engagement (I. -Ch. Choi, 2008). This problem is particularly evident in TOEIC (LC/RC) preparation classes, where learners' needs and proficiency levels vary considerably. In such environments, effective instruction depends not only on learners' attitudes and participation but also on the instructional practices and classroom instruction fostered by instructors.

Self-determination theory (SDT), widely used in educational research, explains learner motivation and learning behavior. To promote sustained engagement, psychological well-being, and self-regulated learning, SDT identifies autonomy, relatedness, and competence as fundamental psychological needs that require satisfaction (Deci & Ryan, 1985). When learners experience choice and control in the learning process, receive emotional support and access to guidance from instructors and the learning environment, and build confidence in their ability to accomplish tasks, they are more likely to perceive learning as manageable rather than as an imposed obligation. Inevitably, participation grounded in autonomous motivation and self-regulation strategies, rather than short-term engagement driven by external pressure, is more likely, increasing the likelihood of sustained class engagement and task persistence (Deci & Ryan, 2000).

However, competence is a broader concept referring to a general sense of effectiveness, whereas self-efficacy refers to an individual's belief in their ability to perform a specific task (Bandura, 1997). This distinction may result in variations in how learners experience competence and self-efficacy across classes. In particular, the more closely learning content aligns with learners' individual interests and goals, the more clearly they perceive the value of the task and the more positively they evaluate its attainability. In major-focused classes, learning content is directly linked to learners' interests and career goals, which encourages them to internalize the value of learning and participate actively in task completion.

When students are repeatedly provided with opportunities for achievement during the process of accumulating disciplinary knowledge, collaboration and interaction with peers often naturally emerge. These experiences foster a sense of connection and promote the development of self-efficacy. Major courses are also structured to meet learners' fundamental psychological needs, which can lead to stable learning motivation and engagement. Accordingly, SDT offers a useful framework for understanding learning engagement across an entire course.

Meanwhile, English-focused classes at practice-oriented higher education institutions often emphasize the utility and instrumental value of learning tied to majors and employment. While this helps students clearly understand the purpose and meaning of learning, it can also diminish autonomy when external demands (e.g., graduation or employment requirements) are strongly emphasized. Therefore, to better understand learners in practice-oriented English classes and to provide quality education, it is necessary to examine learner perceptions before and after classes from an SDT perspective and to identify which factors enhance or weaken the learning experience.

However, in actual classroom settings, learning engagement may manifest in complex ways, rather than aligning neatly with the core elements of self-determination theory. Engagement-related factors such as attention, voluntary effort, and perceived meaning may interact with both intrinsic and extrinsic motivation. In particular, in TOEIC (LC/RC) test preparation classes, it is crucial to examine how employment or graduation requirements shape students' motivation while also fostering or constraining their interest in the learning process itself. Furthermore, the level of perceived learning achievement after class should be examined. Even with identical quantitative results, understanding what feedback learners found helpful, which strategies they found effective, and what changes they perceive are needed for the future is valuable for more context-sensitive interpretation of results and deriving educational implications (Fetters et al., 2013).

Previous studies in Korean tertiary and TOEIC-related contexts have examined TOEIC achievement, reading strategy instruction, self-efficacy, study-group activities, flipped learning, and general motivational variables (H. -K. Kim, 2013; J. Kim, 2023; K. R. Lee, 2010). However, relatively little research has described how SDT-related perceptions, such as autonomy, instructor-relatedness, self-efficacy, engagement, and intrinsic/extrinsic motivation, are reported across a semester in a mandatory, score-focused TOEIC course at a practice-oriented higher education institution.

Accordingly, this study aims to descriptively examine learners' SDT-related perceptions across one semester in a mandatory, practice-oriented TOEIC course. The study does not attempt to test causal relationships or statistically infer associations among SDT variables. Rather, it focuses on identifying overall descriptive patterns in autonomy, relatedness with the instructor, self-efficacy, engagement, motivation, and perceived learning achievement, and on using open-ended responses to contextualize those patterns within the specific classroom setting. This narrower framing is intended to align the broad SDT perspective with the exploratory and descriptive scope of the present data.

1. What descriptive pre- and post-survey patterns are observed in autonomy, relatedness with the instructor, and self-efficacy in a practice-oriented TOEIC (LC/RC) class?
2. What descriptive pre- and post-survey patterns are observed in learning engagement and intrinsic/extrinsic motivation?
3. What is the overall level and item-level pattern of perceived learning achievement measured in the post-survey questionnaire?
4. In what ways do open-ended responses contextualize learners' classroom experiences, including interactions with the instructor, learning strategies, and future instructional needs, in relation to the descriptive survey patterns?

## LITERATURE REVIEW

### Research on Self-Determination Theory and Foreign Language Learning Motivation

Recently, in universities and employment settings, SDT (Deci & Ryan, 1985, 2000; Ryan & Deci, 2000) suggests that when learners' basic psychological needs for autonomy, competence, and relatedness are satisfied, the quality of motivation and learning engagement is enhanced. Autonomy refers to a sense of control and agency, enabling learners to choose and regulate their own learning activities. Competence, in turn, refers to the ability and confidence to effectively perform tasks. Relatedness refers to a state in which learners experience respect, support, and psychological safety through interactions with instructors and peers. From the perspective of SDT, when these needs are met, learners experience intrinsic interest and a sense of meaning in the task, which enhances learning persistence and engagement. Conversely, when these needs are frustrated, learning behavior is likely to be maintained by external demands or shift toward controlled motivation (Deci & Ryan, 2000; Ryan & Deci, 2000).

In the field of foreign language learning, SDT has been discussed as a useful analytical framework for understanding learner motivation and achievement. In particular, research by Noels and colleagues has shown that intrinsic motivation and self-determined forms of extrinsic motivation are associated with learning persistence and positive learning experiences, and that the supportive nature of the instructor and the learning environment helps explain differences in motivational quality (Noels et al., 2000; Noels, 2001). In L2 motivation research, goal- and self-concept-based approaches have been used in parallel with SDT, suggesting that learners' goal orientations and motivational regulation are closely related to learning engagement and achievement (Dörnyei, 2005, 2009). Because learning motivation is not simply fixed as an individual characteristic but is constructed within social and educational environments, perspectives emphasizing learner agency and meaning-making have been highlighted in discussions of foreign language learning motivation (Ushioda, 2006). Research on SDT in terms of instructor behavior suggests that autonomy-supportive teaching can foster learner motivation and engagement (Black & Deci, 2000; Reeve, 2006). This approach emphasizes respecting learners' perspectives and choices while explaining the rationale and value of learning, and it minimizes controlling language in classroom interactions to enhance learner autonomy (Reeve, 2006). When instructors provide clear guidance and task-specific feedback in class, together with autonomy support, learners' engagement and motivation can be supported more consistently (Jang et al., 2010). Relationships can also be strengthened through interactive experiences with the instructor, and classroom conditions conducive to questions and consultation, emotional stability, and specific feedback are crucial factors for sustaining learner participation (Niemiec & Ryan, 2009).

To apply this discussion of SDT to the context of TOEIC-focused instruction, the present study operationalizes competence as performance-related beliefs in foreign language learning and uses perceived self-efficacy as a related indicator of competence. Self-efficacy, defined as an individual's belief in their ability to perform a task, has been widely discussed as a key psychological variable that explains learning strategy use and task persistence (Bandura, 1997). In a Korean tertiary EFL context, J. Kim (2023) also reported that English self-efficacy was positively associated with English achievement, while self-determination was significantly related to English self-efficacy, supporting the importance of examining competence-related beliefs in classroom-based English learning. Therefore, measuring performance-related beliefs, such as identifying keywords, time allocation, and inference strategies, including text-structure understanding and skimming/scanning strategies, in TOEIC (LC/RC) learning can contribute to a more concrete understanding of learners' experiences of competence.

However, previous studies have not fully shown how SDT-related constructs operate in mandatory TOEIC (LC/RC) courses that are both practice-oriented and score-driven. Research on Korean TOEIC instruction has usefully examined test preparation, reading strategies, self-efficacy, flipped learning, and learner perceptions, while SDT-based L2 studies have explained autonomy support, teacher communication style, and motivational quality. Yet these two research strands have rarely been integrated in a way that directly addresses how learners in a compulsory, employment-oriented TOEIC class perceived autonomy, instructor-relatedness, self-efficacy, engagement, and motivation over a semester. This gap is especially important because test-oriented instruction may shape both classroom practices and learners' perceptions of learning value (Alderson & Wall, 1993; Cheng, 2005).

### Teacher-learner Relatedness, Self-efficacy, and the Motivational Structure of Practice-oriented English Classes

The bond between a self-determining teacher and learners is a key element reflecting the fulfillment of the need for relatedness, one of the fundamental psychological needs proposed in SDT. It serves as the foundation for learners' emotional stability and sense of belonging within the classroom context. When the need for relatedness is met, learners are more likely to ask questions and seek advice in class, their fear of mistakes is alleviated, and their access to learning tasks increases. This relational environment can be understood as the quality of the classroom context that supports learner engagement and

persistence from the perspective of SDT. This aligns with the argument that classroom support for autonomy, competence, and relatedness is linked to learning motivation and adaptive outcomes.

Beyond the emotional dimension, this bond can also influence how learners interpret task performance and regulate their learning. When instructors acknowledge learners' efforts, welcome their questions, and provide specific guidance for improvement through feedback, learners are more likely to view task performance as an opportunity for growth rather than as something to be controlled or pressured (Furrer & Skinner, 2003). This accords with the SDT-based argument that instructional classroom management practices can either support or undermine learners' intrinsic motivational resources. Moreover, research suggests that teaching practices intended to enhance learner engagement are not sufficient if they solely support autonomy; they can be more effective when accompanied by a structure that clearly defines goals, procedures, and standards and provides informative feedback (Sierens et al., 2009).

What is more, in foreign language learning, research based on L2 SDT suggests that instructors' communication styles are associated with learners' perceptions of autonomy and competence, as well as their motivational types. For example, Noels (2001) applied the SDT framework to L2 learning motivation and reported that learners' perceptions of instructors' communication styles are related to their autonomy, competence, and motivation. From this perspective, the bond between the instructor and learner and the instructor's classroom management enhance learners' perceived autonomy and self-efficacy, which in turn promotes self-regulated learning and ultimately influences learning engagement and achievement experiences.

Meanwhile, TOEIC-based English classes at practice-oriented higher education institutions, which this study examines, are often mandatory courses aligned with employment qualification requirements. Therefore, learners may be more likely to take classes based on external demands than on personal interest. This combination of learning burden, performance assessment pressure, and exposure to errors can easily lead to learning anxiety. Furthermore, foreign language anxiety can be related to cultural dimensions as well as learning experiences (Toyama & Yamazaki, 2022). Therefore, to promote learner engagement in required English classes, a combination of a bond with the instructor, self-efficacy as a performance-related belief, and classroom management that integrates autonomy support and structure should be considered.

Recent EFL studies have suggested that autonomy-supportive learning environments and perceived teacher support are positively associated with classroom engagement, psychological need satisfaction, and achievement-related outcomes. These findings provide a useful basis for understanding how SDT-related perceptions may operate in language learning contexts. In the Korean tertiary English education context, prior studies have also examined motivational variables such as self-efficacy, self-determination, and classroom participation, although their instructional contexts and focal outcomes have varied. J. Kim (2023), for example, examined the effects of English self-efficacy and self-determination on English achievement in a blended learning environment using online video lectures and found that English self-efficacy was significantly associated with achievement, whereas self-determination was not a statistically significant predictor of achievement. In a TOEIC-related context, K. R. Lee (2010) reported that Korean university students' strategy self-efficacy was significantly related to strategy use and that both strategy self-efficacy and strategy use contributed to TOEIC reading performance. H. -K. Kim (2013) further showed that TOEIC reading instruction utilizing study-group activities influenced not only learning outcomes but also learners' participation, efficacy, and satisfaction. In addition, Y. Cho and Y. -J. Lee (2016) suggested that a flipped approach in a test-based English classroom could positively affect learners' motivation and test proficiency. Taken together, these studies indicate that motivational perceptions and self-efficacy are meaningful in Korean tertiary English education, including test-oriented settings. However, relatively little is still known about how SDT-related perceptions and learning engagement are experienced together in mandatory TOEIC courses at practice-oriented higher education institutions.

Against this background, the present study uses SDT not as a basis for testing a broad predictive model, but as a focused interpretive lens for organizing learners' classroom perceptions in a mandatory TOEIC course. By linking SDT-related constructs to the particular conditions of practice-oriented higher education including compulsory enrollment, employment-related pressure, score-based learning goals, and instructor-supported classroom routines, this review leads to the need for a context-specific descriptive study. Such a framing also acknowledges the imbalance between the breadth of SDT and the small-scale empirical design of the present study and therefore positions the findings as exploratory patterns rather than generalizable evidence of SDT mechanisms.

## METHOD

### Research Subjects

This study was conducted with students enrolled in a service-related department (Aviation Service) at a practice-oriented higher education institution in Gyeonggi Province, South Korea. The TOEIC course at this institution is a mandatory major

course and is closely linked to on-the-job duties in the service industry, requiring most students to take it during their first or second year. The participants were 39 second-year female students in the same department. They completed similar coursework and internships based on a shared curriculum. Furthermore, their English learning experiences after high school and at the university level were relatively homogeneous. Accordingly, the study sample constituted a relatively homogeneous group in terms of demographic characteristics, academic background, and educational experiences, which provided a basis for clearer interpretation of relationships among the study variables.

Because the sample consisted of second-year female students in the same major at a single institution, the generalizability of the findings to other majors, genders, grade levels, or learner groups is limited. In particular, given the nature of the service industry, which may place greater emphasis on interpersonal communication-centered learning experiences, further research is needed to examine external validity across diverse majors, genders, and grade levels.

To ensure research ethics, all participants voluntarily provided written consent after receiving a thorough explanation of the research purpose, questionnaire structure, scope of data use, and privacy policy. During data collection, personally identifiable information was protected from disclosure. All data were anonymized during analysis and were used solely for research purposes.

## Research Procedure

This study was conducted over a 15-week semester in a mandatory TOEIC course. The class met for three hours per week, organized into 50-minute sessions with a 5-minute break between sessions. In Week 1, a pre-course survey was administered to assess learners' background information (e.g., TOEIC scores and weekly study hours) and baseline SDT-related variables, including autonomy, relatedness with the instructor, and self-efficacy. From Weeks 2 to 14, TOEIC (LC/RC) classes were conducted, during which students participated in classroom activities, assignments, and instructor feedback. In Week 15, a post-course survey was administered to examine learners' perceived learning engagement, motivational experiences, and perceived learning achievement. Open-ended items were also included to collect students' views on helpful feedback and interactions, effective learning strategies, and areas for future improvement.

The researcher was also the instructor of the course in which the study was conducted. To address the ethical implications of this dual role, students were informed that participation was voluntary, that their responses would be anonymized and used only for research purposes, and that participation or non-participation would not affect their grades or course evaluation in any way. The overall study procedure is summarized in Table 1.

**TABLE 1**  
*Summary of Research Procedure*

Week(s)	Stage	Key Activities	Research Purpose
1	Pre-survey	<ul style="list-style-type: none"> <li>• Collect basic information (TOEIC scores and study hours)</li> <li>• Identify types of learning motivation</li> <li>• Measure baseline autonomy, relatedness, and self-efficacy</li> </ul>	<ul style="list-style-type: none"> <li>• To identify learners' initial psychological state, motivation level, and perception of variables related to SDT</li> </ul>
2 ~ 14	Class implementation and observation	<ul style="list-style-type: none"> <li>• Conduct TOEIC (LC/RC) classes (including assignments, feedback, and interactions)</li> <li>• Provide learning opportunities through instruction and task assignments</li> </ul>	<ul style="list-style-type: none"> <li>• To provide learning experiences through which post-course changes may emerge</li> </ul>
15	Post-survey	<ul style="list-style-type: none"> <li>• Measure learning engagement, changes in motivation, and perceived learning achievement</li> <li>• Measure post-course autonomy, relatedness, and self-efficacy</li> <li>• Collect open-ended responses (helpful feedback/interactions, effective strategies, and areas for improvement)</li> </ul>	<ul style="list-style-type: none"> <li>• To confirm change patterns based on pre-post descriptive statistics and to identify perceptions of course experiences</li> </ul>
After completion	Analysis of open-ended responses	<ul style="list-style-type: none"> <li>• Thematic analysis of open-ended responses</li> </ul>	<ul style="list-style-type: none"> <li>• To supplement and explain quantitative results and to derive directions for improvement</li> </ul>

## Data Analysis

The pre- and post-survey items were constructed by adapting relevant constructs and item formats from prior SDT- and L2-motivation-related research, including studies on learner autonomy, teacher communication style, classroom engagement, and self-efficacy (Dincer et al., 2019; Liu et al., 2023; Noels, 2001; Reeve, 2006). Rather than adopting an existing instrument unchanged, the survey was tailored to the instructional realities of a mandatory, practice-oriented TOEIC course. To clarify construct alignment, autonomy was represented through choice availability, self-regulation, and goal management; relatedness was represented through emotional support, feedback quality, and accessibility for questions; self-efficacy was represented through LC- and RC-related task confidence; learning engagement was represented through concentration, voluntary effort, and perceived meaning; and motivation was represented through intrinsic and extrinsic orientations. The wording of the adapted items was reviewed and refined to fit the course context and to improve clarity for the participants (see Appendix A).

Because the instrument was context-sensitive and included a relatively small number of items for each subfactor, the survey should be understood as an exploratory classroom-based measure rather than as a fully validated psychometric scale. In addition, several pre- and post-survey items were not identical in wording. For this reason, reliability coefficients and inferential comparisons were not used as the main basis for interpretation. Instead, the analysis emphasizes construct transparency, descriptive statistics, and cautious interpretation of patterns.

The primary purpose of the quantitative analysis was to describe learners' perceptions of SDT-related variables and their changes from the beginning to the end-of-the semester. Given the exploratory nature of the study and the relatively small sample size, the analysis focused on descriptive statistics rather than inferential significance testing. For variables comprising multiple items (e.g., autonomy, relatedness with the instructor, and self-efficacy), subfactor and overall scores were calculated by averaging item scores. For variables measured with a single item (e.g., overall perceived learning achievement), the item score was used as is. The results are presented as the mean (M) and standard deviation (SD) for each variable, along with the amount of change, to facilitate intuitive comparison between pre- and post-survey scores. Because mean value alone may not fully reflect response distribution trends, the percentage of responses with a score of 6 or higher was additionally calculated for selected variables to aid interpretation.

The pre-course survey focused on learners' expectations, intentions, and initial perceptions, whereas the post-course survey included items assessing actual experiences and behaviors. Therefore, the pre- and post-survey comparisons focused on descriptive changes, and the findings are interpreted as exploratory patterns rather than causal or statistically generalizable effects. Accordingly, differences between pre- and post-survey means were not interpreted simply as increases or decreases; rather, the analysis considered the adjustment process through which initial expectations were aligned with end-of-semester experiences.

For some subfactors, pre- and post-survey items were not measured repeatedly using identical wording but were measured using similar constructs. For example, goal setting was assessed based on goal monitoring and adjustment. Therefore, although the amount of change is reported, the interpretation explicitly reflects these item characteristics to avoid overgeneralization.

Missing values were handled by analyzing valid responses only. Cases with non-responses in the post-survey were excluded from analyses of the relevant variable, and means were calculated accordingly. The number of respondents in the pre-survey was 39, whereas the post-survey analyses were based on 36 respondents, excluding three missing responses.

Qualitative data were subjected to thematic analysis based on the open-ended questions included in the post-survey. The analysis involved repeatedly reading the responses to identify meaningful units. Initial codes were derived from key expressions in the responses, and similar codes were then integrated and categorized. Higher-level themes were identified to best capture the meaning of the categories. Representative statements for each theme were selected and presented as a basis for supplementing and explaining the quantitative results (See Appendix B). Brief or non-information responses (e.g., "none" or "I don't know") were classified as either non-responses or insufficient information to avoid over-interpretation. In presenting the results, personally identifiable information was removed, and when necessary, only minimal editing was performed to ensure readability.

## RESULTS

This section presents the results, focusing on key variables directly related to the research objectives. Pre- and post-survey changes in autonomy, relatedness with the instructor, and self-efficacy, core components of SDT, are presented first. This is followed by descriptive patterns in learning engagement and motivational variables. Finally, quantitative findings are presented together with results from the thematic analysis of the open-ended responses and perceived learning achievement,

which was measured only in the post-survey.

## Analysis of Results for Autonomy, Relatedness, and Self-efficacy

Table 2 presents the pre- and post-survey descriptive statistics for autonomy, relatedness with the instructor, and self-efficacy, which are components of SDT. For each variable, pre- and post-survey changes are compared for each subfactor as well as for the overall mean.

**TABLE 2**  
*Descriptive Statistics (Pre-Post) for Autonomy, Relatedness with the instructor, and Self-efficacy*

Variable	Pre <i>M</i> ( <i>SD</i> )	Post <i>M</i> ( <i>SD</i> )	Change
Autonomy	4.59(0.92)	4.81(0.97)	+0.22
Choice availability	4.41(1.36)	5.07(1.30)	+0.66
Self-regulation	4.51(1.46)	4.96(1.20)	+0.45
Goals	4.85(1.16)	4.65(1.44)	-0.20
Relatedness	5.78(1.12)	5.96(0.91)	+0.18
Emotional support	5.74(1.14)	6.04(0.96)	+0.30
Feedback quality	5.73(1.14)	5.89(1.03)	+0.16
Accessibility	5.87(1.39)	5.94(1.00)	+0.07
Self-efficacy	3.94(1.29)	4.92(1.37)	+0.98
LC Self-efficacy	4.22(1.39)	5.01(1.37)	+0.79
RC Self-efficacy	3.65(1.40)	4.82(1.48)	+1.17

Note 1. The unit of the results is score.

Note 2. The scale ranges from 1 to 7, and higher scores indicate higher levels of the corresponding variable. Pre-survey N = 39, Post-survey N = 36 (excluding 3 missing responses).

As shown in Table 2, the overall autonomy score increased from pre-survey  $M = 4.59$  ( $SD = 0.92$ ) to post-survey  $M = 4.81$  ( $SD = 0.97$ ), indicating an overall increase in learners' perceived autonomy at the end-of-the semester. Among the subfactors, the increases in choice availability (change = +0.66) and self-regulation (change = +0.45) were relatively large. This pattern indicates that learners reported end-of-semester experiences of selecting tasks and learning tools and adjusting study time and sequencing, although these differences should be interpreted descriptively rather than as statistically verified gains.

Conversely, the post-survey mean for the goal-related subfactor showed a relatively small decrease (change = -0.20). This pattern may reflect the possibility that, although the subfactor was labeled consistently, the items functioned differently across time points: the pre-survey items focused on goal setting, whereas the post-survey items emphasized goal monitoring and revision. Therefore, rather than interpreting the change in the goal subfactor as a simple decline, it is more appropriate to consider it as reflecting a shift in the targeted process, from goal setting to goal maintenance and monitoring, throughout the semester.

## Overall Results of Learning Engagement, Motivation, and Integration

The following results present descriptive statistics for the overall variables of learning engagement, motivation, and integration. The overall mean learning engagement decreased from pre-survey  $M = 5.39$  ( $SD = 1.02$ ) to post-survey  $M = 4.77$  ( $SD = 1.11$ ) (change = -0.62). Among the subfactors, the decrease in voluntary effort was the largest (change = -0.80). Concentration (change = -0.52) and sense of meaning (change = -0.55) also decreased after the post-survey. Because the learning engagement items captured expectations and intentions in the pre-survey but actual experiences and behaviors in the post-survey, this pattern is better understood as an adjustment from initial expectations to reported end-of-semester experiences, rather than as evidence of a verified decline in engagement.

In terms of motivation, extrinsic motivation remained at a very high level (approximately 6 points) in both pre- and post-surveys, with minimal change (change = +0.03). However, intrinsic motivation showed a substantial increase, from pre-survey  $M = 4.41$  ( $SD = 1.53$ ) to post-survey  $M = 5.72$  ( $SD = 1.28$ ) (change = +1.31). This pattern suggests that learners increasingly perceived the TOEIC learning process itself as interesting and enjoyable by the end-of-the semester. Finally, integrated overall evaluation increased from pre-survey  $M = 4.77$  ( $SD = 1.25$ ) to post-survey  $M = 5.64$  ( $SD = 1.15$ ) (change

= +0.87). Thus, engagement-related indicators were generally lower in the post-survey, whereas intrinsic motivation and integrated awareness showed positive descriptive patterns.

When the main variables are compared systematically, the largest positive descriptive difference appeared in intrinsic motivation (+1.31), followed by self-efficacy (+0.98), integrated overall evaluation (+0.87), autonomy (+0.22), and relatedness with the instructor (+0.18). In contrast, learning engagement showed a negative descriptive difference (−0.62), especially in voluntary effort (−0.80). This relative pattern suggests that students may have developed stronger interest, confidence, and integrated awareness while still experiencing difficulty sustaining routine-based effort throughout the semester. Therefore, the overall results point not to uniform improvement across variables, but to differentiated descriptive patterns across SDT-related perceptions, engagement, and motivation.

**TABLE 3**

*Descriptive Statistics for Learning Engagement, Motivation, and Integrated Evaluation*

Variable	Pre <i>M</i> ( <i>SD</i> )	Post <i>M</i> ( <i>SD</i> )	Change
Learning engagement (overall)	5.39(1.02)	4.77(1.11)	−0.62
Concentration	5.10(1.34)	4.58(1.54)	−0.52
Voluntary effort	5.12(1.21)	4.32(1.44)	−0.80
Sense of meaning	5.95(1.25)	5.40(1.35)	−0.55
Intrinsic	4.41(1.53)	5.72(1.28)	+1.31
Extrinsic	6.00(1.22)	6.03(1.06)	+0.03
Integrated evaluation (overall)	4.77(1.25)	5.64(1.15)	+0.87

*Note 1.* The unit of the results is score.

*Note 2.* The scale ranges from 1 to 7, and higher scores indicate higher levels of the corresponding variable. Pre-survey *N* = 39, Post-survey *N* = 36 (excluding 3 missing responses).

## Post-survey Results of Perceived Learning Achievement

The overall mean of perceived learning achievement was  $M = 5.02$  ( $SD = 1.41$ ), exceeding the scale midpoint (4 points) on a 7-point scale. By item, perceived improvement in English proficiency (Item 28) was the highest, at  $M = 5.28$  ( $SD = 1.37$ ). Perceived improvement in overall LC/RC performance (Item 30) was also relatively high, at  $M = 5.19$  ( $SD = 1.47$ ). Conversely, perceived proximity to reaching the initial semester goal (Item 29) was relatively low, at  $M = 4.58$  ( $SD = 1.75$ ). This pattern suggests that although students perceived improvement in proficiency by the end-of-the semester, they may have been more cautious in judging whether they had achieved the goals set at the beginning of the semester. In addition, the percentage of responses with a score of 5 or higher was higher for perceived improvement in ability (69.4%) and perceived improvement in performance (63.9%) than for perceived goal attainment (52.8%), which is consistent with this pattern.

**TABLE 4**

*Post-survey Descriptive Statistics for Perceived Learning Achievement*

Variable	Post <i>M</i> ( <i>SD</i> )	5 or Higher (%)
Perceived improvement in English proficiency	5.28 (1.37)	69.4
Perceived proximity to achieving the initial semester goal	4.58 (1.75)	52.8
Perceived improvement in overall LC/RC performance	5.19 (1.47)	63.9
Perceived learning achievement (overall)	5.02 (1.41)	61.1

*Note 1.* The unit of the results is score.

*Note 2.* 5 or higher (%) indicates the percentage of responses with a score of 5 or above.

## Thematic Analysis of Post-survey Open-ended Responses

Table 5 summarizes the results of the open-ended questions in the post-survey. First, in question 30 (Helpful Feedback/Interaction), learners reported instructor interaction as helpful, including providing specific explanations for incorrect answers and answering questions. For example, explanations of error causes during problem-solving, suggestions for solution directions, and prompt and clear responses to questions were cited as key elements in facilitating learning

comprehension. Furthermore, some responses indicated that vocabulary checks and guidance on learning routines were helpful forms of support. These results appear to be consistent with the high level of relatedness with the instructor and feedback quality reported in the quantitative results.

In question 31 (Most Effective Learning Strategy), vocabulary memorization and review routines, repeated listening to lectures (LC), and strategies for understanding sentence structures and accessing passages (RC) emerged as representative individual learning strategies. Responses indicated a recurring tendency for consistent listening and reading comprehension with vocabulary study, with routine maintenance (e.g., consistent repetition) as a key element of these strategies. This pattern is linked to the quantitative findings in which voluntary effort (e.g., answer correction and mock-exam routines) among the learning engagement subfactors was relatively weakened. These qualitative responses provide complementary evidence for interpreting why learning activities may have been difficult to sustain without additional support.

Question 32 (Suggested Future Changes) further connected learners' needs to the SDT-related variables. For self-efficacy, responses emphasized the need to accumulate successful experiences and strengthen confidence. For relatedness, respondents highlighted the importance of maintaining a question-friendly environment and supportive interactions. For intrinsic motivation, some suggested instructional management that goes beyond score-focused learning and enhances enjoyment and meaning in the learning process. In this way, the qualitative themes do not simply repeat the survey results; rather, they contextualize the reported patterns by showing how feedback accessibility, learning routines, confidence, and meaningful participation were experienced by learners.

**TABLE 5**  
*Thematic Summary of Post-survey Open-ended Responses*

Questions	Main Themes	Representative Responses
30. Helpful feedback and interaction	<ul style="list-style-type: none"> <li>• Specific responses to questions</li> <li>• Guidance on learning methods and strategies</li> <li>• Vocabulary checks</li> <li>• Motivational support</li> <li>• Vocabulary memorization routines</li> </ul>	<ul style="list-style-type: none"> <li>• The instructor explained all the questions in detail</li> <li>• Vocabulary checking was helpful</li> </ul>
31. Most effective learning strategy	<ul style="list-style-type: none"> <li>• Repeated LC listening practices</li> <li>• Maintaining review routines</li> <li>• Understanding RC structure</li> <li>• Building self-efficacy through successful experiences and strengthening confidence</li> </ul>	<ul style="list-style-type: none"> <li>• Memorizing vocabulary</li> <li>• I improved by repeatedly listening in the listening section</li> </ul>
32. Suggested future changes	<ul style="list-style-type: none"> <li>• Maintaining relatedness support and a question-friendly atmosphere</li> <li>• Strengthening intrinsic motivation (enhancing enjoyment and meaning in the learning process)</li> </ul>	<ul style="list-style-type: none"> <li>• If I feel a sense of accomplishment, I study harder</li> <li>• I like the class as it is now</li> </ul>

In summary, the core factors of SDT showed different patterns of change between the pre- and post-surveys. Self-efficacy and intrinsic motivation showed comparatively larger positive patterns, relatedness remained high, autonomy showed a modest positive pattern, and learning engagement showed a lower post-survey pattern, particularly in voluntary effort. The open-ended responses contextualized these results from the learners' perspective by linking high relatedness to accessible feedback, self-efficacy to successful learning experiences, and weaker voluntary effort to the difficulty of sustaining study routines. In the next section, these findings are discussed as exploratory, context-specific patterns rather than as statistically generalizable effects.

## CONCLUSION AND IMPLICATIONS

This study described pre- and post-survey changes in variables grounded in SDT within the context of a mandatory, practice-oriented TOEIC course. Among the core SDT-related factors, self-efficacy showed the largest positive descriptive difference, with the RC-related subfactor showing a larger difference than the LC-related subfactor. Autonomy also showed a modest positive pattern, particularly in choice availability and self-regulation. Relatedness with the instructor was already high in the pre-survey and remained high in the post-survey. These results suggest that, within this specific classroom context, learners reported a stable and supportive relationship with the instructor while also reporting more positive perceptions of

task-related confidence by the end-of-the semester.

Overall perceptions of learning achievement were relatively high. However, regarding perceptions of goal achievement, the results indicated that perceived improvement and perceived goal attainment were not necessarily consistent across learners. The qualitative analysis identified several key elements that students found helpful in their post-course responses, including detailed explanations of incorrect answers and question-and-answer support, guidance on learning directions and strategies, vocabulary review routines, and a supportive classroom atmosphere. Other areas for improvement included building confidence through successful experiences, maintaining an environment conducive to questions, and enhancing enjoyment and meaning in the learning process. Although this class was primarily practice-oriented and focused on test preparation, the findings suggest that instructor interaction and feedback, viewed through an SDT lens, may help support learners' sense of competence and self-efficacy.

The practical implications of this study should therefore be understood as tentative and classroom-specific. First, regular and specific feedback may be helpful for supporting learners' perceived self-efficacy. For example, identifying causes of errors, suggesting solution strategies, and offering opportunities for review and reattempts may provide students with concrete experiences of progress. Second, in RC instruction, sentence-structure analysis, time-management strategies, and step-by-step assignments based on frequently occurring question types may help students build task confidence. Third, maintaining a question-friendly classroom atmosphere may support relatedness with the instructor and reduce hesitation in seeking help. Fourth, because voluntary effort showed a comparatively weaker post-survey pattern, additional structures such as learning logs, routine monitoring, and short feedback cycles may be useful for supporting self-regulation. Finally, to encourage intrinsic motivation in a score-focused TOEIC class, assignments can include limited but meaningful choices and process-oriented tasks that help students reorganize the value of learning beyond score improvement.

Despite these findings, this study has several limitations. Because the study was conducted in a single class and relied on self-reported data, the generalizability of the findings is limited. In addition, some variables shifted from pre-survey items focusing on expectations and intentions to post-survey items focusing on actual experiences and behaviors. Therefore, caution is needed in interpreting the reported differences as direct net changes. Another limitation is that the researcher and the course instructor were the same person. Although ethical precautions were taken, this dual role may have affected students' perceptions and responses, particularly regarding variables closely related to the instructor, such as emotional support, feedback quality, and accessibility for questions. In addition, because the survey was adapted for a specific classroom context and was not treated as a fully validated psychometric scale, the findings should be interpreted as exploratory descriptive patterns. Finally, the absence of integrated TOEIC score change data limits the ability to verify relationships between cognitive changes and perceived achievement.

Thus, future research should address these limitations by using repeated measures with identical pre- and post-survey items and by conducting reliability and validity checks for each construct. In addition, subsequent studies should incorporate objective achievement indicators, such as actual TOEIC score changes, as well as behavioral data, including learning logs, assignment completion records, and participation records. Such data would allow researchers to examine more precisely how SDT-related perceptions are connected to achievement, sustained engagement, and classroom learning behaviors. Finally, future studies should include larger and more diverse samples across different majors, institutions, proficiency levels, and course types in order to determine whether the descriptive patterns observed in this study are specific to this classroom context or can be found in broader practice-oriented TOEIC settings.

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## Appendix A

### Pre-survey Questionnaire Items

Response Scale: All Likert-scale items are rated from 1 = Not at all to 7 = Very much.

Participation Consent: This study is anonymous and unrelated to grades.

Consent Question: Do you agree to participate? Yes / No

Name & Grade:

TOEIC Score:

Weekly TOEIC study time: 0-1 hours / 2-3 hours / 4-5 hours / 6+ hours

#### Measurement of SDT-Based Factor

Category	Construct	No.	Survey Item	Response Format
Autonomy	Choice availability	1	In completing assignments and using learning tools, I adjusted and selected them on my own.	1-7 Likert scale
Autonomy	Choice availability	2	During class, I selected learning methods that fit me.	1-7 Likert scale
Autonomy	Self-regulation	3	I can adjust my study time/intensity.	1-7 Likert scale
Autonomy	Self-regulation	4	I can adjust the order and priorities of my learning on my own.	1-7 Likert scale
Autonomy	Goal setting	5	I set my own target score of this semester.	1-7 Likert scale
Autonomy	Goal setting	6	I have a personal plan for achieving my target score.	1-7 Likert scale
Relatedness with the instructor	Emotional support	7	I think the instructor respects my effort.	1-7 Likert scale
Relatedness with the instructor	Emotional support	8	I feel emotionally secure in class.	1-7 Likert scale
Relatedness with the instructor	Feedback quality	9	I think the instructor's feedback is specific.	1-7 Likert scale
Relatedness with the instructor	Feedback quality	10	I think the instructor's feedback clearly presents directions for learning.	1-7 Likert scale
Relatedness with the instructor	Accessibility for questions	11	It is easy to ask questions during/after class.	1-7 Likert scale
Relatedness with the instructor	Accessibility for questions	12	I think the instructor creates an atmosphere in which students can approach and ask questions.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	13	I am confident that I can identify keywords in LC.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	14	I can use time allocation and inference strategies in LC.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	15	I am confident that I can understand RC sentence structure.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	16	I can use skimming/scanning strategies in RC.	1-7 Likert scale
Learning engagement	Concentration	17	I am confident that I can concentrate during TOEIC classes/assignments.	1-7 Likert scale
Learning engagement	Concentration	18	I can regulate distractions on my own.	1-7 Likert scale
Learning engagement	Voluntary effort	19	If necessary, I can continue additional practice on my own.	1-7 Likert scale

Learning engagement	Voluntary effort	20	I can consistently maintain mock-test or error correction routines.	1-7 Likert scale
Learning engagement	Sense of meaning	21	I feel that TOEIC study is meaningful for my career and goals.	1-7 Likert scale
Learning engagement	Sense of meaning	22	I expect that studying this semester will be a worthwhile experience.	1-7 Likert scale
Motivation	Intrinsic / Extrinsic motivation	23	I think the TOEIC study process itself is enjoyable.	1-7 Likert scale
Motivation	Intrinsic / Extrinsic motivation	24	I am taking TOEIC because of employment preparation.	1-7 Likert scale
Motivation	Intrinsic / Extrinsic motivation	25	Improving my score itself is my main goal.	1-7 Likert scale

## Appendix B

### Post-survey Questionnaire Items

Response Scale: All Likert-scale items are rated from 1 = Not at all to 7 = Very much.				
Participation Consent: This study is anonymous and unrelated to grades.				
Consent Question: Do you agree to participate? Yes / No				
Name & Grade:				
TOEIC Score after the semester:				
Number of mock tests over the past 4weeks: 0 / 1 / 2-3 / 4 or more				
<b>Measurement of SDT-Based Factor</b>				
Category	Construct	No.	Survey Item	Response Format
Autonomy	Self-directed learning choice	1	In completing assignments and using learning tools, I adjusted and selected them.	1-7 Likert scale
Autonomy	Learning method selection	2	During class, I selected learning methods that fit me.	1-7 Likert scale
Autonomy	Self-regulation	3	I regulated my own study time and intensity.	1-7 Likert scale
Autonomy	Self-regulation	4	I adjusted the order and priorities of my study.	1-7 Likert scale
Autonomy	Goal management	5	During the semester, I maintained or adjusted my target score.	1-7 Likert scale
Autonomy	Goal management	6	I implemented a plan for achieving my target score and revised it when needed.	1-7 Likert scale
Relatedness with the instructor	Emotional support	7	The instructor respected my effort.	1-7 Likert scale
Relatedness with the instructor	Emotional support	8	I felt emotionally secure in class.	1-7 Likert scale
Relatedness with the instructor	Feedback quality	9	The feedback was specific.	1-7 Likert scale

Relatedness with the instructor	Feedback quality	10	The feedback consistently and clearly presented directions for learning.	1-7 Likert scale
Relatedness with the instructor	Accessibility for questions	11	It was easy to ask questions and receive consultation.	1-7 Likert scale
Relatedness with the instructor	Accessibility for questions	12	The instructor provided an approachable atmosphere.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	13	I was able to identify keywords in LC.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	14	I used LC strategies effectively.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	15	I was able to understand RC sentence structure.	1-7 Likert scale
Self-efficacy	TOEIC listening comprehension	16	I used RC strategies effectively.	1-7 Likert scale
Learning engagement	Concentration	17	I had sufficient time to concentrate on class/ assignments.	1-7 Likert scale
Learning engagement	Concentration	18	I regulated distractions on my own.	1-7 Likert scale
Learning engagement	Voluntary effort	19	I continued additional practice consistently.	1-7 Likert scale
Learning engagement	Voluntary effort	20	I consistently completed mock tests and error-correction routines.	1-7 Likert scale
Learning engagement	Sense of meaning	21	TOEIC study was meaningful for my career and goals.	1-7 Likert scale
Learning engagement	Sense of meaning	22	This semester's learning was a valuable experience.	1-7 Likert scale
Motivation type	Intrinsic / Extrinsic motivation	23	I enjoyed the TOEIC learning process.	1-7 Likert scale
Motivation type	Intrinsic / Extrinsic motivation	24	I studied because of employment preparation.	1-7 Likert scale
Motivation type	Intrinsic / Extrinsic motivation	25	Score improvement was my main goal.	1-7 Likert scale
Perceived learning achievement	English proficiency	26	I feel that my English proficiency has improved since the beginning for the semester.	1-7 Likert scale
Perceived learning achievement	Goal achievement	27	I reached or came close to my semester goal.	1-7 Likert scale
Perceived learning achievement	Overall performance	28	My overall LC/RC performance improved.	1-7 Likert scale
Integrated evaluation	Overall SDT experience	29	This semester, I feel that I sufficiently experienced autonomy, relatedness, and self-efficacy.	1-7 Likert scale
		30	What instructor feedback or interaction was most helpful?	Open-ended response
		31	What was your most effective learning strategy this semester?	Open-ended response
		32	Referring to the following three concepts, what changes do you think are needed in the future classes to increase self-efficacy, relatedness, and intrinsic motivation?	Open-ended response