Research article

EFL college junior and senior students' self-regulated motivation for improving English speaking: A survey study

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ARTICLE INFO

ABSTRACT

Despite majoring in English, many junior and senior college students face limited opportunities to practice their EFL speaking in class. Some self-motivated students, through self-regulated learning, seek beyond-class opportunities to tap into physical and virtual human interaction to hone their spoken English. This study examined junior and senior college students' level of self-regulated motivation to improve their speaking of English as a foreign language (SRMIS-EFL). It looked into the interaction of students' academic level and gender to their SRMIS-EFL. Participants were 300 EFL college junior and senior students from an English Department of a Yemeni university. This study utilized an online self-reported SRMIS-EFL questionnaire to gather data. Its descriptive and inferential statistical analyses revealed that senior students' overall level of SRMIS-ELF was high, while junior students' level was medium. It found that students used a range of motivation self-regulation strategies to improve their EFL speaking competence. It also indicated no significant relationship between students' SRMIS-EFL and their academic level. However, it evinced that students' gender had a small but significant effect, in favor of female students, on their SRMIS-EFL. The study suggests incorporating motivation regulation training into EFL programs to raise awareness of motivational self-regulatory strategies to cultivate student motivation.

1. Introduction

Self-Regulated Learning (SRL) has various conceptualizations across scientific publications (Bai and Wang, 2021; Boekaerts et al., 2000; Hall & Götz, 2013; Panadero, 2017; Schunk and Greene, 2017; Schunk and Zimmerman, 2008; Seli and Dembo, 2020; Zeidner, 2019; Zimmerman, 2015). The key to understanding SRL is *self-regulation*, which refers to an autonomous goal-oriented process by which learners construct and reconstruct their academically acquired task-related skills through transforming their mental abilities (Zimmerman, 2002). Such transformation involves self-reflective, motivational, and behavioral aspects of learning (Zimmerman, 2015).

Accordingly, SRL, in an academic context, refers to college students' self-initiation of taking charge of creating optimum conditions for their learning by controlling influencing factors and overcoming interfering obstacles (Seli and Dembo, 2020). Through SRL, students can self-control, self-monitor, and self-evaluate their pace of learning. They can also customize and manipulate the prevailing learning as regards their learning needs. In doing so, students bolster their learning and act

as autonomous learners (Reinhardt, 2019; Schunk and Zimmerman, 2012; Zimmerman, 2001, 2015).

Capitalizing on SRL, most English as a foreign language (EFL) students seek opportunities outside the classroom to improve their English skills in general and speaking skills in particular (Uztosun, 2020). For, they live and study in EFL exposure-limited environments (Uztosun, 2020; Sugita McEown et al., 2017). Besides, their education, whether at a basic level or tertiary level, renders limited EFL-learning opportunities, done within the classroom walls, to practice (Sun and Wang, 2020). However, with the opportunities furnished through technology, manifested in the portability and affordances of mobile devices, learning EFL becomes ubiquitous (Alotumi, 2020). The vehicle for such omnipresent learning is SRL, which is supercharged by students' motivational beliefs (Bai and Wang, 2021; Ge, 2021; Kryshko et al., 2020). The motivational orientation of Pintrich's (2004) SRL conceptual model is called Self-regulated Motivation (SRM) (Uztosun, 2020). *SRM* refers to students' self-regulatory attempts or strategies to control their motivational beliefs to maintain their SRL (Uztosun, 2020).

1.1. Statement of the problem

Though they major in English, many Yemeni college students find it difficult to speak English fluently (Al-Tamimi et al., 2020). One reason could be the higher level of anxiety that EFL college students experience at the freshman and sophomore levels (Yassin and Abdul Razak, 2017). Another could be the lack of speaking courses at junior and senior levels since all courses at those levels are linguistics- and literature-oriented. A third could be the complex and interactive nature of speaking, which demands consistent practice and update (Hughes, 2011; Thornbury, 2005). A fourth could be the lack of motivation ensued from the monotonous way of teaching speaking and the limited exposure to authentic materials in English (Wang, 2014).

Since the tertiary junior and senior levels offer no speaking courses and allow for limited opportunities for practicing English speaking inside the classroom, some self-motivated junior and senior college students embrace SRL to seize opportunities beyond the walls of the classroom, utilizing physical and virtual human interaction, fueled by computer-and mobile-assisted language learning (Alotumi, 2020), to hone their EFL speaking. Unfortunately, there has been no study—to the best knowledge of the researcher—looking into students' SRM for improving EFL speaking in the Yemeni context. Besides, several relevant studies have reported mixed findings regarding the relationship between college students' self-regulated motivation and their academic level and gender (e.g., Adigüzel and Orhan, 2017; Sun and Wang, 2020; Teng et al., 2020; Yan et al., 2020). Therefore, this study looks into junior and senior EFL students' SRMIS-EFL and examines its association with their academic level and gender.

1.2. Purpose and significance of the study

This descriptive study examines the level of self-regulated motivation for improving speaking EFL (SRMIS-EFL) by Yemeni EFL college students. Besides, it looks into the interaction of students' academic level and gender on their SRMIS-EFL. Specifically, the study attempts to answer the following three questions:

1. What is Yemeni EFL-college junior students' level of self-regulated motivation for improving speaking EFL (SRMIS-EFL)?
2. What is Yemeni EFL-college senior students' level of self-regulated motivation for improving speaking EFL (SRMIS-EFL)?
3. To what extent do Yemeni EFL-college junior and senior students' self-regulated motivation for improving speaking EFL (SRMIS-EFL) vary in terms of their academic level and gender?

This study is the first to delineate Yemeni EFL college students' SRM to ameliorate their EFL speaking competence. Besides, since most of the relevant studies conducted in EFL tertiary education focus on EFL writing (e.g., Diasti and Mbato, 2020; Teng and Zhang, 2020; Yu et al., 2019), it can bridge the gap in the literature by providing insights on how college students might surmount input- and output-poor academic milieu to enhance their EFL speaking competence. It can also render implications on the utilization of SRM in improving EFL speaking in the country and beyond.

2. Literature review

2.1. SRL and motivation

Leaners' motivations are instrumental in self-regulating, meta-cognitive monitoring, and self-tweaking SRL goals (Bai and Wang, 2021); they can also be manipulated when self-regulated learners carry out meta-cognitive strategies (Dörnyei, 2005; Efklides et al., 2017; Usher and Schunk, 2017). Several models outline the conceptual framework for SRL (Panadero, 2017). The most relevant of which underpinning this study's theoretical framework is Pintrich's (2004) model, based on Bandura's

(1986) social-cognitive theory. For, it stressed SRL as an interplay between cognition, motivation, behavior, and context. In this model, Pintrich highlighted the motivation role and emphasized that self-regulated learners can regulate and control different metacognitive aspects of their motivation, task, behavior, or context to suit their learning needs. A key aspect of such a process is the self-regulation of motivation (Pintrich, 2004; Schwinger et al., 2012; Wolters and Benzon, 2013), also known as motivational self-regulation (Boekaerts, 1996; Kim et al., 2020; Li, 2017; Ushioda, 2014), motivational self-system (Dörnyei, 2005, 2009; Dörnyei and Ushioda, 2011), and self-regulated motivation (Manganelli et al., 2019; Oxford, 2017; Schunk and Ertmer, 2000; Uztosun, 2020).

Motivational self-regulation comprises strategies that self-regulated learners employ to sustain their motivational self-regulatory process to actuate and perpetuate their engagement and persistence in academic tasks (Kryshko et al., 2020; Miele and Scholer, 2017; Pintrich, 2004; Wolters and Benzon, 2013). In this regard, self-regulated learners take self-control of the psychological mechanisms—internal forces and processes—that initiate, fuel, shape, maintain, and evaluate one's behavior (Hall & Götz, 2013; Seli and Dembo, 2020; Usher and Schunk, 2017; Zimmerman, 2015; Zimmerman, 2000). In other words, *self-regulated motivation* (SRM) is that self-regulated learners secure and maintain self-regulatory influences that stimulate and drive their goal-oriented efforts (Li, 2017; Pintrich, 2004; Usher and Schunk, 2017; Zimmerman, 2000).

According to (Schunk and Zimmerman, 2008), SRM conceptualizes how motivation is associated with learning and how learning behaviors change accordingly. It is a strong precursor of SRL, and it is context- and task-specific (Bai and Wang, 2021; Dörnyei and Ushioda, 2011). Furthermore, it is a self-determined form of motivation—integrated regulation—and its value is laid in the action itself (Hall & Götz, 2013). It is necessary for learning efforts to continue (Zimmerman, 2015) and fundamental to fuel SRL (Ge, 2021; Ushioda, 2014). It should be viewed as an essential determinant of SRL and achievement (Dörnyei, 2005). Empirically, recent research has revealed that SRM contributes positively to the SLR and academic achievement in higher education (Kim et al., 2020; Manganelli et al., 2019; Miele and Scholer, 2017; Pawlak et al., 2020; Ryan and Deci, 2020; Schwinger et al., 2012; Uztosun, 2020; Wolters and Benzon, 2013; Zhang et al., 2020).

2.2. SRM strategies for tertiary EFL education

Students who could manage their SRL tend to apply strategies that have increasing effort management on their cognition, motivation, behavior, and context (Howlett et al., 2021; Kim et al., 2020). According to Wolters and Benzon (2013), they involve in active participation to foster and sustain their motivation by employing self-regulatory motivational strategies. SRM contributes positively to college students' academic attainment (Manganelli et al., 2019; Oxford, 2017; Pawlak et al., 2020).

SRM strategies are attempts or tactics that students use to motivate themselves to sustain or enhance their efforts to fulfill particular academic tasks (Dörnyei, 2009; Miele and Scholer, 2017; Pintrich, 2004; Wolters and Benzon, 2013). Students can generate and bolster their self-motivation through controlling and regulating their task value, learning environment, affect, and classroom environment (Boekaerts and Corno, 2005; Gao and Shen, 2020; Li, 2017; Pintrich, 2004; Teng et al., 2020; Uztosun, 2020).

Task value activation refers to the perceived value, importance, interest, and utility of an academic task (Pintrich, 2004). Students may activate task value by connecting it to their academic goals, interests, or making it more enjoyable (Efklides et al., 2017; Teng et al., 2020; Wang et al., 2021). In this sense, students with higher levels of task value and interest were found to employ more self-regulatory metacognitive techniques such as concentration, planning, monitoring, evaluating, and regulation (Bai and Wang, 2021; Cho et al., 2020; Diasti and Mbato, 2020; Gao and Shen, 2020; Muwonge et al., 2020; Teng et al., 2020; Yu

et al., 2019). Concerning English speaking, EFL students exhibiting higher task value could feel more enthusiastic about participating in oral communication in English when they sense that developing English-speaking competence is valuable (Uztosun, 2020).

Regulation of learning environment involves students' attempts to overcome learning interruptions, nuisances, and hindrances that existed in the learning environment by seeking other ways to fine-tune their task learning and practicing (Pintrich, 2004; Yan et al., 2020). For instance, they may restructure their autonomous learning environment by eliminating distractions to their attention, moving to a quieter environment, or engaging in online learning opportunities. In this respect, self-regulated students were reported to employ contextual monitoring and controlling and deem environment regulation as an essential aspect of their SLR (Diasti and Mbato, 2020; Gao and Shen, 2020; Park and Kim, 2021; Sun and Wang, 2020; Yu et al., 2019). Regarding English speaking, EFL students who exert higher environment control could surmount the limitations of their formal input-poor contexts and attempt to find other informal learning milieus to get exposed to a richer EFL input and more opportunities for out-of-class EFL practice (Uztosun, 2020).

Regulation of affect is about the various self-regulatory affective, cognitive, and metacognitive strategies that students manipulate to cope with negative feelings/emotions such as fear and anxiety (Efklides et al., 2017; Guo et al., 2018; Pintrich, 2004; Sun and Wang, 2020). According to Efklides et al. (2017) and (Ge, 2021), positive or negative affective responses influence metacognitive experiences and cognitive processing, resulting in students' engagement in or avoidance of learning tasks. Correspondingly, EFL students who positively self-regulate their affect could work positively their cognitive and metacognitive strategies of SRL, such as goal adjustment, time management, planning, monitoring, and evaluating (Guo et al., 2018; Sun and Wang, 2020; Teng and Zhang, 2020). For example, they may overcome their negative affect through using motivational self-talk, such as persuading themselves not to worry about some questions on a test and to move on to answering the other questions (Pintrich, 2004; Teng et al., 2020). Regarding English speaking, EFL students with negative affective responses may refrain from participating in English-speaking tasks, thus negatively impacting their EFL speaking competence (Chou, 2018; Uztosun, 2020). On the contrary, EFL students who positively self-regulate their affective responses will likely enhance their engagement in English-speaking tasks, thus improving their EFL speaking competence.

Regulation of classroom environment is about students' efforts to participate actively in assorted class-based tasks and activities (Oxford, 2017; Uztosun, 2020; Pintrich, 2004). Students may regulate their classroom environment by engaging in different class activities and with various classmates (Park and Kim, 2021; Teng and Zhang, 2020). In this respect, teachers play an essential role in fostering students' engagement by rendering fun-to-do and cooperative activities that are in line with students' needs (Chou, 2018; Efklides et al., 2017; Oxford, 2017; Seli and Dembo, 2020; Teng et al., 2020; Zhang et al., 2020). In EFL speaking, students' engagement in EFL oral practice is vital to developing their EFL speaking competence. It has been established that those highly-motivated learners engage actively in the classroom speaking tasks and activities, thus improving their EFL speaking more than those who are less motivated (Bademcioglu et al., 2017; Chou, 2018; Uztosun, 2020).

2.3. Recent research of SRM in tertiary EFL education

Most recent relevant studies have examined EFL college students' use of SRM strategies to self-regulate their learning and maintain readiness to sustain their EFL learning. For instance, Adigüzel and Orhan (2017) examined the relationship between Turkish tertiary EFL preparatory-class students' metacognitive and self-regulation strategies and their academic achievements in English learning. They pointed out that EFL students had high levels of metacognitive and self-regulation skills. They ascertained that though there was a significant positive

relationship between students' self-regulatory skills and academic achievement in English, there was no significant relationship between their metacognitive skills and EFL academic achievement.

In the same venue, Diasti and Mbato (2020) identified that Indonesian university EFL students used motivation-regulation strategies such as self-talk, self-consequating, interest enhancement, goal-oriented environmental structuring, and attribution control in a thesis writing course. Teng et al. (2020) revealed that Chinese high writing-proficiency students utilized more interest enhancement, emotional control, and mastery and performance self-talk than those with low writing-proficiency. Besides, Sun and Wang (2020) documented that college students infrequently used SRL strategies, such as goal-setting and planning strategies and less self-rewarding strategies in their EFL writing.

College students' motivational regulation strategies in EFL writing could be affected by their proficiency (Teng et al., 2020), self-efficacy (Sun and Wang, 2020), procrastination (Diasti and Mbato, 2020), university location and type (Yu et al., 2019). In this regard, Teng et al. (2020) documented that students' academic self-efficacy, learning strategies, learning motivation, and writing instruction helped to predict their use of SRM strategies.

When it comes to gender, research showed mixed findings. For example, Adigüzel and Orhan (2017), Yu et al. (2019), and Yan et al. (2020) indicated that female students used more motivational regulation than male students to write in English. On the contrary, Sun and Wang (2020) reported that students' gender differences had no effect on their writing SRL strategies—including motivational regulation.

In addition, recent research revealed that training university students on SLR strategies could help them use SRM strategies in their EFL learning. In this respect, Teng and Zhang (2020) looked into the impact of SRL strategies-based writing intervention on using SRL strategies on EFL college students' writing proficiency, academic self-efficacy, and self-reported SRL strategies use. They reported that intervention-group students outdid those in the control group. Further, they were more active in utilizing various SRL strategies (e.g., self-regulatory motivational strategies, metacognitive strategies, and social behavior strategies). Moreover, students' linguistic and performance self-efficacy had increased because of SRL strategies-based intervention course.

2.4. SRM and tertiary EFL speaking competence

A few recent studies have investigated SRM in relation to EFL speaking competence. For instance, Bademcioglu et al. (2017) investigated the relationship and predictive power of Turkish EFL college students' motivational beliefs, attitudes, speaking anxiety, self-regulation strategies to foreign language classroom anxiety (FLCA). They documented a significant positive correlation between self-regulation and FLCA, and between foreign language speaking anxiety and test anxiety. Besides, they found a significant negative correlation between self-efficacy and FLCA, and between attitude towards English and intrinsic value perception. Further, they pointed out that foreign language speaking anxiety, attitude, self-efficacy, and test anxiety predicted college students' FLCA. They recommended that EFL teachers minimize both foreign language speaking anxiety and test anxiety by building a positive environment in class, promoting students' participation in-class events, and teaching some anxiety-reducing techniques to the students.

Chou (2018) investigated Taiwanese EFL college students' strategy use, anxiety, and difficulties when speaking EFL in full and partial English medium instruction (EMI) contexts. She found that partial EMI students displayed a lack of confidence, high speaking anxiety, and negative feelings towards learning EFL. Besides, they reported employing paraphrasing and rehearsal strategies less frequently than full EMI students did. Furthermore, her study found a relation between the EMI context and difficulties in speaking reported by students. She recommended teachers design in-class tasks to motivate and help their students adopt proper speaking and affective strategies to reduce EFL speaking anxiety. Moreover, she suggested students get exposed to rich, authentic

input through multimedia exposure and interactions with English-native speakers outside the classroom to foster their EFL speaking competence.

Zhang et al. (2020) examined direct and indirect relations among predicting variables of de/motivation and mediating variables of anxiety and engagement on Chinese university students' EFL listening and speaking (ELS) achievement and intention to continue studying ELS. They documented that students' L2 self-motivational system and demotivation had a direct or indirect impact on their ELS attainment. They found anxiety and engagement as significant mediators of the de/motivational constructs influencing ELS competence and intention to continue studying ELS. They suggested that applying engaging and motivating in-class activities could improve ELS competence.

Uztosun (2020) developed a scale to assess SRM to improve EFL speaking competence. He subjected the scale to item pooling, exploratory and confirmatory factor analyses. The three stages of the study covered 1065 EFL college students. His findings led to creating a 20-item scale comprising four factors: regulation of affect, regulation of classroom environment, task value activation, and regulation of learning environment. He pointed out that EFL speaking skills must develop positive affective reactions, increase task interest, and develop positive task value perceptions. Besides, he argued that improving both in-class and out-of-class settings is critical for SRL students, as this provides more chances to practice EFL speaking.

3. Methodology

The study investigates Yemeni junior and senior EFL college students' SRMIS-EFL. Further, it examines the connection of students' academic level and gender to their SRMIS-EFL.

3.1. Study design

This research is a quantitative, descriptive non-experimental survey study. It is an attempt to describe Yemeni EFL college students' overall level of SRMIS-EFL and clarify the link between students' age and academic level with their level of RSMIS-EFL. According to Creswell and Creswell (2018), survey research renders "a quantitative description of trends, attitudes, and opinions of a population, or tests for associations among variables of a population, by studying a sample of that population" (p. 207). Besides, measuring students' motivational self-regulatory strategies could be achieved best by using a questionnaire (Dörrenbächer-Ulrich et al., 2021).

3.2. Sample and setting

The study sample comprised 300 EFL college students, 21–26 years old. One hundred fifty students (104 females & 46 males) were juniors—level three, and 150 students (106 females & 44 males) were seniors—level four. All students majored in English at the English Department, the Faculty of Languages, Sana'a University, Yemen. All of them were in the second semester of the academic year of 2019–2020. Selecting the study participants was based on the notion that Yemeni junior and senior EFL college students should depend on themselves to improve their EFL speaking competence since there is no more formal speaking course in either level three or level four. A convenience sampling was utilized in this study since it targeted EFL college level-three and level-four students majoring in English at the Faculty of the languages, Sana'a University. Besides, the respondents were chosen for their willingness to participate in this research. According to Creswell and Creswell (2018), the convenience sample is a nonprobability sample "in which respondents are chosen based on their convenience and availability" (p. 212).

3.3. Instruments

The study used an online Google-Forms-based survey to collect data from the participants. The online questionnaire is useful for gathering numerical data from many respondents with less time, effort, and cost. It is also easy to disseminate and can minimize errors of data entry. According to Creswell and Creswell (2018), the instruments of contemporary research are "increasingly being delivered through a multitude of online survey products" which can "facilitate data collection into organized spreadsheets for data analysis, reducing data entry errors" (p. 215). The online questionnaire of this study included two main sections. The first of which was about demographics. The second section contained an online modified version of Uztosun's (2020) self-regulated motivation for improving speaking English as a foreign language (SRMIS-EFL) scale (see Appendix A).

The demographics section encompassed three items that sought information on the respondents' demographic information in terms of level and gender. Age was excluded since all the participants were of a similar age group (20–25 years). The section of the SRMIS-EFL scale comprised four subsections. The first subsection was about students' task value activation. It contained a seven-item subscale (items 1–7), measuring students' value of developing EFL speaking competence. The second subsection was about students' regulation of learning environment. It encompassed a five-item subscale (items 8–12), assessing the extent to which students surpassed the limitations of EFL input-poor contexts to get exposed to English-language-rich sources. The third subsection dealt with regulation of affect. It encompassed a three-item subscale (items 13–15), examining students' ability to regulate affective issues that could inhibit them from developing EFL speaking competence. The fourth subsection addressed students' regulation of classroom environment. It comprehended a five-item subscale (items 16–20), canvassing students' active involvement in classroom tasks and activities. Respondents replied to each statement of the subscales of the online SRMIS-EFL questionnaire as per a 5-point Likert-type scale, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *undecided*, 4 = *agree*, and 5 = *strongly agree*. Though Uztosun's (2020) SRMIS-EFL scale had high validity and reliability (*Cronbach's* α = .90)— all sub-scales had high reliabilities (*Cronbach's* α > .80), the online version was checked by three professors of applied linguistics and piloted to ensure its validity and reliability before administering it on the study sample.

3.4. Data collection and analysis procedures

After piloting the online modified version of the SRMIS-EFL scale, making sure no issues in the instrument validity and reliability, the researcher coordinated with the student representatives of levels three and four to add the researcher to their formal student WhatsApp groups, respectively. In those virtual groups, the researcher introduced the aim and scope of the study and reflected his appreciation of students' time and effort to be part of this study. He urged students to log into their Google accounts and reminded them they had to do it only once with their utmost honesty, within a 24-hour window opening before the online questionnaire was closed. Afterward, he posted the Google Forms link to the SRMIS-EFL questionnaire survey on May 13, 2020. Indeed, 150 EFL college juniors and 150 EFL college seniors (N = 300) willingly responded to the online questionnaire. All the questionnaire items were required to be answered before submitting; therefore, the valid response rate of returned questionnaires was 100%.

The responses were automatically stored on the researcher's Google Drive and later downloaded as a CVS sheet in a zipped file. The obtained data of the questionnaire were then dissected through the Statistical Package for the Social Sciences (SPSS v. 26). Two types of statistical analysis were applied. The first one was descriptive statistics (frequency, percentage, mean, and standard deviation) to attain participants' perceptions on their level of SRMIS-EFL. The second type was inferential statistics, namely, two-way ANOVA to obtain the difference in students' SRMIS-EFL in terms of their academic level and gender. Before conducting the two-way ANOVA, its assumptions were met using boxplot and Shapiro-Wilk test for normality and Levene's test for homogeneity of

variance (see Appendix B for screenshots). The mean scores were interpreted as per Table 1.

4. Findings

4.1. Demographics

Data from 300 EFL college students (150 juniors and 150 seniors) were gathered and analyzed. Most of each group was female students (67% in juniors and 69% in seniors), indicating that female students strongly outnumber male students at this institution. Table 2 presents the frequencies and percentages of students by gender and academic level.

4.2. Junior students' level of SRMIS-EFL

The junior student participants responded to 20 statements on a Likert-type scale, representing their level of SRMIS-EFL. Table 3 shows the frequency of responses to this 20-item SRMIS-EFL scale. The first seven items (1–7) examined students' level of task value activation. Items (8–12) measured students' level of regulating learning environment. Items (13–15) evaluated students' level of regulating affect. The last five items (16–20) quantified students' level of regulating classroom environment. Junior student respondents' level of SRMIS-EFL was gauged on a 5-point Likert-type scale ranging from 1 = *strongly disagree* (minimum value) to 5 = *strongly agree* (maximum value). Higher scores pointed to a higher level of SRMIS-EFL, while lower scores pointed to a lower SRMIS-EFL level. In general, junior students' overall SRMIS-EFL level was medium, with an overall response mean of 3.4 and a standard deviation of 0.7 (see Table 4).

Concerning task value activation, the mean score of junior students' responses was 3.8 ($SD = 0.8$), pointing to a high level of activating task value (see Table 4). Most of the junior student respondents agreed or strongly agreed about keeping up their interest and willingness in English learning (68%), reminding themselves of speaking English well (67%), learning from their mistakes (65%), listening carefully to their teacher's English (64%), learning from others' mistakes (61%), and finding ways to improve their motivation for English speaking (61%). However, only 42% of respondents agreed or strongly agreed that they paid attention all the time in English lessons.

As for regulating their learning environment, junior students' responses mean score was 3.0 ($SD = 0.8$), pointing to a medium level of learning environment regulation (see Table 4). Most junior student respondents (56%) agreed or strongly agreed about trying to practice their

English when they encounter foreigners. Besides, most of them were undecided about looking for international friends (42%) and speaking English with foreigners online (38%). However, with 32% of them undecided, about half of junior student respondents (48%) disagreed or strongly disagreed with trying to visit places with lots of foreign visitors; and 37% of them disagreed or strongly disagreed about getting in touch with native speakers.

Regarding the regulation of affect, the mean score of junior students' responses was 3.4 ($SD = 0.9$), signifying a medium level of affect regulation (see Table 4). Half of the junior student respondents (50%) and about half of them (48%), respectively, agreed or strongly agreed with maintaining high self-confidence and overcoming their fear while speaking English. Only 40% reported that they could rise above their anxiety when speaking English.

For regulating their classroom environment, junior students' responses mean score was 3.4 ($SD = 0.8$), suggesting a medium level of classroom environment regulation (see Table 4). More than half of junior student respondents (56%) and about half of them (48%), respectively, agreed or strongly agreed with engaging in English-speaking tasks and activities in class and spending time with friends who help and motivate each other to speak English. Only 40–41% agreed or strongly agreed with talking in English with people they know, utilizing every chance during lessons to speak English, and entertaining the notion of English speaking in class.

4.3. Senior students' level of SRMIS-EFL

The senior student participants responded to the same SRMIS-EFL questionnaire administered to the junior students. Senior student respondents' level of SRMIS-EFL was precisely gauged as the junior ones on a 5-point Likert-type scale ranging from 1 = *strongly disagree* (minimum value) to 5 = *strongly agree* (maximum value). Higher scores denoted a higher level of SRMIS-EFL, while lower scores reflected a lower SRMIS-EFL level. Table 5 displays the frequency of responses to the 20-item SRMIS-EFL scale. In general, senior students' overall SRMIS-EFL level was high, with an overall response mean score of 3.6 and a standard deviation of 0.6 (see Table 6).

As regards their level of task value activation, senior students' responses mean score was 4.1 ($SD = 0.7$), pointing to a high level of task value activation (see Table 6). Most of the senior student respondents agreed or strongly agreed with reminding themselves of speaking English well (89%), learning from their mistakes (85%), keeping up their interest and willingness in English learning (83%), listening carefully to their teacher's English (77%), finding ways to improve their motivation for English speaking (76%), and learning from others' mistakes (65%). Besides, 62% of respondents agreed or strongly agreed that they paid attention all the time in English lessons.

For regulating their learning environment, the mean score of senior students' responses was 3.2 ($SD = 0.8$), showing a medium level of learning environment regulation (see Table 6). Most senior student respondents (63%) agreed or strongly agreed about trying to practice their English when they encounter foreigners. With 36% and 33% of them, respectively, were undecided, only 39% of senior student respondents agreed or strongly agreed about finding international friends to practice English and speaking English with foreigners online, and 36% agreed or strongly agreed about getting in touch with native speakers of English. However, more than half of the senior student respondents (53%) disagreed or strongly disagreed with trying to visit places with lots of foreign visitors.

Concerning the regulation of affect, the mean score of senior students' responses was 3.6 ($SD = 0.9$), suggesting a high level of affect regulation (see Table 6). More than half of senior student respondents (67%) and (55%) agreed or strongly agreed, respectively, with maintaining high self-confidence and overcoming their fear while speaking English. Only 47% reported that they could rise above their anxiety when speaking English.

Table 1. Mean score interpretation framework.

Mean	Corresponding level
$1.0 < M \leq 1.8$	very low
$1.8 < M \leq 2.6$	low
$2.6 < M \leq 3.4$	medium
$3.4 < M \leq 4.2$	high
$4.2 < M \leq 5.0$	very high

Table 2. Demographic characteristics of participants of the study ($N = 300$).

Academic Level	n	Gender			
		Male		Female	
		f	%	f	%
Juniors (Level 3)	150	49	33	101	67
Seniors (Level 4)	150	46	31	104	69

Note. Participants' age was not relevant in this study since they were in the same age group (20–25 years old).

Table 3. Frequency percentages for EFL college junior students' SRMIS-EFL (*n* = 150).

No.	Item	Percent (%)				
		SD	D	U	A	SA
1.	I remind myself that I have to speak well in English.	3.3	1.3	28.7	26.7	40.0
2.	When the teacher talks in English, I listen to him/her carefully.	2.0	1.3	32.7	35.3	28.7
3.	I keep up my interest and willingness to learn English.	2.0	2.0	28.0	31.3	36.7
4.	I learn from my mistakes when I speak English.	2.0	5.3	27.3	30.1	35.3
5.	I learn from the mistakes other people make so that I speak English more correctly.	0.7	10.0	28.0	40.0	21.3
6.	I try to pay attention all the time in English lessons.	2.0	14.0	42.0	24.7	17.3
7.	I look for various ways to improve my motivation to speak English.	1.3	4.0	33.3	20.7	40.7
8.	I look for international friends to practice English.	3.3	36.7	42.0	13.3	4.7
9.	On the internet, I try to speak with foreigners in English.	3.3	35.3	38.0	14.7	8.7
10.	I get in touch with native speakers of English.	2.0	34.7	32.0	22.0	9.3
11.	I try to visit places with lots of foreign visitors during the holidays to improve my spoken English.	18.0	30.0	32.0	14.7	5.3
12.	I try to practice my English when I encounter foreigners.	1.3	6.7	36.0	27.3	28.7
13.	When I speak English, I can get over my fear.	1.3	12.0	38.7	25.3	22.7
14.	When I speak English, I can rise above my anxiety.	0.0	28.0	32.0	28.0	12.0
15.	When I speak English, I try to maintain a high degree of confidence in myself.	1.3	17.3	31.3	27.3	22.7
16.	I use every chance during lessons to speak English.	1.3	20.7	37.3	33.3	7.3
17.	I talk in English with the people I know (e.g., classmates, friends).	1.3	22.0	35.3	24.7	16.7
18.	In class, I try to engage in English speaking tasks and activities as much as possible.	2.7	6.0	35.3	42.0	14.0
19.	In class, I entertain the notion of speaking English.	0.7	20.0	39.3	28.0	12.0
20.	I pass the time with friends who help and motivate each other to speak English.	2.7	14.0	35.3	26.0	22.0

Note. SD = Strongly Disagree, D = Disagree, U = Undecided, A = Agree, SA = Strongly Agree.

Table 4. Distribution of mean scores for EFL college junior students' SRMIS-EFL.

Scale	*M*	*SD*	Median	Mode	Range
Task value activation	3.8	0.8	4.1	4	4
Regulation of learning environment	3.0	0.8	3.0	2	4
Regulation of affect	3.4	0.9	3.3	3	4
Regulation of classroom environment	3.4	0.8	3.4	3	4
Overall juniors' SRMIS-EFL	**3.4**	**0.7**	**3.3**	**3**	**3**

Bold values are for emphasizing the corresponding overall SRMIS-EFL.

Table 5. Frequency percentages for EFL college senior students' SRMIS-EFL (*n* = 150).

No.	Item	Percent (%)				
		SD	D	U	A	SA
1.	I remind myself that I have to speak well in English.	0.0	0.7	10.0	42.0	47.3
2.	When the teacher talks in English, I listen to him/her carefully.	0.7	4.0	18.0	34.0	43.3
3.	I keep up my interest and willingness to learn English.	0.0	2.0	15.3	41.3	41.3
4.	I learn from my mistakes when I speak English.	1.3	2.7	10.7	48.0	37.3
5.	I learn from the mistakes other people make so that I speak English more correctly.	4.0	3.3	27.3	30.7	34.7
6.	I try to pay attention all the time in English lessons.	2.0	8.7	27.3	34.7	27.3
7.	I look for various ways to improve my motivation to speak English.	1.3	2.0	20.7	41.3	34.7
8.	I look for international friends to practice English.	4.0	20.7	36.0	30.0	9.3
9.	On the internet, I try to speak with foreigners in English.	7.3	20.7	32.7	23.3	16.0
10.	I get in touch with native speakers of English.	4.0	29.3	30.7	23.3	12.7
11.	I try to visit places with lots of foreign visitors during the holidays to improve my spoken English.	22.0	30.7	24.0	16.7	6.7
12.	I try to practice my English when I encounter foreigners.	1.3	5.3	30.0	33.3	30.0
13.	When I speak English, I can get over my fear.	1.3	18.7	24.7	33.3	22.0
14.	When I speak English, I can rise above my anxiety.	1.3	21.3	30.7	32.7	14.0
15.	When I speak English, I try to maintain a high degree of confidence in myself.	0.7	8.7	23.3	32.7	34.7
16.	I use every chance during lessons to speak English.	1.3	18.0	39.3	30.7	10.7
17.	I talk in English with the people I know (e.g., classmates, friends).	0.0	12.0	32.0	41.3	14.7
18.	In class, I try to engage in English speaking tasks and activities as much as possible.	0.0	17.3	30.7	37.3	14.7
19.	In class, I entertain the notion of speaking English.	0.0	14.0	38.7	36.7	10.7
20.	I pass the time with friends who help and motivate each other to speak English.	0.0	13.3	28.7	30.0	28.0

Note. SD = Strongly Disagree, D = Disagree, U = Undecided, A = Agree, SA = Strongly Agree.

Table 6. Distribution of mean scores for EFL college senior students' SRMIS-EFL.

Scale	M	SD	Median	Mode	Range
Task value activation	4.1	0.7	4.1	4	3
Regulation of learning environment	3.2	0.8	3.0	3	4
Regulation of affect	3.6	0.9	3.7	3	4
Regulation of classroom environment	3.5	0.7	3.6	4	3
Overall seniors' SRMIS-EFL	**3.6**	**0.6**	**3.6**	**3**	**3**

Bold values are for emphasizing the corresponding overall SRMIS-EFL.

As for regulating their classroom environment, senior students' responses mean score was 3.5 ($SD = 0.7$), pointing to a high level of classroom environment regulation (see Table 6). Most senior student respondents agreed or strongly agreed with spending time with friends who help and motivate each other to speak English (58%), talking in English with people they know (56%), and engaging in English-speaking tasks and activities in class (52%). Nonetheless, only 47% and 41% agreed or strongly agreed, respectively, with entertaining the notion of English speaking in class and using every chance during lessons to speak English.

4.4. Interaction of academic level and gender on SRMIS-EFL

To assess whether the academic level and gender each seem to have a statistically significant effect on the respondents' overall SRMIS-EFL and if the effects of academic level on students' SRMIS-EFL depend on whether the student is male or female (i.e. on the interaction of academic level with gender), a two-way ANOVA was carried out. Table 7 displays the means and standard deviations for students' overall SRMIS-EFL for the two academic levels and the two gender groups. Table 8 shows no significant interaction between academic level and gender on SRMIS-EFL ($p = .284$). Besides, it shows that the effect of academic level on SRMIS-EFL was not significant, $F(1, 296) = 2.98, p = .085$. There was, however, a statistically significant main effect of gender on SRMIS-EFL (in favor of female students), $F(1, 296) = 5.12, p = .024$. Eta for gender was .13 ($\eta^2 = .017$), which, according to Cohen (1988), is small effect size.

5. Discussion

5.1. Junior and senior students' level of SRMIS-EFL

This study aimed to look into Yemeni EFL college students' level of SRMIS-EFL. It investigated the connection of students' academic level and gender to their SRMIS-EFL. The results from the data analysis of the online SRMIS-EFL survey showed that the participants had generally a medium (average) to a high level of SRMIS-EFL. The overall mean of junior students' SRMIS-EFL was 3.4 ($SD = 0.7$), indicating a medium overall SRMIS-EFL level. Their medium level was manifest within all the SRMIS-EFL subdomains of regulation of affect, regulation of classroom environment, regulation of learning environment. However, their level was high ($M = 3.8, SD = 0.8$) on the task value activation subdomain of SRMIS-EFL level.

The findings from the online SRMIS-EFL survey revealed that the overall mean of senior students' SRMIS-EFL was 3.6 ($SD = 0.6$), pointing to a high overall SRMIS-EFL level. Their high level was manifest within the SRMIS-EFL subdomains of task value action, regulation of affect, and regulation of classroom environment. Nonetheless, their level was medium ($M = 3.2, SD = 0.8$) on the regulation of learning environment subdomain of SRMIS-EFL.

Since both junior and senior students displayed high levels in activating their task value and interest in speaking English, their level of SRMIS-EFL in this regard was correspondingly high. This finding is congruous with previous studies in that those students feeling more eager about engaging in oral communication in English could exhibit higher task value driven by their belief that developing their competence in EFL speaking is valuable (Chou, 2018; Uztosun, 2020; Zhang et al., 2020). Therefore, they employ more self-regulated learning strategies in their endeavor of improving their EFL competence (Cho et al., 2020; Diasti and Mbato, 2020; Muwonge et al., 2020; Teng et al., 2020; Yu et al., 2019).

Regarding regulation of affect, senior students exhibited a higher level of affect regulation than junior students did since they could overcome their anxiety and fear, and bolster their self-confidence. such a finding substantiates the notion that EFL students who have positive beliefs about their emotions could employ positively their cognitive and metacognitive strategies of SRL (Guo et al., 2018; Sun and Wang, 2020; Teng et al., 2020; Teng and Zhang, 2020). By suppressing their negative affective responses of EFL speaking, students could maintain their participation in English-speaking tasks, thus boosting their competence in EFL speaking (Bademcioglu et al., 2017; Chou, 2018; Uztosun, 2020; Zhang et al., 2020).

Table 7. Means, standard deviations, and n for SRMIS-EFL as a function of academic level and gender.

Academic Level	Male			Female			Total	
	n	M	SD	n	M	SD	M	SD
Level 3	49	3.4	0.7	101	3.5	0.7	3.4	0.7
Level 4	46	3.4	0.7	104	3.7	0.6	3.6	0.7
Total	95	3.4	0.7	205	3.6	0.7	3.5	0.7

Table 8. Analysis of variance for SRMIS-EFL as a function of academic level and gender.

Variable and source	df	MS	F	p	η^2
Academic level	1	1.3	2.98	.085	.010
Gender	1	2.2	5.12	.024	.017
Academic level x gender	1	0.5	1.15	.284	.004
Error	296	0.4			

Concerning the regulation of classroom environment, senior students self-regulated their participation in the classroom setting more than junior students did since they engaged in various class-based tasks and activities with different peers. The difference in the two groups could be attributed to teachers' role in the class since it has been found that teachers play a key role in promoting student engagement through motivating and collaborative activities, which are compatible with the needs of students (Chou, 2018; Efklides et al., 2017; Oxford, 2017; Seli and Dembo, 2020; Teng et al., 2020; Zhang et al., 2020). Students who are more motivated participate positively in the EFL class oral tasks and activities more than less motivated students, thereby enhancing their EFL speaking (Bademcioglu et al., 2017; Chou, 2018; Uztosun, 2020).

However, both senior and junior students reported medium regulation of their learning environment since they indicated that their attempts to seek other ways to practice more and improve their learning experience beyond the classroom were modest, especially in their endeavors to seek in-person oral practice opportunities with foreign individuals. This could be because of the generally disturbed environment Yemeni students live in because of the ongoing war and the Coronavirus. However, students showed regular attempts to look for online opportunities to practice their EFL speaking and thus compensating for inadequacies of formal poor in-class practice. Such a finding is commensurate with the notion that self-regulated students use contextual control and monitoring and consider environmental regulation as an essential aspect of their SLR (Diasti and Mbato, 2020; Gao and Shen, 2020; Sun and Wang, 2020; Yu et al., 2019). Besides, it substantiates relevant findings that EFL students who exercise higher environmental regulation could overcome the limitations of their poor formal EFL-input learning environments and find other rich informal EFL-input contexts to practice their EFL speaking (Uztosun, 2020).

5.2. Interaction of academic level and gender on SRMIS-EFL

The second purpose of this study was to examine the relationship between students' SRMIS-EFL and their academic level and gender. The results revealed that students' academic level had no significant effect on their SRMIS-EFL, which could imply that students' EFL speaking competence did not differ significantly at both levels. This finding echoes consensus in previous research, revealing that motivational self-regulation may not differ by students' educational level where there is no formal upskilling in EFL proficiency (Adigüzel and Orhan, 2017; Teng et al., 2020). An explanation for such a finding could be students' lack of formal prior knowledge of motivational regulation strategies. In other words, at both academic levels, students did not receive any training that could help them harbor self-regulatory strategies. Such an issue dictates the necessity of university motivational self-regulation training (Howlett et al., 2021; Kryshko et al., 2020; Wang et al., 2021; Zhang et al., 2020) and the significance of teacher involvement to foster students' self-understanding of their motivational tendencies to tweak their learning (Chou, 2018; Seli and Dembo, 2020; Teng et al., 2020; Yan et al., 2020; Zhang et al., 2020).

However, the findings showed that though gender had a small but significant effect, in favor of female students, on SRMIS-EFL. This finding revealing the existence of general significant gender difference challenges relevant findings in previous research (Sun and Wang, 2020) that EFL female students do not generally exhibit more motivational self-regulatory strategies. However, it confirms those of Adigüzel and Orhan (2017), Yan et al. (2020), and Yu et al. (2019), suggesting that female students have higher levels of motivational self-regulatory skills than male students do.

5.3. Pedagogical implications

The study has implications for EFL tertiary stakeholders—policymakers, teachers, and students. Development of motivation self-regulation in EFL college programs should be a priority to raise student awareness of motivational self-regulatory strategies to foster students' speaking competency through EFL learning experiences inside the class and beyond.

At the policymaking level, motivation regulation training (e.g., short courses or workshops) could be helpful for both teachers and students (Howlett et al., 2021; Kryshko et al., 2020; Wang et al., 2021; Zhang et al., 2020). Such training may address teachers' inquiries about fostering learner motivational regulation strategies towards enhancing their EFL speaking competence in non-EFL-proficiency levels (junior and senior levels). It could also be tailored to familiarize students with various motivational self-regulatory strategies to become empowered to use self-motivation in cultivating their EFL speaking.

At the instruction level, teachers need to involve their students in the learning process by employing various motivating and collaborative tasks and activities that stimulate students to speak English inside and outside the class. their utilization of a myriad of engaging tasks and activities could drive up students' engagement in their EFL classes (Chou, 2018; Teng et al., 2020; Yan et al., 2020; Zhang et al., 2020). They also need to listen to and consider their learners' perspectives regarding the instruction-learning process. In return, students' views may yield a better learning environment, which could boost students' motivational regulation to improve their EFL speaking.

At the learning level, students need to take charge of their motivation to continue improving their English speaking competence. They need to get involved in all class discussions, activities, and tasks using English. Talking English all the time with teachers and classmates could boost their self-confidence, enhance their motivation, and promote their EFL speaking (Uztosun, 2020; Zhang et al., 2020). Besides, since they were born into the digital era, they need to seek and utilize online opportunities to foster their EFL speaking competence. For instance, they may take advantage of safe multimodal synchronous or asynchronous online interaction in English with various people such as native speakers, friends, and acquaintances. They may also tap into tons of great and gratis *online apps and sites to practice their English speaking, thereby increasing their* confidence, motivation, and competence (Alotumi, 2020).

5.4. Limitations and future directions

Two limitations of the study need to be acknowledged. First, its use of a convenience sampling focusing on junior and senior students in one university may limit the generalization of its findings to other contexts. Therefore, a study with random sampling is recommended for further investigation. Second, since motivational regulation is a dynamic and intricate construct, this study has only reflected students' use of SRMIS-EFL at the time of the investigation. Thus, a longitudinal study employing process-oriented procedures (Pintrich, 2004) is worth conducting. Regardless of its limitations, the study has rendered empirical and context-specific findings and insights to EFL researchers, policymakers, teachers, and students in relevant EFL contexts.

6. Conclusion

The study examined Yemeni EFL-college junior and senior students' use of self-regulated motivation to improve their EFL speaking. Its findings revealed that all students employed a range of self-regulatory motivational strategies in improving their EFL speaking and their overall SRMIS-EFL level ranged from medium to high level. This illustrates that motivational self-regulatory strategies are not used equally across the board. Some students employ motivational strategies, while others use different ones. The strategies involved in task value activation seem to be more utilized by junior and senior students than any other strategies of the other subdomains of SRMIS-EFL. In contrast, all students seem to struggle with regulating their learning environment, which could be because of the ongoing local conflict and the coronavirus pandemic. Junior students, compared to senior ones, seem to struggle to regulate their affect and classroom environment. Students' self-confidence and

teachers' role account for fostering student motivation enhancement towards SRMIS-EFL. This study demonstrates the exigency to train teachers and students on motivational regulation strategies. Training needs to consider gender-based and affect-based individual differences, and teachers need to employ various motivating and collaborative class tasks congruous with students' needs and aspirations.

Declarations

Author contribution statement

Mohialdeen Alotumi: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Funding statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data availability statement

Data included in article/supplementary material/referenced in article. 00000000000.

Declaration of interests statement

The author declares no conflict of interest.

Additional information

Supplementary content related to this article has been published online at https://doi.org/10.1016/j.heliyon.2021.e06664.

Acknowledgements

The author is grateful to EFL junior and senior students in the English Department of the Faculty of Languages, Sana'a University, for their time and effort to partake in the study.

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